The Handbook of
Classroom Discourse and Interaction



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The Handbook of Classroom Discourse and Interaction

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For Susan, who had the idea for doing this volume in the first place.

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Part I Preliminary Matters

1 Introduction: Classroom Discourse and Interaction Research

NUMA MARKEE

1. Introduction

This book is written by and for educators and applied linguists who wish to get a comparative overview of research on classroom discourse and interaction. So it is concerned with both language learning and use, and how these domains of language are co-involved in understanding everything that routinely happens in language classrooms. More specifically, it is concerned with instructed second language acquisition (SLA) theory (see the eight chapters in the Cognitive–Interactionist and Sociocultural Theory Traditions in this volume, and Antón; Long, this volume), and is concerned with discourse analysis (DA) (see the 16 contributions to the Educational, Language Socialization, Conversation Analysis and Critical Theory Traditions in this volume); and how these perspectives overlap.

In addition, this book focuses on second, foreign and heritage language classrooms that are located in Canada, Spain, Sweden, Switzerland, Timor Leste, the United Kingdom, and the United States. However, in order to situate this volume within a broader educational perspective, some attention is also paid to academic and vocational classrooms in which content subjects are taught through the first language, as well as to the organization of talk in institutional contexts which lie somewhere in between traditional classrooms and completely informal contexts of language learning.

2. Rationale

The rationale for this Handbook is simple. First, even if we limit ourselves to English instruction—which this volume does not do: it also includes work on French, German, Spanish, Swedish and Mandarin data—the numbers of learners who formally study this language every day are huge. For example, in the People's Republic of China alone, there were (as of 2012) 390 000 000 to 400 000 000 people who had learned or were learning EFL (Bolton and Graddol 2012; Wei and Su 2012). These figures comfortably surpass the total

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population of the United States, which has some 310 000 000 inhabitants. Reliable figures for the numbers of English teachers in China are difficult to obtain, but they are clearly in the 100 000s, if not more. And when we consider how many people study S/FLs of *all* kinds worldwide, we can easily see why understanding how classroom discourse and interaction work is a fundamental question for applied linguists and educators.[1] Note, however, that—as Appleby, this volume, compellingly argues—the way in which the use of English in particular actually plays out as a viable (or even desirable) resource for social, economic or cultural development in underdeveloped countries is an extremely complicated, not to say controversial, issue.

Second, while educators and applied linguists share common interests in understanding what happens in language classrooms, we probably do not read across the artificial boundaries of these disciplinary traditions as much as we should. This Handbook therefore aims to provide applied linguists and educators with an authoritative resource that enables us to *compare*—or more precisely, *to engage in informed cross-disciplinary dialog about*—how different perspectives may answer the question: 'What does classroom discourse and interaction look like?' In this context, Green, Castanheira, Skukauskaite, and Hammond (this volume) lay out detailed proposals for how to construct ethnographic meta-analyses of the literatures that inform each Tradition in this Handbook. The aim of such meta-analyses is to identify 'how, if, when and under what conditions, and for what purposes different traditions can be brought together (or not), how the perspectives relate to each other (or not), and what each contributes to a more comprehensive understanding of what is interactionally accomplished in and through classroom discourse.'

3. Organization of the Volume

In order to provide such a comparative reading, the book is organized in terms of a preliminary Research Methods and Assessment section, followed by six 'Traditions,' specifically, the Educational, Cognitive–Interactionist, Sociocultural Theory, Language Socialization, Conversation Analysis, and Critical Theory Traditions. The chapter in the *Final Words* section chapter summarizes new research issues emerging from each Tradition. This comparative organization provides for a reasonably comprehensive overview of the most important contemporary approaches to answering the question posed above. At the same time, a careful reading of this Handbook will reveal how classroom research often *transcends* rather than merely *conforms* to a priori theoretical parameters and will thus show *the extent* to which the various Traditions are actually quite porous. Now this is not an original idea. Nonetheless, note that while Sociocultural and Language Socialization Theory are different because they emerged from Soviet developmental psychology and ethnography of communication, respectively, they also share a common core of Vygotskian and Bakhtinian ideas (see the overlapping references used by the contributors to the Sociocultural Theory and Language Socialization Traditions and by Antón, this volume). Furthermore, some researchers in, say, the Language Socialization Tradition are also ideologically committed to *transforming* current classroom practices (see, especially, Lee and Bucholtz; Talmy, this volume)—a perspective which is shared by Thorne and Hellerman (this volume) and some other sociocultural writers, and which is foundational to the Critical Theory Tradition (again, see the references used by the contributors to the Critical Theory Tradition section, and by Collin and Apple, this volume). In addition, researchers from different traditions often use methodological tools that cut across Traditions. So, it has become increasingly common for the fine-grained transcripts and methodological techniques of conversation analysis to be appropriated by researchers working within other Traditions (see Miller; Talmy; Thorne and Hellerman, this

volume). And finally, there are certain intellectual themes that simply cut across the Traditions. Some of the most obvious examples include: 1) the trend to broaden the scope of terms such as *the classroom* (see Lindwall, Greiffenhagen and Lymer; van Compernolle; Kasper and Kim, this volume); 2) the emergence of *multimodal* approaches to discourse analysis (see Lindwall, Greiffenhagen and Lymer; Markee and Kunitz; Negueruela-Azarola, García and Buescher; Seedhouse; van Compernolle, this volume); and 3) interest in issues such as *resistance* (see, in particular, the interesting chapters by Miller and Talmy, this volume, who show that resistance is not necessarily a progressive or beneficial activity for the individuals who engage in it). These theoretical overlaps, methodological subtleties and cross-cutting topics complexify the disciplinary landscapes of research on classroom discourse and interaction in important ways and must be considered when trying to develop a comprehensive understanding of this important domain of education and applied linguistics.

Finally, let us now turn to the substantive issues of this chapter. First, what is *DA*, and relatedly, what is the difference between *discourse* and *interaction*? And second, if—as I argue throughout this chapter—the notion of context (a critical construct in all types of DA) crucially subtends all the Traditions in this Handbook, then what do we need to know in comparative terms about this theoretical construct in order to make sense of classroom discourse and interaction processes? The first question is answered in the next section, *Discourse analysis, discourse and interaction*; and the second is addressed in the final section of this chapter, *Understanding context*.

3.1 Discourse analysis, discourse and interaction

Skukauskaite, Rangel, Rodriguez and Krohn Ramón (this volume) show how these terms are *actually* used in the qualitative literature in education and applied linguistics, which is not necessarily the same thing as what these terms mean in the *theoretical* literature on DA. I therefore draw extensively on Mary Bucholtz (2003) (henceforth MB) to provide a theoretical overview of DA. I do this for five reasons. First, this chapter will allow us to develop a deep understanding of the diversity of approaches that count as DA work. Second, MB's piece is an example of DA that is designed to fit a particular research program (feminist approaches to language and gender), and this idea of using particular kinds of DA to do particular kinds of work is crucial to the subsequent discussion of context in this chapter (see also Lee and Bucholtz, this volume for a Language Socialization perspective on how talk in and outside the classroom are related). Third, this discussion of MB's work goes some way toward correcting the lack of feminist research in the body of this collection (see note 1). And lastly, I intend to use MB's chapter as a foil for interspersing critical commentary on issues that are of particular interest to readers of the present Handbook.

MB notes that the terms *discourse* and *DA* are not amenable to broad, overarching definitions. In linguistics, discourse is typically a formal construct, and is treated as one of the four traditional levels of language (i.e., phonology, morphology, syntax, and discourse). Thus, discourse is the level that specifically deals with how sentences are combined into larger units of spoken or written text and how it potentially organizes, or is organized by, these other levels of language. Other, more functional understandings of the term, according to which discourse is viewed as language in context (that is, how language is used in social situations), originate in developments in linguistic anthropology, sociology, text linguistics, and critical discourse analysis (CDA). These socially contexted approaches to DA are in general more useful than traditional linguistic accounts of DA for MB's programmatic interests as a feminist discourse analyst.

Under the rubric of *Discourse as Culture*, MB discusses work in linguistic anthropology, which includes the ethnography of communication tradition pioneered by Hymes (1962, 1974)

and the interactional sociolinguistics program developed by Gumperz (1982a, 1982b). Summarizing the contributions of these two linguistic anthropological traditions, MB notes that the former tradition emphasizes the fact that women are makers of culture, while the latter emphasizes how women's discourse is produced by culture. She also point outs that, in this latter tradition, the primary point of comparison is between women and men, a perspective which has the effect of downplaying *intragender* variation and highlighting *intergender* variation in discourse (Bucholtz 2003, p. 50).

Under the rubric of *Discourse as Society*, MB reviews sociological work in ethnomethodology (EM) and its various offshoots, including purist conversation analysis (CA), feminist CA,[2] and discursive psychology (DP).

MB is refreshingly forthright about why she does not find purist CA useful for her purposes as a feminist linguist:

> Both feminist stylistics and feminist critical discourse analysis put gender ideologies at the forefront of analysis. Where conversation analysis insists that power must be discovered in interaction and cannot be the point from which analysis proceeds, critical text analysis maintains that power permeates every aspect of society and hence is operative in all discourse. These scholars' refusal to shy away from politicized analysis provides a valuable model of engaged scholarship for researchers working within other approaches to discourse and gender. (Bucholtz 2003, pp. 57–58)

This distrust of purist CA is widespread among critical discourse analysts, and their wariness is traceable to a celebrated polemic among conversation analyst Emanuel Schegloff on one side, and critical discourse analysts Margaret Wetherell and Michael Billig on the other. This debate graphically exposed important intellectual fault lines between CA and CDA on the question of how to handle context in interaction. In addition, the exchanges between Schegloff and Billig became at times quite heated. The equivalent watershed moment in the applied linguistics literature is the equally contentious series of exchanges between Firth and Wagner (1997) and their critics, which are also centrally about context. However, the Schegloff/Wetherell/Billig controversy is not well known in the applied linguistics literature; this is a lacuna that this chapter aims to fill, at least in a preliminary fashion.

To return to MB's text, the issue of whether purist CA is useful for CDA boils down to a technical argument about whether talk-in-interaction, especially ordinary conversation, constitutes the 'primordial site of sociality' (Schegloff 1987, p. 208). Or (to put it somewhat more plainly), the question is whether: 1) talk is a form of social organization that is *sui generis* (i.e., which should be analyzed in terms of talk-internal notions of context), and is thus (unless certain stringent methodological conditions are met) in principle not to be analyzed in the first instance in terms of talk-external contextual variables such as (in this particular context) gender (which is the CA position); or whether 2) gender and other similar ethnographic variables in the larger sociopolitical and cultural environment (such as age, socioeconomic and other forms of status, including issues of power, and members' biographies, especially identity), are omnirelevant (this is the CDA position). If they *are* omnirelevant, then this position frees analysts from the obligation of having to analyze in detail how such variables are actually achieved in and through talk-in-interaction on a moment-by-moment basis before they can start talking about more general issues of gender in their own terms.

On the other hand, MB *is* interested in feminist CA. Chiefly associated with the work of Celia Kitzinger (MB cites Kitzinger 2000; Kitzinger and Frith 2000), feminist CA differs from purist CA in that it attempts to use the analytic power of CA to explore gender issues independently of whether participants in a conversation observably orient to such issues in their talk. However, it is not altogether clear how serious this departure from purist CA is. While Kitzinger acknowledges that her work does indeed represent a departure from CA

orthodoxy, she also situates it as a contribution to classic concerns in CA regarding membership categorization (specifically, she cites Sacks, 1995, Lecture 6: see Kitzinger 2005 pp. 223–224 to understand how she justifies this claim). So, Kitzinger seems to be loath to wander too far from the CA fold. Now, Schegloff does not buy into feminist CA (see Schegloff 2009). But in comparison with his criticisms of other writers in this commentary, Kitzinger emerges relatively unscathed from this critique. So, to summarize, MB's discussion (updated by more recent references) makes the following insights relevant: 1) CA is not monolithic: there are different sub-varieties of CA, most importantly, institutional talk; 2) feminist CA can be a resource for CDA more broadly, although it also seems that feminist CA is not monolithic either, and that some varieties of feminist CA are closer to the original CA project than others; and 3) whether we agree with the substance of Schegloff (2009) or not, this paper has great value for applied linguistic and educational audiences. More specifically, this publication sets out the analytic standards to which researchers who use CA may/should be held. In the context of this Handbook, I propose that, irrespective of whether Chapter 21 by Talmy (this volume) counts as pure CA (it is located in the Language Socialization Tradition and is an example of what Talmy (2007) pp. 183–186 calls a *motivated looking* approach to membership categorization analysis/CA), the technical quality of its analyses of superdiversity will long serve as a benchmark of analytic excellence for other researchers in applied linguistics and education who use CA in their work.

Under the rubric of *Discourse as Text*, MB discusses text linguistics, which subsumes stylistic and CDAs of (primarily) written texts. She points out that both stylistics and CDA use the word *critical*, but notes that, at least historically, these two approaches have used this term in different senses. In literary criticism, this term 'originally referred to a scholar's evaluative role in assessing the effectiveness of a text as art' (Bucholtz 2003, pp. 54–55). In contrast, CDA's understanding of this term derives 'from the language of Marxism … In this context, critical signifies a leftist (usually socialist) political stance on the part of the analyst; the goal of such research is to comment on society in order to change it' (Bucholtz 2003, p. 55).

Another crucial source of inspiration in CDA is post-structuralism. In her chapter, MB specifically identifies the work of Foucault (1972), whose work has been seminal in CDAs of discourse as power. Interestingly, however, she comments that this approach's 'view of discourses as historically contingent cultural systems of knowledge, belief, and power does not require close attention to the details of linguistic form' (Bucholtz 2003, p. 45). To my mind, this criticism has a strangely conversation analytic ring to it. More specifically, this is exactly the same kind of critique of CDA that is made by Schegloffian conversation analysts! This is an issue I take up again in the *Understanding context* section.

MB further notes that, in practice, it is often difficult to separate these two traditions in feminist DA work, the main differences between them now being mostly methodological. Generally speaking, feminist stylistics tends to draw on written literary texts that may be supplemented by data from popular culture, while feminist CDA focuses on both written and spoken texts from a range of institutional contexts, including the media, government, medicine and education. Beyond these methodological differences, however, both stylistics and CDA are committed (in the political sense captured in the quotation from Bucholtz 2003, p. 55) to effecting social change by unpacking how ideologies are articulated through language in different sociocultural and political contexts. Within this analytic program, notions of *identity* and the themes of *conflict* and *resistance to hegemonic ideologies and discourses* are key concerns.

Under the last rubric of *Discourse as History*, MB summarizes a body of work that emphasizes the importance of history in feminist DA. The most important point that she makes concerning this tradition is that '[t]his historicizing of discourse and discourses brings a much-needed temporal depth to the study of language and gender' (Bucholtz 2003, p. 58). She also usefully clarifies that this body of work, which may be subdivided into work on

language ideologies and *natural histories of discourse*, tends to treat discourse as metadiscourse, that is, as 'discourse about discourse' (Bucholtz 2003, p. 59).

MB situates herself vis-à-vis this body of work as follows. First, in substantive terms, MB notes approvingly that work on language ideologies tends to be more linguistic and anthropological than it is Marxist. Consequently, it tends to focus on 'socially and politically interested representations of language itself' and on the 'cultural and geographic contexts from which language ideologies emerge.' Second, from a methodological perspective:

> [work on language ideologies] is less inclined to assume a privileged analytic perspective with respect to its data: whereas critical discourse analysis centers its discovery procedures on the analyst's interpretations of discourse (which are in turn thought to be the same as those of a reader, though made more explicit), anthropological research on language ideologies is more likely to appeal to the evidence of how ideologies are taken up, interrupted, or rerouted by those who participate in metadiscourse in various ways. (Bucholtz 2003, p. 59)

I have cited MB's own words extensively here to avoid unintentionally injecting any of my own biases as a conversation analyst into this discussion. Note, however, that first, she aligns herself more closely with an anthropological rather than a Marxist approach to analyzing language ideologies (see Bucholtz 2003, pp. 60–61). And second, she justifies her position by claiming that the anthropological approach does a better job of accounting for the empirical data (see also Bucholtz 2001). I agree with her. But as I pointed out earlier, these are precisely the same kinds of arguments that separate classic CA from CDA in its various manifestations.

Moving on now to the specifics of work on *natural histories of discourse*, MB points out that this ethnographic approach is interested in 'how discourse becomes text—how it becomes bounded, defined, and movable from one context into another …' (Bucholtz 2003, p. 61). This research program is known either as *recontextualization* (Bauman and Briggs 1990) or as *natural histories of discourse* (Silverstein and Urban 1996), the latter term (so MB claims) being less transparent than the former because 'there is nothing 'natural' about how discourse enters into new text formations' (Bucholtz 2003, p. 61). Work in this tradition focuses on *intertextuality*, in which issues related to quotation, translation and literacy practices and the performance of scripted texts are all central, as are problems of *entextualization*, that is, how, through transcription, spoken texts are transformed into, and represented (or, following Urban 1996, *re-presented*) as written texts for analytic purposes that are extraneous to the communicative purposes of the original producers of the texts. Commenting on this latter issue (which is especially interesting for the purposes of this Handbook), MB says:

> Both conversation analysis and text linguistics take as given the notion of an unproblematically bounded text, whether spoken or written; investigations of natural histories of discourse instead take the formation of a 'text' as an autonomous object (entextualization) and its mobility across contexts (recontextualization) as the central questions. (Bucholtz 2003, p. 61)

I largely accept MB's claim that CA researchers do not worry unduly about what the boundaries of a text might be, although I would claim that CA's position on these matters is actually more nuanced than MB makes them out to be (an issue to which I return shortly). For the moment, let me say that the same kind of criticism might also be made of the Cognitive Interactionist Tradition and (some versions of) the Sociocultural Theory Tradition. Thus, in *all* of these Traditions, audio or video recordings are made and subsequently transcribed, and these artifacts are then treated as relatively objective samples of the phenomena under study.

As is immediately apparent from even a cursory examination, there is great deal of variation in how detailed the transcripts in the various Traditions represented in this Handbook are. And this is a crucial point for present purposes. At one end of a granularity continuum, talk in the Cognitive–Interactionist Tradition is transcribed to a *words only* standard (see the four chapters that constitute this Tradition in this book). At the other end of this spectrum, talk in the Conversation Analysis Tradition is transcribed to a *transcribe everything that you can hear (*and, increasingly, *see)* standard.[3] In addition, some transcription systems are used in conjunction with more or less elaborate coding schemes (see Frederiksen and Donin, this volume).

There is an extensive literature on transcription. A selective bibliography on this topic includes Edwards (2001) and Edwards and Lampert (1993), who provide general discussions of transcription and coding issues. McNeill (2005) includes a lengthy appendix that discuss the transcription system and coding procedures that he has devised to do sociocultural research on gesture. Bull (1988) discusses psychological approaches to transcription. Kelly and Local (1988) are concerned with developing techniques that enable the transcription of phonetic elements in conversation. The transcription conventions developed by Gail Jefferson and Charles Goodwin are foundational to the practice of CA, and indeed in other disciplines such as (applied) linguistics, education, psychology and anthropology that have all been significantly influenced by CA (see Jefferson 1979, 1983, 1984, 1988, 2004 for transcription of verbal behavior, supplemented by Charles Goodwin's evolving work on how to transcribe eye-gaze, gesture and other forms of embodiment in multidimensional CA: see Goodwin 1979, 1997, 2013).

In addition, Ochs (1979) made the point very early on that transcription is a preliminary way of theorizing the issues that researchers wish to investigate and that transcripts reflect transcribers' conscious (and sometimes unconscious) political stances vis-à-vis the materials, events and participants whose talk they are transcribing. These issues are further taken up by Green, Franquiz and Dixon (1997) and Roberts (1997) and by the ethnographer Urban (1996) whose work on an Amazonian ethnic group uses a *natural histories of discourse* methodology to show that transcripts of the 'same' mythological and historical materials transcribed by different individuals are shaped by: 1) different, culturally framed metadiscourses of knowledge and power about the content of the recordings; and 2) by the different roles and social relationships that exist between the person whose talk is being recorded/transcribed and the person who is doing the recording/transcription.

I will not review this literature in any more detail here. Suffice it to say that transcription is a fiendishly difficult thing to do well, not least because *any* research program that uses recorded data of allegedly naturally occurring talk has to wrestle with the observer's paradox (Labov *et al*. 1968), which states that people who are aware of being recorded may (or may not) change how they behave in ways that potentially transform naturally occurring talk into something else. And as Labov himself has suggested, we can never definitively *solve* this paradox, we can only *approximate* solutions to this conundrum, and this is true whatever our ontological perspectives and epistemological preferences might be.

Going beyond the observer's paradox, and returning to MB's comments about the objective status of texts in CA and issues of entextualization, the questions of whether transcripts can ever be self-sufficient records of face-to-face interaction or whether this entextualization process has to be supplemented by other forms of ethnographic data emerge as key objects of inquiry. I thank MB for highlighting these issues, as this keeps conversation analysts honest about matters that we rarely discuss among ourselves (at least, not in these terms). As the paper by Urban (1996) compellingly shows, understanding how researchers entextualize raw data goes to the heart of the CA enterprise: indeed, his work raises fundamental questions about whether transcriptions of the same event by

different people can ever be comparable or trustworthy. I would add that the trend in CA and other disciplines to rely on ever more multimodal transcripts of interaction opens up new dimensions to this debate.

However, in defense of CA, let me point out that, first, transcripts are detailed representations of sequential contexts to which participants observably orient. As Fragment 1 in Markee and Kunitz (this volume) demonstrates, transcripts-as-contextual-representations are not static reifications of oral interaction: they are often retranscribed many times. In this sense, transcripts are never finished. And second, data sessions (informal meetings of established CA researchers and graduate students, in which participants bring recordings and transcripts to the table for group discussion) are centrally concerned with establishing the trustworthiness of different transcriptions. More specifically, the first item of business in data sessions is usually a group critique of the accuracy of original transcripts.

3.2 Understanding context

Throughout this chapter, I have issued several promissory notes to the effect that I would explain different ways of understanding context, and now is the time to redeem these notes. I do this by drawing on foundational work by Goodwin and Duranti (1992) (henceforward G and D) and Richard Young (henceforth RY) (see Young 2008, pp. 169–173 and, especially, Young 2009, Chapters 2–6).[4] In order to round out RY's account of the CA position on context, I will also discuss a set of crucial references on context by Schegloff which were not included in RY's overview in the two books I have cited. My reasons for organizing this section in this way are simple. First, the chapter by G and D is seminal to developing a nuanced understanding of the complexity of context. Second, RY—whose work is arguably the most sustained treatment of context in the sub-areas of applied linguistics in which we both work—also uses G and D as his point of departure. This common theoretical grounding provides a useful basis for comparing and contrasting RY's *critical ethnographic* understanding of context with a *conversation analytic* perspective on this construct. Third, since RY has already summarized G and D very efficiently, my own summary of G and D's chapter need not be as detailed as RY's. Fourth, RY's ethnographic understanding of context reflects the majority view of how context is viewed in applied linguistics.[5] And fifth, while this majoritarian perspective on context is unlikely to be dethroned by a CA understanding of context any time soon, there is a good reason why readers of a book on classroom discourse and interaction need to *understand*—even if they ultimately end up *fundamentally disagreeing with*—the strangely subversive details of why, and how, conversation analysts insist on constructing context as a local, sequential phenomenon. Specifically, as I have already claimed several times in this chapter, this Handbook *is suffused throughout with issues of context*. So, understanding context in all its richness is crucial to understanding how classroom discourse and interaction work.

In Young (2008), RY suggests that his understanding of the construct of *interactional competence* (IC) expands on Hymesian notions of *communicative competence* (Hymes 1971), in that it is crucially concerned with specifying the interplay among identity-related, linguistic and interactional resources. This last category subsumes the sequential organization of speech acts, the turn-taking and repair organizations to which participants orient, and what RY calls the boundaries of interactional practices such as opening and closing sequences. For me, these latter practices are subsumed under sequence organization, but I agree with RY on the essentials. In Young (2011), RY outlines an agenda for future research on IC, which includes: adopting a multimodal perspective on interaction; investigating how participants' shared mental contexts are constructed through

collaborative interaction; and how the pragmatics of interaction are related to social context. Again, I agree with RY on all of these points, provided that there is a clarification of what is meant by social context.

So, what *is* context, or better, how can we *think about* context? RY states: 'The context of an interaction includes the social, institutional, political, and historical circumstances that extend beyond the horizon of a single interaction' (Young 2011, p. 440). RY's definition of context would seem to include potentially any state of affairs surrounding an interaction. As such, this definition may well be too broad to usefully advance our discussion of the concept. A more nuanced treatment of context is offered by G and D, who argue that '… it does not seem possible at the present time to give a single, precise definition of context, and eventually we might have to accept that such a position may not be possible' (p. 2). In other words, just as DA is difficult if not impossible to define, so is context. G and D go on to list four dimensions of context that may potentially be taken into account in discussions of this construct. These are: 1) *setting* (or the social and spatial boundaries of an environment); 2) *behavioral environment* (the ways in which participants use their bodies as resources for doing talk); 3) *language as context* (the ways in which talk reflexively invokes and provides context for other talk); and 4) *extrasituational context*, which concerns how exogenous, talk-external cultural artifacts in the environment, and/or background ethnographic knowledge, are a) either talked into relevance by participants; or b) are necessary for understanding what participants are saying.

Next, G and D discuss a distinction between the larger context of talk and the focal events with which participants are concerned in talk. According to this distinction, context is understood in terms of *perceptual salience*, in which a focal event and surrounding context are in a *figure–ground* relationship. There are three distinct ways of invoking such a relationship. First, researchers may focus on the figure and ignore the ground. Second, they may extract the focal event from its context. Or third, they may restrict their analysis to the level of the sentence. Note that much of MB's previously summarized discussion of different forms of DA is essentially an evaluation of the pros and cons of each option.

Next, G and D identify eight research frameworks that have different takes on context. These include: 1) ethnographic and 2) philosophical precursors of the notion of language as action (based on the work of Malinovski, Wittgenstein and their successors); 3) the sociocultural work of Lev Vygotsky and the Bakhtin Circle; 4) the human interaction tradition, represented by (among others) the Goodwins' contribution to Duranti and Goodwin (1992); 5) the Hymesian ethnography of communication tradition; 6) EM, including Cicourel's cognitive sociology approach; 7) CA; and 8) Foucault's work in cultural studies.

Again, I will not go into detail explaining the similarities and differences among these traditions, since MB's piece has already covered much of this ground (as does RY's extensive summary of these issues), and the contributors to this Handbook do an excellent job of situating their work within many of these frameworks. The main points I want to reiterate here are these: 1) there is no single tradition identified by G and D that has a theoretical monopoly on context; 2) the rationale for choosing one or related positions on context over others is heavily influenced by our intellectual training, theoretical ontologies and epistemologies; and 3), as pointed out by MB, different programmatic agendas require different forms of analysis.

This being said, it is now time—finally—to outline the details of CA's critique of ethnography and CDA. I begin with a general critique of self-report data, and then move on to Schegloff's more specific criticisms of critical ethnographic approaches to interaction, which he has articulated in the following publications: Schegloff (1987, 1991, 1992a, 1992b, 1997, 1998, 1999a, 1999b). The last four papers are part of the Schegloff/Wetherell/Billig controversy that I have already referred to; the relevant responses by Wetherell and Billig are

Wetherell (1998) and Billig (1999a, 1999b). Schegloff (1999c) refers more tangentially to these issues, and Schegloff (2009) is his most recent explicit foray into these matters (see also Markee 2013).

CA is a behavioral discipline that relies on directly observable behavior as the touchstone for analysis. Consequently, any use of *secondary self-report data* to supplement our understanding of these *primary* data is suspect. This type of criticism is perhaps unexpected, coming as it does from a *qualitative*, not *quantitative*, perspective on interaction. But this CA criticism of ethnography actually makes perfect sense. How or why are secondary data (typically gathered through the use of post hoc think-aloud protocols that are often used as important resources for ethnographic triangulation) *in principle* more useful to analysts than primary data? This question is crucially important when we consider that: 1) the microphenomena that CA deals with are not easily amenable to subsequent recall by participants, who most likely never noticed them when they produced them in the first place; and 2) there is often an important time lag between a phenomenon's first production and later think-aloud sessions. Under such circumstances, the trustworthiness of secondary data becomes more and more compromised as participants' recollections of events become vaguer and/or more subject to self-serving rationalization. Indeed, in worst case scenarios, such as the one documented by Young (2009, p. 83), participants' recollections of their own behavior are flatly contradicted by observations of their actual behavior. In which case, the obvious question to ask is (and this is the gist of my answer to Urban's 1996 use of metadiscourse to understand transcripts more effectively): why bother using secondary data in the first place if they are so inherently flawed? Now, of course, ethnographers are perfectly aware of these criticisms, and their answer to this question is to develop even more sensitive triangulation procedures than they already use. But the bald CA response to this solution is that it simply does not address the inherent weakness of self-report data.

Moving on now to Schegloff's various publications on context, Schegloff develops a series of interlocking themes that he revisits on multiple occasions, and which he typically illustrates with extended empirical analyses of talk in each iteration of these arguments. These themes may be framed as the following questions: is the relevance of external, ethnographic, sociopolitical context something that can be unproblematically assumed a priori, or is it something that needs to be demonstrated as an empirical project in terms of how internal, sequential notions of context work on a moment-by-moment basis? Relatedly, if we choose the second option, how is the *conditional relevance* of different kinds of context to be determined, how *procedurally consequential* to the interaction is a particular type of contextual information, and what are the *consequences* (in terms of important analytic payoffs) of the choices that we make?

The answer to the first question throughout Schegloff's writings is that the relevance of external, ethnographic, and sociopolitical context must be empirically demonstrated in terms of *participants' observable, real time, there and then orientations to such matters in the talk that they themselves produce*. If such an orientation is observably present in the participants' talk, then analysts have a prima facie warrant for treating whatever elements of external context (including speakers' gender, age and identity or identities, among other possibilities) to which the participants orient. But not otherwise.

This is what is meant by the *conditional relevance* requirement mentioned in the second question, and the way in which conditionally relevant analyses of talk are developed in CA is by carrying out detailed sequential analyses of the speech exchange system(s) that participants observably deploy in any given stretch of talk. This requirement is particularly important in analyses of ordinary conversation, which is the benchmark for comparison when doing work on institutional talk. But even in institutional CA, where some relaxation of this requirement *may at times* be useful (see Maynard, 2003), the default position is to

avoid relying on a priori 'bucket theories of context' (Drew and Heritage 1992, p. 19) and to ground analysis in the conditionally relevant details of unfolding talk (see also Kasper 2009, who makes the same point).

Note further that when, for example, a SL speaker in an ESL class orients to biographical details about her L1 identity, the conditional relevance of this information also has to be shown to be *procedurally relevant* to the way in which the *sequential organization* of the interaction in which this piece of information is revealed actually unfolds. So, in Excerpt 2.1 of Markee (1994, 2000, p. 27), I show that L10's orientation to the fact that she is a native speaker of Mandarin Chinese is *procedurally relevant* to the interaction in a number of different ways. First, she translates the word *coral* into Chinese for L11, thus observably categorizing L11 as another speaker of Mandarin. Second, L10's use of this translation method for L11's benefit excludes L9, who, when she asks the two Chinese speakers to translate what they are saying back into English, observably demonstrates that she does not understand Chinese. And third, L10 and L11 observably orient to this problem when they duly oblige L9 by saying *coral* in next turn.

In a longitudinal study of classroom and office hour interactions (Markee 2011), I show how a student's avoidance of the word *prerequisites* can be demonstrated through the use of CA techniques independently of the fact that ethnographic evidence that speaks to this issue is also available (this evidence takes the form of a written self-evaluation measure developed by the teacher on the quality of a classroom presentation this student had done. On this self-evaluation, she identifies *prerequisites* as a problem word). My analysis shows how the participants talk this artifact into relevance, manipulate it, and ultimately *physically change it in and through their talk*. It also shows how they orient to different interactional agendas in their office hour talk. The teacher tries to use the evidence from the self-evaluation and from the learner's talk during the office hour as a pronunciation teaching moment. In contrast, the student resists this pedagogical agenda and attempts to establish her status as a conscientious student. Interestingly, in the course of working through these issues, the student never produces the word *prerequisites*, thus providing further CA-based evidence that she is still engaging in avoidance.

These findings show how local agendas structure talk in procedurally consequent ways that would not *necessarily* become evident from an ethnographic analysis of these data (a point also made by Maynard 2003). But Schegloff ultimately goes much further than this when he claims that using CA provides greater *analytic payoffs* than CDA does. Let us now see how Schegloff makes this and other related arguments. Since I have already alluded to what Schegloff (2009) has to say about feminist CA in this paper, I will not refer to it again. I now provide a chronologically organized account of how Schegloff has developed his position on context, in which the question of gender always figures prominently.

Schegloff (1987) is the first paper that provides an overview of the CA position on context, which is that CA accounts of interaction are simultaneously—and without contradiction—context-free (of macro context) and context-dependent (on the micro, sequential details of talk). To illustrate these points, he reviews empirical CA work on: 1) cross-cultural linguistic variation in Thailand, Tuvalu, and Guatemala (see pp. 209–214); 2) interruptions by males in male-female talk in the US (pp. 214–218); and 3) context in general (pp. 218–228). The first theme demonstrates the cross-cultural, methodological robustness of the category of repair as a resource for explicating variation. The second theme does the same thing for the viability of turn taking as a participant's account of interruption behaviors. The third theme discusses the specifics of how different speech exchange systems—specifically, ordinary conversation, which is locally organized, and institutional speech exchange systems such as classroom talk and presidential conferences, in which opportunities for turn taking are pre-allocated—provide grounded explanations of how unequal power relationships work in real time.

Importantly, none of these analyses rely on broader ethnographic notions of context. Now, a simplistic acceptance of Schegloff's position would have a direct, cataclysmic effect on the viability of important, nuanced research programs in at least three of the Traditions exemplified in this Handbook (see, for example, Collin and Apple; Lee and Bucholtz; Martin-Jones, this volume). This result would be a severe blow to the diversity and richness of classroom research, and would, for this reason alone, be an unacceptable consequence of adopting the Schegloffian position on context uncritically. As we will see shortly, Schegloff (1997) is perfectly aware of this problem, and proposes that a bridge—admittedly a narrow bridge that will still not be to the liking of most critical discourse analysts—does exist, which may provide a means of overcoming the interesting problems posed by the ethnographic project of making connections across different layers of micro and macro context.

The next two papers (Schegloff 1991, 1992a) are slightly different versions of the same text. These papers are the first to be organized around the themes of the conditional relevance and procedural consequentiality of talk. And (most importantly for our purposes), they are also the first to lay out the details of the argument that the premature invocation of larger social context has the effect of absorbing and naturalizing various details of the talk, which results in data loss and compromises the quality of analyses of interactional data (see Schegloff 1991, pp. 58, 59, and 63). Notice that this is a CA version of the kinds of arguments that MB used in her critique of more overtly political forms of CDA. So, a key issue that readers of this Handbook have to resolve for themselves is to decide which version of these arguments they find more persuasive.

The next paper (Schegloff 1992b) returns to the theme that context is fundamentally a *participant's* category. And in the empirical section of the paper (pp. 199–222), he shows that how a participant exits from a conversation is best explained in terms of the technical organization of the storytelling event that is the focus of this analysis. This analysis builds on and expands the original conversation analysis of a data set first examined by Goodwin (1987).

Importantly, Schegloff (1992b) introduces the notion of *multiple layers* of analysis, a theme that Schegloff (1997) develops further in novel ways. More specifically, Schegloff begins with a detailed empirical comparison of competing CA and CDA accounts of how gender may (or may not) be implicated a priori in interruptions that occur in male/female talk (pp. 171–180). CDA does not come out well from this comparison, for the same kinds of reasons discussed in the previous papers. But Schegloff does suggest that one way of bridging the gap between CA and CDA would be for critical discourse analysts to ground their work on, say, gender, in preliminary technical CA analyses of data, which they could then supplement with subsequent layers of ethnographic and/or politically-grounded analyses, thus avoiding the loss of data problem identified in the Schegloff (1991 and 1992a) papers.

In her response to Schegloff's suggestion, Wetherell (1998) acknowledges the power of CA's *technical* analyses of potentially gendered talk. However, she rejects the primacy of such analyses and, invoking some post-structural arguments that need not concern us here, argues that *scholarly* (i.e., critical) analyses must have equal status and are essential to developing a full understanding of gendered interaction. And she further points out that if CDA were to accept Schegloff's recommendation, critical discourse analysts would likely never get to talk about the critical issues that *they* wanted to talk about.

There is a good deal of truth in Wetherell's riposte on this matter (note: this is the same kind of argument developed earlier by MB). Interestingly, however, Wetherell: 1) brings interactional data that are transcribed according to CA conventions to this discussion; 2) skillfully uses CA to analyze these data; and 3) supplements these technical analyses with critical ethnographic analyses as part of a larger research project. So, it seems that Wetherell is conceding to some extent that Schegloff's proposals for a *technical analysis* first, *scholarly analysis* second approach to CDA are not, in principle, impossible to implement.

The debate between Schegloff and Wetherell has another dimension to it, specifically, a flurry of further exchanges between Billig (1999a), Schegloff (1999a), Billig (1999b) and Schegloff (1999b). Most of these exchanges are more philosophical in tone, which need not concern us here. However, a *hypothetically* based assumption by Billig (1999a, pp. 555–556) about how CA researchers would deal with the politically and emotionally charged issue of rape drew an illuminating reply from Schegloff (1999a). And this exchange *is* of interest to readers of this Handbook who may be concerned about CA's ability to engage meaningfully with important moral or political issues.

Summarizing Billig's contention that it would be ludicrous and outrageous to examine rape and other crimes against women in terms of turn taking, adjacency pairs, repair, etc., and that, in any case, no conversation analyst, in common with other right-thinking people, would ever do such a thing, Schegloff counters that this is *exactly* what a conversation analyst would do 'if we were confronting an *instance* of an interaction in which such conduct featured, [and that] it is far from obvious that such an interaction would be irrelevant and distracting' (Schegloff 1999a, p. 561; emphasis in the original).

A key issue in this exchange is that Billig invokes a *hypothetical* instance of rape, while Schegloff insists on dealing with *actual instances* of this phenomenon. This example underlines the crucial importance of using empirical rather than made up data in CA. But more importantly, it also illuminates how technical analyses of CA can contribute in powerful ways to larger societal debates concerning rape by laying out the empirical ground of how rape unfolds in and through talk, and how this basic science may subsequently be used *to develop effective interventions that prevent such behavior* (see Schegloff 1999a, pp. 561–562).

Finally, let me end this section by using the final paragraph of Schegloff (1999c) as a quotation that provides a pithy (though not definitive) alternative to the position articulated by Young (2011, p. 440). More specifically, Schegloff rhetorically asks:

> What then, makes us one species? Anything? Just our anatomy and physiology? Is *everything* else the product of the Tower of Babel, for better or for worse? Is there nothing which transcends the heterogeneities of culture, language, ethnicity, race, gender, class, nationality, and so on? Is it not, in the end, the formal organizations of interactional practice—conversation preeminent among them—which provide the armature of sociality which undergirds our common humanity? (Schegloff 1999c, p. 427; emphasis in the original)

4. Conclusion

In this introduction, I have invoked a discourse of comparative, cross-disciplinary dialog to explain the rationale for this Handbook, explain its organization, and reflect on the kinds of insights into classroom discourse and interaction that such an organization yields. More specifically, this book is about how the originally individual cognitive concerns of instructed SLA progressively shade into, and overlap with the social concerns of classroom DA. Speaking to these issues, I have also sought to initiate a larger debate within the educational and applied linguistics communities concerning: 1) what counts as DA and how (in its many manifestations) it is done; and 2) how different kinds of DA conceptualize context. In order to frame this debate, I have discussed the work of Mary Bucholtz and Richard Young extensively to help us understand how and why these two themes are foundational to understanding and evaluating the chapters in this Handbook. This discussion provides a good foundation for situating and understanding the 28 chapters in the body of this Handbook, and for engaging in the ensuing comparative, cross-disciplinary debates on classroom discourse and interaction which will, I hope, be generated by this volume.

5. Acknowledgments

I wish to thank Peter Golato, Silvia Kunitz, Chuck Goodwin, Mary Bucholtz and Richard Young for graciously commenting on earlier drafts of this chapter. Any remaining inaccuracies are my own.

NOTES

1 These brief descriptive statistics attest to my *attempt* to broaden the appeal of this book beyond the all too familiar domain of ESL/EFL classrooms. However, I am the first to acknowledge that, from a geographical perspective, the lack of research on what happens in Chinese, Latin American or African classrooms is a glaring omission. Relatedly, feminist perspectives on discourse analysis receive inadequate attention in the body of this volume (but see Appleby; Miller, this volume for passing references to such issues).

2 MB (personal communication, August 8, 2014) comments that, from the perspective of a feminist linguist, my account of the CA/CDA debate "feels a bit dated now," but also accepts that discussions such as the Schegloff/Wetherell/Billig debate have a different theoretical status in different disciplines. I accept that feminist linguistics has moved on since 2003, but the larger discussion concerning the proper boundaries of context in (critical) ethnography and CA, and how such issues are understood in education and applied linguistics, is not, to my mind, affected by such changes.

3 See the appendix at the end of this Handbook, which sets out the transcription conventions used in CA. This appendix also contains a slightly different set of conventions used by other contributors to this volume.

4 RY (personal communication, August 10, 2014) comments that he is more sympathetic with Schegloff's position than with those of Wetherell and Billig, and counters that I have underrepresented his position in a number of ways, especially regarding: 1) "history-in-person processes" (which, he points out, he grounds in the work of Bourdieu, de Certeau, Foucault, and Goffman rather than Hymes), and 2) Urban's work on entextualization/re-textualization, which I apparently misunderstand (see Young 2009, 2010 for more details). Entextualization is a theme that has assumed a particular importance in RY's most recent unpublished writings.

5 Communicative language teaching (CLT) was (especially in its early days) essentially a pedagogical application of Hymes' (1971) ideas about communicative competence. These antecedents are crucial, in that Hymes was one of the founders of the ethnography of communication. Now, task-based language teaching (the latest incarnation of CLT) has been heavily influenced by more cognitive issues: see the four chapters in the Cognitive–Interactionist Tradition; this Tradition is the one that is least inclined to invoke context in its analyses. However, when researchers in this Tradition *do* invoke context, typically as an intervening variable that mediates access to getting comprehensible input (see Mackey 2014; Philp & Mackey 2010), the kind of context they invoke is invariably ethnographic.

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Part II Research Methodologies and Assessment

Overview of the Research Methodologies and Assessment Section

NUMA MARKEE

As is well-known, Mike Long is one of the founders of the modern Cognitive-Interactionist Tradition. He works within an etic (researcher-centric), theory-driven, hypothesis-testing and experimental (i.e., statistically based) research tradition that seeks to make large-scale generalizations about cause and effect relationships in instructed language learning. Within such an epistemology, ensuring that experiments have high levels of reliability and validity is crucial to conducting good scientific research. Relatedly, meta-analyses of groups of studies that address the same topic are important resources for further enhancing the reliability and validity – and therefore the generalizability – of research findings. More specifically, in Long (this volume), he reviews four chronologically sequential, but overlapping, phases of research on classroom interaction in applied linguistics since the 1960s: '(i) product-only, quasi-experimental, (ii) process-only, descriptive, (iii) process-process, descriptive and correlational, and (iv) process–product, quasi-experimental and experimental, including aptitude-treatment interaction studies. The goal is to identify causal relationships between instructional practices, cognitive processes, and learning outcomes' (p. xx).

Green, Castanheira, Skukauskaite and Hammond (this volume), Skukauskaite, Rangel, Rodriguez and Krohn Ramón (this volume) and Antón (this volume) all work within an ethnographic, qualitative and primarily descriptive research tradition that seeks to understand participants' epistemologies or language learning processes. The theories that Green, Castanheira, Skukauskaite and Hammond, and Skukauskaite, Rangel, Rodriguez and Krohn Ramón invoke in their respective chapters are broadly emic (participant-centric) and are grounded in (i.e., emerge from) empirical data. In contrast, however, Antón works within the paradigm of sociocultural theory (SCT), which, like all the theories invoked by researchers in the Cognitive-Interactionist, Language Socialization and Critical Theory Traditions, is (from an ontological point of view) an a priori, etic theory of (language) learning and interaction. Epistemologically speaking, however, most (though by no means all) empirical SCT studies tend to use qualitative methods of inquiry.

In their contribution to this Handbook, Skukauskaite, Rangel, Rodriguez and Krohn Ramón provide an historically contextualized, empirically based account of how qualitative researchers understand and talk about terms such as classroom discourse and interaction.

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After summarizing when and why qualitative research in the social sciences emerged, they summarize what they take to be the principal contributions of qualitative perspectives to understanding classroom discourse and interaction as follows. First, qualitative approaches such as discourse analysis, conversation analysis and interactional ethnography *make visible* the *role* that language plays in the construction of everyday social and educational worlds. That is to say, these disciplines enable us to better grasp how linguistic variation and language-use-in-contexts by diverse people in diverse settings are both directly implicated in constructing teaching, learning, achievement, and personal agency. Second, the focus on understanding the *processes*, not just the *products* of learning that characterizes qualitative research allows us to go beyond *what* students learn and to investigate *how* learning takes place in and through students' and teachers' discursive practices and interactions, thus transcending the *black box* metaphor so often used to describe classrooms in experimental research (see for example, Long 1980). Methodologically speaking, one of the tools that qualitative researchers often use to open up this black box is to develop collaborative research relationships with teachers, who consequently become knowledge *creators*, not just *objects* or *consumers* of research. This is a good example of the inherently *reflexive* nature of qualitative research that Green, Castanheira, Skukauskaite, and Hammond (this volume) speak of in their chapter. A consequence of adopting such an ideology is that qualitative research has the potential to open up the research process to new potential stakeholders in the educational processes — students, teachers, parents, among others — and, by extension, to promote the development of multiple new *perspectives* and *understandings* of classroom discourse and interaction. Third, Skukauskaite, Rangel, Rodriguez and Krohn Ramón note that qualitative research fosters an understanding of education and learning as processes that happen both *in the moment* and *over time*. More specifically, they suggest that by using microanalytic approaches such as conversation analysis (CA) and (some forms of) ethnomethodology (EM), qualitative researchers can make visible the artistry and power of people's discursive actions by zooming into the details of how such actions are actually achieved. Then, by using ethnographic, case study or grounded theory approaches, researchers can zoom out for a larger view that demonstrates the longitudinal consequentiality of such discursive moves. Fourth, emphasizing a trope that is often found in critical discourse analysis (DA), these authors note that qualitative research makes visible the *intertextuality* that is inherent in human interaction. From this perspective, as people talk, they invoke a broad range of linguistic, historical, and societal resources. Citing Erickson and Shultz (1981), the authors explain that people are texts for each other, and that they bring their personal biographies, historical and social knowledge, and ways of being to all the interactions that they engage in (Bakhtin 1979/1986). Thus, critical ethnography and DA make visible the interrelationships between the moment-by-moment details of particular interactions in particular social spaces and larger social forces and historical resources (Fairclough 1992) that are said to shape them. In short, qualitative research of this kind demonstrates how individual, social, cultural, and societal forces intersect as people act in and through talk. Finally, these authors point out how qualitative ways of thinking promote critical *questioning* of how participants achieve everyday interactional phenomena. Importantly, qualitative research also requires researchers to critically examine their own and others' positions from multiple points of view. Consequently, qualitative methods invite researchers to engage in dialogs across theory groups and programs of research, which is a prerequisite for what Green, Castanheira, Skukauskaite, and Hammond (this volume) have called the construction of *ethnographic meta-analyses of literature*.

The chapter by Antón (this volume) reviews how language assessment has evolved from its originally exclusively psychometric beginnings to focus on the more qualitatively framed concerns of SCT regarding how learners' positions on a developmental continuum that is

defined by the Vygotskian notion of a zone of proximal development (ZPD) may be diagnosed by researchers and teachers through the use of dynamic assessment. As Antón notes, dynamic assessment is a qualitative testing philosophy that: 1) is inherently interactive; 2) is a type of classroom-based assessment that seeks to seamlessly blend assessment with instruction; and 3) attempts to diagnose and advance the learning potential of learners through scaffolded interaction between learners and researchers and/or teachers who are functioning as evaluators. Thus, dynamic assessment involves a major change in traditional psychometrically based ideas about assessment, in that there is a switch in interest from firstly individual to more collective notions of assessment, and secondly from present to future behavior and development. More specifically, the idea that independent performance masks important differences in mental functioning that are observable during mentor/mentee interactions in the ZPD is absolutely foundational to the theory and practice of dynamic assessment.

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2 Developing a Multi-faceted Research Process: An Ethnographic Perspective for Reading Across Traditions

JUDITH L. GREEN, MARIA LÚCIA CASTANHEIRA,
AUDRA SKUKAUSKAITE, AND JOHN W. HAMMOND

1. Introduction

Over the last four decades, researchers at the intersection of applied linguistics and education have developed a rich and varied set of research perspectives to examine what is interactionally accomplished in and through discourse in classrooms. These epistemological perspectives (ways of knowing) draw on conceptual and theoretical advances in anthropology, applied linguistics, education, linguistics, psychology, and sociology. The diversity of current epistemological approaches, and the range of issues that it is possible to examine through each, challenge those seeking to understand how to construct a multi-faceted and multi-layered understanding of the complex nature of what is interactionally accomplished in and through classroom discourse.

In this chapter, we propose an ethnographic perspective, an *orienting logic of inquiry*, (Green 1983; Green and Bloome 1997), that is designed to support readers-as-analysts in:

- Uncovering theoretical roots guiding different published research studies and written texts to explore conceptual and epistemological perspectives underlying these studies
- Triangulating theories to examine contributions of each to the potential development of a multi-faceted logic of inquiry for exploring what is discursively and interactionally accomplished in and through discourse in classrooms.

The ethnographic logic of inquiry proposed in this chapter is presented in two parts. In Part 1, we propose a *logic of inquiry* grounded in conceptual perspectives and epistemological arguments from anthropology, conversation analysis, discourse analysis, interactional sociolinguistics and ethnomethodology as well as philosophy of science that readers-as-analysts can draw on to guide their readings across studies from different perspectives. In Part 2, we provide telling cases that illustrate the process of ethnographic meta-analysis.

To ground the discussion, and to illustrate what an ethnographic approach entails, we include a series of *telling cases* (Mitchell 1984) in both Parts 1 and 2. These telling cases make visible how, and in what ways, different researchers used a form of contrastive analyses[1]

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to identify similarities and differences in the logics-of-inquiry guiding different studies within and across theory groups (Kelly 2006) and programs of research (Strike 1974; 1989). Anthropologist Clyde Mitchell (1984) argued that telling cases are:

> the detailed presentation of ethnographic data relating to some sequence of events from which the analyst seeks to make some theoretical inference. The events themselves may relate to any level of social organization: a whole society, some section of a community, a family or an individual. (p. 238)

Based on this argument, we trace the processes and practices that different authors/writers used to make visible what each perspective enabled them to understand about classroom discourse and interaction, and how the contrasts they undertook made visible what was (and was not) addressed through particular perspectives about what was interactionally accomplished in and through classroom discourse.

To explore the conceptual arguments underlying and resulting from studies using contrastive analysis, we take up the *position of reader-as-ethnographic-analyst* toward the written and published texts explored. In this way, we build on Mitchell's argument that ethnographers seek to uncover 'some distinctive set of actors [who] have been involved in some defined social situation at some particular point in time… [and] in some given set of particular circumstances' (Mitchell 1984, p. 239). From this perspective, we view written texts and published articles as *artifacts*[2] in which authors/writers *inscribe*[3] ongoing dialogues from particular programs of research or theory groups, grounded in particular conceptual and epistemological conceptual systems to construct warranted claims from each study (e.g., Heap 1995; Green, Skukauskaite and Baker 2012).

To frame a series of conceptual arguments that underlie the logic of inquiry we are developing to enable researchers to read-as-an-analyst across published works, draw on two sets of sources. The first source is a series of theoretical arguments and epistemological perspectives that frame ways of understanding what it means to argue that *authors* and *readers* alike are members of particular research groups, and that they draw on conceptual systems and practices of these groups to produce and/or interpret an article or written text. The second source draws on a set of published studies in which authors explored what can be known about classroom discourse and interactions through a set of differing epistemological perspectives. Studies selected are ones that focused on either analyzing studies from different traditions contrastively or on analyzing the same records/data from different perspectives. Our goal in (re)reading these studies through an ethnographic perspective is to make visible epistemological decisions derived from these studies that can be added to the proposed logic-of-inquiry to extend its potential for developing multi-faceted and multi-layered analyses of the contributions of particular authors and theory groups to which they orient, or on which they draw.

2. Part 1 Developing an Orienting Logic of Inquiry Guiding an Ethnographic Perspective

Underlying the challenge of examining what different researchers inscribe in written work are two problems: How to identify what counts as a conceptual and/or theoretical perspective-in-use, and how to explore the ways in which a logic-in-use develops within and across particular research groups. In this section, we explore ways of uncovering the conceptual and epistemological perspectives guiding particular authors or groups of authors and how to understand groups as languacultures (Agar 1994).

2.1 On conceptualizing different research communities as discursive and social constructions

To make visible the underlying conceptual arguments grounding this perspective, we begin with a conceptual argument by anthropologist Michael Agar (1994) that social groups constitute *languacultures* (LC). Underlying this conceptualization is Agar's (1994) conceptualization of the relationship between language and culture:

> The langua in languaculture is about discourse, not just about words and sentences. And the culture in a languaculture is above meanings that include, but go well beyond, what the dictionary and the grammar offer. (p. 106)

From this perspective, theory groups, i.e., researchers drawing on common theoretical perspectives, or programs of research (e.g., researchers who share a common philosophical perspective such as behaviorism, constructivism, among others), can be viewed as languacultures. The importance of Agar's argument for reading across perspectives is captured in the following: '[L]anguage carries with it patterns of seeing, knowing, talking, and acting. Not patterns that imprison you, but patterns that mark the easier trains for thought and perception and action' (p. 78). He further argues that '[w]ords … channel you into a way of seeing, of thinking, of acting. Words are the surface of culture' (p. 87). For Agar, '[c]ulture is a conceptual system whose surface appears in the words of people's language' (p. 87).

From this perspective, language used to construct particular written, spoken, visual and published texts inscribes conceptual system(s) that author(s) are drawing on, and constructing in, an article or written text (e.g., email, blog). Language choices of author(s), therefore, also (re)present[4] particular ways of seeing the world, and implicate particular ways of analyzing the objects of study. Thus, building on Agar (1994, 2006), we argue that when a reader-as-analyst ethnographically orients to a particular article drawing on his/her own languaculture (LC1), and begins an analysis of the inscribed conceptual system, she/he is engaged in a dialogue with the author(s)' languaculture, what Agar refers to in ethnographic work as *languaculture 2* (LC2).

At such points of contact in ethnographic work, a clash in *frames of reference* (Gee and Green 1998; Tannen, 1993) may occur. At points of *frame clash*, Agar argues, *culture happens*; that is, culture becomes visible when the ethnographer (the outsider) is confronted with differences between his/her expectations (frames of reference) and those of actors [insiders] within the group being studied/read. At such points of frame clash, a *rich point* is constructed and the ethnographer begins to wonder about *what is happening* and *what the roots of the phenomena are (how it developed)*. Rich points, therefore, serve as *potential anchors* for exploring differences between the inscribed logic of inquiry that the author of the text drew on, and that of the ethnographer. Thus, by identifying rich points, readers-as-analysts locate a point at which it is possible to identify similarities and differences between their understandings and those of others.

The significance of this argument can be extended through the work by philosopher, literary critic and semiotician Mikhail Bakhtin (1986), whose dialogic theory provides a conceptual grounding for approaching published and written work (e.g., fieldnotes or scholarly exchanges) as part of ongoing dialogues within and across what he calls *social circles*. The following argument by Bakhtin (1986) converges with that of Agar and provides additional ways of understanding how to conceptualize a research group, and how to uncover what it affords members that speakers/writers [readers/analysts] can use as they engage with others in the theory group as well as when they seek to communicate their work to others:

> In each epoch, in each social circle, in each small world of family, friends, acquaintances, and comrades in which a human being grows and lives, there are always authoritative utterances that set the tone – artistic, scientific, and journalistic works on which one relies, to which one refers, which are cited, imitated, and followed. (p. 88)

From this perspective, what is inscribed in an article or written text, like what is constructed in and through spoken and written discourse in classrooms or other social circles, is both a production of an individual or team, and a *potential* resource that members of the social circle [or others from beyond the particular circle] can take up and use in conducting their own work. For Bakhtin, as an author (speaker) writes (speaks), he [she]

> manifests his own individuality in his style, his world view, and in all aspects of the design of his work…This imprint of individuality marking the work also creates special internal boundaries that distinguish this work from other works connected with it in the overall process of speech (written) communication in that particular cultural sphere: from the works of predecessors on whom the author relies, from other works of the same school, from the works of opposing schools with which the author is contending and so on. (p. 75)

In this argument, Bakhtin provides a way of viewing individual-collective relationships that make visible how an article can be viewed as both a local production of an individual or team of authors, and an inscription of historical arguments from particular social circle(s).

This argument also frames ways of understanding the challenge facing readers-as-analysts from outside of the social circle. The challenge in reading/analyzing academic articles, written communications, and volumes across different traditions, therefore, is how to engage in a dialogue with the authors, who, according to Bakhtin, expect 'a response, agreement, sympathy, objection, execution, and so forth (with various speech genres presupposing various integral orientations and speech plans on the part of speakers or writers)' (p. 69).

In this conceptualization of the relationship between speakers/writers, and those with whom they are communicating, Bakhtin makes visible how a text is not a static document, but rather is part of an active chain of dialogue. From this perspective, readers are involved in constructing a text through the dialogue, in order to develop deeper and more substantial understandings of what is inscribed. Such understanding, however, may not be visible in the moment of reading but requires time to understand or further work to develop understandings.

> Sooner or later what is heard and actively understood will find its response in the subsequent speech or behavior of the listener. In most cases, genres of complex cultural communication are intended precisely for this kind of actively responsive understanding with delayed action. Everything that we have said here also pertains to written and read speech, with the appropriate adjustments and additions. (p. 60)

This set of arguments by Bakhtin, when added to the work of Agar (1994, 2006) supports an argument that a *text* is an actor in an ongoing dialogue within and across groups, and that a reader-as-analyst is a person engaging in a dialogic process that involves both an in-time reading to uncover the inscribed logic as well as tracing the roots of works on which the author has drawn. This argument is consistent with an ethnographic epistemology that seeks *emic* [insider] understandings of the meanings that members propose to each other as well as the practices and processes they use to communicate with others.

Kelly (2006), writing on the relationship of 'Epistemology and Education Research' proposes an invisible challenge that is important for readers-as-analysts to explore when reading across disciplines. He argues that epistemological perspectives are not frozen in time but rather are continuously being reformulated through the ongoing 'developmental and

definitional work regarding the creation, specification, and extension of [the] research groups' central theories, assumptions, and ontological commitments' (p. 41). These extensions, he argues, result not from a linear progression within the group but from debates both within a particular community as the tradition is extended to further questions of interest as well as from debates and dialogues within and across traditions.

Kelly's argument about the dynamic nature of such theoretical perspectives points to the necessity of not only engaging with the author(s)' definitional work but also of locating the theoretical perspectives in the history of a group, and of tracing the developing nature of the arguments across time, dialogues, and instances of empirical work guided by the particular perspective. In framing this argument, Kelly makes visible the need to engage in a process of mapping the roots and routes that a developing argument has taken backward and forward in time. This process, we argue, building on arguments about ethnographic work by Agar (2006), is an iterative, recursive, and non-linear process of abductive reasoning that is central to an ethnographic epistemology (e.g., Green, Skukauskaite, and Castanheira 2013; Green, Skukauskaite and Baker 2012; Skukauskaite and Green 2004).

The argument to this point focuses on a reflexive process that requires readers-as-analysts to engage in what anthropologist Shirley Brice Heath (1982; Green, Skukauskaite and Baker 2012) argued involved *stepping back from ethnocentrism*. This process requires a reader-as-analyst, who is guided by an ethnographic perspective, to step back from their own perspective (languaculture), in order to orient to the text in a manner that enables them to engage the author of the text in a dialogue. The reader-as-analyst, like the ethnographer, therefore, is viewed as making *theoretical or conceptual interpretations* of what is being proposed by author(s) of texts. This process involves identifying relationships between and among bits of text to construct an interpretation of what the author-as-communicator [or dialogic partner] is proposing, and to seek understandings of the intertextual web of resources and arguments that the author is using to support his/her arguments in the study being 'read'. Bloome and Bailey (1992), drawing on Bakhtin's arguments about the dialogic nature of communication, provide a conceptual way of defining this dialogic and intertextual process, and its challenges. They argue that:

> "Whenever people engage in a language event, whether it is a conversation, the reading of a book, or a diary writing, they are engaged in intertextual juxtapositions of various conversational and written texts…Intertextuality is a social construction in that these juxtapositions must be interactionally recognized by the participants in an event, acknowledged by those participants, and have social significance within an event..." (p. 198).

If we extend this argument to reading of an 'academic' text published in particular journals or research volumes, or even in digital exchanges [e.g., emails, blogs, wikis], a reader-as-analyst can be viewed as engaging with a written or spoken text constructed by another, with whom they may or may not share common background knowledge, expectations for what counts as appropriate research processes, or assumptions about what counts as evidence. The challenge, therefore, in reading across perspectives requires ways of orienting to a text-as-an-artifact to uncover what is inscribed as a reasoned argument of the author(s). It also involves readers-as-analysts in viewing citations as part of an intertextual web of arguments (dialogues) that the author draws on to construct a new report of work contributing to the ongoing dialogue, and to individuate his/her work from work of members of a larger social circle (theory group or program of research; e.g., Green and Stewart, 2012).

2.2 *Exploring the expressive potential of programs of research*

In this section, we explore ways of understanding what constitutes a program of research as proposed by Philosopher Kenneth Strike (1974, 1989). Drawing on philosophical work of Thomas Kuhn, Stephen Toulmin and Imre Lakatos, Strike proposed a set of governing assumptions that, if accepted, enable examination of the underlying logic of inquiry and epistemological process that constitute a particular program of research:

- They provide the context in which theoretical and empirical terms are defined. Indeed, they provide the characterization of what is to count as a theoretical and an empirical term.
- They enable us to distinguish relevant from irrelevant phenomena. That is, they inform us as to what phenomena a given enterprise is expected to deal with. And they tell us what sorts of questions are appropriate to ask about them.
- They provide the perceptual perspectives and categories by means of which the world is experienced. They tell us what is to count as a well-formed or appropriate account of phenomena. He also argued that some proposed accounts will be excluded at the outset because they are not properly structured or because they do not fulfill the conception of a proper account within the field.
- Through historical precedent or the logical outgrowth of the accepted assumptions, programs of research point toward the problems that require solution. A problem will be a conflict between the intellectual aspirations of a research program and its current capacity.
- They provide the standards of judgment – epistemological criterion – that we use to evaluate proposed accounts, and they tell us what is to count as evidence for proposed accounts. (Strike 1989, p. 6)

These governing assumptions provide a way of orienting to the perspectives inscribed in articles by authors grounded in different programs of research. They also lay a foundation for exploring what is similar and different across programs of research and how conceptual and epistemological groundings of these programs relate (or not).

2.3 *From governing assumptions to guiding question*

In this section, we propose ways of drawing on these governing assumptions to engage in contrastive analysis of different conceptual perspectives guiding authors of particular texts. One way of viewing this process is that by drawing on, and applying, these governing assumptions, readers-as analysts can approach each article in a common way that lays a foundation for undertaking contrastive analyses across articles. Drawing on arguments by sociologist William Corsaro (1981, 1985), we view contrastive analysis as a way of triangulating theories, methods, data and perspectives, or in other words, of examining the differences in the governing assumptions guiding particular author(s) as well as particular programs of research.

To make visible how this process might be undertaken, and what it makes potentially available to explore, we present two *telling cases*, one recent that is part of a dialogue between our team (and related colleagues) and Numa Markee, and one undertaken three decades ago in response to a US National Institute of Education (NIE) initiative that funded eight studies under a framework of *Teaching as a Linguistic Process in a Cultural Setting* (Green 1983). We begin with an email text that Numa Markee sent on January 12, 2014 to Judith Green, Audra Skukauskaite, David Bloome, and Doug Baker, who were engaged in a series of formal and informal discussions with him. The email was sent after a panel discussion in which Markee, Green, Bloome and Baker participated at the National Council of Teachers of English Assembly for Research. Following the meeting, Markee read an article by Green, Skukauskaite and Baker (2012), entitled 'Ethnography as epistemology' and then engaged in a contrastive

analysis of how the arguments about the ethnography inscribed in this text were consistent with, or differed from, his own tradition, Conversation Analysis (CA) (Markee 2000). The following email message captures his contrastive approach:

> Dear all:
>
> Just finished reading the Ethnography as epistemology paper, which I enjoyed very much. It started me thinking about what the similarities and differences between interactional ethnography and CA (or at least the kind of CA that I do) are, so I took the list of questions at the bottom of p. 310 and modified this to reflect what CA does. I rather liked the result, so I'm sending this to you for your delectation.
>
> What do you think?

Ethnography	*Conversation Analysis*
1. What is happening here?	1. ~~What is happening here?~~
2. What is being accomplished, by and with whom, how, in what ways, when and where, under what conditions, for what purposes, drawing on what historical or current knowledge and resources (e.g. artefacts, meanings, tools), with what outcomes or consequences for individuals and the group?	2. What is *observably* being accomplished *in and through interaction, and how is this/ these course(s) of action done*, by and with whom, how, in what ways, when and where, under what conditions, and for what purposes? *How do participants observably choreograph their talk with eye gaze, gestures and other embodied actions? What tools and cultural artifacts do participants contingently orient to, and thus observably make locally relevant to each other (and therefore to analysts) on a moment-by-moment basis? What outcomes or consequences for participants do such analyses uncover?*
3. To what do individual members of sustaining groups have access, orient and hold each other accountable?	3. *How do participants co-construct social identity?*
4. What makes someone an insider or outsider of particular groups (e.g. class, group within a class, peer group or social network)?	4. What *members' competence do participants invoke as they do ordinary conversation and institutional talk? What* roles and relationships, norms and expectations, and rights and obligations are constructed by and afforded members *through an orientation to these speech exchange systems?*
5. What counts as disciplinary knowledge (i.e. mathematics, science, social science or art) in this particular group or classroom?	5. What counts as disciplinary knowledge (i.e. mathematics, science, social science or art) in this particular group or classroom?
6. What roles and relationships, norms and expectations, and rights and obligations are constructed by and afforded members?	6. How can analyses of talk-in-interaction be extended to include longitudinal studies of observable (language) learning behavior and socially distributed cognition?
7. How does previously constructed cultural knowledge support or constrain participation in, or create frame clashes with, local knowledge being constructed in a particular event (or social group)?	
8. How do decisions beyond the group support and/ or constrain ways of knowing, being and doing afforded members?	

In beginning with the governing assumptions for interactional ethnography, Markee constructed a text that he then (re)wrote to explore similarities and differences in the two perspectives. In taking this action, he created a contrast between the conceptual system of his perspective (CA) and that of interactional ethnography.

His contrastive approach to editing the arguments made visible how (re)writing another perspective can create a *rich point* for examining similarities and differences in empirical and theoretical terms, the processes entailed, and chains of reasoning possible for each. Additionally, this contrast made visible what is not possible to address through each of these *languages* and thus what is missing if only one perspective is used to explore what is being interactionally accomplished in and through discourse(s) in classrooms.

The dialogue that Markee constructed in his contrastive analysis points to what can be learned by transforming Strike's (1989) governing assumptions into a set of guiding questions that support contrastive analysis of similarities and differences across programs of research. The transformations of the first two governing assumptions provide an example of what such transformations frame: *What are theoretical and empirical terms and how are they defined? What are the relevant phenomena*? These questions capture the potential starting points that a reader-as-analyst can use to begin a process of uncovering key constructs inscribed in particular articles, and for identifying how the author(s) characterize *what counts as* (Heap 1980) theoretical and empirical terms in particular studies. In turn, the questions also make possible exploration of phenomena that a given enterprise is expected to deal with (or not). It also frames, as the Markee example makes visible, a way of engaging in *reflexive analysis* of similarities and differences between the reader/analysts' own perspective and that of the author inscribed in the text being read/interpreted.

3. Part 2 Telling Cases as a Process of Ethnographic Meta-Analysis

In this section, we add to the developing argument about what is involved in reading-as-an-analyst across programs of research ethnographically by drawing on different approaches to contrastive analysis. The different approaches frame ways of developing an ethnographic meta-analysis of studies with a common conceptual focus, e.g., classroom discourse and interactions.

3.1 Uncovering similarities and differences across studies: an ethnographic logic of inquiry

To identify the underlying conceptual perspectives for each study, Green (1983) reviewed documents related to each of eight studies funded under the NIE call for research on *Teaching as a Linguistic Process* (Order no. NIE P-81-0084). Documents examined included all reports submitted to the government agency, interviews of the authors as well as notes and records from a face-to-face conference in which authors and external scholars explored what had been learned through these eight studies. Each of the eight studies represented (among other dimensions) different sites, designs and conceptual grounding, and each was grounded in a particular discipline: anthropology (ethnography of communication) and sociolinguistics, language and social interaction, and psychology. Analysis of the conceptual arguments inscribed in this set of archived records involved identifying constructs that defined the nature of language-in-use in classrooms proposed by the different authors that made visible how they viewed teaching and/or learning as linguistic processes. Table 2.1 provides a set of

domains (Spradley 1980) that each research team inscribed in the final reports to the federal government.

This process led to identifying how the author(s) inscribed the assumptions about language-in-use within each study, and were, in turn, placed on a 5 x 8 index card to identify what anthropologist James Spradley (1980) called semantic relationships (e.g., x is a kind of y; x is a reason for y; x is a way of conceptualizing y). This logic-in-use provided a conceptual way of creating part–whole relationships between the particular conceptual elements (the 'x's) identified and how they relate to construct a broader theme, what Spradley called a cover term (a 'y').

Table 2.2 provides a contrastive analysis of these themes and the arguments identified across studies.

As indicated in Table 2.2, all authors viewed *contexts as constructed during interactions, classrooms as communicative environments, meaning as context-specific*, and *inferencing as required for conversational comprehension.* Although all authors agreed to arguments such as *meaning is in context*, just how this was understood or what was studied varied by study and its conceptual framework. This variation, like the variation and differences identified by Markee previously, provide a resource for understanding what different traditions with their particular conceptual foci and epistemological processes afford those seeking to develop a more complex understanding of what counts as discourse and interactions in classrooms. Table 2.2 makes further visible the constitutive nature of language in constructing meanings, structuring of classroom norms and expectations, and understanding the roles and relationships among participants.

However, as an ethnographer, Green (1983) became concerned about whether she had developed *theoretical inferences* that would be confirmed by authors. Therefore, she sent the analysis to the authors to confirm, or disconfirm, how she characterized each study. All but one author confirmed her analysis. The one author who disagreed with her analysis of his use of the concept of *frames of reference* indicated that he saw how she had interpreted his use of this concept but that he was using it in a different way. This dialogue was central to maintaining the ideal of seeking an *emic* (insider) understanding (Heath 1982) of what was inscribed, a central goal to those with an ethnographic perspective grounded in anthropological theories of culture.

The actions reported in, and illustrated through Markee's and Green's contrastive analyses, made visible issues that are often invisible when examining the complex work that author(s) inscribe in their articles. The contrastive analyses in this section exemplified ways of uncovering the theoretical or conceptual arguments and epistemological decisions that underlie the written accounts and claims about what is interactionally accomplished in and through discourse in classrooms within and across studies. The two approaches to contrastive analyses also made visible that the challenge of gaining an insider perspective is not merely reading the text through a personal perspective, or even applying a set of analytic steps. It showed the *limits to certainty* (e.g., Heap 1980; Baker and Green 2007), and the interpretive nature of this endeavor, and how engaging in dialogues with authors either through personal dialogues, or through tracing the authors' work backward and forward in time, provide ways of validating interpretations of authors' inscriptions.

3.2 Same data, different analyses: A contrastive analysis

In this part, we examine two sets of contrastive analyses undertaken by Morine-Dershimer two decades apart. The first explores a contrastive analysis that she undertook by assembling a team of three researchers representing different theoretical and epistemological approaches to sociolinguistic analysis of questioning in classrooms. She viewed these

Table 2.1. Domains for Deconstructing Text(s)

Title and Authors	Population studied	Questions	Theoretical-conceptual grounding	Design of study	Records collected	Data constructed and analysis processes by kinds of data	How observed outcome	Constructs related to work of others

Table 2.2. Constructs underlying core NIE studies on teaching as a linguistic process

Constructs	*Cole, Griffin and Newman*	*Cook-Gumperz, Gumperz and Simons*	*Cooper, Ayers-Lopez and Marquis*	*DeStefano and Pepinsky*	*Erickson, Cazden, Carrasco and Guzman*	*Hymes*	*Merritt and Humphrey*	*Morine-Dershimer and Tennenberg*	*Total*
Classrooms are communicative environments	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**8**
Differentiation of roles exists between teacher and students	X	X	X	X	X	X	X	X	8
Relationships between teachers and students are asymmetrical	X	X	X	X	X	X	X	X	8
Differential perception of events exists between teacher and students	X	X	X		X	X		X	6
Classrooms are differentiated communication environments	X	X			X	X		X	5
Lessons are differential communicative contexts	X	X			X	X		X	5
Communicative participation effects student achievement	X	X	X	X	X	X		X	7

(*Continued*)

Table 2.2. (*Continued*)

Constructs	*Cole, Griffin and Newman*	*Cook-Gumperz, Gumperz and Simons*	*Cooper, Ayers-Lopez and Marquis*	*DeStefano and Pepinsky*	*Erickson, Cazden, Carrasco and Guzman*	*Hymes*	*Merritt and Humphrey*	*Morine-Dershimer and Tennenberg*	*Total*
Contexts are constructed during interactions	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**8**
Activities have participation structures	X		X			X	X		4
Contextualization cues signal meaning			X	X		X	X	X	5
Rules for participation are implicit	X		X		X	X	X	X	6
Behavior expectations are constructed as part of interactions	X	X	X		X	X	X		6
Meaning is context specific	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**8**
All instances of a behavior are not equal	X	X	X	X	X	X	X	X	8
Meaning is signaled verbally and nonverbally	X	X	X	X	X	X	X	X	8
Contexts constrain meaning	X	X	X	X	X	X	X	X	8
Meaning is determined by and extracted from observed sequences of behavior	X	X	X	X	X	X	X	X	8
Communicative competence is reflected in appropriate behavior	X	X	X	X	X	X		X	7

Inferencing is required for conversational comprehension	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**8**
Frames of reference guide participation of individuals	X	X	X	X	X	X	X	X	8
Frame clashes result from differences in perception	X	X	X		X	X	X		6
Communication is a rule-governed activity	X	X	X	X	X	X	X	X	8
Frames of reference develop over time	X	X		X	X	X			5
Form and function in speech used in conversations do not always match	X	X	X	X	X	X	X	X	8
Teachers or chestrate different participation levels	**X**	**X**		**X**	**X**		**X**		**5**
Teachers evaluate student ability by observing performance during interactions	X	X		X	X		X		5
Demands for participation co-occur with academic demands	X	X			X				3
Teachers signal their theory of pedagogy by their behaviors (verbal and nonverbal)	X	X			X	X			4
Teacher's goals can be inferred from behaviors	X	X			X	X			4

*The constructs here are illustrative ones identified through analysis, not a complete list of all conceptual arguments.

approaches as representing a categorical approach (speech acts, Ramirez 1988), a structural approach (question asking sequences, Tenenberg 1988) and a conceptual approach (language dimensions, Shuy 1988). Morine-Dershimer involved the three analysts in examining the same data set, which included 36 language arts lessons taught in six different classrooms.

The studies provided a 'basis for understanding how the observational system can influence what may be "known"' (p. 211). Based on the differences in understandings that became visible at the point of triangulation of the findings of these studies, Morine-Dershimer (1988a, b) argued that:

> It is abundantly clear from this excursion into a comparative analysis of three different systems for sociolinguistic analysis of classroom language (a non-statistical approach to meta-analysis), that selecting one system vs. another can affect both the form and substance of our findings. What may be even more important is the fact that, when analysis systems are compared in this manner, both complementary and contradictory findings can be productive of further insights. Perhaps the most important point of all has to do with the distinctive features of the systems, which allow one system to reveal what another conceals, for when the various systems are laid side by side, a much fuller picture emerges of the phenomena under study. (Morine-Dershimer 1988b, p. 211)

She concluded her analysis of the three studies and her work on constructing a 'picture of the "reality" of these classrooms, [that] these systems provided interlocking pieces of the puzzle' (p. 211), rather than building discrete segments of the total picture. Her triangulation process uncovered ways these different theories related (or not), and how they constituted different facets of a larger picture, which remained incomplete. Her study, therefore, showed that building a more complex understanding of questioning in classrooms involves more than an additive process across studies or a simple contrastive analysis to select one set of findings over others. This contrastive study made visible the necessity of engaging in a close examination of how and in what ways different analytic traditions relate to each other (or not) and what each makes visible.

3.3 A telling case of contrastive analysis of alternative perspectives

The second telling case was also undertaken by Morine-Dershimer two decades later. In 2006, she used a similar logic of inquiry, a non-statistical meta-analysis [her term] to review literature on discourse and its implications for understanding learning in classrooms (Morine-Dershimer 2006). In this review, she identified four research programs, what she called *alternative perspectives* on ways of studying classroom discourse and interactions. Rather than assemble a team to undertake analysis of the same records as she had in 1988, she engaged in an analysis of published work that she brought together to explore the potential of different approaches to studying classroom discourse and its relationship to student learning. Her approach built on the logic that she developed from her earlier contrastive analysis work two decades earlier. This approach is consistent with the logic of inquiry that we are proposing.

She began with an analysis of the underlying assumptions of a series of studies for each program as well as related work. She also located the studies in the history of developing conceptual and epistemological perspectives [her term]: Critical discourse analysis, sociolinguistic perspectives, sociocultural perspectives, and cognitive constructivist perspectives, all *folk terms* derived from the *point of view* of the authors. Her goal is captured in the following (p. 131):

ALTERNATIVE PERSPECTIVES AND KEY CONCEPTS

> In the period from the 1970s to 2000 research on teaching expanded drastically from an initial concentration on the relationship between teacher behavior and pupils' academic outcomes (engagement or achievement), typical of the early research on classroom management, to a remarkable array of subareas related to teacher cognitions, pupil cognitions, and types of instructional tasks or curriculum content, as well as both academic and social outcomes (Morine-Dershimer, 2000). Some similar, less drastic, expansion has occurred in the variety of classroom discourse studies. Because the improvement of classroom learning has been and continues to be a central focus of classroom studies, the current distinctions among approaches can be framed usefully in terms of different view of what constitutes learning, or how classroom learning occurs. (p. 131)

In this statement, she begins with a contrast between past perspectives and the current state of affairs to frame a shift in perspectives for examining 'different views of what constitutes learning, or how learning occurs in classrooms' (p. 131). In this way, she frames the *anchor* for her analytic approach to the literature, and her principles for selecting the *alternative perspectives*. This decision is visible in the contrast of language from the earlier work. This contrast makes visible conceptual and philosophical differences in programs of research (in Strike's terms).

Examination of Morine-Dershimer's inscribed epistemological decisions shows that she undertook a *common approach* to contrastive analyses of different governing assumptions of each perspective in order to make visible the *orientation to the study of discourse* in classrooms situated in different national contexts (Australia, United States, and New Zealand). Therefore, her epistemological perspective allowed the populations and sites to vary, while holding the object of study constant, *learning in classrooms through discourse*.

Her analysis made visible that 'Each of the four classroom discourse perspectives is concerned with learning opportunities, although each defines learning in a somewhat different way' (p. 144). For example, by locating each in the time in which it developed, she identified similarities and differences between sociolinguistic and critical discourse: 'each is concerned with how the language a child learns at home and within the immediate cultural community influences opportunity to learn' (p. 144) but that each emphasized different effects of the home-school language mismatch. In contrast to these two perspectives were perspective grounded in cognitive constructivist and sociocultural perspectives. Like the previous two, these two perspectives, she argued were 'opposite each other because they emphasize different views of how classroom learning is constructed, with individually constructed meaning… and socially constructed meaning' (p. 144). Both, however, also 'encompassed aspects of the sociolinguistic perspective and the critical discourse analysis perspective' (p. 145).

To make visible the underlying work that supported her construction of the distinctions that Morine-Dershimer identified, she constructed a *contrastive methodology* to represent the differences across studies. The contrast between the cognitive constructivist and the sociocultural perspectives is reconstructed in Table 2.3 (p. 145):

Table 2.3 provides a *telling case* of the similarities and differences she identified for these two programs by identifying common domains of contrast: Perspective on learning, setting, data, role of 'context', evidence of learning, and explanation of learning. What is notable in this table is that she used a *parallel language to inscribe the different elements;* that is, her language used a common structural pattern and re-iterated terms to make visible similarities and differences. In this way, she was able to frame a way of uncovering what each contributed to a more complex understanding of what counts as learning as well as the logic-in-use for each perspective.

Table 2.3. Contrasting methodological features of two classroom discourse research programs

Types of feature	*New Zealand project*	*Santa Barbara group*
Perspective on learning	Main focus: how knowledge is individually constructed in classrooms.	Main focus: how knowledge is socially constructed in classrooms.
Setting	Classroom activity tends to involve 'traditional lessons' (In Cazden's terms); teacher-directed whole-class lessons predominate with some individual pupil seatwork; teacher-developed units of instruction within the regular curriculum.	Classroom activity tends to involve 'non-traditional' lessons (in Cazden's terms); small group/independent work or whole-class discussion with teacher as guide or social mediator; use of new reform-based curriculum materials and procedures.
Data	Short-term data collection (one-week to four-week units on a given topic): follow-up interviews with selected students shortly after end of unit and again one year later. Data on both public and private talk, i.e., student comments to peers and self, recorded on individual microphones. Video and audio records and observers' notes.	Long-term data collection (several months to a year) using ethnographic methods; reports on smaller segments of interaction, informed by long-term information available. Data on both public and semipublic talk, i.e., teacher interacting with pairs or small groups of pupils. Video and audio recordings and ethnographers' notes.
Role of 'context'	Focus on an individual's experience in varied contexts (home, school) and in influence on what is learned and what becomes patterned (appropriate) behavior. Students recall physical context in which specific information was learned.	Focus on how teacher and students draw on and relate to prior classroom contexts in shaping and interpreting the present context. Context includes roles played, and roles seen as appropriate for self and others, from point of view of various participants.
Evidence of learning	Use pre- and post-testing of academic learning of information taught during a unit, as well as interviews with individual students to determine the new knowledge held in short-term and long-term (12 months later) memory.	Attempt to determine from interactive data and artifacts of pupil work collected over time how much (and what) conceptual change occurs for individuals and/or what new or revised concepts are generated and held within the class or group.
Explanation of learning	Emphasis on concept learning. Goal is development of a predictive model of what academic learning will be accomplished by individual students, based on prior knowledge/experience, and amount/time of classroom exposure to new information.	Emphasis on group construction over time of language, meaning and behavior norms. Goal is understanding the ordinary discursive and social practices in a classroom setting, and how these practices contribute to the construction of knowledge in classrooms.

4. Closings and Openings

We conclude this chapter with arguments from Bloome, Carter, Christian, Otto and Shuart-Faris (2005) on how theories relate. They argue that theories relate to each other in four ways: Theories can be *complementary*, *antagonistic*, *parallel* or *null*. They further argue that '[o]ne cannot simply and unilaterally claim a location for a study or line of inquiry' (p. 236) or make a claim of truth of one perspective over another. Rather, the challenge is to locate the approach of an individual, a group, or a developing program of research 'within the intellectual movements that have grown out of the Linguistic Turn in the social sciences' (p. 235). Additionally, they argue that when locating the perspective, the analysts also need to make visible the social consequences in terms of what can be known by taking up a particular perspective.

This argument ties also to the *reflexive turn in social science* as well as discourse studies, which has developed over the past four decades. At the heart of this turn is an argument by anthropologists Clifford and Marcus (1986) that authors write culture, not find culture or simply report culture. That is, authors construct data that shapes, and is shaped by (Fairclough 1992) what counts as culture. Taking this argument to sociology, Atkinson (1990) made visible ways that authors inscribe *self* in the text, and that these inscriptions position the researcher in relationship to the people in the study through the choice of language. This argument is similar to one by folklorist Daphne Patai (1993) in her chapter on *constructing a self* in her book on *Brazilian Women Speak.* More recently, Mary Bucholtz (2001) took up this argument in relation to transcribing for the field of applied linguistics. These arguments tie to the need for transparency in reporting that underlies the American Education Research Association's Standards for Reporting Empirical Social Science Research (2006) and Humanities-oriented Research (2009). This issue is also addressed in TESOL Quarterly standards for publishing within the journal: http://www.tesol.org/read-and-publish/journals/tesol-quarterly/tesol-quarterly-research-guidelines

The ethnographic perspective proposed in this chapter for reading across traditions can be viewed as laying a foundation for constructing an *ethnographic meta-analysis of literature* through the process of uncovering and then contrasting what different perspectives make possible to be known. As proposed in this chapter, contrastive analyses may be undertaken in multiple ways: By editing or rewriting the language of one tradition to examine how the analyst's own tradition is similar to or differs from the anchor tradition, by identifying and contrasting common data, methods, perspectives, and theoretical or epistemological perspectives, or by identifying studies that focus on common phenomena or explore the same records. This form of meta-analysis leads to the identification of how, if, when and under what conditions, and for what purposes different traditions can be brought together (or not), how the perspectives relate to each other (or not), and what each contributes to a more comprehensive understanding of what is interactionally accomplished in and through classroom discourse.

NOTES

1 An ethnographic contrastive analysis is a form of triangulation that draws on sociologist William Corsaro's argument that ethnographers can contrast theories, methods, data and perspectives. We extend this argument to analysis of what authors *inscribe* in their written accounts through their choices of theories, arguments, accounts, and interpretations.

2 The term *cultural artifact* used to acknowledge that an *article* in a journal or a published volume is an object (e.g., text) produced by members of particular social groups, with a view to subsequent use, given that journals are archived records of research from different perspectives.

3 As indicated in footnote 1, the term *inscribe* is grounded in a conceptual argument that an author *inscribes* (writes into being) a particular view of the phenomena under study, guided by particular theoretical/conceptual perspectives.
4 We use the convention of (re)present, rather than *represent,* based on an understanding that the author is constructing the phenomena.

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3 Understanding Classroom Discourse and Interaction: Qualitative Perspectives

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1. Introduction

Classroom interaction research dates back to the late 1930s, but has expanded exponentially since the 1960s, when societal changes and growing student diversity in classrooms created a need for new ways of understanding teaching, learning, and classroom interaction. In the 1960s, researchers primarily sought to develop observation instruments for measuring teacher behaviors (Green and Dixon 2008), yet each observational system focused on different phenomena (Simon and Boyer 1970). Research on classrooms through the 1960s was mostly observational and quantitative, measuring how teacher variables affected particular student outcomes. Qualitative researchers entered classrooms in the 1960s, seeking to understand discrepancies in achievement of students from varied linguistic and ethnic backgrounds. Green and Dixon (2008) traced the roots of this research in the UK and the US, noting that UK scholars tended to examine reasons for school failure, while US scholars sought to explore how linguistic differences of diverse students influenced student opportunities for learning. Most of this early qualitative work was ethnographic, conducted by scholars grounded in anthropology, sociology, and sociolinguistics.

Rex, Steadman and Graciano (2006) reviewed seven perspectives that have been used to study classroom interaction since the late 1930s: 1) process–product; 2) cognitive; 3) socio-cognitive, situated cognition and activity theory; 4) ethnographic; 5) sociolinguistic and discourse analysis; 6) critical; and 7) teacher research. This variety of theoretical and methodological approaches makes visible the complexity of understanding classroom interactions. Each perspective provides opportunities to see and understand some aspect of classroom life. No single perspective and no single researcher can uncover all of the dynamic interactions or factors influencing what occurs in classrooms. However, when different perspectives are brought together in a single volume, as Markee has done with this Handbook, researchers have opportunities to compare and contrast theoretical and methodological perspectives and make grounded interpretations of how the different perspectives contribute to deeper understandings of life in classrooms.

The Handbook of Classroom Discourse and Interaction, First Edition. Edited by Numa Markee.
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Our contribution to this volume focuses on reviewing what qualitative perspectives have contributed to understanding classroom interaction and discourse. We first present a brief overview of the development of qualitative research and how it provides different ways of thinking about classrooms, interaction, and discourse. Then, we analyze how classroom interaction and discourse are studied in four purposefully selected journals. Through this analysis, we make visible the diversity of theoretical and methodological perspectives and how they contribute to a deeper and broader understanding of everyday life and discourse in classrooms. Understanding diversity and contributions of qualitative research used for classroom interaction provides a foundation for building on the work done in the past to study new developments in education.

2. Our Approach

To examine what qualitative perspectives contribute to education research and to the study of classroom interaction and discourse specifically, we constructed two analytic pathways. First, we reviewed a set of literature on qualitative research, to construct a timeline of qualitative perspectives. Within the timeline, we sought to identify moments and influences that led to qualitative research entering education and classroom studies. To accomplish this goal, we chose frequently cited books and articles that present qualitative research histories and contributions. Throughout our selections, we focused on work in education (Bogdan and Biklen 2007; Erickson 2011; Freebody 2003; Green and Stewart 2012; Putney, Green, Dixon, and Kelly 1999). We also included two recent qualitative research handbooks, one representing qualitative research in education (Delamont 2012) and one in the social sciences (Denzin and Lincoln 2011). We also looked for articles that could potentially provide an international perspective (Flick 2005 - Germany; Gobo 2005 - Italy), but discovered that these authors mainly drew on the work of the US scholars we were already including. In reviewing the qualitative literature, we sought to trace back the development of qualitative research, marking its entry into education research in general and classroom interaction and discourse research in particular.

For the second analytic pathway, we sought to examine more closely how classroom interaction and discourse have been studied in research journals. Informed by an ethnographic perspective (see Green, Castanheira, Skukauskaite and Hammond, this volume), we purposefully selected four journals that publish research at the intersection of language and education. The journals include the *Journal of Classroom Interaction* (JCI), *Applied Linguistics* (AL), *Language and Education* (LaE), and *Linguistics and Education* (LiE). *AL* and *LaE* journals are published in the UK, whereas *JCI* and *LiE* are published in the US, but all of the journals include international editorial boards.

In addition to country of origin, we selected these journals because they represented different theoretical and disciplinary trajectories. *JCI*, a journal located specifically within the discipline of Education, at first focused on observation research of teacher–student interactions from psychological and behavioral perspectives, but more recently has also included other cognitive and sociolinguistic perspectives within education. *AL*, located in the interdisciplinary field of applied linguistics, typically draws on more linguistic perspectives, whereas both *LaE* and *LiE* are broader in scope and publish research across multiple disciplines and perspectives informing language and education. The UK *LaE* journal emphasizes studies that explore educational practices relating to 'mother tongue' and 'second language' learning, but explicitly excludes foreign language learning contexts. Meanwhile, the US journal *LiE* is more inclusive in scope and in its aims provides a long list of disciplinary, theoretical, and substantive areas of interest to the journal. Table 3.1 marks the abbreviation we use for each journal, the year the journal was first published, and summarizes each journal's aims.

Table 3.1. Journals analyzed

Journal	*Year first published*	*Journal aims (excerpts)*
Journal of Classroom Interaction (JCI)	1965	The JCI is an academic journal …devoted to empirical investigations and theoretical papers dealing with observation techniques, research on student and teacher behavior, and other issues relevant to the domain of classroom interaction.
Applied Linguistics (AL)	1980	AL publishes research into language with relevance to real-world problems. The journal is keen to help make connections between fields, theories, research methods, and scholarly discourses, and welcomes contributions which critically reflect on current practices in applied linguistic research.
Language and Education (LaE)	1987	LaE provides a forum for the discussion of recent topics and issues in the language disciplines which have an immediate bearing upon thought and practice in education. … Articles are welcomed concerning all aspects of mother tongue and second language education. The remit of [LaE], however, does not extend to modern foreign language teaching or English as a foreign language.
Linguistics and Education (LiE)	1988	LiE encourages submissions that apply theory and method from all areas of linguistics to the study of education.

In constructing this table, we sought to uncover the scope of possible contributions to the study of classroom discourse and interaction in educational settings. Based on this analysis, *AL* and *LaE* provide more opportunities for publishing research on first and second language, whereas *LiE* invites research across a broader range of theoretical and methodological perspectives. *JCI* provides a historical anchor to examine how classroom interaction research has evolved from behavioral analyses to include sociocultural and sociolinguistic work that is represented more extensively in the other three journals.

Once we had selected the four journals and ensured that they encompassed potential differences in perspectives and areas of study, we undertook analyses of how discourse and interaction were represented across the journals. To accomplish this task, we created an Excel spreadsheet with titles and authors of all articles published in the journal since its inception to the latest issue available (Winter 2013). While we are aware that working with titles only presents limits to certainty (Baker and Green 2007) and may not capture the depth of available perspectives, we sought to understand the breadth of the field and viewed titles as the authors' signals of focus or key ideas for each article. In the process of entering the titles into the spreadsheet, we discussed the information and started noticing patterns in terminologies used within and across journals. We followed this hunch about terminology patterns by constructing a term count table. Table 3.2 below includes the common terms we found used

across the four journals. We specifically selected terms that relate to classroom discourse, interaction, people, and teaching–learning phenomena.

Table 3.2 confirmed our observations that *JCI* publications focused on teachers, classroom, students, and interaction, while *AL* emphasized language and linguistics in areas of learning. Both of the interdisciplinary journals *LaE* and *LiE* emphasized language and classrooms, but *LaE* focused more on teachers and learning, whereas *LiE* had more articles regarding children rather than teachers. *LiE* was also the only journal in which the term 'discourse' was used as one of the four highest ranking terms.

These alternative foci across the four journals made visible the multifaceted scope of classroom discourse and interaction research, leading us to the next level of analysis to examine what was meant by the terms 'discourse' and 'interaction' across the journals. To accomplish this, we returned to the titles spreadsheet and searched within each sheet for the term 'interaction' first, and then the term 'discourse'. Each title that included the word 'interaction' was copied to a new spreadsheet we named 'Interaction as' and each title with the term 'discourse' was copied to a spreadsheet 'Discourse as'. We then used Spradley's (1980) semantic relationship of strict inclusion (x is a kind of y) to construct domain analyses of what counted as interaction and what counted as discourse across the four journals. The domain analysis focused on the use of the terms 'interaction' and 'discourse' across different theoretical and methodological perspectives. We then identified illustrative articles to describe the varied perspectives on what counted as discourse or interaction in language and education research across the four journals.

Table 3.2. Terms commonly used in titles across the four journals

Term	*JCI* *1965*	*AL* *1980*	*LaE* *1987*	*LiE* *1988*
Total articles	471	787	589	470
Interaction	**92 (19.5%)**	25 (3.2%)	19 (3.2%)	3 (0.5%)
Discourse	9 (1.9%)	49 (6.2%)	31 (5.3%)	**44 (9.4%)**
Classroom	**150 (31.8%)**	42 (5.3%)	**85 (14.4%)**	**45 (9.6%)**
Teacher	**173 (36.7%)**	17 (2.2%)	**75 (12.7%)**	26 (5.5%)
Teaching	49 (10.4%)	33 (4.2%)	35 (5.9%)	15 (3.2%)
Learner	2 (0.4%)	**52 (6.6%)**	19 (3.2%)	3 (0.6%)
Learning	44 (9.3%)	**75 (9.5%)**	**74 (12.7%)**	30 (6.4%)
Child/children	18 (0.0%)	25 (3.2%)	62 (10.5%)	**37 (7.9%)**
Student	**110 (22.5%)**	20 (2.5%)	48 (8.1%)	27 (5.7%)
Language	3 (0.2%)	**271 (34.4%)**	**182 (30.9%)**	**83 (17.7%)**
Linguistic	0 (0%)	**82 (10.4%)**	25 (4.2%)	28 (6.0%)
Highest ranked terms	1. teacher (36.7%) 2. classroom (31.8%) 3. student (22.5%) 4. interaction (19.5%)	1. language (34.4%) 2. linguistic (10.4%) 3. learning (9.5%) 4. learner (6.6%)	1. language (30.9%) 2. classroom (14.4%) 3. teacher (12.7%) 4. learning (12.7%)	1. language (17.7%) 2. classroom (9.6%) 3. discourse (9.4%) 4. child (7.9%)

Through this domain analysis we sought to make visible a broad range of perspectives on how 'interaction' and 'discourse' were used. Every included term in each domain represents a particular theoretical angle that adds to the broader understanding of what counts as 'interaction' and 'discourse'. While separated heuristically for analytic and representational purposes, the included terms within each domain are not discrete concepts used only by one researcher or one research program. Each use provides a specific angle of vision that leads to particular methodological decisions within and across programs of research. As our analyses will make visible, while there are some similarities in the ways 'interaction' and 'discourse' are conceptualized, the terms are not synonymous and cannot be used interchangeably, or as subsuming one another. Therefore, this variety in conceptualizations creates a need for researchers to be transparent about the ontological and epistemological assumptions guiding their work and methodological choices.

3. What Counts as Qualitative? The Development of Qualitative Research

Research approaches used to study classroom discourse and interaction across four interdisciplinary journals ranged from quantitative analyses of teacher behaviors (e.g., Flanders' 1965 interaction analysis system and its adaptations that used a predefined set of observable variables) to analyses of specific language features (e.g., conversation or linguistic analyses of grammar features) to longitudinal ethnographic studies in classrooms (e.g., ethnography of communication, interactional ethnography, new literacy studies). All journals included a broad range of approaches, though quantitative process–product and cognitive approaches (Rex *et al*. 2006) dominated in *JCI* and linguistic and conversation analysis approaches were more visible in *AL*. The four journals together provided a multifaceted view of research perspectives available for the study of classrooms and classroom discourse or interaction.

Given that our task for this chapter was to discuss qualitative perspectives, we took a step back from the journals to look at the broader qualitative research literature. As we make visible in the rest of this section, there is a broad range of perspectives, each with a specific history, focus, and expressive potential (Green *et al.* this volume) to contribute varied understandings of educational, linguistic, and social phenomena. We first present some of the historical roots of qualitative research and then outline a range of approaches that make visible different aspects of the social world being studied.

3.1 Historical roots and routes of qualitative research

Qualitative research as a methodological approach is often dated to the first publications of methodological volumes, *The Discovery of Grounded Theory* by Glaser and Strauss (1967), and *Ethnographic Interview* (1979) and *Participant Observation* (1980) by James Spradley. However, the roots of qualitative research can be traced back to the work of the 5th century BC Greek historian Herodotus and his predecessors who recorded history from their own and other people's perspectives and stories (Erickson 2011). Herodotus sought to create systematic accounts using varied sources of information, including geographic and cultural information. Other scholars and travelers over the centuries have relied on detailed description, narratives, and interviewing to understand how people understand their environment, how they create meaning for their experiences, how they interact with others, and how they construct new knowledge and possibilities for action in the world. Erickson (2011) argues that throughout the centuries, up to the beginning of the 19th century, scholars focused primarily

on reporting everyday social practices. However, with the invention of new ways of spreading information (e.g., the printing press) and new transportation systems (e.g., railroads and later automobiles), as people travelled and encountered new cultures, scholars became interested in the cultural phenomena and meanings people created for different kinds of activities in their cultural environments.

Such accounts and interest in other cultures gave rise in the 19th–early 20th century to the modern disciplines of anthropology and sociology, which sought to systematically examine, understand, and represent culture (anthropology) and society (sociology). The early anthropological work of Bronislaw Malinowski, Franz Boas and Margaret Mead, among others, and the sociological insights of W.E. Dubuis, George Herbert Mead, Robert Park and Herbert Blumer, among others, paved the way for the subsequent interest in methodologies for documenting people's cultures and meanings. While these early anthropologists and sociologists conducted their work without following or writing any methodological texts, they trained generations of scholars to do systematic fieldwork, engage in reflexivity, document their work, and represent findings in ways that would enable readers to understand in a deep way the societal and cultural phenomena observed.

The end of the 19th and the first half of the 20th century was an era of exploration of approaches and ways of understanding not only the 'tribes' in other parts of the world, but also the cultures, groups, and peoples living within modern societies (Bogdan and Biklen 2007; Erickson 2011). Qualitative research was growing, even if it was not yet called as such, and scholars of the time referred to their work as ethnographic, observational, or fieldwork.

After the Second World War, with the renewed expansion of positivist epistemologies, qualitative ways of conducting research through fieldwork, participant observation, and open-ended interviewing were criticized for their lack of objectivity, validity, reliability and generalizability of knowledge (Denzin and Lincoln 2011). Nevertheless, with rapidly changing societies, new social movements, and the growth of higher education, researchers continued to expand qualitative ways of understanding people, processes, and changes in the everyday world. It was during this era (1945–1980) that qualitative research became known as a methodological approach and entered the field of education.

One of the earliest studies of phenomena related to education was Margaret Mead's (1928) anthropological study *Coming of Age in Samoa*, but George Spindler (1955) is one of the first scholars who entered schools to examine educational problems. He is credited with bringing anthropology to education to study educational problems and the ways in which culture was perpetuated through education. He argued for 'double awareness' (p. 21) of perspectives, that is, the need for anthropologists to enter contexts unfamiliar to anthropology and for educators to look at the unfamiliar context and perspectives of anthropology. More recently, Sara Delamont (2012) echoed Spindler's call in the *Handbook of Qualitative Research in Education*, arguing for the need to fight familiarity through different ways of conceptualizing, seeing, and studying phenomena of interest.

The 1960s is seen as the era of methodological developments in qualitative research, marked by the publication of the *Discovery of Grounded Theory* (Glaser and Strauss 1967). This volume sought to demonstrate rigorous and systematic ways of conducting qualitative research and was a direct response to earlier criticisms of qualitative methodologies. As one of the first explicitly methodological texts, it became a foundational resource for many subsequent methodological developments as well as debates in qualitative studies.

In our review of qualitative histories across volumes and handbooks, we discovered a surprising gap. While most of the histories of qualitative research emphasize the importance of Glaser and Strauss's volume, the presentations then jump to the 1980s or 1990s and the expansion of qualitative approaches. What remains invisible are the significant contributions

of language-based approaches which had reshaped how linguistic and cultural diversity was transformed from a deficit and a problem to a resource for teachers and students. Since these language-based contributions are invisible and because they are directly related to this handbook's focus on classroom discourse and interaction, in the next subsection, we document a few of the early influences which can be seen in a variety of articles published in the four journals we reviewed. We argue that positioning language-based qualitative approaches within qualitative histories can help 'fight familiarity' (Delamont 2012, p. 2) and provide ways of understanding educational phenomena in ways that may remain invisible without a linguistic lens.

3.2 Language-based contributions to qualitative research in education

In the 1960s and early 1970s, scholars in education, anthropology, and linguistics turned their eyes to education, since increasing diversity in classrooms made visible a range of social, cultural, linguistic, and educational phenomena that could be examined using different theoretical lenses and methodological approaches. Green and colleagues (Green and Dixon 2008; Green and Stewart 2012; Rex and Green 2008) have documented the roots and contributions of many of these approaches over time; therefore, here we briefly focus on two specific routes that led to particular understandings of classroom interaction and discourse represented in the journals we reviewed, particularly in *LaE* and *LiE*. The first route includes US perspectives that brought anthropology, education and sociolinguistics into a cohesive set of approaches to study classroom discourse. The second route stems from the work in the UK by Barnes, Britton, and Rosen (1969) who emphasized the importance of talk in curriculum and learning. These two lineages intersect at different points and have been brought together in various recent volumes (e.g., Hornberger 2008; Mercer and Hodgkinson 2008; Spolsky and Hult 2008), but for our purposes of tracing influences on qualitative research, we will keep them separate to highlight the unique contributions of each.

The first set of language-based contributions to understanding education, classroom discourse, and interaction was formulated between 1964–1972 when sociolinguists, anthropologists, psychologists, sociologists, and educators came together to explore *Functions of Language in the Classroom* (Cazden, John and Hymes 1972) and developed *Ethnography of Communication* (Gumperz and Hymes 1972) as an approach to study how people constructed and interpreted cultural worlds through their language use. These scholars emphasized the interrelationships between language and contexts of language use, as represented by Hymes in his editorial introduction to Cazden, John and Hymes (1972):

> The functions of language in the classroom are a special case of the general problem of the study of language in its social context. The key to understanding language in context is to start, not with language, but with context… The reason for starting with context now is that our present models of language leave out much, not only of context but also of features and patterns of speech itself. Only by viewing the relationship from the side of contexts can we see an essential part of what is going on when language is taught and used (Cazden *et al*. 1972, p. xix).

In studying language variation and language use in school (classrooms in particular), in homes, and in the community, researchers like Cicourel, Fishman, Green, Gumperz, Koschman, Labov, Mehan, Phillips and others (e.g., see chapters in Cazden *et al*. 1972; Green and Wallat 1981) made visible the richness of linguistic repertoires available to students and teachers. These studies examined language in context from different perspectives and helped mediate the transition from the earlier 'deficit' theories that blamed minority students for

not knowing a school's primary language to a 'difference' perspective which viewed student diversity as a resource. The emphasis on language in the context of its use (discourse-in-use, Bloome and Clark 2006), on linguistic variation, and on repertoires of knowledge that students and teachers brought to the classroom influenced generations of scholars who examine interaction and discourse in classrooms as multifaceted social phenomena. Ethnography of communication, sociolinguistic ethnography, interactional ethnography, critical ethnography and other ethnographic approaches that examine language use in context and over time in educational settings, grew out of these multi-perspective and inter-disciplinary dialogues about language, context, culture, and language variation.

Parallel to these developments in the US, the second body of work that made visible the role of language in studying classroom interaction and student learning grew from the work of Barnes, Britton and Rosen (1969) in the UK. These researchers conducted systematic multifaceted studies in which they recorded and transcribed teacher and student talk and actions in the classroom. They emphasized the relationship between language and society, arguing that classrooms were microcosms of society. Barnes stated:

> [There is] a third area where language and educational studies overlap, and this is the study of the language of the classroom. Not only is the teacher-class group a social microcosm, but one which also interacts with the social macrocosm of which it is a part. And as the complicated commerce within the group is largely carried on through language, so it is largely through language that society explicitly or covertly defines and limits the activities of the group. Thus, to study the language of the classroom is to study both the learning processes and some of the internal and external constraints upon it. (Barnes 1969, p. 11)

In this quote, representative of many of the arguments in the 1969 and later books, Barnes positions language as key to understanding learning and the multitude of factors that influence what happens in the classroom at any particular point in time. Britton adds that 'the task is not that of learning a language; rather it is that of acquiring, *by the agency of the language,* the ability to perform these mental operations' that enable a child's language to '[take] on new forms that correspond to new powers as he achieves them' (Britton 1969, p. 115). Barnes, Britton and Rosen (Barnes 1992; Barnes *et al*. 1969) thus argued that students learned through the agency of language and that providing opportunities for talking in various ways within the classroom enabled students to acquire linguistic repertoires not available to them outside of school (see also Bakhtin, 1945/2004, for a similar argument from the Russian perspective two decades earlier). However, as Rosen argued, neither the education literature nor school reform policies had understood the importance of language in education:

> But I have been trying to insist that we have not given sufficient attention to these questions and that curriculum discussions, curriculum reform itself can only be strengthened if it includes considerations of language and learning; that teachers who embark on observation, exploration and experiment concerned with the role of language in learning will make a valuable contribution to education, particularly if they also take a not uncritical look at the relevant literature. (Barnes, Britton and Rosen 1969, p. 144)

Written in 1969, this critique of curriculum reform and the call for attention to language in teaching and learning continues to reverberate to the present day. This argument can be extended to the qualitative methodological literature that often leaves out language-based perspectives from histories of qualitative research development.

Even though many of the language-based ethnographic and qualitative approaches may be excluded from the general introductions to qualitative research, this early work has influenced generations of scholars who have undertaken ethnographic and qualitative

studies. These researchers have demonstrated how the agency of language enables and constrains what students can do and say, when, where, in what ways, with whom, in what contexts, and with what outcomes or consequences in classrooms and other social settings. These language-based approaches shaped or intersected with the development of qualitative approaches such as interactional ethnography, discourse analysis, critical discourse analysis, ethnomethodology, conversation analysis and some forms of narrative research.

Qualitative research approaches continued to mature through the 1980s, becoming fully accepted within key educational research communities (e.g., AERA, ECER, ISCAR, EARLI) and, somewhat later in the applied linguistic community (e.g., TESOL, AAAL, BAAL, etc.). The flexible and generative nature of qualitative research enables scholars to explore convergences of multiple approaches, implications of new theoretical ideas, or to push boundaries to engage participants and audiences in various ways.

4. Studying Classroom Interaction and Discourse: Telling Cases Across Interdisciplinary Journals

The scope of possibilities within qualitative research poses the challenge of understanding how classroom interaction and discourse are conceptualized and how the differences in understanding the phenomenon lead researchers to construct different logics for their studies (see also Green, Castanheira, Skukauskaite and Hammond, this volume). In analyzing different ways in which interaction and discourse were presented in the article titles, we uncovered six overarching domains for the use of 'interaction' and eight for the use of 'discourse'. While some of the concepts across the domains seem similar at the surface level, 'interaction' and 'discourse' are not interchangeable when theoretical and methodological perspectives are brought into consideration. Here we present two domains from each analysis to demonstrate a range of perspectives and to provide an anchor for further dialogue and explorations of chapters in this Handbook.

4.1 What counts as 'interaction'?

The concept of interaction was used across all four journals, with *JCI* and *Applied Linguistics* referring to interaction more than the other two interdisciplinary journals. Domain 1 represents the six primary domains we constructed by examining what was meant by interaction across the titles in the four journals. Each of these domains provides a particular perspective about interaction, leading to particular methodological choices and foci in the research studies.

Domain 1. Main domains of interaction

teacher–student interaction **instruction** **student interaction** linguistic use method study of phenomena	}	is a kind of interaction

The domain of *teacher–student interaction* focused on teacher and student behaviors at different grade levels and in varied configurations of student groups or class sizes. Studying

teacher–student interaction involved emphases, such as examining pupil growth, teacher cognitive styles, modes of interaction, and effects of teacher training. Most studies within this domain positioned the teacher as the main focus and students as recipients of or respondents to teacher actions. We chose the next domain, *instruction*, as a telling case for the analysis since it continued the focus on the teacher, like the *teacher–student interaction* domain, but also added pedagogical processes and outcomes. The next domain we use for analysis, *student participation,* shifted the focus from teacher to students, representing an alternative angle for understanding classroom interaction. The domain of *linguistic use* referred to features of language, such as conversational frames, teacher directives, or multilingual switching, while the domain of *method* referred to interaction as a specific methodological approach, as in Flanders' (1965) quantitative interaction analysis, or interactionist and social norms perspectives (Kynigos and Theodossopoulu 2001). The last domain *study of phenomena* encompassed articles that used interaction not as a focus but as a vehicle to study other phenomena, including student non-compliance, effective and ineffective schools, interactional organization of hand raising, non-native speaker identities or cross-cultural interactions.

In demonstrating what counted as interaction across the four journals, we chose the domain of *instruction* since it encompassed a range of studies, including those that focused on particular disciplinary contexts and those that emphasized interaction as a teaching method. For example, Lee and Fradd (1996) studied interactional patterns of teachers and students from three language groups, focusing on specific disciplinary requirements in the communication process. In making visible teacher and student contributions, the authors generated insights to promote science instruction and learning. Focusing on the role of teacher knowledge and instruction, Sharma (2013), on the other hand, demonstrated how solicited and unsolicited teacher intervention in student small group interactions enabled students to proceed with the task and 'dismantle the interactional deadlock' (p. 247) among students.

Shifting the emphasis from instruction to *student interaction* we uncovered two areas of focus: student diversity and student grade or age as aspects of classroom interaction. Domain 2 makes visible these two areas of focus.

Domain 2. Student interaction

nonnative-native speaker interactions interracial classroom interaction **interaction of/with students with disabilities** multicultural interactions **interactions with English speaking peers**	is a kind of	diversity
social interaction of 3rd grade children mainstreamed students in middle school college student interaction peer interaction of preschoolers	is a kind of	student age/grade level

Across the journals authors studied diverse learners engaged in classroom interactions. Diversity included students' linguistic and ethnic or racial backgrounds, national origins, and abilities. One of the topics that was studied extensively across all four journals, especially in *Applied Linguistics* and *Language and Education* focused on student learning of second or foreign language. For example, Bell (2005) conducted a case study of native and non-native speaker interactions, showing how humor and language play facilitated non-native speaker acquisition of the second language. Vine (2003) similarly focused on native and non-native student interaction. Using video and audio observation methods, she examined how a

five-year old Samoan boy collaborated with his English-speaking peers to learn to participate appropriately and accomplish a given task.

Another aspect of diversity addressed through the focus on student interaction included studies with students of different abilities. While these studies were not frequent, we chose to highlight one to demonstrate how the focus on interaction can help make visible opportunities differently-abled students and their peers construct for and with each other. In a study of social intervention designed to promote interaction between autistic adolescents and their peers, Bottema-Beutel and Smith (2013) used video-based discourse analysis to show positive outcomes of student social engagement. By looking at how the autistic student and his peers used diverse interactional styles as resources, the authors demonstrated positive possibilities for identity construction of adolescents with autism spectrum disorders.

Different age and grade levels were also considered by scholars studying student interaction. Ages ranged from three- and five-year-olds to adults, while grade levels included preschool to post-graduate levels. Contexts in which such interactions occurred included science, literacy and other disciplinary classrooms, schools, and foreign language learning situations, among other interactional spaces. For example Kelly and Brown (2002) focused on third grade students as they engaged in building solar energy devices. Using discourse analysis, Kelly and Brown analyzed student interaction to identify discursive practices through which third grade children completed the task. The authors uncovered complex interaction patterns and agentive roles students played as they engaged with each other to construct the solar device.

In another article, Poveda (2011) examined student activity during reading hour in a multicultural secondary school in Madrid, Spain. By observing student verbal and nonverbal embodied interactions with the text and with each other, Poveda made visible complex ways in which students negotiated their identities, redefined the 'institutional order' (p. 79) and positioned themselves linguistically and socially. He demonstrated that students in interaction with each other also drew on their knowledge and identities outside school. In this way, like other researchers focusing on *student interaction*, Poveda foregrounded the multi-faceted nature of interaction in classrooms.

This analysis of different uses of the term interaction demonstrates that interaction is conceptualized in multiple ways and guides researcher focus on different phenomena. This diversity in what counts as interaction also leads to choices of varied methodologies. We found a similar diversity in the conceptualizations and ways of studying 'discourse.'

4.2 What counts as 'discourse'?

The term discourse was prevalent the most in *LiE* titles (44 uses, 9.4%), whereas *JCI* titles included the term discourse only nine times (1.9%) in the close to five decades of the journal's history. Domain 3 represents the eight primary domains we constructed by examining what was meant by discourse across the titles in the four journals.

Domain 3. Main domains of discourse

action **talk** linguistic features genre learning environment site reflection on society method	}	is a kind of discourse

Researchers referred to discourse as *action, kind of talk, language and linguistic features, genre, learning environment, site, reflection on society and method.* Each of these conceptualizations included a range of perspectives and phenomena studied. For example, the domain of *talk* included discourse as *classroom talk* and as *talk among and between people*, whereas the domain of *reflection on society* included discourse as representation of *culture* or *power*. The largest of the domains was *discourse as a learning environment*, and included subdomains of *disciplinary environments* (e.g., science, geography, literacy, technology) and *modes of communication* (speaking, writing, communicative environment). For our purposes of presenting a telling case of how different conceptualizations of discourse guide researcher selections of phenomena, sites, and methodologies used to study discourse, we examine two of the eight domains: *discourse as action* and *discourse as talk*.

4.3 Discourse as action

Discourse as action referred to processes and practices of language use. Domain 4 includes cover terms with excerpts of titles referring to discourse.

Domain 4. Discourse as action

discourse processing **constructing identities** discourse and multimodal strategies discourses of appropriation turn-taking, power, asymmetries, and positioning	}	is a kind of action

Multiple articles, particularly in the *JCI*, used the phrase 'discourse processing' to refer to student cognitive work in specific tasks. For example, Brown and Markman (1991) examined adolescent student processing of verbal information in the context of a visual array. They discovered that student ability and information consistency with the visual array impacted whether students preferred propositional or peripheral (modifying) information. Most of the studies we saw that referred to discourse as the action of 'discourse processing' were conducted using quantitative methodologies.

On the other hand, studies focusing explicitly on language, presented discourse as actions of language use. In studying how bilingual support staff in Great Britain were positioned by monolingual English teachers, Martin-Jones and Saxena (1996) identified organizational and discursive practices through which bilingual support personnel were marginalized from the main activities of the classroom. While this article did not examine the identities of the support staff or the teachers explicitly, the article provided insights for how discourse acted in constructing relationships and positions in the classroom. Identity construction through discourse was taken up explicitly by Olinger (2011) in studying college students engaged in collaborative writing sessions. Using 'video-based conversation analysis and ethnographic methods' (p. 273), Olinger uncovered how different uses of the word discourse by the students and the teacher led them to construct a range of academic and social identities in the classroom.

These three sample articles make visible how conceptualizing discourse as action can be used to study a broad range of phenomena ranging from identity constructions to social positionings to cognitive learning processes. Multiple methodological approaches are also possible, but qualitative studies dominated in this domain since understanding discourse as action required examining how people in inter-action constructed particular meanings, processes, and outcomes of the discursive actions.

4.4 Discourse as talk

The second domain of *discourse as talk* represents different kinds of talk within the classroom. This domain referred to talk by different kinds of actors in a variety of situations. Domain 5 captures the most common uses of discourse as talk.

Domain 5. Discourse as talk

classroom talk **peer group conduct** productive student discourse group discourse teacher talk **tensions between teacher/students' discourses**	}	is a kind of Talk

One of the uses of discourse as talk across articles referred to talk among different groupings or kinds of people (teachers, peers, student groups, native/non-native speaker dyads, teacher–student talk, and classroom discourse). For example, using ethnographic fieldwork and interaction analyses, Cekaite (2013) examined how 5th grade students were emotionally and morally socialized to act appropriately in peer groups. Similarly, Park (2008) examined discourse as talk whose differential uses led to conflicts in a classroom setting. In examining tensions between teacher and student discourse using critical discourse analysis, Park argued that language carries symbolic power to regulate and thus legitimize and marginalize particular kinds discursive practices and identity possibilities.

Most of the articles examining discourse as talk were qualitative and used language-based approaches, such as discourse/critical discourse analysis or combinations of such approaches with ethnography or fieldwork. Looking at how people constructed meanings and actions through their talk (discourse), scholars made visible the power of language to construct particular identities and social realities.

5. Contributions of Qualitative Research to the Understanding of Classroom Interaction, Discourse, and Social Life

In this chapter, we presented a brief overview of qualitative research historically, and engaged in an ethnographically-guided analysis of what counts as 'interaction' and 'discourse' across four journals that publish work on language and education. Our analyses have demonstrated a complexity of phenomena studied and a multitude of ways in which scholars examine classroom discourse and interaction. This diversity of perspectives and methodologies makes visible the need for dialogues across disciplinary, theoretical, and methodological research groups. This Handbook provides a unique opportunity for scholars interested in classroom discourse and interaction to engage in such dialogues and examine what differences the variation in perspectives make. As Green and colleagues argued in their chapter in this volume, such diversity also requires multilevel meta-analyses to make visible what is known and remains to be studied about classroom interaction and discourse phenomena.

We end the chapter by outlining what we see as the principal contributions of qualitative perspectives to understanding classroom interaction and discourse. First, qualitative approaches that foreground language (e.g., discourse analysis, conversation analysis,

interactional ethnography), make visible the *role language* plays in constructing everyday social and educational worlds. As we noted in the historical overview section, language was mostly opaque in most early interaction research, where behaviors exhibited through talk, rather than language-in-use, were the focus. As language-in-use/discourse (Bloome and Clark 2006) became a specific area of study after the late 1960s, scholars demonstrated how linguistic variation, language-use-in-contexts by diverse people in diverse settings led to more robust understandings of teaching, learning, achievement, and agency.

Second, qualitative research has demonstrated the importance of understanding *processes*, rather than merely the outcomes of learning. By studying not only what students learned, but how such learning took place through discursive practices and interactions between and among students and teachers, qualitative researchers opened up the 'black boxes' of classrooms. In examining the processes of learning and interaction, researchers often developed close relationships with teachers who in turn became contributors to knowledge, rather than only objects of study. The inherently reflexive and relational nature of qualitative research thus opened doors for multiple *new perspectives* and new understandings of classrooms. These new perspectives included views from the perspectives of students, teachers, parents, researchers, and other stakeholders in the educational processes.

Third, qualitative interests in meanings and processes have also fostered an understanding that learning and education are *over-time processes*, which cannot be captured solely through the use of outcome measures administered at one point in time. The variety of qualitative approaches demonstrated the importance of *looking both in-time and over time*. By zooming in to examine specific interactional patterns (e.g., the use of humor within moments of interaction), as can be done using conversation analysis and ethnomethodological approaches, qualitative researchers made visible the artistry and power of people's discursive actions. Then, by zooming out and using ethnographic, case study, or grounded theory approaches, researchers can demonstrate the consequentiality of such discursive moves over time. People learn, construct identities and shape new social worlds in dynamic ways both moment-by-moment and overtime.

Fourth, qualitative research has made visible the *intertextual nature* of human interaction. As people talk and work together to accomplish particular tasks and construct opportunities for themselves and others, they draw on a broad range of linguistic, historical, and societal resources. As Erickson and Shultz (1981) argued, people are texts for each other, and they bring their personal, historical, and social knowledge and ways of being to moments of interaction (Bakhtin 1979/1986). As they act and react with each other, they draw on a variety of resources to interpret and construct their worlds and positions in such worlds (Bloome, Carter, Christian, Otto, and Shuart-Faris 2005). Qualitative approaches that take into account societal, historical, and cultural contexts (e.g., ethnography, critical discourse analysis), make visible how interaction at any particular moment or in any social space is shaped by larger social forces and historical resources (Fairclough 1992). In this way, qualitative research demonstrates the intersections of individual, social, cultural, and societal forces that influence what and how people accomplish in and through their interactions.

Qualitative ways of thinking promote the *questioning* of phenomena, terminologies, and ways of acting and interacting in everyday lives. They also call for researchers to examine their own positions and the perspectives of others, from the others' points of view. In this way, qualitative perspectives invite researchers into dialogues across theory groups and programs of research (Green *et al.*, this volume). By making visible our analytic approach for this chapter, and by reviewing the conceptual bases of qualitative research, then conducting analyses of the work of others, we have sought to provide a basis for further dialogues needed to understand multifaceted contributions of classroom discourse and interaction research.

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See Chapter 2: Developing a Multi-Faceted Research Process: An Ethnographic Perspective for Reading Across Traditions.

See Chapter 4: Experimental Perspectives on Classroom Interaction.

See Chapter 5: Shifting Trends in the Assessment of Classroom Interaction.

4 Experimental Perspectives on Classroom Interaction

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1. Introduction

The principal goal of experimental research on interaction in language classrooms is to identify teaching and learning behaviors and processes that hinder or facilitate second or foreign language acquisition. Work of this type has progressed through four chronologically sequential, but overlapping, phases since the 1960s: (i) product-only, quasi-experimental, (ii) process-only, descriptive, (iii) process–process, descriptive and correlational, and (iv) process–product, quasi-experimental and experimental, including aptitude–treatment interaction (ATI) studies. The goal is to identify causal relationships between instructional practices, cognitive processes, and learning outcomes.

Interactional processes were largely ignored in phase (i), with the classroom treated as a 'black box,' but times have changed. In phases (ii) through (iv), research in both laboratory and intact classroom settings has employed quantitative analyses of the structural and functional parameters of talk, often supplemented by use of qualitative data to aid in the understanding and interpretation of results. Statistical meta-analyses, e.g., of findings across studies on such topics as the role in L2 acquisition of implicit and explicit instruction (Norris and Ortega 2000), task-based conversation (Mackey and Goo 2007), and various kinds of negative feedback (Li 2010), have become increasingly frequent.

Adoption of experimental methods entails certain assumptions about people and the classrooms they inhabit that are not shared by all researchers. Specifically, while each person, each classroom, each teaching and learning process, and each lesson is undeniably unique at some level of analysis, the experimentalist assumes that commonalities exist, and to the extent that they do, generalizations are justified and predictions possible about people, classrooms and lessons yet unseen. Were it not so, the value of what is often an expensive, labor-intensive undertaking, research on classroom interaction, would be hard to justify.

Strengths and weaknesses of experimental and non-experimental designs and methodological approaches are not hard to identify. The relationship between laboratory and classroom studies can be difficult at times. Findings from laboratory studies are not necessarily generalizable to the classroom setting, while uncontrolled variables in typical

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classrooms can obscure the issues of interest. Limitations of each can be overcome, at least in part, through rational sequencing of paired studies with shared theoretical motivation, SLA theory being the most appropriate source. Once the phenomena of interest for potential manipulation have been identified through observation of natural classroom processes, the logical sequence is to begin with experimental work in the laboratory designed to reveal causal relationships among process variables and between process variables and learning outcomes. If beneficial effects of the manipulation can be established there, an attempt to achieve the same changes in intact classroom settings is warranted, returning to the laboratory if results dictate.

2. Historical Overview

2.1 Product-only, quasi-experimental studies

The 1960s and early 1970s witnessed a number of large-scale 'methods comparison' studies, sometimes lasting a year or more. Famous examples included the Colorado Project (Scherer and Wertheimer 1964), comparing grammar–translation and audiolingual methods of teaching German to American college students, the Pennsylvania Project (Smith P. 1970), comparing grammar translation, the audiolingual method, and a combination of the two for teaching French and German at high school, and the Gume Project (Levin 1972), comparing implicit and explicit methods of teaching English to Swedish secondary school and adult learners. Most studies used discrete-point outcome measures, thereby favoring more explicit instructional approaches. With the exception of an advantage for explicit teaching for adults (but not for school-age students), treatment effects were generally either non-existent or small and temporary. Moreover, since few researchers collected data on classroom processes, there was no guarantee that this or that method had been employed consistently or at all, rendering results largely uninterpretable.

2.2 Process-only, descriptive studies

Partly in reaction to the poor yield from the methods comparison studies and their lack of explanatory potential, researchers in the 1970s and 1980s (and some continuing to this day) moved inside the classroom to observe and describe the detail of teaching and learning behaviors and L2 classroom talk. With as many as ten hours required for basic transcription and verification of the recording of a one-hour lesson before analysis could even begin (far longer for CA transcriptions), samples were usually small, sometimes featuring just a single lesson or excerpts thereof. The large-scale, long-term, general, product-oriented studies of phase (i) gave way to small-scale, short-term, particular, process-oriented work.

A variety of observational systems and procedures were employed to code the frequency with which certain classroom behaviors occurred (for a classification and discussion of 23 of them, see Long 1980). They included both category and sign systems, mostly adaptations of instruments, such as Flanders' Interaction Analysis Categories (FIAC; Flanders 1970), originally developed for use in 'subject matter' education (science, social studies, etc.), as was visible in their mostly non-linguistic categories. They were employed in real time during classroom observations or, if too many categories made that unfeasible, after the fact using recordings and/or transcriptions of lessons. The focus in most cases was on *teacher* behaviors during whole-class, public, lockstep work (teacher lectures, teacher summarizes, teacher explains, teacher corrects, teacher praises, etc.) – behaviors that were sometimes rather abstract, high inference, often overlapping, and seemingly with, at most, only indirect

importance for language acquisition. A hidden assumption, moreover, was that how an observer interpreted behaviors when coding them reflected how participants perceived them at the time. Thus, without some form of triangulation, in this exchange:

T: The boys liked the movie
S: The boys like the movie
T: The boys liked the movie

there was no way of knowing whether students (including the student immediately concerned) recognized the intended purpose of the teacher's second utterance as negative feedback, or interpreted it as confirmation that what he or she had just said was already correct. Both functions, Fanselow (1977) pointed out, could be realized by exactly the same utterance, constituting a potential source of ambiguity to which implicit negative feedback, such as recasts, is often vulnerable (Lyster 1998).

Moving on from counts of surface pedagogic behaviors, the studies gradually gave way to detailed post hoc analyses, based on recordings and lesson transcripts, of language use surrounding pedagogic processes, e.g., turn-taking (Allwright 1980; Sato 1982), feedback on error (Chaudron 1977), teacher questions (Long and Sato 1983), input and interaction in teacher-fronted and small-group activities (Pica and Doughty 1985), and negotiation work in interlanguage (IL) talk (Varonis and Gass 1985). The research usually still involved segmenting the data, meaning that the issues of interest were often examined out of context, limiting the depth of understanding obtainable (for a useful critique, see van Lier 1988). Nevertheless, among other things, the work showed how at least some aspects of lessons were performed, and several studies (e.g., Dinsmore 1985; Long and Sato 1983; Nunan 1987; Swaffer, Arens, and Morgan 1982) revealed significant discrepancies between the instructional method or approach teachers had been trained to use and/or what they believed they were doing, and what they were actually doing, casting further doubt on the reliability and validity of the phase (i) methods comparisons. The fuzziness reflected the fact that instances of global constructs like 'method' and 'approach' often overlap in the behaviors and activities prescribed or proscribed, so are ambiguous and potentially irrelevant in teacher education programs. In the field, teachers tend to plan and recall lessons in terms of instructional activities or tasks, not methods (Shavelson and Stern 1981).

Other phase (ii) work employed qualitative and/or quantitative analyses of functional categories of classroom talk (for methodological reviews, see Chaudron 1988; Chaudron, Crookes, and Long 1988; Ellis 2012, pp. 75–100). Once again, some were originally inspired by systems created for subject matter lessons, such as analyses of classroom discourse 'cycles' into structuring, soliciting, responding and reacting moves (Bellack *et al*. 1966). Fanselow's Foci for Observing Communications Used in Settings (FOCUS; Fanselow 1977) provided categories with which to identify the source, pedagogical focus (structure, solicit, respond, react), medium, use, and content of classroom communication. Still others kept lessons intact and provided analyses at the level of discourse, but rarely attempted to meet the standards required of a true *discourse analysis* in the sense of Sinclair and Coulthard (1975). No attempt was made to provide an exhaustive account of a lesson, to do so without resorting to catch-all categories ('miscellaneous,' 'other'), to identify two or more levels of language use, and to identify hierarchical 'consists of' relationships among units at those levels, e.g., lessons consist of transactions, which consist of exchanges, which consist of (Initiation, Response, and Feedback) moves, realized in turn by 20+ acts. Rather, they were usually *analyses of discourse*, i.e., functional investigations of language use, but of linear relationships among sequences of moves or acts, such as solicits, responses and feedback, at the same level of analysis. They were revealing, nonetheless, especially when contextual factors were taken

into account. For example, Seedhouse (2004) showed how turn-taking systems in language classrooms varied according to four types of interaction: form and accuracy, meaning and fluency, task-oriented, and procedural. When the focus of a lesson was on form and accuracy, turn-taking tended to exhibit tightly controlled sequences of teacher prompts, learner production, and optional teacher evaluation and follow-up moves. During work on meaning and fluency, a looser, more varied, student-managed system was common (for alternative approaches to the study of turn-taking, see Markee 2000; van Lier 1988).

Given the derivative nature of most of the work up to this point, influenced as it was by research in content classrooms or in the CA tradition of Schegloff and others, few studies were psycholinguistically motivated. Gradually, however, categories in new, more sophisticated observation systems, notably the Communicative Orientation of Language Teaching Observation Scheme (COLT; Allen, Frohlich, and Spada 1984), began to reflect the growing shift in the field towards various kinds of communicative *language* learning.

2.3 *Process–process, descriptive and correlational*

Some phase (iii) research (still continuing) looks for relationships between and among the teaching and learning processes described in phase (ii). For example, studies have compared the quantity and quality of student production following teacher soliciting moves of various types. In one early line of work (e.g., Brock 1986; Early 1987; Long *et al*. 1984; Tollefson 1988), several researchers found that referential questions, i.e., genuine questions, to which teachers do not know the answer ('Have you ever seen a dolphin?' 'What would you do if you were attacked by a shark?'), tend to elicit more student utterances per turn, longer and syntactically more complex utterances, more sentential connectives, and more communicative language use, than display questions. Display, i.e., known-information, questions ('Are dolphins mammals?' 'What do whale sharks eat?'), are seldom found outside wedding ceremonies in some cultural traditions ('Do you take this man to be your lawful wedded husband?'), court cases ('Are you Henry Smith of no fixed abode?'), and classrooms. Other research has examined relationships between the types of errors students commit (phonological, morphological, etc.) and the kinds of negative feedback teachers provide on those errors (metalinguistic explanations, prompts, recasts, etc.), and between types of negative feedback moves and uptake in subsequent student turns (see, e.g., Loewen and Philp 2006; Lyster 1998; Mackey 2012).

Studies like those on feedback on error are but one illustration of the extent to which theory and research findings in SLA have gradually displaced findings from work in content classrooms as the primary motivation for studies of L2 classroom interaction. Investigations of what was once thought of primarily in pedagogic terms as 'error correction' (a perlocutionary act that assumes that teachers' negative feedback achieves its intended purpose) now deals with the same issues, but more realistically, in such terms as models, prompts, recasts and uptake, or (in phase iv) sets out to compare the relative effectiveness of explicit and implicit negative feedback.

Many overtly SLA-inspired process-process studies bypass phase (ii) work and the use of pre-set observation systems altogether. For example, motivated by research on foreigner talk discourse and native speaker-non-native speaker conversation (see, e.g., Gass 1997; Hatch 1978; Long 1983, 1996; Mackey 2012; Pica 1994), instead of viewing teacher speech in terms of the pedagogic moves it performs, the focus in phase (iii) is its qualities as linguistic input to the learner. How do teachers modify their speech to less competent speakers, in this case, L2 learners, and with what consequences for frequency, saliency, comprehensibility and immediate student uptake (Chaudron 1982)? Does elaborated input retain more of the linguistic complexity, lexical richness and semantic content of genuine (so-called, 'authentic')

texts than does linguistically simplified input, and with what effects on comprehensibility and usability for acquisition (see, e.g., Yano, Long, and Ross 1984; Long and Ross 1993; Oh 2001)?

Structural approaches to questions of these kinds involve segmenting classroom talk using common units of analysis (turns, utterances, T-units, c-units, clausal utterances, AS units). Teacher and student speech may then be examined for its syntactic complexity, lexical richness, etc. Functional approaches reflect emerging understandings of psycholinguistically relevant units of analysis and dimensions of teacher–student interaction, e.g., models, recasts, various kinds of repetition and expansion, scaffolding, repair, and uptake (for representatitive studies and research findings, see Gass 1997; Mackey 2007, 2012). Such units are more relevant because the explanandum is not (just) language use, but language acquisition, and relationships between the two.

2.4 Process-product, quasi-experimental and experimental

Phase (iv) studies differ from those in phase (iii) in that process variables, i.e., aspects of classroom language use, are related not just to other processes, but to learning outcomes, i.e., to L2 acquisition. Research questions to date have concerned such matters as the absolute and relative effectiveness of implicit and explicit instruction, focus on form and focus on forms, input-based and output-based instruction, task-based and grammar-based approaches, and various kinds of negative feedback on error. It might seem that the field has come full circle, with a return to the methods comparison studies of phase (i). There are at least four important differences, however. First, phase (iv) process-product studies tend to be smaller in scale, shorter in duration and narrower in scope than the phase (i) studies, thereby allowing greater control over potential confounding variables. Second, the independent variables, or 'treatments,' are no longer amorphous methods or approaches, but objectively defined, more precisely differentiated, and more carefully monitored, process variables related to the types of instruction of interest. Third, while still overly reliant on discrete-point outcome measures in some cases, an increasing number of researchers make an effort to assess students' communicative abilities. Fourth, because of what has gone before, unlike phase (i) studies, the new research is beginning to show fairly clear, predicted, and interpretable results. Also unlike phase (i) studies, the majority of experimental and quasi-experimental phase (iv) work has been motivated wholly or in part by theoretical developments and research findings in SLA. Only rarely (e.g., Spada 1987) have process variables been operationalized as observed frequencies of pedagogic moves in classroom discourse captured by the category systems developed during phase (ii).

The frequency of SLA-motivated process-product studies has increased exponentially in the 1990s and 2000s. Space limitations preclude a comprehensive discussion of research on even one issue (see Long 2015, chapter 11, for a broader review), but phase (iv) work can be illustrated by a brief consideration of one process-product study of a single issue, the effectiveness of implicit negative feedback, and one study involving a set of inter-related classroom processes at the level of instructional approach. While specific findings may be of interest to some readers, methodological issues are the primary focus here.

Negative feedback on learner error, whether delivered implicitly or explicitly, is a classroom process of vital psycholinguistic importance. Of particular interest, given the growing popularity of immersion, content-based and task-based programs, has been the effectiveness of corrective recasts, whose implicit nature causes minimal, if any, interruption to the primary focus on communication in such programs. In an early study, using a quasi-experimental intact groups design with pre- and post-tests, Doughty and Varela (1998) followed two teachers of content-based science for ESL students over a period of

approximately four months. Both teachers were recorded teaching six simple experiments as part of the regular content-based science curriculum, each experiment taking one or two weeks to complete, to a total of 34 students ranging in age from 11 to 14. Experiments 1, 5 and 6 served as the pre-test, post-test, and (after a two-month interval) delayed post-test. One teacher provided no explicit grammar instruction whatsoever, his class (n = 13) serving as the control group. During work on experiments 2, 3 and 4, the second teacher provided her students (n = 21) with consistent negative feedback, often in the form of focused recasts, on nearly all errors in the use of two structures, simple past and past conditional, as in 'I thought the earthworm would die,' said when reporting, first in writing, and then orally, predictions the children made before carrying out the experiments. Both teachers taught content only, with no attention to language as object, during the two-month period between the post-test and delayed post-test. The focused recasts in the treatment group typically consisted of repetition of a deviant learner utterance with rising intonation, followed immediately by a corrective recast always delivered with falling intonation. In the case of the written reports of the experiments, errors involving the target structures were circled, and written recasts juxtaposed (procedures, it should be noted, that are both more explicit than what is understood by 'corrective recast' in the L1A literature). Changes in students' use of the target structures were analyzed in three ways: shifts to target-like use, changes that showed improvements while still falling short of the full target version, and declines in non-target-like use, all three applied to both their written reports and transcriptions of their oral reports on the post-test and delayed post-test, resulting in a total of six measures. The control group showed essentially no change on five out of the six measures on the post-test, and their one slight, but statistically significant, improvement, in interlingual uses in the written reports, had disappeared by the time of the delayed post-test. The treatment group, on the other hand, showed large, statistically significant gains on all six measures, and (despite no treatment of language errors in the interim) maintained five of the six improvements on the delayed post-test two months later, only the initial gain for target-like use in the written reports no longer being statistically significant.

Like much phase (iv) research, Doughty and Varela's study was small-scale (just two teachers and 34 students), narrowly targeted (two grammatical structures), and relatively short-term (four months). Lessons were carefully recorded, and delivery of the intended treatments monitored, to ensure construct validity at the process level, thereby rendering findings interpretable. Assessment involved multiple measures (aural and written post-tests and delayed post-tests), communicative L2 use, and (still rare even in phase (iv) studies) recognition that IL development is seldom a sudden, all-or-nothing phenomenon through the award of partial credit for IL change, even when the change did not mean full target-like performance.

However well executed, one small study of limited scope is insufficient basis, of course, for any general conclusion as to the efficacy of implicit negative feedback or anything else. But as is typically the case, phase (iv) work is characterized by numerous tightly controlled studies of a single process-product relationship, consistent patterns in whose findings *do* allow conclusions to be drawn. For example, at least 60 such studies (e.g., Iwashita 2003; Yilmaz 2012) have been published to date, showing short-term and long-term gains from both explicit and implicit feedback. The studies have led to several research syntheses (Goo and Mackey 2013; Loewen 2012; Long 2007; Mackey 2012) and statistical meta-analyses (e.g., Li 2010; Lyster and Saito 2010). It is important to note, however, that many have been carried out in laboratory settings, i.e., in what amount to controlled simulations of normal classroom interaction, and the positive effects of corrective feedback have generally been found to be stronger there than in natural classroom lessons (Li 2010; Mackey and Goo 2007). We will return to this issue.

The second illustration of phase (iv) process-product research concerns the relative effectiveness of the classroom processes involved in two instructional approaches. In a series of experimental classroom studies, Shintani (Shintani 2011, 2013; Shintani and Ellis 2010) compared the relative effectiveness of input-based/focus on form (FonF) and output-based/focus on forms (FonFs) instruction for Japanese children learning English nouns, adjectives, and plural *-s*. The Shintani 2013 study, a true experiment, compared their absolute and relative effectiveness in the learning of 24 nouns (zoo animals, etc.) and 12 adjectives (denoting color, size, etc.) by 45 six-year-old children, all complete beginners studying English in a private school in Japan. The children were randomly assigned to form two treatment groups and a control group, with each group of 15 then divided into two classes of 6-9 students for the purpose of instruction. Each of the six groups received nine 30-minute lessons, two lessons a week, over a five-week period. Shintani taught all six sections herself, thereby controlling the teacher variable. As delivered, the FonFs instruction constituted traditional presentation–practice–production (PPP) teaching, and FonF, which was delivered unobtrusively and reactively, task-based language teaching (TBLT). Productive abilities were assessed using both a discrete-point and a task-based test before the instruction began, one week after it finished, and again four weeks after it finished. In the PPP classes, where the focus was on accuracy and intentional learning, the new lexical targets were first introduced explicitly and practiced via repetition of the individual words, then practiced chorally and individually in response to flash-cards, and finally practiced further in 'free production' activities, such as a modified version of solitaire, played with the flash cards, children winning a card if they could say the word referring to the card they had chosen from a set of 30. In the TBLT lessons, which relied on incidental learning, students worked on pedagogic tasks designed to require their successful comprehension of teacher input containing the target items. With a focus on meaning throughout, their job was to respond appropriately to such instructions as 'Please take the crocodile to the zoo' by selecting the correct flashcard and placing it in the right holder. The control group attended their regular lessons, which involved English songs, TPR activities and copying the alphabet on work sheets, with no exposure to the target lexical items.

Shintani first looked at processes in the two treatment classes. Input frequencies of the target nouns and adjectives were similar in both classes, but whereas the items often occurred as isolated words in PPP lessons, they were significantly more often embedded in complete teacher utterances in the TBLT classes. As was to be expected, output frequencies were much higher (a total of 3846) in the production-oriented PPP classes, where the tokens were typically produced because requested by the teacher as part of IRF exchanges in lessons with an overall focus on intentional learning. The small total number (just 353) of output tokens in the TBLT lessons were always optional, i.e., 'borrowed' (repeated or imitated) by pupils from a prior teacher utterance, or self-initiated, never requested, and drew students' attention while they were focused on negotiating for meaning, learning incidentally while doing tasks. The option for self-initiation and negotiation for meaning, Shintani, notes, was especially important in this and a similar study with adults by de la Fuente (2006). A post hoc regression analysis showed that learners who initiated the production of adjectives acquired more of them. The adjectives were always introduced preemptively in the FonFs/PPP lessons, but always reactively, contextually embedded, in the FonF/TBLT lessons, and with a communicative purpose, i.e., to help pupils identify correct noun referents in the teacher's commands. In sum, the token frequencies and discourse-level differences were all entirely consistent with the supposed characteristics of both treatments. They demonstrated construct validity, or as Shintani puts it (2013, pp. 52–53), that 'the *internal* characteristics of the two types of instruction (i.e., the activity that arises in the classroom) matched their *external* descriptions (i.e., the activity predicted by the design of instruction).'

Turning next to learning outcomes, scores of both treatment groups on the 24 target nouns were significantly higher on each post-test than on the pre-test, the FonF/TBLT group, but not the FonFs/PPP group, also improving statistically significantly from the first to the second post-test on both measures. Within-group outcome measures favored the FonF/TBLT group. Scores on the 12 adjectives also favored the FonF/TBLT group. Both treatment groups' scores on the discrete-point test improved from pre-test to both post-tests, but not from the first to the second post-test. On the task-based test, however, the FonFs/PPP group improved from pre-test to post-test 1, but not from pre-test to post-test 2, or from one post-test to the next. The FonF/TBLT group, conversely, improved significantly from pre-test to both post-tests, i.e., the improvement was sustained, but like the PPP group, not from the first to the second post-test. Where between-group differences were concerned, the FonF/TBLT group did statistically significantly better than both the control group and the FonFs/PPP group on both the discrete-point and task-based measure on both post-tests. The FonFs group outperformed the control group on the discrete-point test on both post-tests, but failed to do so at either post-test on the communicative, task-based measure.

Once again, the study exhibits typical characteristics of phase (iv) research, and several improvements over the methods comparisons of phase (i). It is small-scale (one teacher, six classes, 45 children), narrowly targeted (24 nouns and 12 adjectives), and relatively short-term (nine 30-minute lessons over five weeks). Shintani first took considerable care to verify that the two experimental treatments had been delivered as intended, and had differed from one another. Only then did she proceed to test for relationships between classroom processes and learning outcomes. Both discrete-point and communicative measures were employed, allowing students to show their strengths and weaknesses, no matter which type of instruction they had experienced. Because classroom processes had been examined, not ignored, the results were interpretable, and random assignment and other controls made it possible to posit causal relationships. Once again, a single study is insufficient, but this was one of three by Shintani with similar findings, and those, in turn, part of a still expanding larger group by other researchers.[1]

The smaller scale and tighter experimental control typical of most phase (iv) studies makes it easier for researchers to examine the effects of individual difference variables that might moderate the relationship between independent and dependent variables. A growing portion of the phase (iv) process-product research effort is now devoted to factorial designs in so-called aptitude–treatment–interaction (ATI) studies (Cronbach and Snow 1977; Pashler, McDaniel, Rohrer, and Bjork 2008), where 'aptitude' refers primarily to stable cognitive trait attributes, such as aptitudes for implicit and explicit learning, working memory and executive control, but sometimes also to affective state variables, such as attitude and motivation. Is it the case, for example, that learners with measurably greater language-analytic abilities benefit more from explicit/FonFs instruction than learners with lesser language-analytic abilities? Do learners with a greater capacity for implicit language learning benefit more from implicit negative feedback, e.g., recasts, than learners with a weaker implicit learning capacity? And so on.

In a fully crossed ATI design, a group of students whose language aptitude has been measured may be divided into four groups, A, B, C and D. A and B have high aptitude for explicit learning and low aptitude for implicit learning, and C and D the reverse. Groups A and C are then taught using a type of instruction or pedagogic procedure, e.g., FonFs or explicit negative feedback, expected to suit A, but not C, and groups B and D are taught using a second type of instruction or pedagogic procedure, e.g., FonF or implicit negative feedback, expected to suit D, but not B. In other words, aptitude profiles and instructional type (treatments) are intentionally matched and mismatched, and evidence sought of an interaction effect, such that students matched with instructional type outperform mismatched

students, while the latter outperform the former when they are the ones matched with their preferred instructional type. A comparison could be made, for example, of the performance of two groups of learners, one with superior, one with inferior, working memory, encouraged to learn collocations (controlling for frequency, complexity, etc.), such as *provide for* and *open fire on*, either as chunks encountered in *elaborated input*, or as separate constituents initially encountered independently (*provide + for*, *open + fire + on*) in *simplified input*, which they subsequently have to combine. Similarly, two groups, one with higher aptitude for inductive-implicit learning, the other for inductive-explicit learning, might be taught grammatical constructions of comparable complexity alternately with a focus on form and a focus on forms.[2]

Phase (iv) ATI studies are currently appearing in the SLA literature with increasing frequency (see, e.g., Brooks, Kempe, and Sionov 2006; Erlam 2005; Sheen 2007). Few have involved distinct groups in fully crossed designs (for one example, see Perrachione, Lee, Ha, and Wong 2011), most instead treating aptitude measures as continuous, within-group variables (for reviews, see Ellis 2012 pp. 307–335; Vatz *et al*. 2013). They are beginning to show that modifying materials and/or instructional approaches (e.g., in the use of inductive and deductive presentations or the provision of implicit and explicit feedback) to cater to students with differing strengths in implicit or explicit learning capacity, stronger or weaker working memory capacity, etc., can improve or hinder learning, depending on whether or not students and treatments are matched. Little of this work has affected classroom language teaching as yet, but such individually tailored modifications to instruction, or modifications to learner groups formed by aptitude profile, are likely to become more common in the near future, especially as advances in technology make tailored instruction logistically more feasible.

3. Future Directions: Research Settings and Generalizability

Due to the progress made during the four major phases in L2 classroom research to date, many basic methodological issues can now be dealt with satisfactorily. The situation is likely to improve still further with the wider availability of newer technologies, as illustrated by the use of eye-tracking and heat maps to reveal greater noticing of non-salient forms in input (Godfroid and Uggen 2013) and uptake from recasts (O'Rourke 2008; Smith 2010), than is visible from behavioral records, alone. Hence, as research in SLA deepens knowledge of key variables, such as aptitudes for implicit and explicit learning (Granena 2012), and identifies new potential instructional pressure points in the acquisition process, such as use of aptitude profiles to tailor instruction appropriately (Doughty 2013), a steady increase in the amount of experimental work on classroom interaction can be expected in the coming years, work likely to yield new insights for the improvement of instructed language learning.

An increasing amount of that research is conducted in laboratory settings, rather than in school or university classrooms, and that trend is likely to continue. The reasons are not hard to identify. They include the difficulty of satisfying human subjects review boards and obtaining permission from administrators, principals, teachers, students and parents to conduct research in institutional settings, and once there, of dealing with numerous potential threats to internal validity (see Long 1984, for a discussion of six such threats, and Bruton 2011, for some recent examples affecting work on Content-and Language-Integrated Learning). Logistical problems can arise, and considerable additional time and expense are usually required, due to the need to travel to multiple sites and set up equipment there. The laboratory, in contrast, provides a convenient, stable environment, facilitates control over potential confounding variables, permits selection of well defined, homogeneous populations

of cooperative participants, and makes conduct of studies logistically much simpler. The result is work with high internal reliability, but whose external validity is sometimes challenged.

The generalizability problem can be exaggerated, however. To begin with, real classrooms themselves vary considerably, as do the kinds of instruction that occur in them, potentially making generalizations of findings obtained there equally problematic, and while laboratory studies are *prima facie* a serious limitation for a research program designed to improve classroom instruction, this need not be the case. Laboratories can be configured so that they are not physically very different from many real classrooms, and instructional conditions created that also reflect typical classroom lessons. The control researchers can exercise in the laboratory over such matters as the selection of participants makes it possible to avoid the heterogeneity of so many intact classes, especially with regard to teacher quality and students' L2 proficiency – both factors that, if left uncontrolled, can sometimes obscure genuine causal relationships.

The comparability of laboratory and classrooms findings will probably continue to be debated, nevertheless, and it should be. There is evidence that, on immediate post-tests, at least, results obtained in each location can vary. For example, effect sizes for the provision of implicit corrective recasts as a means of delivering negative feedback on learner error are, on average, larger in laboratory studies (Li 2010; Mackey and Goo 2007). This might be due to the narrower linguistic focus and greater intensity (frequency over time and total input) of feedback in most laboratory experiments, and/or because participants may concentrate harder and attend more diligently because they know they are being studied, and in most cases, paid for their time. To take another example, the quantity and quality of negotiation work produced by two-way over one-way pedagogic tasks in laboratory studies has been greater in some (but not all) studies conducted in natural classroom lessons. Nevertheless, in a rare direct comparison of dyads completing various types of pedagogic tasks in the laboratory and in their regular classroom settings, Gass, Mackey, and Ross-Feldman (2005) found no statistically significant differences between the results. Gass *et al*. (2005, p. 210) concluded that it is reasonable to support 'cautious generalizations about laboratory-based research findings to L2 classroom settings,' while bearing in mind that 'classrooms can vary tremendously, and not all laboratories are equivalent either.' (For additional discussion of the comparability of laboratory and classroom findings, see Goo and Mackey 2013; Mackey 2012, pp. 37–56.)

My own view is that the generalization issue can be finessed by adopting a two-pronged approach. The programmatic element(s) of interest should be evaluated under experimental conditions first. If a clear relationship between the program, methodological principle(s) or pedagogic procedure(s) and learning outcomes cannot be established under laboratory conditions, where showing such relationships is easier, it is premature to attempt the classroom version of the study. However, if a causal relationship can be demonstrated in one or more studies under controlled conditions, classroom studies should follow. If the same statistically significant advantages are observed, the researcher/evaluator can begin to have confidence in the potential for teaching recommendations. The tricky case is when the trend in the classroom data is in the same direction as that in the experiment(s), but the effect does not reach statistical significance. If factors can be identified, e.g., language aptitude or L2 proficiency, that seem to have weakened the main effect of the independent variable of interest, and if those factors are not inevitably problematic in natural classrooms, it seems reasonable to present the findings of the paired studies or sets of studies to program designers, materials writers, teacher educators and classroom practitioners with whatever implications for classroom practice they support, but being careful explicitly to note the failure of the classroom data to yield statistically significant findings.

4. Conclusions

Phase (iv) studies tend to be characterized by use of more sophisticated research methods than was common in the phase (i) work, and by evidence that lessons from past mistakes have been learned, not least, awareness on the part of researchers of the need to ensure that the instructional processes supposedly at issue were actually those delivered in the classroom. The number of empirical studies of classroom interaction appearing in long-established journals has greatly increased, and has spawned new ones, such as *Language Teaching Research*. Laboratory and classroom studies – pairing of which would enhance the contributions of each – are now routine at applied linguistics and SLA conferences where 20 years ago they were rare. The sheer number of studies produced has permitted increasingly frequent publication of statistical meta-analyses of research findings.

It is widely believed, perhaps correctly, that the teaching of languages or anything else will inevitably include an intangible creative element, the so-called 'art of teaching.' Nevertheless, a strong scientific basis will introduce an element of accountability – one of several requirements if language teaching is ever to become a true profession. Where second and foreign language teaching and learning are concerned, the value of experimental work, and the causal inferences it allows, are especially valuable. Well attested research findings can provide valuable insights for pre-service and in-service language teacher education and motivate much needed criteria for evaluating what are often conflicting prescriptions and proscriptions about how languages are best taught and learned. Conversely, in the absence of empirical evidence and explanations for success and failure, language teachers and learners will remain susceptible to commercial predators and the methodological pendulum swings for which the field is notorious.

NOTES

1 For a more detailed review of these and other process–product studies comparing TBLT and various kinds of forms-focused language teaching, see Chapter 11 of Long (2015). For a statistical meta-analysis of research on comprehension-based and production-based grammar instruction, see Shintani, Li, and Ellis (2013).

2 Several additional predicted relationships between aptitude complexes and treatments are discussed by Robinson (2002).

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See Chapter 2: Developing a Multi-Faceted Research Process: An Ethnographic Perspective for Reading Across Traditions.

See Chapter 3: Understanding Classroom Discourse and Interaction: Qualitative Perspectives.

See Chapter 5: Shifting Trends in the Assessment of Classroom Interaction.

See Chapter 10: The Role of Tasks as Vehicles for Learning in Classroom Interaction

See Chapter 11: Comprehensible Input and Output in Classroom Interaction.

See Chapter 12: An Interactionist Approach to Learner-Learner Interaction in Second and Foreign Language Classrooms.

See Chapter 13: The Relative Effectiveness of Corrective Feedback in Classroom Interaction.

5 Shifting Trends in the Assessment of Classroom Interaction

MARTA ANTÓN

1. Introduction

Teachers naturally integrate assessment into their teaching, whether formally or informally, with the goal of collecting evidence on student learning to inform subsequent instruction. Classroom assessment is socially constructed through interaction, and, as such, the quality of the assessment is dependent on the interaction per se. Assessment is thus viewed as a crucial component in a socio-cognitive view of learning (Purpura 2011). Increasing attention to authentic assessments and wider use of classroom-based assessment, with empowering roles for teachers and learners, hold potential for a paradigm shift in second language assessment.

This chapter presents a historical overview of how classroom interaction has been assessed over time, from an early focus on teacher language, the construction of classroom culture, and learners' second language identities, to recent developments in classroom-based assessment, particularly formative assessment or assessment for learning and dynamic assessment of second language abilities (see also Negueruela-Azarola, García and Buescher; Mahn; van Compernolle; and Thorne and John Hellerman, this volume).

Current trends in formative assessment, performance-based assessment, and dynamic assessment are described and recent research on these forms of assessment is presented. The chapter ends with a discussion of pressing issues and future directions in the development of sound practice and research agendas for interaction-based approaches to assessment in second language classrooms.

2. Historical Perspective

Early studies of classroom interaction focused on observation and description of the functions and structure of teacher–student talk according to observation schemes (Flanders 1970; Sinclair and Coulthard 1975). By coding classroom talk, the researcher was able to describe the structure of classroom discourse, establish categories, and quantify discourse.

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The assessment of classroom discourse using coding schemes for purposes of teacher evaluation continues to be a widespread practice nowadays. Influenced by Hymes' framework to study language use in social settings, later research adopted an ethnographic approach to understanding the classroom as a cultural setting with socially constructed norms of classroom behavior (first-language classroom studies by Mehan 1979, etc.). This early work unveiled interactional patterns organized in initiation-response-evaluation (IRE) or initiation-response-feedback (IRF) sequences.

In the field of second language acquisition, classroom interaction received vigorous attention from interactionist researchers, who maintained that negotiation of meaning when learners are engaged in communicative activities is crucial for L2 acquisition. Research on negotiation in the language classroom took a psycholinguistic orientation, focusing on negotiation of meaning and how negotiation makes input comprehensible in learner–learner (Gass and Varonis 1985) and teacher–learner interaction (Chaudron 1988). A sociolinguistic orientation to the study of classroom interaction emerged in microethnographic studies (van Lier 1988), language socialization (Toohey 1996; Duff 1995), and sociocultural studies. Toohey (1996), for instance, used Lave and Wenger's notion of community of practice in her ethnographic study of identity and practices of young ESL students. She showed that children are actively engaged in negotiating their identities. Their language proficiency plays a role in their developing identities and practices but, in at least some communities, proficiency doesn't seem the most important factor. Duff (1995) also adopted an ethnographic approach to analyze language socialization processes in immersion programs in Hungary in relation to a broader sociopolitical and cultural context. A qualitative analysis of selected speech events of student language use in English-medium content classrooms revealed a shift from traditional recitation towards activities that fostered students' understandings and assessed them informally. Ethnographic studies of school discourse, such as these ones, are valuable in multicultural educational contexts where sociopolitical changes are occurring.

Critical discourse analysis studies have shown that classroom discourses and cultures are more complex than one would think. Arguing that the interactionist approach to classroom observation can only produce a fragmented picture of classroom reality, Kumaravadivelu (1999) conceptualized a framework for conducting critical classroom discourse analysis from poststructuralist and postcolonialist perspectives. Discourse can be seen as a three-dimensional construct consisting of a sociolinguistic dimension, a sociocultural dimension, and a sociopolitical dimension. Paying attention to all the elements involved in classroom discourse, and the information that this can reveal when viewed through the prism of a larger sociopolitical context, critical discourse analysis offers the possibility of penetrating hidden meanings and underlying connections in the observable data. One example of this approach is Canagarajah (2004), who argued that students suppress their own identities to abide by the dominant identity or the one imposed by the teachers or schools. His study of safe houses, spaces in the classroom that provide a safe site for students to negotiate identities more critically, highlights conflicts between the learner's identity and the identity associated with the language/dialect they are learning. The construction of identity related to resistance and non-participation has also been a focus of classroom interaction research. In a case study of two immigrant adult ESL learners in Canada, Norton (2001) explored the relationship between non-participation and 'imagined communities' (p. 159). In these two cases, learners' non-participation was an act of resistance to maintain their identity in their imagined communities, the imagined world outside the classroom.

In reaction to what was perceived as a simplified analysis of classroom interaction, conversation analysis (CA) methodology was applied to second language classroom contexts. Borrowing methodological tools from ethnomethodologists in the social sciences,

conversation analysts seek to discover the structured organization of talk as a manifestation of social activity. Because the power relations in teacher-fronted classrooms are fundamentally different from those we find in other contexts, teachers tend to have full control of topics and turns, and can evaluate learners' interaction (Markee 2000). Conversation analysis has contributed much to our detailed understanding of such types of interactional organization as turn-taking, repairs, adjacency pairs, etc. Seedhouse (2004) points out that, whereas CA practitioners 'attempt emic analysis of how social actions are carried out by means of language' (p. 33), linguistic approaches tend to focus on the language itself. An example of the use of CA methodology is Markee's (2004) study of Zones of Interactional Transition in ESL classes. Analysis of classroom talk at points of transition between 'speech exchange systems' (p. 584), when learner–learner talk during group work switches to teacher–learner talk, and qualitative interpretation of this talk, identify potential sources of disruption in the organization of the interaction. Exemplifying counter questions and tactical fronting talk sequences (ambiguous language misleading lack of understanding by learners) in interactional transitions, Markee does not only provide a thorough description of the interactional organization of these sequences, but also suggests that the psycholinguistic study of language acquisition cannot be disassociated from attention to the social context when acquisitional processes are mediated through interaction. This realization has profound implications for assessment practice.

A number of sociocultural studies have analyzed classroom interaction between teachers/tutors and learners. Interaction is of interest to sociocultural theory (SCT) because the genesis of learning is captured in the dialogic exchanges that take place in the classroom. The microgenetic analysis of classroom talk displays how language is used as a mediation tool in the learning process, tracing changes in cognitive functioning as observed in interaction during a learning episode. The theory is concerned with the relationship between language and mind, and is based on the ideas of the Russian psychologist L. S. Vygotsky (1978), who viewed human action as mediated by technical and psychological tools or signs, such as language. Teaching may be viewed as assisting performance through the Zone of Proximal Development (ZPD), where one's behavior is supported by objects in the environment (object-regulation) or another person (other-regulation) until learners are able to function independently (self-regulation). In the ZPD (the space between independent and assisted performance), the expert (teacher or another peer) offers assistance to the learner in carrying out new components of the task which the learner would not be able to complete without assistance.

Several studies have analyzed teachers assisting learners in order to mediate second language learning. For instance, Aljaafreh and Lantolf (1994) showed how negotiation of corrective feedback during tutorial sessions promotes learning. Donato and Adair-Hauck (1992) analyzed how formal explanations can be co-constructed by teacher and learners through a negotiation process. Antón (1999) studied negotiation and scaffolding during formal instruction and feedback events while McCormick and Donato (2000) focused on the strategic use of teachers' questions for scaffolding purposes. Smiley and Antón (2012) analyzed how teachers' roles manifest through the teacher's intentional use of language in relation to the concept of mediation. Toth (2008) showed that attention to discourse cohesiveness in the classroom is essential to engage students in complex thinking and to foster language learning.

None of the approaches to classroom interaction discussed above have been primarily concerned with assessment. However, their findings are relevant and provide useful data for assessment purposes. Indeed, assessment is an integral part of every aspect of teaching and learning, and this is particularly evident in the analysis of classroom interaction.

3. Current Trends

The 'social turn' in second language acquisition studies (Block 2003; Firth and Wagner 1997) has increased attention to classroom interaction as a source of assessment. The predominance of social constructivist and sociocultural approaches to language learning and teaching has placed classroom assessments under a new light. Over a decade ago, McNamara (1997) called for a social perspective in testing, pointing at the challenges that co-construction of interaction, contextual variability, and social constraints on assessment pose for traditional psychometrics. Around the same period, Swain (2001) proposed that learners' collaborative dialogue could provide not only insights on cognitive and strategic processes in language learning but also valuable information for language testers. Analysis of learners' interaction may provide, at a minimum, validation evidence for test results. Taylor and Wigglesworth (2009) highlight the integration of learning and assessment activities, particularly regarding dynamic assessment and assessment for learning. Brooks (2009) also underscores the socio-cognitive element in assessment by looking at comparative data from examiner-candidate interaction and pair test-takers interaction in oral proficiency testing. Test taking with a peer, instead of with the examiner, elicited higher scores and increased the degree of complexity of the interaction.

Classroom-based assessment (CBA), conducted in the classroom by the teacher, has been gaining attention as a means of assessment on its own right since the 1990s. External standardized assessments have traditionally enjoyed higher status, given that these are more conducive to validity and reliability measures. A stronger emphasis on social aspects of language learning, combined with a search for alternatives to traditional language testing that are more in line with communicative-oriented language teaching, has led researchers and practitioners to look more closely at authentic assessments in classroom settings. The main goal of CBA is to provide information that may aid teaching; thus it blends teaching, learning, and assessment in one single event. CBA is 'contextually bound and socially constructed' (Turner 2012, p. 65) and takes the shape of a variety of strategies used by teachers to collect information about students' learning and to plan subsequent teaching. These include class observations, student journals and portfolios, tutoring or conference sessions, projects and other task assignments, interviews and questionnaires. Turner (2012) defines CBA as 'a repertoire of methods and the reflective procedures that teachers and students use for evidence to gauge student learning on an ongoing basis' (p. 66). Classroom assessment requires awareness of the sociocultural context in which it is situated and the socio-cognitive dimensions of learning.

CBA is still developing as an assessment paradigm. Even though assessment is at the core of what teachers do in the classroom, assessment activity in classrooms has not been well researched yet, due to lack of attention by researchers to these practices and its incompatibility with predominant psychometric means of assessment. Given the emerging profile of CBA, it is not surprising that there are several terms in use for a variety of assessment approaches that have a common theme: socially-constructed assessment in context by the teacher. Alternative, authentic, performance, classroom-based, teacher-based, and assessment for learning all share the common theme and may be considered formative in nature.

The term *formative assessment* (FA) has been used in education to differentiate assessment practices aimed at supporting learning from those that aim at measuring learning independently of a particular course of instruction (summative evaluation). Formative assessment relies on teachers' feedback, self-evaluation and peer-evaluation to aid the learning process. It attempts to guide learners in their development. Classroom interaction and interactive feedback are of crucial importance in formative assessment. In contrast to summative assessment, FA provides teachers with useful information for planning a curriculum by

diagnosing the effectiveness of pedagogy based on students' learning. Black and William (2012) reported on classroom dialogue, particularly teacher's questioning, feedback, peer and self-assessment, and formative use of summative tests, as effective practices developed in their formative assessment project in schools in Great Britain. Formative classroom assessment by teachers takes place in four phases: planning, implementation, monitoring, and recording the assessments (Rea-Dickins 2001). Current use of internal incidental formative assessment does not follow any pre-established systematic method, for which it has raised questions about its validity. Rea-Dickens and Gardner (2000) argued that the boundary between formative and summative assessment is not as clear-cut as is often described and that the interplay between reliability and validity in classroom assessment is complex. Their case study of nine elementary schools focused on the construct of formative assessment within the context of young second language English learners in England and Wales. Questionnaires and interviews with class teachers, language support coordinators, and their teams of bilingual education assistants, along with class observations, provided insights on assessment opportunities, assessment functions, uses of assessment data, and implementation of school-based assessment. Their qualitative analysis revealed that several instances of teacher assessment, made on the basis of learners' performance in class, may be regarded as crucially important as high-stakes decisions. Class teacher assessment was used for the purpose of collecting input for managing and planning teaching, collecting evidence of learning of the curriculum and of learner attainment against external standards, and gathering evidence for evaluation of teaching. Class-based assessment, although not formally recorded, has a tremendous influence in teacher's decisions about language development and individual assessment of learners. But the authors also identified sources of potential inconsistencies in assessment decision-making that undermine the reliability and validity of this practice, such as the effect of the assessment context and the fidelity of the representation of learners' language or its interpretation. Formative assessment appeals to teachers for its attention to individual learners' needs. However, this study presents the complexities and potential pitfalls of its application.

Formative assessment puts the spotlight on the role of the teacher as an agent in assessment (Rea-Dickins 2004). While traditional assessment has favored formal approaches to assessment over observation-based assessment, Rea-Dickins points out that 'the teacher as assessor both engages with and creates discourses of assessment at different levels: the individual teacher(s), the cultural context of the classroom, at professional and institutional levels, all of which — in turn — reflect the different political as well as social contexts in which the teachers work' (p. 255). The literature on formative assessment identifies the following areas as deserving of more research: teachers' dilemmas in their role as facilitator of language development and that of assessor of language performance, the erroneous belief that teacher assessment is not high stakes, conceptualizations of formative teacher assessment as advancing language learning, role of classroom interaction and best practices in teacher assessment, and the range of procedures that teachers report using when making decisions about their students' language abilities.

The advent of communicative-oriented language teaching brought about changes in the ways languages were taught and assessed. The existence of national and macro-national standards for language teaching and learning (Council of Europe 2001; ACTFL 1998) and the description of standardized learning outcomes for language instruction, coupled with an emphasis on accountability in education, led to the search for methods of assessment that are more focused on communication and achievement of standards rather than only on grammatical knowledge and linguistic accuracy. *Performance-based assessment* aims to measure what students know and are able to do with the language in authentic, real-life situations. In performance assessment students are asked to complete tasks that require

authentic use of the language. Performance assessments influence instruction through a backward design that integrates the assessment into the units of instruction (Sandrock 2010). Teacher and peer feedback on performance play an important role in performance assessment. Through understanding of the criteria for assessment and specific feedback, learners are socialized into assuming more responsibility for their own learning. In the late 1990s the American Council for the Teaching of Foreign Languages developed Integrated Performance Assessments as a model to help teachers evaluate their students. Integrated Performance Assessments are authentic tasks that may be found in the real world and reflect natural use of the language. They are also embedded in a unit of instruction and integrated with other assessments that engage students in interpretive, interpersonal and presentational communication. Conversing with the students about assessment criteria and successful performance, as well as providing feedback, are essential in performance assessment (Sandrock 2010). The endorsement of performance-based authentic assessments in classrooms by large professional and governmental organizations, and the existence of teacher guides, legitimizes context-bound, socially-constructed assessment, bringing to the forefront the importance of the quality of interaction in classroom assessment and the need for training teachers/assessors in the nature of classroom interaction and methods of effective dialogic assessment.

Dynamic assessment (DA) is inherently interactive. It integrates assessment with instruction, following well-developed assessment protocols, in order to estimate and advance the learning potential of learners and to design individualized educational strategies. DA may take place in the classroom or outside of the classroom, in tutoring or clinical settings. It was first applied in the 1950s in cognitive educational psychology to ascertain the learning potential of low-performing children (Feuerstein, Rand and Hoffman 1979). Conceptually, it is based on sociocultural theory, particularly on Vygotsky's notion of Zone of Proximal Development (ZPD), which is enacted through social interaction. Vygotsky proposed a change in assessment focus, from present to future behavior and development. A central idea in dynamic assessment is that independent performance masks important differences in mental functioning that are observable during interaction with an expert in the ZPD.

DA entails 'an interaction between an examiner-as-intervener and a learner-as-active participant, which seeks to estimate the degree of modifiability of the learner and the means by which positive changes in cognitive functioning can be induced and maintained' (Lidz 1987, p. 4). Interaction is at the core of a qualitative approach to DA, and serves the goals of measuring, intervening, and modifying behaviors by concentrating on the process of learning. Central features of DA are *activity* on the part of examiner and learner, and *modifiability* of behavior through *mediation* experiences.

DA applications in educational psychology and second language learning have taken either an interactionist (qualitative) or interventionist (quantitative) approach. Interventionist DA proceeds through a test-intervene-retest sequence, yielding results that can be easily quantified, while interactionist studies tend to rely on qualitative analysis and interpretation of key features of the interaction blending learning and assessment. In both approaches assessment of the learner's capabilities is based not only on individual performance but also on assisted performance during the intervention phase, which serves as an indicator of learning potential. Interventionist approaches, with their use of pre-scripted forms of assistance (intervention) in the learner's response to test items, allow for comparative results, remaining close to standard psychometric assessment procedures. Interactionist approaches, on the other hand, make use of unscripted mediation and depend on the mediator's judgment and interpretation of the mediation as well as on the learner's response to the mediation during the assessment. Mediated Learning Experiences (MLE) in DA are 'reciprocal, emotional, affective and motivational aspect of the interaction that melds the activity into a meaningful and structural whole, leading to self-awareness, structural change and cognitive

development' (Feuerstein *et al*. 2002, p. 75). Intentionality, reciprocity in learner-mediator interaction, and transcendence, or the ability to transfer what has been learned to a new task, are some of the most salient of the eleven components in Mediated Language Experiences. Transcendence is observable by subjecting participants to a series of increasingly complex tasks. The mediator-assessor interacts with the learner paying attention to the learner's reciprocity to decide what degree of assistance is necessary. Social interaction filters the experience as needed by the learner. In Mediated Learning Experiences the examiner may guide learners in highlighting important content, making connections, setting goals, planning, regulating and controlling behavior. A key element of successful mediation is the ability of the mediator to respond to the learner's behavior in a timely and appropriate fashion. The focus is on cognitive transformation (the process) more than on finishing the task (the product). DA research has shown that verbalization and elaborated feedback are two of the most powerful elements of Mediated Learning Experiences.

In interventionist approaches to DA mediation is scripted, and thus the ability to respond to the learner's performance is constrained. Poehner (2008a) discussed learners' responses to mediation during French tutoring sessions. These included using the mediator as a resource, seeking approval from the mediator and even rejecting mediation. His study of learners' reciprocity illustrated the importance of interpreting mediation in its dialogic context for effective assessment. The quality of dialogic mediation and the role of the learner through reciprocity for effective collaboration within the ZPD are of great importance in DA.

DA has typically occurred in one-to-one interaction, but some of the studies discussed below have also applied DA within groups or as a whole class and used peers instead of teachers as assessors, thus, expanding the traditional contexts of application of DA. In second language classrooms, DA has been conducted during whole class interaction (Davin 2013; Erben, Ban and Summers 2008; Poehner 2009), learners' collaborative interaction (Hill and Sabet 2009; Lund 2008), tutoring sessions (Ableeva 2008; Ableeva and Lantolf 2011; Antón 2009; Poehner 2007, van Compernolle and Kinginger 2013), and interaction in online environments (Oskoz 2005; Poehner and Lantolf 2013).

The introduction to DA techniques in an ESOL program is reported in Erben, Ban and Summers (2008). A protocol to introduce DA in exams required students to complete the exam one page at a time providing an individual response, a pair response and a group response, the two last responses involving negotiation among learners to provide the best response and resulting in a combined score for individual and negotiated responses with their pair and group. Open-ended interviews with students and faculty revealed increased confidence in content knowledge among students, who viewed DA as a learning opportunity. The faculty expressed concerns about its feasibility for individual assessment. Poehner (2009) reports on the use of DA during teacher-led interaction in the classroom. The same procedures apply to group and individual DA, but in the former context mediation addresses the group ZPD. Teacher's questions and feedback were informed by an understanding of the role of interaction in language development, and thus followed a pre-established protocol increasing explicit cues as needed by the learners. The study calls attention to the importance of teacher talk, even when directed to individual learners, during whole class activities. The intentionality of the teacher in planning her feedback and keeping track of the degree of explicitness provided to learners during whole-class interaction resulted, the author argues, in less explicit feedback, increased participation, and learners' control of the language problem being discussed. Bringing together two different but related frameworks, interventionist Dynamic Assessment (DA) and Instructional Conversation (IC), Davin (2013) reported on their use in a primary school L2 Spanish class during development of interrogative formation. Pre-scripted DA prompts were used for predictable errors while more flexible mediation in Instructional Conversations was reserved for a guided discussion of less

predictable errors co-constructing the group Zone of Proximal Development. This study provides a practical model for the strategic use of these two complementary approaches. Flexible mediation during IC promoted involvement of more students and responsive dialogue in those occasions where the pre-scripted prompts of DA did not fit the needs of the teacher and students.

Collaborative interaction in assessment is discussed by Lund (2008), who advocates for shifting 'the locus of assessment from the individual to the intersection of the individual and the collective, mediated by cultural tools' (p. 32). Two qualitative accounts of collective assessment serve to illustrate this point. In the first one, a group of EFL student teachers collectively graded exam papers. Logs posted by student teacher groups responding to each other's evaluation of student papers revealed that guidelines and criteria were appropriated by the participants in different ways, according to their different experiences and historical insights on the process. Negotiation of grades and criteria for assessment played a major role in reaching a shared understanding of the assessment. The analysis of the interaction, along with the cultural artifacts that mediated the assessment (criteria, guidelines and institutional policies) provided a view of the inner workings of assessment. The second account of collective assessment was based on the interaction of EFL learners engaged in group work and peer-assessment while preparing for an oral test. The learners' interaction during the process of assessing their peers illustrated an evolving shared understanding of guidelines and criteria. The explicitness of assessment criteria that emerged as a result of learners' collaborative assessment increases the validity of grades. Collective assessment, Lund suggests, constitutes an expanded interpretation of the ZPD as a practice with transformative potential in social activity. Hill and Sabet (2009) also report positive results in their experimental use of DA for assessment of speaking abilities among pairs of Japanese learners of English during a year-long project. Their model of assessment was based on the use of transfer of learning tasks between assessment role plays, mediated assistance and pairing students strategically from higher to lower level, and allowing students to observe the previous pair performance.

Tutoring sessions with individual learners have been the predominant setting for interactionist DA. A common outcome of DA Mediated Learning Experiences with individual learners is that they provide a rich picture of the level of development attained by the learners. Transcendence during tutoring sessions with advanced learners of French was the focus of a study by Poehner (2007). Mediating sessions based on movie narrations in French focused on past verb forms and aspect. At the end of a six-week period, the initial assessment was given to the learners followed by two transcendence assessments (narration of a video clip of more difficulty than the previous one and narration of a written text). The analysis of tutor–learner interaction showed that interaction in earlier sessions had resulted in the learner's ability to function almost independently in the transcendence session, thus demonstrating conceptual understanding of the linguistic focus of the sessions (tense/aspect). Furthermore, the mediated interaction during transcendence sessions uncovered differences between learners that had not been appreciated in previous assessments. Transcendence was evident not only in the performance of different tasks involving tense/aspect, but also from one linguistic feature to another. In similar fashion, Ableeva (2008) and Ableeva and Lantolf (2011) report on a DA intervention to diagnose and promote listening comprehension skills in learners of L2 French. The assessments were administered in three formats: Independent Performance, Dynamic Assessment and Transfer Assessment. A non-dynamic pre-test of independent performance established that none of the participants had full comprehension of an audio text. There was also an enrichment program consisting of two tutoring sessions per week, during which dynamic mediation revealed varied degrees of phonological, lexical, and cultural problems faced by learners in listening comprehension. A post-test consisted of

a dynamic session in which learners summarized the text. The developmental profile was variable in terms of the number of times learners needed to listen to the text as well as the number and explicitness of hints required. Learner's summaries indicated that mediation, overall, had a positive effect in developing listening skills. Qualitative (Ableeva 2008) and quantitative analysis (Ableeva and Lantolf 2011) evidenced that mediation and enrichment that is responsive to the individual learners' ZPD had a significant effect on these learner's oral comprehension skills. The authors point out that, because DA focuses on abilities which are already matured, the ones that are maturing and those which are yet to mature, it is possible to advance learners' development in effective ways. A similar model of DA during tutoring sessions was applied by van Compernolle and Kinginger (2013) to the assessment of sociopragmatic competence in the use of pronouns of address in French. Infusing DA principles in the completion of a concept-based task, the tutor engaged the learner in cooperative interaction about the expression of social distance and power relations through use of pronouns of address. The analysis of the interactional exchanges showed that the learner had begun to identify the importance of context of use in pronoun selection and to think of solutions by herself.

DA is particularly suited for the purpose of diagnostic assessment. Antón (2009) illustrated the use of DA techniques in assessment of writing and speaking abilities of Spanish learners. During writing assessment learners were asked to make revisions under three conditions. First, following Aljaafreh and Lantolf (1994), learners revised their compositions individually silently, in the presence of the evaluator. A second round of revision was supported by consultation of cultural artifacts (dictionary and grammar reference). Finally, in a third opportunity to revise their text, learners were allowed to ask questions from the evaluator. Both, independent revisions as well as revisions mediated by cultural artifacts, improved the learners' performance. Intervention during the assessment of speaking skills in this case involved opportunities to make corrections and add details. In DA, the inability of the learners to make further improvement to their performance would signal the need for more explicit mediation on the part of the examiner. As in other studies of DA, the qualitative analysis of the interaction between the examiner and the learner uncovered important differences among learners' abilities, which would not be obvious in independent performance. Thus, the agentive role of the examiner in the interaction is key in establishing an appropriate diagnosis of the students' linguistic ability.

Computer-mediated interaction is also an effective context for DA. Oskoz (2005) studied interaction in a chat environment among L2 learners of Spanish engaged in a series of collaborative tasks (jigsaw puzzles, role-play, information gap, and free discussion) using Aljafreeh and Lantolf's (1994) regulation scale to analyze how learners scaffolded each other. The five-point scale distinguishes other-regulation developmental stages from self-regulation. By focusing on the process, rather than the product of the interaction, Oskoz argues that DA is a good complement to the information provided by standard assessment about the learner's capabilities. The use of technology in DA is a promising area of development. Computerized DA testing in educational psychology provides models that may be fruitful for interventionist approaches to second language assessment, particularly those models that allow for individualization in assessment because of their sensitivity to the type of problem and the type of assistance needed. The latest advancement in computerized second language DA testing is reported in Poehner and Lantolf (2013), who described a first attempt to deliver DA in L2 (Chinese, French and Russian) via computer using the results to quantify learning potential and capture transcendence, the ability to move beyond a specific task and apply what has been learned to a new context. Reading and listening comprehension second language tests in an online format with built-in mediation levels produced scores for independent, unmediated performance, and for mediated performance, as well as a learning

potential score that informs learners of the investment required of them for future development. Technology helps overcome practical challenges faced by DA practitioners such as time constraints and need for training, but pre-established mediation in technological environments limits the power of contingent interaction in learning and assessment.

A major outcome of DA is the rich description it yields about the learners' current and emerging capabilities in a particular learning or testing situation. Additionally, these rich descriptions enable the assessor to derive recommendations for intervening in the learning process. DA studies have associated mediation with improvement in performance, particularly in learners experiencing difficulties (Kozulin and Garb 2002; Schneider and Ganschow 2000), which suggests that DA procedures contribute to the achievement of fairness in education.

Dynamic assessment and formative assessment share a pedagogical interest in advancing learning and in blending teaching and assessment. They both assign a special role to interaction in assessment activity. However, the two approaches have fundamental differences. Lantolf and Thorne (2006) remind us that DA derives from a well-developed theory of learning whereas FA is mostly experiential. While DA is intentional, systematic, and focuses on cognitive development and transfer of skills to future tasks, Lantolf and Poehner (2005) charge that FA is generally incidental and unsystematic, but even when it is formal and systematic its focus is on the completion of the task. Clearly, FA has traditionally focused on teachers' practices in mainstream educational settings, guided by pedagogical principles rather than a particular theory of language acquisition or human development. Leaving differences aside, 'DA, alongside other assessment approaches that are primarily interested in enhancing learning, has much to offer conceptually and paradigmatically in championing an educationally optimistic practice that invests in students' future accomplishments' (Leung 2007, p. 276). For this reason, a better alignment between these approaches in terms of theoretical stance and the use of systematic principles and procedures would be desirable.

4. Critical Issues

For a long time, interaction-based approaches to assessment remained at the periphery of the field of assessment, which privileged standardized and external assessments whose validity and reliability could be easily measured. The development of national and international goals and standards of assessment for languages have resulted in a growing interest in the use of interactive authentic tasks in the classroom to measure language ability. As classroom-based assessment increasingly gains visibility in the field, an important critical issue is the development of a theoretical framework. Hill and McNamara (2012) denounce that, while CBA has given more responsibility for assessment to teachers and has shown to impact learning, there is a lack of coherence in focus and approach. Their definition of CBA is all-encompassing, including formative and summative assessment:

> any reflection by teachers (and/or learners) on the qualities of a learner's (or group of learners') work and the use of that information by teachers (and/or learners) for teaching, learning (feedback), reporting, management or socialization purposes. (p. 396)

Studies on CBA have been mostly qualitative, drawing from social constructivist theories and discourse to interpret data. Ethnography (participant observation and case studies), grounded methodology, and conversation analysis have been fruitful methodologies in these studies. Reports on CBA include not only planned assessment events, but also

unplanned interaction between teachers and learners when the participants are engaged in what they perceive as a teaching event. In this case, identifying exactly when assessment is taking place poses a challenge. Hill and McNamara propose a broad unit of analysis for CBA to include any action, interaction or artifact with potential to provide evidence of performance (Table 5.1 in Hill and McNamara (2012) is reproduced as Table 1 below). Drawing on empirical data from Indonesian language classrooms in Australia, they propose a comprehensive framework for conceptualizing and guiding CBA practices. Beyond identifying steps in assessment or providing inventories of assessment methods, this framework does not only consider what teachers do, but also what teachers look for, their theories of learning and standards used in their assessments, and learners' beliefs about assessment and second language learning.

Table 5.1. A framework for research on CBA processes reproduced from Hill and McNamara (2012), p. 415 with kind permission from Springer Science and Business Media

1. What do language teachers do?		
1.1. Planning Assessment	Is there planning for assessment? How detailed is planning? What is its intended relationship to instruction? How does it relate to external standards and frameworks?	
1.2. Framing Assessment	Is assessment made explicit to learners? How is this done?	
1.3. Conducting Assessment	What opportunities does the classroom provide for assessment? Does assessment tend to focus on the class, group/pairs of students or individuals?	
1.4. Using Assessment Data	How is assessment-related information used?	
	Teaching	
	Learning (feedback)	Person-referenced Task-referenced • Confirmatory • ExplanatoryCorrective
	Reporting	
	Management	
	Socialization	
2. What do teachers look for?		
What information about valued enterprises, qualities and standards is available?		
2.1. In Advance	in written/verbal instructions and/or assessment rubrics?	
2.2. In Feedback	in written and/or verbal feedback?	
2.3. In Reporting	in reporting deliberations and/or in written reports?	
3. What theory or 'standards' do they use?		
3.1 Teacher Theories & Beliefs	What does the data reveal about teachers' beliefs about • the subject or content area • second language learning and teaching, and • the nature of assessment?	
4. Do learners share the same understandings?		
4.1. Learner Theories & Beliefs	What does the data reveal about learners' beliefs about • second language learning, and • the nature of assessment?	

Unlike previous models of CBA that focused mainly on what teachers do (Rea-Dickins 2001, for instance), this one also takes into account the belief systems of the participants in the assessment event as shaping the language and actions that take place during assessment. For DA in particular, Poehner (2008b) suggests a model of reporting learner development that is based on Gal'perin's three stages of performance: Orientation, Execution, and Control. The model assists in tracking and documenting, systematically, learner development by capturing the type of mediation provided by the assessor (explicit/implicit) and high/low learner reciprocity in assuming responsibility for performance leading to transcendence.

Lack of theoretical framework is a common critique of classroom assessment (Davison and Leung 2009). Purpura (2011) advocates for teachers to situate classroom assessment in a model of language proficiency and language learning so that assessments target specific stages in the model. This critique does not apply to DA, since DA practice is supported by a sound theoretical framework in sociocultural theory and follows systematic procedures. However, DA, as CBA, has also been criticized for a lack of standardization in the methodology, particularly in interactionist approaches, and a lack of empirical validation of results. DA and other types of CBA do not easily fit with current conceptualizations of validity in assessment. Change in performance during a testing event, which is precisely the goal of DA, goes against the construct of reliability as defined in the psychometric tradition (Lantolf and Thorne 2006). What we need, then, is to recognize and accept that traditional constructs do not fit assessment models that are philosophically different from mainstream testing approaches. DA does not isolate the human mind from the context in which it operates. Poehner (2008b) points out that the dialectic relation between mind and culture in DA is incompatible with other approaches that try to observe mental functioning independently from the environment. But his does not mean that DA is inappropriate. Poehner suggests that DA researchers and practitioners create their own methods and criteria for *understanding* individuals instead of measuring them.

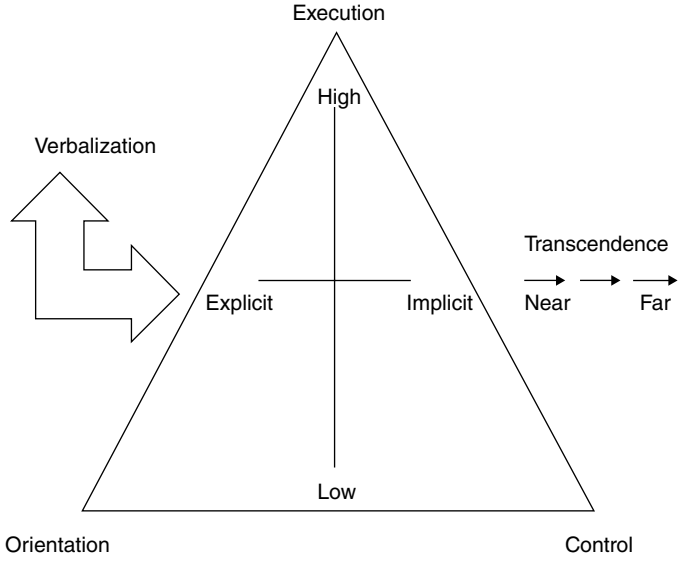


Figure 5.1. Interpreting learner development in dynamic assessment (Poehner 2008b: 167). With kind permission from Springer Science and Business Media.

A major strength of DA and other classroom-based assessments is its personal and individualized approach to assessment with rich potential to provide useful information to teachers for the development of effective pedagogical interventions. This is also a challenge. Interactionist approaches to assessment require training of assessors and demand time and human resources that limit the reach of their use. Developing standardized procedures should be a priority issue for CBA and DA. Although there is not, and cannot be, a prescriptive guide on how to conduct teacher-led assessment of student learning in language classrooms, it is clear that interaction plays a major role in it. Interaction is contingent on the social context in which it takes place, and therefore, it cannot be predetermined. Turner (2012) advances recommendations for CBA practice that are tied to effective and carefully planned classroom interaction: effective questioning to engage students in reflection, use of feedback for understanding assessment criteria, and training in self- and peer-assessment practices (p. 73). DA is distinguishable from other CBA approaches for following systematic procedures, but these are not homogeneous and DA practitioners have competing views on how to carry out the assessment. Therefore, there is still a need for clearly defined standardized procedures to guide responsive and contingent mediation.

With the emerging body of research in recent years, another critical issue is the need for the development of a research agenda that will help advance and establish interaction-based assessment into mainstream assessment (Davison and Leung 2009; Hill and McNamara 2012). In agreement with Turner (2012) and others, it seems that determining quality criteria for classroom assessment, reconceptualizing validity and reliability in this assessment paradigm, and providing evidence of the effect of interaction-based assessment on learning should be at the top of the list for a research agenda in this area. Poehner (2008b) predicted that computer and peer-mediated assessment, analysis of mediator/learner interaction and learner reciprocity, and, particularly, the development of standardized procedures in interactionist DA so that learners' development may be systematically documented, will be fruitful lines of research in DA.

5. Future Directions

As alternative forms of assessment that are greatly dependent on interaction become more popular, research on classroom interaction has provided us with depth of understanding of sociocognitive processes in learning and with the tools to give interaction an increasing role in assessment. The lessons learned from classroom interaction research have a great deal of potential for their application to the study of how assessment is implemented in classrooms and for analyzing the validity and reliability of classroom assessment practices. Recent developments show promise for the assessment of classroom interaction as complementary to standardized assessments and for its role in learning and curriculum. Interaction also empowers teachers with assessment tools that are more meaningful to the classroom context and provide a different dimension of learning not easily captured by traditional means of assessment.

Researchers agree that classroom assessment now needs to move in the direction of developing a theoretical base, establishing clear criteria and systematic quality procedures in terms of the role of interaction in assessment, educating teachers in the role of assessor through dialogue in classroom-based assessment practices, and reconceptualizing the constructs of reliability and validity in interactive, context-bound, assessment (Black and William 2011; Turner 2012). Some authors (Hill and McNamara 2012; Poehner 2008b) have proposed compelling models to do this that are compatible with socially-oriented theories of language learning and second language acquisition. The models can serve as a road map for

a comprehensive research agenda on interaction-based assessment. What remains to be seen is the strides that the field will make in these areas in the coming years and the evidence research studies can provide on the value of interaction-based assessment as a complementary or independent means of assessment, the usefulness of the frameworks proposed so far, and on the impact on learning that interaction-based assessment procedures may bring about.

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See Chapter 14: From Inter-Action to Intra-Action: The Internalization of Talk, Gesture, And Concepts in The Second Language Classroom
See Chapter 15: Classroom Discourse and Interaction in The Zone Of Proximal Development
See Chapter 16: The Emergence of Sociolinguistic Competence in Second Language Classroom Interaction
See Chapter 17: Expert-Novice Relationships in Second Language Classroom Interaction

Part III The Educational Tradition

Overview of the Educational Tradition

NUMA MARKEE

Unlike the chapters that make up the other Traditions in this Handbook, which are all closely related in term of the themes that they explore, the chapters in the Educational Tradition are marked by a great deal of topical diversity (as would contributions to a putative Applied Linguistics Tradition). More specifically, the chapters in the Educational Tradition are meant to provide a sample of how different research on classroom discourse and interaction within the Educational Tradition can be.

The chapter by Frederiksen and Donin (this volume) shows how a complex web of contextualized knowledge interfaces with various sociocognitive learning processes that are all reflected in classroom interactions. It also demonstrates how such interactions may be analyzed from a longitudinal, multidisciplinary approach to discourse analysis that draws on the following fields of inquiry: semantics and meaning representation in language; discourse and cognition; interactional sociolinguistics; and ethnography of communication. The chapter employs a mixed methods approach to investigating discourse and interaction processes in a variety of *content* classrooms, thus implicitly situating *language* classrooms *within* the broader tradition of discourse and interaction research in content classrooms in the education literature.

The chapter by Collin and Apple (this volume) adopts a critical perspective on classroom discourse and interaction. More specifically, the authors review two of the most important – and frequently divergent – tendencies in critical approaches to classroom research, namely Neo-Marxian and poststructural approaches to classroom discourse. They begin by showing how the nuanced neo-Marxian accounts of what goes on in classrooms as cultural and economic processes that are mutually constitutive and sometimes even mutually contradictory that are current today evolved from initially highly deterministic Marxist accounts of classroom cultural processes that were seen as rather straightforward reflections of economic processes in the broader society. They then refocus their analytic gaze on poststructural theories of classroom discourse, which tend to emphasize how different discourses – understood as different ways of knowing the world (see the review of Bucholtz 2003 in Markee, Chapter 1, this volume) – serve as tools for shaping and controlling students'

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intellectual and cultural experiences of the world. Finally, Collins and Apple attempt to use rhetorically based theories of genre as a locus where common ground may potentially be achieved between neo-Marxian concerns with totality and contradiction and the often competing interest in discourse and contingency that characterizes work within poststructural paradigms on classroom discourse. They illustrate their ideas by analyzing the genre of career portfolios as a rhetorical habitat that is composed of a range of prototypical texts, including résumés, schoolwork, and personal essays. They then show how these texts are contingently given different, sometimes contradictory, discoursal meanings by different participants (for example, administrators, English teachers and students), and how different actors in the educational community become more or less skilled in assembling and reassembling these various discourses for their own purposes. This chapter therefore assigns great theoretical importance to social, cultural and political notions of context as crucial resources for understanding how classroom discourse works.

The chapter by Bloome (this volume) reviews one of the most interesting and familiar topics in classroom research in both education and applied linguistics. Bloome shows how research on the value of small group work as a potential resource for learning new material first emerged in education in the context of a broader *linguistic/language* turn in this discipline. This change happened at roughly the same time that theoretically inspired dichotomies between the *cognitive* and *social* dimensions of language began to be rejected and the parallel emergence of an *interpretive* methodological turn in educational studies.[1] More specifically, Bloome first provides a broad conceptual review of work on the role of language in group-based classroom activity. He then focuses somewhat more narrowly on a subset of studies that attempted to identify a particular kind of conversational structure that could be related to, say, academic achievement. And finally, he discusses studies in which the kind of language that occurs in small groups is understood as a situated process in which events, knowledge, learning, and relationships are all socially constructed by participants.

The chapter by Lindwall, Greiffenhagen and Lymer (this volume) uses an ethnomethodological, conversation analytic perspective to show how L1 Swedish talk-in-interaction in a variety of relatively *informal* institutional contexts is organized to accomplish the work of giving and following instructions on a moment-by-moment basis. More specifically, they begin by providing readers with a brief overview of what makes EM and CA such distinctive methodologies within sociology. They then do some preliminary definition work on the concept of *instruction*, and narrow down their specific empirical focus to turn-by-turn analyses of instruction(s)-as-directives, as these apply to social actions that have an educational purpose. Note that these authors make extensive use of different kinds of graphic data in their analyses. While such data have been used rather frequently for quite a long time in CA work, the emergence of *multimodal* analyses of classroom interaction – that is, analyses of interaction that do not limit themselves to participants' talk but also includes the cultural artifacts to which they orient – is a rather recent phenomenon, especially in applied linguistics.

NOTE

1 Note that, in education, the cognitive/social debate first emerged in the 1970s, rather than in the 1990s, as it did in applied linguistics! And the emergence of a call for a specifically *interpretive* turn in applied linguistics is an even more recent phenomenon: see Talmy (2014).

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6 Discourse and Learning in Contexts of Educational Interaction

CARL H. FREDERIKSEN AND JANET DONIN

1. Introduction

Educators have increasingly recognized that learning involves more than the individual learner. Not only does both formal and informal learning take place within social contexts, those contexts affect the learning itself. Because of this recognition, emphasis has become focused on describing the social interaction that takes place within learning environments. This shift in emphasis has provided important information about the forces in effect in such environments. What is often missing from the analyses of those environments is the individual learner and what constitutes 'learning' in the particular situation.

From a psychological perspective, learning is a complex cognitive process of constructing and refining one's knowledge over time and developing competency in using one's knowledge to understand, reason, communicate and solve problems. When learning takes place through interactions with others in social contexts, students' learning is supported by their conversational interactions with other members of a learning group. Moreover, in interactive social contexts participants' learning goals and activities expand to include not only individual goals but those of the group as well. How such socially situated learning interactions function to support participants' learning in contexts of educational interactions with others through discourse is an important yet understudied research problem. The question of how to study these social and cognitive learning processes and how they are reflected in and supported by discourse interactions among participants in interactive learning contexts is the subject of this chapter.

The challenge for researchers investigating the interrelationships of cognitive and social processes in educational contexts is to show how both of these processes are reflected in the discourse and actions that occur. This will require analyses of learners' social interaction and cognition as both processes are reflected in their conversational interactions and in their learning and problem-solving actions within specific situations and domains of learning. It is how those situations and domains are perceived and interpreted by the individuals in those situations that provide the 'context' for learning (see van Dijk 2006). For example, a student walks into a science classroom at the beginning of the school term with a wealth of

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knowledge based on her previous history that she may draw on to interpret the current situation. This includes: past interaction with some members of the student group, personal or anecdotal knowledge of the class teacher, knowledge of the particular learning domain, knowledge of social norms for such groups, etc. It is this knowledge that allows her to interpret and construct meaning from the particular interactive situation.

Any complete analysis of the social and cognitive processes that are involved in discourse interactions among participants in educational contexts will have to include: (a) analysis of participants' conversational interactions and patterns of social interaction over the course of a learning session (or sessions), and (b) analysis of the propositional meanings they express through their language and how these reflect the participants' processes of constructing knowledge and developing skill in applying it (e.g., to reason, perform tasks, or solve problems) in the learning domain, both individually and collaboratively, through their actions and their learning interactions with other participants. By analyzing discourse interactions among participants in a learning group as they collaborate in an educational context over time, together with the relationships of the meanings they express through their language to related actions, events, products or materials that accompany their discourse, we can study how their language-in-use, and particularly the meanings they express through their language, facilitate and enable individual participants' and the group's learning processes and their development of knowledge and expertise over time. Discourse analysis provides a rigorous and theoretically-based logic and methodology that can be used to track participants' processes of constructing and communicating meanings and knowledge as they learn to apply their knowledge to understand and perform tasks, reason effectively, solve problems in subject-matter domains, and develop skill in communicating, interacting and collaborating with others.

In this chapter we will describe a sociocognitive research approach to the study of discourse interaction and learning in situations of educational interaction that draws on perspectives and methods from different research traditions. These provide potentially complementary theoretical approaches and discourse analysis methods for the study of discourse in interactive learning environments. Our sociocognitive approach draws on research focusing on semantics and meaning representation in language, discourse and cognition; and on research in interactional sociolinguistics and ethnography of communication. Our focus will be on how aspects of these different theoretical perspectives and related discourse analysis methods can be combined to study processes of learning through interactive discourse in educational contexts as conversational, cognitive, and social processes that co-occur in situations of meaningful educational interaction. Such complementary methods can allow researchers to trace how discourse (language-in-use) functions to support both social and cognitive processes of learning within specific learning contexts. To show how these methods can enable the study of discourse and learning in specific educational domains and contexts, we will present an example from one particular domain and social context of learning: one-to-one tutoring in engineering. The methods illustrated in the example are being applied to study other domains and social contexts of learning. These include: collaborative problem-based learning in pairs in statistics, report writing in a university physics course by second-language students, and medical discourse.

2. Discourse Analysis of Learning Interactions

In order to better understand how people learn through their conversational discourse interactions and collaborative activities with others in social contexts of educational interaction, we need to trace their learning processes through analysis of their discourse interactions

and related task-oriented activities as they are taking place and progressing over time. As researchers, we can observe a learning group within and across learning sessions, obtain video records of their discourse and of any visible actions, products and materials/resources that are produced or used by the group, transcribe their discourse interactions, and link the transcripts to corresponding video segments. Our objective is to trace the individuals' and the group's social and cognitive learning processes, performance, and progress in developing knowledge and expertise in a domain of learning as these are reflected in their interactive discourse and actions through analyses of discourse transcriptions and video records of participants' actions and interactions.

2.1 Interactive discourse

In analyzing such records and transcriptions of discourse interaction, an analyst can begin by identifying speakers' utterances and segments of talk within utterances of which the discourse is composed. These discourse units will be organized into sequences of utterances produced by each speaker. The conversational dialog normally will be organized as a sequence of speakers' turns of talk, although overlapping speech often occurs. A speaker's turn may include one or more than one utterance. The next step may be to identify particular types of conversational actions that correspond to conversational functions of speaker utterances, and analyze how they are organized into utterances, turns, types of speaker exchanges, and conversational sequences that serve particular functions within the conversation that is taking place. Such analyses have multiple theoretical roots from speech act theory (e.g., Austin 1962; Searle 1969) to ethnomethodology and conversation analysis (e.g., Heritage 1984; Hutchby and Wooffitt 1998). In our own work, we were influenced by Dore's (1977, 1979) theory of *conversational actions* and *conversational sequences* as a basis for our analysis of the structure of conversations and how they reflect the particular contribution a speaker is making to the conversation, e.g., making an assertion, posing a question, making a request of another speaker or speakers, responding to another speaker or speaker's assertions, etc. These analyses have proved extremely useful in small group situations but are less useful in classroom situations.

Beyond analysis of the conversational structure of discourse interaction, classroom ethnographies (e.g., Bloome, Carter, Christian, Otto, and Stuart-Faris 2005; Green and Wallat 1981; Santa Barbara Classroom Discourse Group 1993) have provided the means to analyze very diverse learning situations over time. Much of this work builds on the theoretical foundations of interactional sociolinguistics and ethnography of communication (e.g., Gumperz 1982; Gumperz and Hymes 1972). It assumes that 'What we perceive and retain in our mind is a function of our culturally determined predisposition to perceive and assimilate' (Gumperz 1982, p. 13). It is through in-depth study of the discourse in a given situation that we as observers can begin to access the social assumptions that the participants are making and what is providing the 'framing' for the situation (Goffman 1981) and the 'contextualization cues' (Gumperz 1982) for the participants.

Classroom ethnography techniques can enable researchers to trace the course and organization of the social interaction process that is taking place within complex learning situations that are extended in time and in which participants engage in multiple learning contexts and domains. In such diverse situations, possibly with the assistance of a mentor or teacher, a group may organize its own activities and situational contexts to support learning. Ethnographies can show how these processes are organized socially within a group and trace changes in learning situations over time. Such ethnographic analyses can be used to identify: particular topics and domains of talk and learning in complex classroom environments; how shifts in topics, task-oriented activities, and domains of learning are accomplished through

discourse interactions among members of a group; the social structure of learning contexts including relationships among members of a group and their status; and other aspects of interactive social contexts of education. In our own analyses, we have relied on the work of Green and her associates (this volume) when dealing with complex learning situations such as high school French immersion science classrooms (Donin, Frederiksen, Alie and Kornienko 2002). In this study we related the content of student lab reports to the student-teacher discussion that had taken place during the pre-laboratory presentation.

2.2 Discourse content

To study *what* information is presented in a given situation, and *how* this information is processed by the individuals and by the group, it is necessary to analyze the content of the discourse. The methods that we use had their origin in the study of comprehension and production of written text and have been extended to study interactive oral discourse. The theoretical bases for these methods lie in the postulate that discourse communication involves semantic representations at multiple levels (Frederiksen 1986; Frederiksen and Donin 1991). The two levels that have been well specified are *propositions* (Frederiksen 1975, 1986, 2001; Kintsch 1998; van Dijk and Kintsch 1983) and *schemas* or *frames* (e.g., Anderson, Reynolds, Schallert and Goetz 1977; Frederiksen 1986; Minsky 1981; Rumelhart 1980). While models of propositions have their origins in local text-based processes, frames are associated with rule-based top-down processing (see Frederiksen and Donin 1991). Propositional analysis has proved to be particularly important when studying text comprehension across languages (e.g., Chen and Donin 1997; Donin and Silva 1993) where text and participant protocols may be matched on meaning rather than surface features. Methods of frame analysis were developed as a means to study potential structures within written text (Frederiksen 1986) and have been used effectively to study developing written production (e.g., Donin, Frederiksen, Bracewell, and Dillinger 1992). This last study involved the development of an 'expert model' based on interviews with and texts from domain experts: a technique that has been used in later research on interactive discourse in a well-defined domain.

2.3 Contexts of educational interaction

Utterances in any interactive discourse consist of linguistic expressions of meanings that participants produce to express semantic information that functions to communicate a 'local' *propositional meaning representation*. These *local meanings* are interpreted/understood by other participants in a conversation within a group, who in turn produce utterances to express local propositional meanings themselves that they judge to be appropriate at that point in the conversation. In interactive discourse, the local meanings that participants express through their conversational actions are related to one another through local conversational inferences that are subject to participants' sociolinguistic knowledge of conventions and rules of conversation. Participants use their sociolinguistic knowledge, their current knowledge in the domain of discourse, their current interpretation of the task context, and their interpretation of preceding utterance meanings to make inferences and express what appears to them to be relevant and appropriate propositional information within the *local conversational context* of the discourse interaction.

The local meanings members of a learning group express through their utterances are produced and understood by participants in a context of learning in a meaningful domain of structured and organized knowledge, competency, and practice. Local contributions by participants to the discourse in such contexts reflect their current knowledge and experience in a domain. The *global meaning structure* and *organization* of the knowledge that participants

express over the course of their discourse interaction reflect the participants' developing *declarative knowledge* in the domain; their developing knowledge of methods and procedures for reasoning about, interpreting, planning, and performing tasks in the domain; and their developing competency in applying their declarative and procedural knowledge as they engage in solving problems and performing other complex goal-oriented activities in the domain. The structure of the participants' knowledge functions as a *schema* to *frame* the global structure and organization of the discourse both as a representation of their current knowledge in the domain, and of how they are applying their knowledge to perform tasks and participate in activities currently in play in the learning situation. If one (or more) of the participants in the discourse interaction has greater knowledge and experience in the domain of learning, e.g., a tutor, mentor, teacher, or more advanced 'peer' learner, the contributions of the more experienced participant(s) to the discourse may function to frame the propositional information expressed in the discourse in a manner that facilitates the other participants' processes of developing their own knowledge and competency in applying it in the learning domain. In this manner, the discourse supports as well as reflects participants' contributions to the work of the group and their development of knowledge and expertise in applying their learned knowledge individually and in collaboration with others.

Studies of learning in authentic contexts of educational interaction often involve selection of a particular type of learning situation in which a learning group and its members are engaged in learning in a specific context and domain of knowledge and competency. For example, a medical problem-based learning group may be studying the problem of how to diagnose a particular type of disease (Frederiksen 1999). In classroom studies, one might select a learning unit or topic corresponding to a particular domain, e.g., in science, history, or literacy, and a classroom context in which group learning interactions are focused and sustained around a topic or area of study. In such situations, we can study the cognitive and social processes of the group and trace the progress of their learning and development of knowledge, understanding, and competency in a relatively well-defined learning domain. The content of the participants' discourse within such a learning situation will reflect how the members of a learning group are communicating their knowledge and understanding to one another as they collaborate in their current context of learning and task-oriented activity in the domain. By tracing changes in the content of their discourse interactions over the course of a single learning session or across many learning sessions, we can study how such changes reflect changes in the students' knowledge and in their competency in applying it to relevant tasks in the domain, both as individuals and working collaboratively with the group.

3. Learning Through Discourse Interactions: An Example

The analysis we present here of interactive learning is from a study of one-to-one, problem-based tutoring. Three students met individually with an experienced tutor for three sessions to study a well-defined domain of problem solving in engineering. Student 1 had been accepted into the engineering program for the following fall; Student 2 was an undergraduate in a geophysics program; and Student 3 was a first year undergraduate in engineering. For the purpose of illustrating the analytic techniques Student 1 (pseudonym *Marie*) was chosen. In each tutoring session, the tutor and the student worked on solving a new problem example. The student's learning was supported by conversational interaction with the tutor as they worked together to solve the current problem. In this context of problem-based tutoring the roles of tutor and student are defined; however, we were able to trace how the participants' roles changed as the tutor shifted responsibility for solving the problem to the student through her dialog with the student.

This example shows how analysis of discourse within and across these three learning sessions revealed how the dialog functioned to support the students' learning processes. It also shows how analysis of the content of conversational actions, in the context of concurrent problem-solving actions, provides evidence of how these sessions enabled students to develop their own knowledge and competency in reasoning about and solving problems in this problem-solving domain.

3.1 Modeling dialog (Problem 1)

We will start with the tutorial discourse during Session 1 in which the tutor modeled for the students how to understand and solve an example of a problem in the domain.

3.1.1 Transcribing discourse interactions and annotating actions The transcript of the discourse interaction of the tutor with Marie at the beginning of the first tutoring session is given in Appendix 1. In the transcript, the speaker is either the tutor (TUT) or the student (STU). The numbered lines given in italics are *annotations of specific actions of the tutor (or the student)* in solving the problem. These actions involved producing a series of additions to a diagram of the forces acting on a beam, and writing and solving two equations and their solutions. This diagram and these equations were written on a shared tablet by the tutor as they solved the problem. The completed diagram and equations are presented in Figure 6.1**.** In the video record it can be seen that the elements in the Figure were produced step by step through a series of specific actions (identified in the annotated transcript) as the tutor modeled how she solved this problem through her dialog with Marie over the course of the tutoring session. In the transcript, each numbered utterance by a speaker is a segment corresponding to a conversational act (C-act).

At the start of the first tutoring session, the tutor began by introducing the problem-solving domain (see lines 1–10 in Appendix 1). She then presented the first problem begining with the first of three tasks in solving a complex multi-task problem. The solution to this first task is given in Figure 6.1. Through her dialog and her actions, the tutor explained and carried out the steps involved in producing the diagram of a beam with its two supports and two fixed loads, one 20 kN concentrated load and one distributed load of 1 kN/m (see the arrows pointing down on the rectangular 'beam' at the top of Figure 6.1). Marie had to learn how to use her physics knowledge to determine two unknown 'reactions' that exactly counteract the

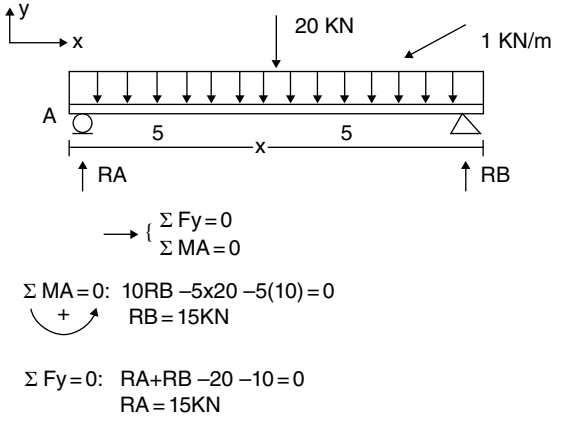


Figure 6.1. Solution diagram for Problem 1 – Tutor Modeling

loads on the beam to maintain it as static (not moving): R_A and R_B. She had to learn to construct and solve the two equations at the bottom of Figure 6.1: one equation for the sum of the 'bending moments' M_A (sum of forces acting to rotate the beam at each point along the beam which is equal to zero in a static beam), and a second equation for the sum of the 'shear forces' F_y which are acting to 'cut' the beam at each point (which is also equal to zero).

3.1.2 Conversational actions and problem-solving actions Marie learned to solve this problem through her discourse interactions with the tutor in the context of constructing the graph and equations in Figure 6.1, and solving the equations for R_A and R_B. In analyzing the transcript, each segment was coded in terms of: (a) type of *conversational action (C-act)* – the four most frequent are: *Assertives, Regulatives* (referred to by Dore (1977) as 'Organizing Devices'), *Requestives,* and *Responsives*; and (b) type of *problem-solving action* that was carried out in solving the problem, and is reflected in the content of its concurrent utterance segment. The six most frequent problem-solving actions are: *Interpret* (the current state of the problem), *Plan* (an action or sequence of actions to solve the problem), *Execute* (a problem-solving action), *Evaluate* (evaluate a current result or solution), *Explain* (the knowledge or rationale underlying the problem and methods for its solution), and *Reason* (to analyze a problem and derive or infer a result or solution to the problem).

In the following example of coding problem-solving actions and conversational actions, the tutor starts by *interpreting* (INTER) the current state of the problem solution (i.e., of the diagram) for Marie (lines 36–40), and then shifts to *explaining* (EXPL) that the reactions are physical forces needed to counteract the external forces acting on the beam (lines 43–44). In her dialog, the tutor begins with two *assertive* C-acts coded as: ASDC (assert a description; line 36) and ASIR (assert an internal report of one's state of knowledge; line 37), and then follows this with a *product request* in line 38 (RQPR). Marie responds with a *regulative* (i.e., an organizing device) consisting of a *clarification question* (ODCQ) (line 38). The tutor replies with a *clarification response* to Marie's question (RSCL), and then (following an *acknowledgment* response (RSAK) by Marie and a *regulative* C-act (ODBM) by the tutor) the tutor uses a series of *assertive* C-acts (ASEX) (lines 43–46) to explain the concept of loads and the need for reactions ('something to resist') to resist the loads and maintain equilibrium.

```
*TUT:  36 so- so far we have a beam with some load acting on it.
%cod:  $PS:INTER
%spa:  $CACT:ASSERTIVE:ASDC
*TUT:  37 and there's two loads that we don't know.
%cod:  $PS:INTER
%spa:  $CACT:ASSERTIVE:ASIR
*@Comment:   CARD 9 (Tutor draws two upward arrows representing the
reactions at A and B)
*TUT:  38 do you know what these can be?
%cod:  $PS:INTER
%spa:  $CACT:REQUESTIVE:RQPR
STU:   39 well you mean load acting on the beam or?
%cod:  $PS:INTER
%spa:  $CACT:REGULATIVE:ODCQ
*TUT:  40 well what's happening is there's some reaction here.
%cod:  $PS:INTER
%spa:  $CACT:RESPONSIVE:RSCL
*STU:  41 oh
```

```
%spa:  $CACT:RESPONSIVE:RSAK
*TUT:  42 okay
%spa:  $CACT:REGULATIVE:ODBM
*TUT:  43 so if I have some load acting downward
%cod:  $PS:EXPL
%spa:  $CACT:ASSERTIVE:ASEX
*TUT:  44 I need something to resist right?
%cod:  $PS:EXPL
%spa:  $CACT:ASSERTIVE:ASEX
*STU:  45 um hum
%spa:  $CACT:RESPONSIVE:RSAK
*TUT:  46 so that the body is in equilibrium.
%cod:  $PS:EXPL
%spa:  $CACT:ASSERTIVE:ASEX
```

3.1.3 The problem schema: Framing the discourse and problem-solving actions Figure 6.2 presents the *problem schema* and frame analysis of the first problem task. This schema was developed and tested as a model of experts' knowledge based on analysis of think-aloud protocols produced by domain experts as they engaged in solving these problems. As can be seen in Figure 6.2, the numbered procedures in the problem schema are organized into a hierarchy of procedures and sub-procedures that experts use to organize and solve the component tasks in solving this problem of determining the external forces acting on a beam. The problem schema consists of three main sub-procedures (corresponding to its main subtasks): 1.1: Drawing the Beam Identifying its Supports and Loads (the diagram at the top of Figure 6.1), 1.2: Determine the Reactions Using Equilibrium Equations, and 1.3: Drawing the Free Body Diagram (a diagram of the beam with all of its loads and reactions). The second of these (Procedure 1.2) decomposes into four steps experts use to solve the problem, and the second of these consists of three sub-procedures, etc.

In Figure 6.2, the utterance numbers for all C-acts produced by the tutor (T) or by the student (S) are given corresponding to each component of the frame as it was being discussed in the tutorial dialog. The speaker alternations (given in the Figure) reflect the preponderant initiation of conversational exchanges by the tutor followed by responses from the student. The sequence of utterance numbers shows how the problem schema functioned to frame the organization and sequencing of topics discussed in the discourse. As can be seen in the Figure, the tutor organized her dialog with the student to systematically discuss and apply the methods needed to solve the problem in a certain order; she chose to start with high level goals (1.2 Determining the reactions), proceed with a sequence of intermediate goals at different levels, and end with 1.3 (Drawing the Free Body Diagram).

This tutorial discourse is organized as a sequence of conversational actions that were accompanied by problem-solving actions as the tutor modeled how to solve the problem for the student. At any point in her dialog the tutor can focus her discourse on a relatively high-level procedure (or goal) such as 1.2 (*determining the reactions*), or she can focus on a lower-level procedure such as 1.2.2.1 (*write and expand moment equation*), and she does this through her interactions with the student through an orderly sequence of conversational actions and sequences.

What is interesting is how the problem schema, which is a key to how experts organize their knowledge in such domains, functioned to frame both the tutor's problem-solving actions and her sequence of conversational exchanges which she used to organize the content of her dialog with the student. Like the staging of events for an audience in a play, the order in which she introduced problem-solving procedures to the student was framed by the

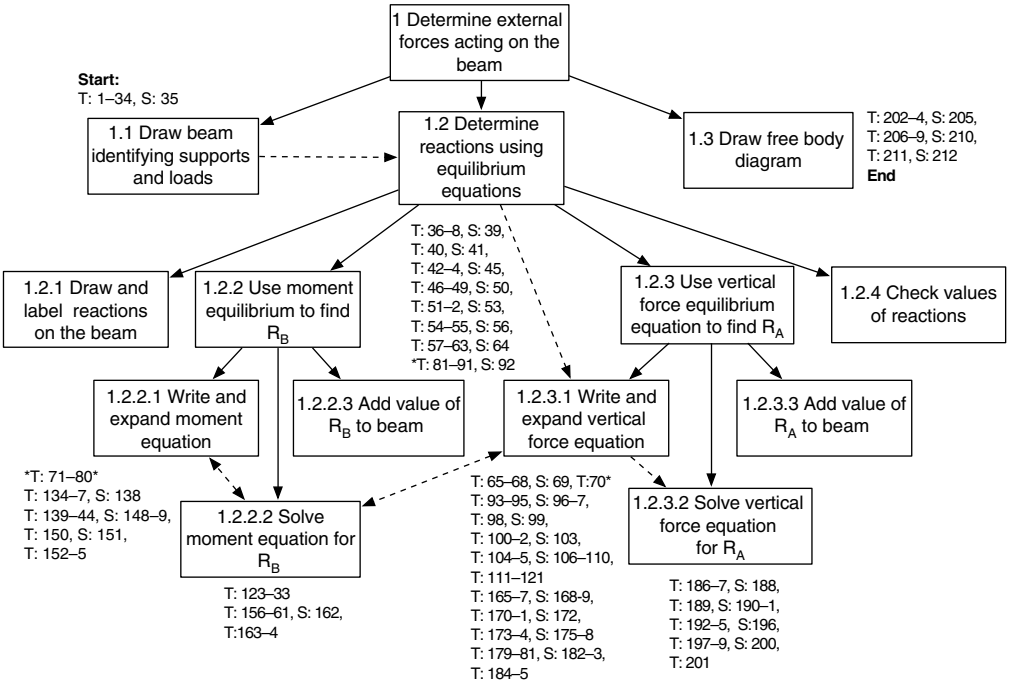


Figure 6.2. Trace of speaker alternations during modeling (Problem 1)

problem schema and determined by choices she made as she tailored her introduction of information about solving problems in this domain for the student as she was tutoring. The tutor used her tutorial dialog with the student to show the student how to solve the problem while simultaneously explaining the underlying knowledge, reasoning and methods used to understand and solve the problem. Thus, the discourse interactions functioned to communicate conceptual knowledge and reasoning processes to the student in a context of understanding and solving the problem.

The discourse analysis of tutor modeling in this case provides a moment-by-moment trace of how the tutor used her conversational interaction with Marie to support Marie's development of knowledge in this domain and competency in applying it to solve Problem 1. The same discourse analysis methods were applied to tutorial interactions for all of the problem tasks for all three students, and for the modeling session (Problem 1) and the two coaching sessions (Problems 2 and 3). The qualitative results were similar for all three students, with some differences that appeared to be related to differences in the students' background knowledge and experience.

3.1.4 Session 1 frequency data To enable generalizations from the coding of the tutorial dialogs for all three students and to investigate similarities and differences in the tutor's and students' extent of production of each type of C-act and problem-solving action during the modeling session (Problem 1) and subsequent coaching sessions (Problems 2 and 3), we studied the frequencies of different types of conversational actions (Table 6.1) and problem-solving actions (Table 6.2) produced by the tutor and by the students during the three sessions. The first three rows of Table 6.1 give the frequencies (and percent) of types of *conversational actions* for the three students and the tutor during the modeling dialog during Session 1,

Table 6.1. Frequencies (%) of discourse units for types of conversational actions by speakers (Student, Tutor) for Problem P1 (Modeling) and Problems P2 and P3 (Coaching)

Speaker	*Type of conversational action*					*Total (%)*
	Assertive	*Regulative*	*Requestive*	*Responsive*	*Other*	
Problem 1:						
Student	68 (6.67)	32 (9.58)	10 (5.65)	243 (55.61)	35 (39.77)	388 (18.88)
Tutor	951 (93.33)	302 (90.42)	167 (94.35)	194 (44.39)	53 (60.23)	1667 (81.12)
Total (%)	1019 (49.59)	334 (16.25)	177 (8.61)	437 (21.27)	88 (4.28)	2,055
Problem 2:						
Student	184 (76.03)	16 (37.21)	2 (5.56)	158 (43.63)	15 (45.45)	375 (52.97)
Tutor	58 (23.97)	27 (62.79)	34 (94.44)	196 (55.37)	18 (54.55)	333 (47.03)
Total (%)	242 (34.18)	43 (6.07)	36 (5.08)	354 (50.00)	33 (4.66)	708
Problem 3:						
Student	239 (71.13)	36 (32.43)	21 (27.27)	130 (43.19)	48 (60.00)	474 (52.38)
Tutor	97 (28.87)	75 (67.57)	56 (72.73)	171 (56.81)	32 (40.00)	431 (47.62)
Total (%)	336 (37.13)	111 (12.26)	77 (8.51)	301 (33.26)	80 (8.84)	905

pooling over the students and the four component problem tasks. Frequencies (and percents) of types of *problem-solving actions* are given in the first three rows of Table 6.2. These frequencies provide summary data that enable us to study regularities and patterns in the numbers and kinds of C-acts the tutor and the students produced in their contributions to the modeling dialog in Session 1, and in the numbers and kinds of problem-solving actions the tutor and the students employed as the tutor modeled how to solve the problem for the student.

As can be seen in Table 6.1, during Session 1 the tutor produced 81.12% of the total of all *conversational actions* produced. The frequencies for each type of C-act show that the tutor consistently used *assertive C-acts* in combination with *requestive* and *regulative C-acts* as she modeled for the student the knowledge, methods and reasoning processes that are used to solve problems in the domain. The students' C-acts consisted mainly of *responsive* C-acts as they responded to the tutor's assertions, requests and regulative C-acts.

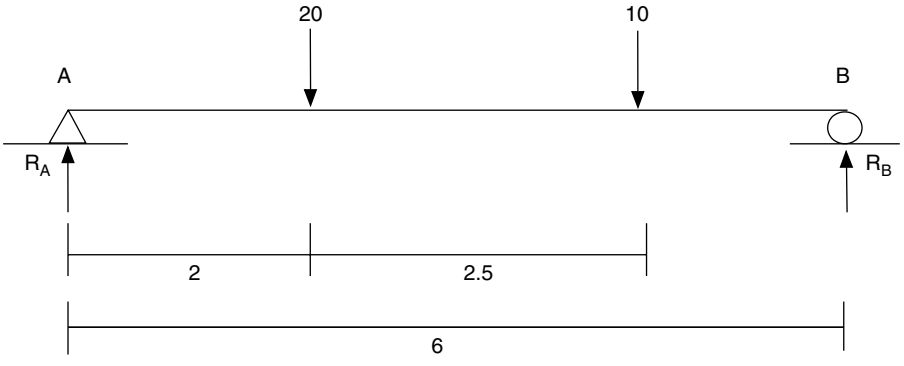
Frequencies of different types of *problem-solving actions* produced by the tutor during Session 1 show that the tutor modeled the full range of types of problem-solving actions for the student: *explanations*, *planning actions*, *interpretations*, *executions* and *reasoning* actions (Table 6.2). She also produced almost all the *evaluations* of the results of her own and the students' actions. The students contributed to *executing* actions, *reasoning* about the problem, and *interpreting* the problem state, drawing on their prior knowledge and experience, e.g., in the mechanics of solving the equations or in applying their knowledge of Newton's laws of mechanics.

3.2 Coaching dialog (Problem 2)

Let us now turn to the tutorial discourse during Session 2 in which the tutor shifted to coaching Marie as she attempted to solve a second problem. The transcript of the discourse interaction of the tutor with Marie at the beginning of the second session is given in Appendix 2. The tutor began by drawing the diagram consisting of the beam with its dimensions, external forces and supports (at A and B), and two concentrated loads acting on the beam (given in Figure 6.3).

Table 6.2. Frequencies (%) of discourse units for types of problem-solving actions by speakers (Student, Tutor) for Problem 1 (Modeling) and Problems 2 and 3 (Coaching)

Speaker	*Type of problem-solving action*							*Total*
	Evaluate	*Execute*	*Explain*	*Interpret*	*Plan*	*Reason*	*Other*	
Problem 1:								
Student	11 (10.78)	84 (24.07)	69 (12.57)	73 (22.39)	36 (13.43)	94 (27.49)	21 (17.65)	388 (18.88)
Tutor	91 (89.22)	265 (75.93)	480 (87.43)	253 (77.61)	232 (86.57)	248 (72.51)	98 (82.35)	1667 (81.12)
Total (%)	102 (4.96)	349 (16.98)	549 (26.72)	326 (15.86)	268 (13.04)	342 (16.64)	119 (5.79)	2055
Problem 2:								
Student	56 (33.14)	104 (67.53)	17 (38.64)	45 (69.23)	27 (40.91)	110 (63.58)	16 (43.24)	375 (52.97)
Tutor	113 (66.86)	50 (32.47)	27 (61.36)	20 (30.77)	39 (59.09)	63 (36.42)	21 (56.76)	333 (47.03)
Total (%)	169 (23.87)	154 (21.75)	44 (6.21)	65 (9.18)	66 (9.32)	173 (24.44)	37 (5.23)	708
Problem 3:								
Student	40 (32.79)	116 (66.29)	37 (34.26)	54 (50.94)	42 (42.86)	169 (64.75)	16 (45.71)	474 (52.38)
Tutor	82 (67.21)	59 (33.71)	71 (65.74)	52 (49.06)	56 (57.14)	92 (35.25)	19 (54.29)	431 (47.62)
Total (%)	122 (13.48)	175 (19.34)	108 (11.93)	106 (11.71)	98 (10.83)	261 (28.84)	35 (3.87)	905



$$\Sigma F_y = R_A - 20 - 10 + R_B = 0$$

$$\Sigma M_A = -20 \cdot 2 - 10 \cdot 4.5 + R_B \cdot 6 = 0$$

$$R_B = 14.2$$

$$R_A = 15.8$$

Figure 6.3. Solution diagram for Problem 2 – Tutor Coaching

After setting up the problem for Marie, the tutor pauses and Marie initiates the dialog by asking: *Well what do you want me to do?* (line 855). The tutor then sets up the coaching session by saying: *You are going to go through all the steps* (line 857). She prompts the student to begin solving the problem: *First to find- well what we start with is-* (line 859), and Marie asks: *the reactions?* (line 860) The tutor replies: *the reactions, yeah*. (lines 861–862). Marie starts to solve the problem with: *OK so I'm looking for* ( ) (line 863) and the tutor draws the reactions R_A at A and R_B at B.

At this point the coaching dialog takes on a typical form in which Marie initiates conversational exchanges with the tutor. These typically begin with Marie expressing her thinking as she performs a problem-solving action. Typically the tutor responds in ways that agree, evaluate, suggest, prompt or contribute in other ways to Marie's understanding and solution process. In this way, the tutor's contributions to the dialog support Marie as she works on solving this new problem and provide her with evaluative feedback, suggestions and assistance through her discourse as Marie constructs the graph, writes and then solves the two equilibrium equations. Later in the session, as the tutor continues to coach Marie as she works on solving more complex tasks in solving the larger problem, the tutor returns to modeling aspects of problem solving that are new or present difficulties for the student.

Figure 6.4 presents the *problem schema* for this problem task with the trace of the student–tutor dialog exchanges mapped against the components of the problem schema in the order in which they were being applied by Marie and discussed with the tutor as Marie worked on solving the problem. The tutorial discourse began with dialog sequences for nodes 1.1 and 1.2.1, both of which were initiated by the tutor. Subsequent dialog sequences were associated with procedures in the order in which Marie applied them to solve the problem. All of these conversational sequences were initiated by the student (Marie) and not by the tutor. They correspond to procedures at lower levels in the schema and reflect the order in which Marie applied these procedures in carrying out the solution process. The order in which they were applied reflects Marie's application of the 'expert model'. Thus, Marie was applying the procedures in a manner similar to that of an 'expert' but with coaching assistance from the tutor.

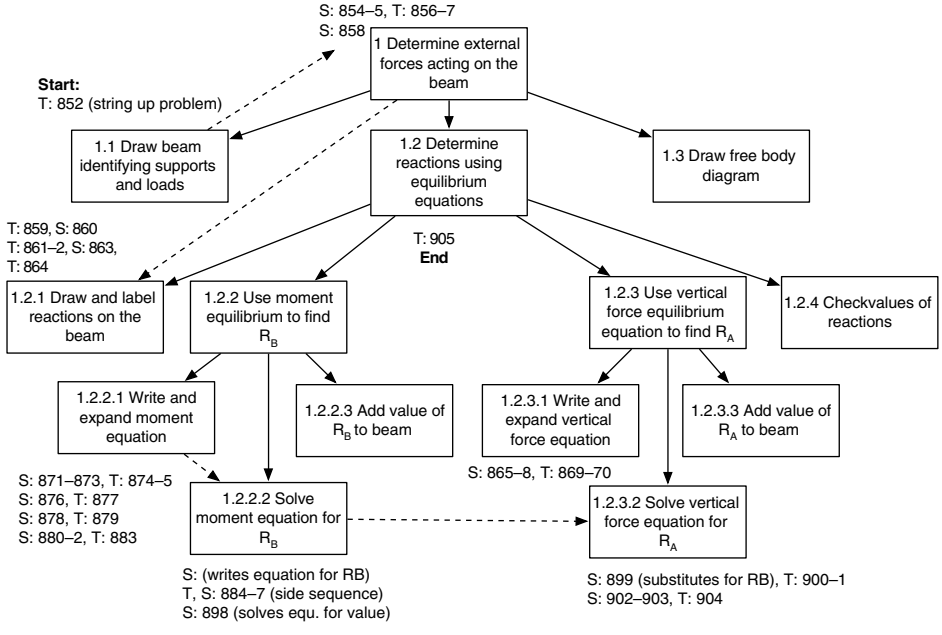


Figure 6.4. Trace of speaker alternations during coaching (Problem 2)

This trace analysis of the tutorial discourse during Session 2 reveals how the conversational interaction was framed by the application of the problem schema as it was being applied to solve the problem. The initiation of dialog exchanges and sequences by Marie reflects her learning; that is, her acquisition of knowledge of the logic and structure of these problems and of the methods for reasoning about and solving them. The tutor's contributions to the dialog were those of a coach – providing evaluative feedback, support and assistance to help the student develop independent competency and expertise in the domain. To examine whether these conclusions, based on discourse analysis of the tutorial dialog between Marie and the Tutor in Session 2, could be supported by results from discourse analysis of the tutor's dialog with the other two students in Session 2, we turned to the frequency data.

3.3 Sessions 2 and 3 frequency data

As in the case of Session 1, frequencies of types of C-acts and problem-solving actions produced by the tutor and by the students were compiled for all three of the problem tasks in solving a Shear Force and Bending Moments problem (not just the first problem task presented here) and pooled over all three of the students and all of the problem tasks. These frequencies (seen in the second and third sets of rows in the tables) provide summary data that reflect general trends and regularities in the production of different types of C-acts (Table 6.1) and problem-solving actions (Table 6.2) by the tutor and by the students during tutoring sessions for Problem 2 (Session 2) and Problem 3 (Session 3). Problem 3 was more difficult than Problem 2 and required additional knowledge for its solution. Comparison of these frequencies to those in Session 1 can provide information about how the conversational discourse functioned differently during 'coaching' (Sessions 2 and 3) as compared to the 'modeling' discourse we saw in Session 1. It also can provide evidence of the students' learning as reflected in a shift in the production of problem-solving actions to the students.

First, consider the frequencies of types of *conversational actions* during the coaching Sessions 2 and 3 (Table 1). The student and the tutor contributed about equal total numbers of C-acts to the dialog in both Sessions 2 and 3. The students initiated more of the conversational exchanges, and their contributions to the discourse consisted largely of *assertive* C-acts, a category in which they produced a large majority of C-acts (76.03% in Session 2 and 71.13% in Session 3). The tutor's contributions to the dialog exchanges in Sessions 2 and 3 consisted largely of *responsive C-acts*. The tutor produced 55.37% of *responses* in Session 2, and 56.81% in Session 3. The tutor contributed only 23.97% of *assertive* C-acts in Session 2. In Session 3, the tutor's percent of *assertive* C-acts increased to 28.87% as she explained unfamiliar aspects of the new and more complex problem to the students.

The frequencies of *problem-solving actions* produced by the students and the tutor during the two coaching sessions (Sessions 2 and 3) show that the students took greater initiative in solving the problems in Sessions 2 and 3: in Session 2 the students produced 52.97% of the *total* problem-solving actions, and in Session 3 the students produced 52.38%. The frequencies of specific *types* of problem-solving actions in Sessions 2 and 3 show that the students carried out the full range of actions, and dominated some problem-solving categories: *reasoning*; *executing* problem-solving actions; and *interpreting* the problem state. In Session 2, the tutor's problem-solving actions emphasized *evaluating* the students' problem-solving actions, a category in which she produced the majority of actions. She also contributed other problem-solving actions in coaching the student, producing the majority of *planning* and *explaining*, but a minority of *interpreting* and *reasoning*. In Session 3, the tutor placed more emphasis on *interpreting* as she modeled new and unfamiliar aspects of Problem 3.

3.4 Comparison of frequencies of conversational actions and problem-solving actions across sessions

Clearly, these results show pronounced shifts in the total amount and patterns of frequencies of both conversational actions and problem-solving actions produced by the speakers (the tutor and the students) between the modeling sessions (Session 1) and the two coaching sessions (Sessions 2 and 3). During Session 1, the tutor initiated most conversational sequences using *assertive* C-acts together with *regulatives* and *requestives* as she systematically explained and demonstrated the methods, knowledge and reasoning processes that are used to solve problems in this domain. In Session 2, there was a pronounced shift to a conversational pattern in which the students' assertions played a predominant role in the conversation. These shifts reflect differences between a conversational structure associated with modeling dialog in which the tutor is demonstrating and explaining how to solve problems in the domain to a conversational structure associated with coaching dialog in which the student takes the initiative in solving new problems, with evaluative feedback and assistance from the tutor (modeling dialog) when the student encounters difficulties in solving a component of the problem.

This shift in the conversational structure is associated with the types and extent of the tutor's and the students' problem-solving actions. In Session 1, the tutor produced most of the problem-solving actions, modeling the full range of types of problem-solving actions as she used an example of a problem from the domain to demonstrate, explain and model problem-solving methods for the student. In the coaching sessions, the tutor shifted her role to that of a coach, providing evaluative feedback as well as assistance and explanations to the student when it was needed. The extent to which all three students took charge in solving problems 2 and 3 and their success in doing so provides evidence of their learning in this complex domain, and of the efficacy and nature of modeling and coaching processes.[1]

4. Conclusions

The example we presented of one-to-one tutoring over time illustrates many of the features that can be seen by looking at both the interactive structure and discourse content in contexts of educational interaction. What is immediately apparent is how both the structure and the content of the tutor's talk adjust to the students' level of knowledge in the situation. The tutoring sessions can be viewed as conversations in which the tutor initially controls the dialog with the students, but over sessions, as the students progressed, the students begin to control the interaction. At the same time, the content of the tutoring discourse is organized as a series of problem-solving actions by both the tutor and the students in which their actions are framed by their knowledge of the problem schema. These organizational structures function together to create the shifting learning environment and it is through the study of this shifting environment, and changes in the contributions of the performers within it, that we are able to view the learning process.

Our goal in studying any situation in which students are expected to learn is to show how learning by the individual and the group is supported by the social and cognitive actions that are realized through their discourse. The question that must be answered is how does the interactive environment support, or not support, learning. This question can only be addressed by looking at the educational context over time. Time is required to see changes in student actions that allow us to infer learning; time is also required to see how the mentor(s) adapt and allow the learner(s) to demonstrate their changing knowledge. In this way we can document the effectiveness of interactive learning environments and the characteristics of discourse and actions within these environments that make them effective.

NOTE

1 Although not reported in this chapter, the frequency data were analyzed statistically using logistic regression models to predict response variables corresponding to each type of C-act and problem-solving action. Analyses were carried out comparing modeling (P1) and coaching (P2) to evaluate the shifts apparent in the frequency data. Effects of Problem (P1 or P2), Speaker (Tutor, Student), and Student (S1, S2, or S3) and their interactions were tested as predictors of each response type. For example the Problem by Speaker interaction for Assertions was tested to evaluate the statistical significance of the shift in frequencies of assertive C-acts from Session 1 to Session 2. This effect was found to be highly significant ($\chi^2(2) = 58.01$, $p < 0.0001$). Similar tests were carried out for the two coaching sessions (P2 and P3).

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See Chapter 2: Developing a Multi-Faceted Research Process: An Ethnographic Perspective for Reading Across Traditions
See Chapter 3: Understanding Classroom Discourse and Interaction: Qualitative Perspectives.
See Chapter 7: Can Neo-Marxist and Post-Structural Theories in Education Inform Each Other? Using Genre Approaches to Bridge the Gap.
See Chapter 8: The Role of Talk in Group Based Activity in Language Classrooms
See Chapter 9: The Sequential Analysis of Instruction

Appendix 1 Problem 1 dialogue with the novice student (modeling)

@Situation: (TOP) SHEAR FORCE AND BENDING MOMENT PROBLEMS

(1)Tutor draws beam.

*TUT: 1 okay
*TUT: 2 so the first course you will probably study is called statics.
*TUT: 3 and it's the study of bodies and forces exerted on bodies
*TUT: 4 and what you're interested in is to find at any point in the beam what is the resultant force,
*TUT: 5 because that will help you to decide what type of body you can choose and what type of material.
*TUT: 6 but before you can choose
*TUT: 7 you must know what are the forces at a given section,
*TUT: 8 okay?
*STU: 9 okay.
*TUT: 10 so the type of bodies we'll study in this simulation- () maybe also a bit of mechanics- are these.

@Situation: (1.1) DRAW BEAM IDENTIFYING ALL SUPPORTS AND LOADS

(2)*Tutor draws two supports for beam.*

*TUT: 11 okay (adds supports to beam)
*TUT: 12 we'll have some supports.
*TUT: 13 that's the little triangles like this.

(3) Tutor adds distributed load.

*TUT: 14 and any type of forces.
*TUT: 15 for example this can be any type of snow load for example.
*TUT: 16 and it's distributed along the the length

(4) Tutor adds concentrated load 20 kn.

*TUT: 17 and then let's say you have a really big ah let's say air conditionning equipment that is really heavy
*TUT: 18 so it'd be a concentrated force acting there.
*TUT: 19 okay?
*TUT: 20 and I could say it's ().
*TUT: 21 so this is let's say 20 kN.
*TUT: 22 and this is a distributed load
*TUT: 23 so it's Newton per unit length.
*TUT: 24 okay?
*TUT: 25 so let's say one kN per meter.
*TUT: 26 so if we want-

(6) Tutor adds 5 m line below beam from start to midpoint.

*TUT: 27 umm I also put some dimensions.
*TUT: 28 okay
*TUT: 29 this is our midpoint
*TUT: 30 so it's let's say 5 meters.

(7) Tutor adds 10 m line below beam.

*TUT: 31 this and this whole thing is (10) meters.

(8)Tutor labels ends of beam A left and B right.

*TUT: 32 and this is a point
*TUT: 33 and this is a point.
*TUT: 34 alright?
*STU: 35 um hum.

Appendix 2 Problem 2 dialogue with novice student (coaching)

@Situation: (1.1) DRAW BEAM WITH SUPPORTS AND LOADS
(2) Tutor draws left support A; (3) right support B; (4) draws 2 m segment below beam; draws 2.5 m line segment from end of first segment and draws 20 kN concentrated load vector above first hatch mark.
*TUT: 852 (setting up problem)

@Situation: (TOP LEVEL) SHEAR FORCE AND BENDING MOMENTS PROBLEMS
(5) Tutor draws second concentrated load above hatch mark at end of second line segment and draws new 6 m line segment below with length equal to length of beam.
*STU: 854 ok.
*STU: 855 well what do you want me to do?
*TUT: 856 ok.

@Situation: (1) DETERMINE EXTERNAL FORCES ACTING ON THE BEAM
*TUT: 857 you are going to go through all the steps.
*STU: 858 ok.

@Situation: (1.2) DRAW AND LABEL REACTIONS ON THE BEAM
*TUT: 859 first to find- well what we start with is-
*STU: 860 the reactions?
*TUT: 861 the reactions
*TUT: 862 yeah.
*STU: 863 ok so I'm looking for ()?
(6) Tutor draws reaction R_A at A.
*TUT: 864 yeah.

@Situation: (1.2.3.1) WRITE AND EXPAND VERTICAL FORCE EQUATION
(7) Tutor draws reaction R_B at B.
*STU: 865 and ah ok
(8) Student writes: $\Sigma Fy =$ (below line segments).
*STU: 866 so I've got only vertical forces.
*STU: 867 so sum of the Fy is gonna be () plus ().
(9) Student adds R_A term to the equation;
(10) adds –20 to equation;
(11) adds –10;
(12) adds + RB.
*STU: 868 umh umm you're supposing it's a weightless ()?
*TUT: 869 yeah, yeah
*TUT: 870 (weightless).

@Situation: (1.2.2.1) WRITE AND EXPAND MOMENT EQUATION
(14) Student adds '= 0' to equation.
*STU: 871 umm then the sum of the moments
*STU: 872 ok
*STU: 873 we'll do it umm at that point.
*TUT: 874 ok
*TUT: 875 very good.
(15) Student writes new equation on next line beginning with: $\Sigma M_A = -20 \times 2$.
*STU: 876 so I-, it's 0 convention makes it minus 20 times 2.
*TUT: 877 um hum.

(16) Student adds '–10 times 4.5' term to equation.
*STU: 878 so well what should I write there?
*TUT: 879 um hum.
*STU: 880 and then the next one will be minus 10 times 2.5 ah no times 4.5.
(17) Student adds '+Rb times 6' term to equation.
*STU: 881 and then the last one will be plus () times 6. Three () *(18) Student adds '=0' to equation.*
*STU: 882 because it's in equilibrium so ().
*TUT: 883 um hum.

7 Can Neo-Marxian and Poststructural Theories in Education Inform Each Other? Using Genre Approaches to Bridge the Gap

ROSS COLLIN AND MICHAEL W. APPLE

1. Introduction

Over the past forty years, critical researchers in education studies have mobilized neo-Marxian and poststructural theories to make sense of interactions in and around classrooms. These two traditions have often been placed at odds for both intellectual and political reasons. While neo-Marxism strives to understand and reconfigure the sets of relations structuring social orders (e.g., the relations of schooling, capital accumulation, paid and unpaid labor, the cultural forms associated with 'late capitalism,' and similar phenomena), poststructuralism seeks to show how social realities are constructed and reconstructed through processes of signification. And while neo-Marxism maintains connections to leftist political projects of winning state power and supporting workers' rights, poststructuralism (though not every poststructuralist) calls into question the realities of class identity and worker solidarity at the heart of certain left-wing politics.

Many scholars working in different neo-Marxian traditions (the plural is important here) have broadened the scope of Marxism's underlying assumptions (see e.g., Apple 2006, 2013; See also Apple, Au, and Gandin 2009). Even with the broadening of Marxian theories, their differences with poststructural theories are real and cannot be completely reconciled. In this survey, however, we show how the two approaches complement each other *in certain respects*. Moreover, we indicate how neo-Marxian and poststructural theories may be brought together in a framework based in rhetorical theories of genre.

To begin, we review neo-Marxian and poststructural approaches to studying classroom interaction. We ask of each approach: 'How does it work? What procedures does it offer for posing and answering questions about classroom interaction? What does it bring into view and what does it obscure?' Given the breadth of our topic, we can provide only partial answers to these questions. Thus, we consider different approaches' ways of analyzing (a) the development of different forms of consciousness, (b) the reproduction of the social order, and (c) the relations between classroom processes and other processes in social

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ensembles (also called 'assemblages,' 'social wholes,' and 'totalities'). After reviewing neo-Marxian and allied analyses, as well as poststructural approaches, we explain how the different traditions can be fused via rhetorical theories of genre. The latter theories enable researchers to hold together the material and discursive sides of classroom interactions and thus allow researchers to examine how classroom interactions shape and are shaped by other processes in the social ensemble.

2. Neo-Marxism

2.1 Overview

In this section, we examine different neo-Marxian approaches to the study of classroom interaction. We consider how these approaches bring into view certain processes and obscure others. Specifically, we investigate how neo-Marxian approaches figure and relate classroom processes with processes in other domains (e.g., the wider economy). For most Marxian theories, the relations between the processes that constitute social ensembles are key objects of study. While more orthodox Marxists view cultural processes as reflections of economic processes, many *neo*-Marxists view cultural and economic processes as mutually constitutive and, at times, contradictory phenomena. And because cultural processes are not determined entirely by economic processes, groups are able to develop different ways of viewing and responding to the contradictions they encounter (see, e.g., Williams 1977; Eagleton 2011). To begin our investigation, we consider correspondence theory, a Marxian perspective against which many neo-Marxian approaches developed.

2.2 Correspondence

In their widely read volume *Schooling in Capitalist America: Educational Reform and the Contradictions of Economic Life*, Bowles and Gintis (1976) consider how schooling helps reproduce the socio-economic order of the USA. At the heart of their analysis is a correspondence theory of the relations between processes in classrooms and processes in the wider economy. In this perspective, classroom processes of interacting with superiors, relating to peers, monitoring time, and so forth are seen as corresponding to, or reflecting, the processes carried out in (paying) workplaces across the economy. This reflection is achieved both directly (e.g., when policymakers institute career readiness programs) and indirectly (e.g., when educators set rules and interact with students in ways that will prepare students for 'the real world' of work). Furthermore, argue Bowles and Gintis, by acculturating different students to different forms of consciousness, the education system sorts students into different slots in the socio-economic order. That is, the system leads students through a hidden curriculum that helps reproduce an unequal society.

For instance, elementary and middle schools stress obedience and basic skills, high schools introduce a degree of personal initiative, and colleges and universities emphasize self-direction and internalization of organizational norms. Students who complete only middle school, therefore, will be prepared for working class labor, while those who complete college will be prepared for upper-middle class work. Moreover, Bowles and Gintis observe, schools at the same level often educate students in different ways. Compare, for instance, an urban, working class high school that stresses discipline and obedience with a suburban, middle class school that emphasizes creativity and self expression (Anyon 1980). Graduates of these two schools would likely gravitate to different strata of

the workforce. Thus, by passing through the hidden curriculum of the school and acquiring forms of consciousness 'appropriate' to their class, students are conditioned to rebuild a stratified social order.

2.3 Conflict

Whereas correspondence theory places classrooms in a more-or-less fixed structure in which schools reflect the wider economy, neo-Marxian theories of conflict see classrooms as spaces in which disparate cultural and economic processes tangle and co-evolve (see Apple 2004, 2012; McRobbie 1978; Willis 1977). That is, classrooms are unsteady ensembles constituted by interacting and often conflicting processes of social organization, peer interaction, instruction, assessment, career preparation, care for the young, and so forth.

Two related points become important here. First, many processes carried out in classrooms link schools to other parts of the social whole. Processes of career preparation, for example, take place in schools, paying and non-paying workplaces, job centers, state legislatures, and so forth. Because social processes run through different spaces, changes to a process in one space may affect interactions in another space. For example, as more and more students are encouraged to earn college degrees, increasing pressure is put on business and political leaders to maintain an economy that offers employment to a more educated and more deeply indebted workforce. Second, the different processes brought together in classrooms often move in different directions. For instance, some processes of peer interaction emphasize solidarity and cooperation. Some processes of instruction, however, stress competition between students. When teachers and students attempt to carry out these different processes in the same classroom, there emerge contradictions and conflicts actors are pressured to resolve.

According to conflict theory, actors both challenge and reproduce social relations in schools and society by working through contradictions in the classroom. That is, unlike correspondence theory, which understands social reproduction as a more-or-less automatic process, conflict theory sees it as the outcome of active agents struggling to solve problems. To perceive and respond to a given contradiction, conflict theory states, an actor mobilizes knowledge available in her groups' cultural repertoires. These group-normed ways of viewing and acting in the world are defined as 'ideologies' (or 'dispositions'—see below). Given the partiality of ideologies, an actor's assessment of and solution to a problem will pick up on some, but not all, of the aspects of the contradiction. Thus, her response may resolve some parts of the problem and replicate others. In this way, the social relations of the classroom are both adapted and reproduced. Due to the interconnections between spaces in a social ensemble, moreover, her efforts in the classroom may inform her efforts in other areas. For instance, the ways she interacts with her teacher may inform the ways she interacts with her employer (and vice-versa). Therefore, classroom practice can inform practice in other parts of the social world. The conflict-driven reproduction of classroom relations, then, is bound up with the conflict-driven reproduction of relations of the larger society. Contradictions and tensions abound in each of these sites.

The classic illustration of the conflict view is provided by Willis (1977) in *Learning to Labor: How Working Class Kids get Working Class Jobs.* Willis describes a working class English school attended by a group of boys Willis calls 'the Lads.' When the Lads' liberal teachers try to speak to the boys' interests by teaching about the personal meaning that can be found in work, the Lads reject their teachers' efforts. Drawing upon their working class ideology, which is grounded in their group's lived experience of alienated labor and worker solidarity against bosses, the boys dismiss schooling, in general, and their teachers' efforts at dressing

up work, in particular. On the one hand, the Lads' rejection of schooling makes sense. They understand the deck is stacked against them and they realize they are likely to wind up working in jobs that require few of the skills taught in school. On the other hand, their resistance to school blocks them from the kinds of remunerative work that require advanced schooling and locks them into a life of low-paying jobs (see also Talmy, this volume). Thus, working class kids get working class jobs not through a simple process of correspondence between school and economy, but through conflict, through the active efforts of students and educators working through contradictions. Crucially, Willis leaves room in his study for a way out: students from marginalized groups may be able to break this cycle through critical, transformative education that starts from the good sense in students' ideologies and then builds to a movement for justice (see also Apple 2012).

2.4 Field and disposition

Complementing neo-Marxian theories of conflict and ideology are theories of field and disposition (called 'code' by Bernstein (1977, 1996) and 'habitus' by Bourdieu (1977, 1984, 1992, 1998). While these theories are not Marxian in a technical sense, they are used often by theorists working in Marxian traditions. Through action over time, these theories hold, people divide the world into different fields that call forth different identities and relationships, operate with different rules, and value different social goods. For instance, the field of paid work: features employers, employees, coworkers, and customers; recognizes rules of punctuality, collegiality, and order-following; and rewards effort with pay. In contrast, the field of education: features students, teachers, and administrators; promotes rules of student conduct; and rewards effort with grades.

Fields, however, are not static. Rather, they are shaped and reshaped as groups work to reconstitute them to their own advantage. Middle class actors in the USA, for instance, work to align the field of education with their ways of: interacting with children (e.g., treating students as near-equals of adults); conducting work (e.g., promoting individual effort); and preparing for the future (e.g., charting students' personal trajectories through college and into professional careers). While inter-class alliances form to promote certain of these efforts, different classes often compete to recast schools in one way and not another.

Consider, for example, parents' disagreements over the place of military recruiters in public high schools (Lagotte 2012). While many middle class parents object to or are uneasy about the military's presence, many working class parents support military recruiting out of patriotism and out of a desire to widen training opportunities for their children.

Over time, actors work out ideas of how different fields connect to one another. For instance, many parents of different classes link the field of paid work to the field of family life by acculturating their children, consciously or unconsciously, to the kinds of values, practices, and relationships they will face in 'the real world' of employment. Parents who perform different kinds of paid work, however, may acculturate their children in different ways. Middle class parents, for instance, often teach their children values, practices, and relationships typical of middle class work (e.g., egalitarianism and personal initiative). By contrast, working class parents often stress orientations valued in many working class occupations (e.g., hard work and dedication) (see Lareau 2003).

Through their group-normed experiences working within and across fields, actors develop dispositions for navigating the social world. Thus, when an actor recognizes a familiar situation, she draws upon her disposition for navigating that type of situation. When an actor faces an unfamiliar situation, she may still draw upon her established disposition and try to align the identities, relationships, and rules of the new situation with those

of a familiar situation. Her success depends upon other actors' willingness to recognize her new performance as a legitimate way of navigating the situation and field.

When children enter the unfamiliar situation of the classroom, they draw upon the dispositions developed at home and in other environments where they interact with adults in positions of authority. Because the classroom and the larger field of education is arranged to favor the practices and values of the middle class, however, the performances of middle class students are often judged by educators to be more appropriate than the performances of working class students. For instance, middle class children, brought up by their parents to talk a lot to unknown adults, are often perceived by their middle class teachers to be 'good students' or even 'gifted.' Working class students, taught to cede conversational air time to unknown adults, are often classified by middle class teachers as 'indifferent' or even 'slow' (see Lareau 2003). While these teachers may believe they are measuring students' natural intelligence, they may be assessing students' classed dispositions. Thus, the sorting of middle class students to the top and working class students to the bottom of the school hierarchy is achieved not through some mechanical process, as in correspondence theory, but through the active and creative practices of students and educators. While we have focused largely on neo-Marxian analyses and assumptions about class relations, these arguments may be extended to considerations of gender and race (see, for example, Apple, Au, and Gandin 2009; Leonardo 2009; Lynch, Baker, and Lyons 2009; Lipman 2011; Arnot 2013).

2.5 Summary of neo-Marxian perspectives

What, then, do neo-Marxian approaches have to say about (a) the development of different forms of consciousness, (b) the reproduction of the social order, and (c) the relations between classroom processes and other processes in social ensembles?

Unlike correspondence theory, which construes the development of consciousness as a more or less automatic process (working class students are taught to obey, so they obey), neo-Marxian theories view the formation of consciousness as a matter of conflict and contradiction. To perceive and resolve contradictions in the classroom, students draw upon their dispositions, or group-normed ways of thinking and acting. Depending on the outcome of their efforts, they ratify or alter their dispositions.

Because the field of education is not neutral—groups struggle to arrange the field in their own favor—students' disposition-driven efforts to resolve contradictions are read in different ways. As noted above, white middle class groups have succeeded in restructuring much of the field of education to meet their own needs. Thus, in schools, the actions of white middle class students are often assessed more favorably than the actions of working class students of color. In this way, students from dominant groups are sorted to the head of the class and students from marginalized groups are sorted to the back.

The process of sorting students in the classroom sets up and is set up by processes in other parts of the larger social ensemble. Unlike correspondence theory, which characterizes cultural processes as reflections of economic processes, neo-Marxian theories hold that cultural and economic processes co-evolve. Children's dispositions for interacting with unknown authorities, for instance, are developed in spaces including the home and are informed by their parents' experiences interacting with authorities at work. Furthermore, by working out disposition-driven ways of navigating the field of education, students develop templates for navigating other official fields (e.g., work, law, etc.). As other official fields are also tilted toward the powerful, however, the strategies people work out in school are likely to yield similar results when used in other parts of the world. Thus, while correspondence theory figures the reproduction of the social order as an automatic process, neo-Marxian

theories construe reproduction as the outcome of actors' efforts to arrange fields in their own favor and to resolve contradictions by drawing upon their group-normed dispositions. A clear focus on contradictions and contested reproduction is now the norm in those studies of classrooms that have been influenced by neo-Marxian theories (see, e.g., Apple, Au, and Gandin 2009; Apple, Ball, and Gandin 2010).

While neo-Marxian approaches to the study of classroom interaction helped education studies break out of the reductiveness of correspondence approaches, they are still critiqued at times for overemphasizing social structures, in general, and class structures, in particular. Rightly or wrongly, neo-Marxian approaches are often charged with reducing the vast multiplicity of social forms down to a few underlying patterns. At worst, the full range of actions, ideas, relationships, subjectivities, and so forth are seen as mere reflections of the class processes at the heart of the economy. While we believe these charges are better leveled at correspondence theories, the fact remains that neo-Marxism is often accused of economic reductivism, even when it is the case that such assumptions have been widely challenged *within* neo-Marxian traditions (again the plural is important) for many years (Apple 1982/2012). Recent work in these traditions has become significantly more nuanced and subtle (see Apple, Au, and Gandin 2009). In the following section, we consider certain of the poststructural approaches meant to illuminate what Marxian and other 'modernist' approaches occlude.

3. Poststructuralism

3.1 Overview

Similar to neo-Marxian theories, poststructural theories of society and language originated with a critique of certain modernist theories that view phenomena as occurring within a social whole with fixed patterns of organization and behavior. While neo-Marxists recuperate concepts of totality by emphasizing the contingency and co-evolution of the processes making up the social whole, poststructuralists are more skeptical of efforts to identify and analyze any one 'reality.' The search for fixed patterns structuring a totality, they argue, too often leads researchers to miss the world's diversity and dynamism.

For instance, despite acknowledging that social processes do not simply reflect economic processes, some neo-Marxian theories—but certainly not all (see Apple, Au, and Gandin 2009; Watson 2012)—treat processes of class as more 'real' or at least more important than processes of gender, race and so forth. Taking a different tack, many poststructural theories emphasize how different discourses, or ways of understanding and representing the world, create shifting ways of viewing the self, society, nature, the economy, and so forth. No one discourse (e.g., a discourse of class) is inherently more important than any other discourse (e.g., a discourse of gender). Moreover, poststructural theories stress how social actors endeavor to break up, realign, co-opt, and re-circulate discourses so as to offer new realities for people to live out. From this perspective, power struggles appear as fights to circulate and to get people to live according to a given set of discourses. While many neo-Marxian approaches also examine struggles over meaning, they ultimately view cultural struggles as moments within a society's totality of processes. Many poststructural approaches, by contrast, are less concerned to fit cultural processes into structured wholes, especially when those structured wholes are understood as fixed, static formations. As explained below, however, theorists including Youdell (2011) are working to bridge the divide between post-structural and neo-Marxian approaches by conceiving of totalities as highly unstable, dynamic formations.

4. Foucauldian Theories of Discourse

Many education researchers inspired by poststructuralism take a Foucauldian turn to examine the ways people mobilize discourses to talk about school and the wider world (for a longer discussion of discourse-focused approaches to the study of classroom interaction, see Green, Suskauskaite and Hammond, this volume). Specifically, they study how different discourses construe schooling in different ways and position students, educators, and parents as different kinds of people. For instance, when actors wittingly or unwittingly mobilize consumer discourses to imagine and talk about schooling, they are called to construe education as a transaction between a provider (teacher) and an individual consumer (student). Instead of being fully controlled by a given discourse, an actor may adapt it or blend it with another discourse to imagine school and the wider world in new ways. Indeed, because discourses are human constructions, they are pliable and limited and are therefore able to be transformed. For example, someone might seek to blend consumer discourses and rights discourses to figure quality schooling as the right of every child because every child is an equal consumer. Whether other actors accept this consumer rights discourse as legitimate depends upon their own discourse-derived views of schooling and the wider world.

Gee (1996) shows how discourse analysis can be used to study 'story time' in one first grade class split between white and black students. When the class's white middle class teacher asked students to volunteer to tell a story, she expected students to deliver reports (e.g., 'Yesterday I went to the zoo. I saw a lion sleeping on a rock'). Thus, the teacher was drawing upon a discourse, typical of white middle class communities, that defines the stories children tell adults as reports. In this discourse, a child's story should be prompted by an adult and should be a 'just the facts' account of a real life event. When white middle class students—raised to give reports to adults—used their turns to provide 'just the facts' accounts of real events, the teacher praised their efforts. When an African-American girl told an imaginative, interactive story, however, the teacher stopped her several times mid-tale, telling her to focus and to get back on track. The girl, Gee explains, was mobilizing a discourse of entertainment and involvement. The teacher did not understand that in many African-American communities, reports are reports and stories are stories. Moreover, *good* stories are those that involve the audience and exaggerate details for added effect. In this classroom, then, white students and black students mobilized different discourses to respond to their teacher's request for a story. Because the teacher could not see past the horizon of her own white middle class discourse, however, she could not recognize the different and equally legitimate discourses her students employed.

4.1 Assemblage

Over the past decade, several education researchers inspired by poststructuralism have taken up Deleuze's concept of the social assemblage (see Hickey-Moody 2009; Leahy 2009; Tamboukou 2008; Youdell 2011). In so doing, they have recuperated a notion of totality important to many neo-Marxian researchers. More so than many neo-Marxian definitions of totality, however, the Deleuzian version stresses the openness, dynamism, and contingency of social wholes. Thus, in the latter view, a social assemblage—whether a single school or an entire society—emerges unsteadily out of the interactions of myriad social processes. Such processes include representation, paid labor, subject formation, spatial construction, gendering, artistic production, relationship building, and so on. In contrast to some older Marxian theories, Deleuzian theories of assemblage do not construe processes of labor as

always more 'real' or more 'foundational' than other processes. The power or importance of any one process is worked out as actors struggle to determine which processes to perform in which ways to build a particular assemblage.

At any given time, an assemblage is composed of particular processes that condition and are conditioned by the workings of the social whole. Because different processes promote different values, identities, relationships, and so forth, assemblages are contradictory, conflict-ridden constructions. For instance, a classroom assemblage may include processes of subject formation that individuate children as learners. This process of subject formation may then condition processes of learning—students may be prompted to work on their own and to see cooperation as cheating. Students, however, may resist and may introduce processes that promote cooperative work and enable children to see themselves as co-learners. Thus, like any other assemblage, the classroom is an open, shifting ensemble constituted and reconstituted as actors work through tensions and contradictions. It is the task of the researcher, then, to study how actors work to bring together certain processes in certain ways (and not others) to form an assemblage.

4.2 Summary of poststructural perspectives

Implicit in poststructural notions of discourse and assemblage are ideas about (a) the development of different forms of consciousness, (b) the reproduction of the social order, and (c) the relations between classroom processes and other processes in social ensembles.

In many poststructural theories, students and teachers are seen as developing forms of consciousness by taking up discourses, or ways of representing and viewing the world. For instance, a teacher may come to see education as a technical process of skill building by taking up an instrumental discourse of teaching and learning. Students, however, may seek to interrupt this discourse and mobilize, instead, a discourse of community that defines learning as a social endeavor. Thus, the struggle in the classroom over which discourses will prevail is in fact a struggle over which forms of consciousness students and educators will embody.

According to Deleuzian notions of social assemblage, processes of discourse circulation and performance interact with other social processes to build and rebuild social orders/assemblages. For example, a school assemblage is created through a mix of processes of discourse circulation, instruction, discipline, signification, labor, social organization, resource consumption, and so on. Whether and how a given process interacts with other processes in an assemblage is worked out through ongoing struggle. While processes of labor help build assemblages, they are not always understood as the most important processes in the construction of social wholes. In this way, Deleuzian and other poststructural theories of social reproduction diverge from older Marxian theories. However, this notion of the co-evolution of economic processes and other social processes is close to many *neo*-Marxian views of society.

5. Genre[1]

While, on the whole, neo-Marxian and poststructural traditions tend to diverge, it is important to realize that they may be brought together to investigate classrooms and other sites. Indeed, as one of us has argued, it is by letting these traditions 'rub against each other' that progress can be made in more fully understanding classroom interaction. In this section of our chapter, we will provide one example of how such a merging of traditions might be accomplished.

Researchers may blend the concerns of neo-Marxian theory (e.g., totality and contradiction) and poststructural theory (e.g., discourse and contingency) by mobilizing rhetorical theories of genre (see Bawarshi 2003; Bazerman 2006; Collin 2012b, 2012c, 2013a, 2013b; Devitt 2004; Miller 1984). In the latter approach, genres are seen as (a) 'rhetorical habitats' within which actors recognize recurrent situations and (b) 'rhetorical habits' by which actors build and adapt situations (Bawarshi 2003, p. 113). Specifically, actors use genres to mobilize and adapt the social processes typical of a given situation. These processes include: mental conceptions of the world (including discourses); organizational forms and technologies; social relations; institutional and administrative arrangements; production and labor processes; relations to nature; and the reproduction of daily life (derived from Harvey 2010). Different situations, then, configure different processes in different ways. By defining situations in this manner, researchers may study how, over time, actors develop genres to build situations where they can bring together and harness disparate processes. Through studying how actors build specific situations, in turn, researchers may see how actors construct sub-components of larger assemblages. (In this view, situations are the building blocks of assemblages and assemblages are the social wholes within which situations develop.) Conversely, researchers may discover how different processes interact to over-determine generic forms. That is, the specific processes brought together through a genre to build a situation pressure—but do not force—its users to employ that genre in a specific way. Because different processes move in different directions, moreover, genres and the situations that mediate them emerge as contradictory forms. When they work in a given genre, then, actors face a range of contradictions that shape and delimit their actions.

Consider an extended example. To prepare graduates to negotiate the contradictions of a precarious socio-economic order (see Apple 2006), high schools across the USA have implemented programs that require all students to compose career portfolios (see Collin 2011a, 2011b, 2011c, 2011d, 2012a). The latter genre, comprised of résumés, schoolwork, and personal essays, is a rhetorical habitat in which students recognize the recurrent situations of the job interview and the college interview. By placing themselves in the rhetorical habitat of the career portfolio, that is, students may recognize a range of processes they should (not must) draw together and enact to build the job/college interview. At the same time, the portfolio genre is a rhetorical habit by which students may mobilize and adapt the processes that constitute the interview situation. By using the portfolio genre with his or her interviewers, a student may: construe herself as a go-getter and position his or her interviewers as helpful adults (social relations); mobilize discourses of self-promotion (mental conceptions of the world); and get her plan ratified by the school (organizational forms and institutional arrangements).

While administrators and guidance counselors usually manage portfolio programs, English teachers are typically assigned the task of teaching students to work in the career portfolio genre. Thus, English teachers are compelled by administrators and guidance counselors to use the genre of the career portfolio to perform a new situation in English classrooms: 'teachers coaching students to prepare for work.' In this sense, the career portfolio is meant to function as a kind of lever that can shift English classes towards career preparation. Specifically, administrators and counselors want the portfolio genre to build situations in which English teachers: relate to students as coaches relate to apprentices (social relations); show students how best to promote themselves as entrepreneurial go-getters (labor processes); instruct students to view self-promotion as the best way for all people to secure good work (mental conceptions of the world); and prepare students to take care of themselves and their families by focusing on their individual careers (reproduction of daily life and of the species).

While some English teachers go along with this program, others resist teaching portfolio composition. Indeed, many teachers object to the ways portfolio work clashes with processes constituting typical English classes. These teachers: resent being asked to perform more work for no more pay (labor processes); find the business ethos of portfolio programs a poor fit for the humanist/Romantic ethos of English classes (mental conceptions); and critique portfolio programs' valorization of individualistic career planning as a mechanism for reproducing the advantages of middle class students over their less affluent peers (social relations). Thus, the mere introduction of the career portfolio genre does not automatically change English classes. It does, however, create contradictions among the processes of English classes and pressures teachers and students to resolve those problems in one way or another.

In an English class observed by Collin (2011a), a teacher who acknowledged the class biases of career portfolio programs sought to minimize the effects of those biases by devoting as little time as he could to studying career portfolios in his classroom. This way of resolving portfolio programs' contradictions, however, created new contradictions for his students. Left more or less to their own devices, middle class students used their portfolios to ratify the discourses of self-promotion they learned in their families. Small farming students, on the other hand, used their portfolios to ratify their families' discourses of modesty and hard work. During their mock interviews, middle class students' performances of self-promotion were assessed more favorably than small farming students' performances of modesty. Thus, all in all, middle class students were able to hone their skills at self-promotion—skills that will help them succeed in job markets—while small farming students were not helped either to learn or to critique the discourses of self-promotion validated in the portfolio genre and in consequential interviews. When they sit for actual job interviews and college interviews, small farming students will not be able to draw upon their experiences with career portfolio programs to help them take up discourses of self-promotion. Viewed in this light, the ways students learn to compose and critique the portfolio genre shape their efforts to negotiate the job markets and education markets of the social whole.

5.1 Summary of rhetorical theories of genre

By utilizing the version of genre theory presented in this chapter, researchers may develop nuanced understandings of (a) actors' development of different forms of consciousness, (b) the reproduction of and tension within the social order, and (c) the relations between classroom processes and other processes in social ensembles. Moreover, genre theory enables researchers to blend the concerns of neo-Marxian theory (e.g., totality and contradiction) with the concerns of poststructural theory (e.g., discourse and contingency).

For genre theory, actors develop different forms of consciousness by using specific genres to build and navigate specific material situations. That is, to work in a given genre is to engage in particular forms of material practice and to mobilize particular discourses, or ways of viewing and representing the world. Crucially, though, different actors try to adapt the processes brought together in a genre to build the material world more to their liking. Thus, genres and the material situations they help construct are unstable, contradictory formations. To work in a genre, then, is to face and attempt to resolve the contradictions maintained by that genre and the situation it mediates. English teachers prompted to work with career portfolios, for instance, face the contradiction of mobilizing business-focused discourses in a humanist discipline.

Finally, genre theory fuses neo-Marxian and poststructural notions of totality and reproduction. While genre theory employs a concept of totality, it views totalities as highly unstable and dynamic formations. Because situations are building blocks of totalities and because actors often revise genres to transform situations, totalities cannot be seen as static

constructions. By working to change genres and situations, then, actors work to rebuild the social order. When English teachers ratify the business discourses promoted in career portfolios, for instance, they shore up corporate power and ask students to do the same. When students resist and seek to get other discourses (e.g., those of family solidarity) recognized in the genre and in the classroom, they endeavor to rebuild the world as a different kind of place. Whether and how different discourses will be recognized in a genre and in a situation emerges, therefore, as a key question in the ongoing struggle over the social world.

6. Conclusion

In this chapter, we have argued that even with their differences, aspects of neo-Marxian and poststructural traditions may be brought together in a productive manner. We have used as a prime example a framework based in rhetorical theories of genre. These theories are currently under-used in education research (however, see Collin 2012b, 2012d, 2013a, 2013b; Russell 1997). Importantly, they can be and are being employed both to bring together disparate theories and to shed new light on classroom interactions. The new tools of genre study, that is, may be used to break out of old debates and into new ground.

However, we need to be honest that it will not be easy to break new ground, since there are real epistemological differences between neo-Marxian and poststructural traditions. What is more, there exist heated debates *within* these different traditions. Furthermore, as Bourdieu has reminded us, challenging accepted traditions of and divisions among sociopolitical analyses can also serve to challenge the accepted forms of cultural capital used in mobility strategies within existing academic fields of power (Bourdieu 1984, 1988).

However, finding common ground is well worth the effort. As one of us has argued elsewhere, we are not in a church, so we should not be worried about heresy. Rather, our task is to create 'decentered unities,' or areas of convergence where mutual interests in demonstrating how power actually works in real educational settings can be productively illuminated and where the spaces and possibilities for interrupting dominance can be found (Apple 2006, 2013). Educational settings are deeply complex and are filled with cultural and political tensions and contradictions. Such complexity deserves to be taken seriously.

NOTE

1 A longer version of this section appears in Collin, 2013a.

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See Chapter 2: Developing a multi-faceted research process: an ethnographic perspective for reading across traditions
See Chapter 21: A language socialization perspective on identity work of esl youth in a superdiverse high school classroom
See Chapter 26: Multilingual classroom discourse as a window on wider social, political and ideological processes: critical ethnographic approaches
See Chapter 27: Power, resistance and second language learning
See Chapter 28: Seeing "language and development" play out in classroom interaction
See Chapter 29: The social construction of inequality in and through interaction in bilingual classrooms

8 The Role of Talk in Group-based Activity in Classrooms

DAVID BLOOME

1. Introduction

In 1977, Douglas Barnes and Frankie Todd published *Communication and Learning in Small Groups.* In that book, the authors laid out the key issues, dimensions, and approaches for research and development related to language and learning in small group classroom settings, and these have varied little since then. Additional layers of complexity have been added, additional classroom settings have been studied (e.g., second language classrooms), relationships between school and non-schools settings considered, additional evidence provided to more strongly support what was speculative at the time, and additional theoretical frames incorporated. Yet, despite few direct references to Barnes and Todd's scholarship in more recent research, the foundational framing they provided for the study of language and learning in group-based activity in classrooms has changed little.

This conceptual review of scholarship on the role of language in group-based activity in classrooms begins with the foundational framing provided by Barnes and Todd. I then discuss those studies that sought a conversational structure that could be linked to an educational outcome such as academic achievement. In the third section, I discuss studies that framed language in group-based activity as a situated process in which events, knowledge, learning, and social relationships are constructed.

2. Communication and Learning in Small Groups

Barnes and Todd's discussion of language and learning in small groups occurred in an intellectual context that was beginning to be characterized by a linguistic/language turn in educational studies (e.g., Barnes, Britton and Rosen 1969; Cazden *et al*. 1972; Gumperz and Hymes 1972; Halliday 1975, 1978), a defenestration of theoretical dichotomies between the cognitive and the social (e.g., Bateson 1972; Bourdieu 1977; Rommetveit 1972; Vygotsky 1962, 1978) and an evolving interpretive turn in the methodologies employed in educational research (e.g., Glaser and Strauss 1967). Part of this evolving intellectual frame is captured in

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Barnes and Todd's framing of research on language and communication in groups in classrooms by emphasizing both the social and the cognitive. Referencing Rommetveit (1972), they write, 'In order to deal with the multisemic character of dialogue we wish to propose a theoretical construct which we shall call Frame. Every time a participant in dialogue makes an utterance he offers to the other participants two Frames, one referring to subject matter which we will call Content Frame and the other referring to the interactive relationship called Interaction Frame.' (p. 102). While the Content Frame and the Interaction Frame might be separated for heuristic purposes, they are inseparable and mutually defining.

Although the affordances of the systematicity of research involving *a priori* categorical systems derived from research grounded in principles from experimental psychology are acknowledged by Barnes and Todd, the limitation of such approaches are also acknowledged. Especially problematic is the attempt to analyze informal talk using a categorical system. Barnes and Todd critique previous research on classroom discourse that focused nearly exclusively on situations where talk is formally structured (i.e., analysis of teacher recitation and teacher–student initiation–response–evaluation structures; e.g., Sinclair and Coulthard 1975) and emphasize the need for addressing the fluid, dynamic, and diversely structured nature of talk in groups. Thus, side-by-side are detailed, empirical descriptions of data collection and analysis next to interpretive discussions of transcripts of classroom interactions. At times, these two approaches and frames converge while at other times they seem to be 'parallel play' addressing differing agendas.

The interpretive discussions continuously problematize categories, structures, simple relationships between types of language and learning outcomes. Yet, despite respect for indeterminacy, ambiguity, and uncertainty, Barnes and Todd identify recurrent themes that point to directions for deepening children's thinking, understanding, and creativity through how language in classroom group-based activities is used and organized. Drawing a parallel with culturally sensitive research by Boggs (1972) in Hawaiian classrooms, Barnes and Todd argue that what matters is how participants take up each other's utterances, how they frame and reframe questions and tasks, how 'power' is distributed, how it defines the curriculum, and how criteria for what is relevant are negotiated and established. They write: 'When the criteria of relevance are negotiated and not imposed, the Content Frame which participants develop in the course of the negotiation are likely to bear more directly upon the learner's actions since they will be idiomatically related to the frames through which he is currently interpreting the world about him…the very indeterminacy of the frames negotiated in our groups was a condition of their developing new understandings' (p. 127).

3. Conversational Structures and Educational Outcomes

The foundational theoretical model for this heuristic category of studies of the roles of language in group-based activities in classrooms is found in Figure 8.1. It is essentially a process–product model.

A conversational structure is related to an educational outcome such as achievement of academic content knowledge and skills. Particular conversational structures are viewed as more or less related to desired types of learning (e.g., King 1999; Swing and Peterson 1982; Webb 1989). For example, a conversational structure involving a teacher initiation followed by a student response followed by a teacher evaluation (hereafter, I-R-E) is viewed as foregrounding the display of having learned discrete bits of knowledge (e.g., Sinclair and Coulthard 1975; Mehan 1979). By contrast, a conversational structure that is dialogic, involving longer student responses, and is characterized as exploratory talk is viewed as

related to epistemic learning, the learning of underlying academic concepts and principles (e.g., Edwards and Mercer 1987; Thompson 2008; Wells 1993; Wells and Arauz 2006).

Since numerous studies have found that I-R-E conversational structures dominate classroom activities (e.g., Mehan 1979; Mroz, Smith and Hardman 2000; Sinclair and Coulthard 1975) and, as noted above, these conversational structures are associated with low-level cognitive learning, educational researchers have sought alternatives. One approach has been intervention studies which have taught students to engage in conversational structures such as guided peer questioning, peer mediation of problem-solving, reciprocal tutoring, and collaborative reasoning (e.g., King 1999; Palinscar and Brown 1984; Reznitskaya, Anderson and Kuo 2007) in an effort to facilitate student learning of more sophisticated learning outcomes.

Another approach to promoting alternatives to I-R-E conversational structures has been to employ small student instructional groups. Doing so leads to the question of under what conditions the use of small, student instructional groups leads to deeper and more complex understanding of academic content knowledge? As Forman (1989) notes, 'Collaborative relationships differ in their degree of mutuality and in their potential for enhancing cognitive growth' (p. 68; see also Lou *et al*. 2001). One condition is the nature of the academic task presented to students for group-based activity. Lwin *et al*. (2001) suggest that how teachers frame the academic task is related to the kind of student talk that occurs in group-based activities. Building on Corden (2001) and Mercer (2000), they argue that academic tasks and related student group activity may be framed as closed or open. Open refers to a focus on engagement through talk and thinking while keeping the outcome in mind, closed refers to a focus mainly on the outcome of the task.

Regardless of whether 'open' and 'closed' is used to characterize the academic task or whether some other analytic is used, studies of the influence of the academic task lead to a modification of the theoretical model in which an academic task is related to a particular educational outcome mediated by teacher and student uses of language (see Figure 8.2).

For example, in a study conducted by Au and Kawakami (1984), they looked at how teachers used questions and complex conversational exchanges with students to achieve educational outcomes associated with deep understanding of written text. The teachers did not merely provide feedback about correctness but helped the children arrive at correct understandings in a manner that built on the students' cultural background.

Another condition of effective use of small, instructional groups is what students actually do with language in the group-based activity. For example, Webb and Kenderski (1984) found that students giving explanations was related to achievement but receiving explana-



Figure 8.1.

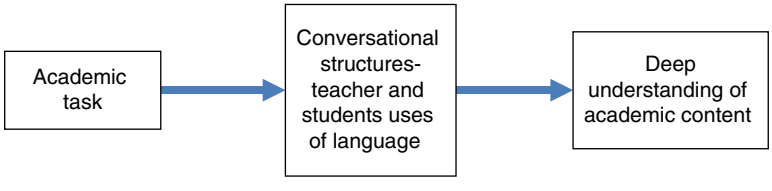


Figure 8.2.

tions from the teacher or from other students was not necessarily related to achievement. Such findings are similar to those of Leung and Lewkowicz (2013) who found that effectiveness in small group interaction depends not on participation but on students taking agency in the roles of producing (e.g., animator, author, principal [taking responsibility]) and active receiving (receptor, interpreter, judge).

From a pedagogical perspective, the research issue is how to promote the kinds of student talk associated with desired educational outcomes. As Galton and Hargreaves note (2009), in order for student talk to be effective in promoting desired learning outcomes such as deep understanding of academic principles, students have to 'learn how to trust and respect each other, as well as acquiring communicative skills and practical skills in planning, organizing and evaluating group-work' (p. 4). However, as Corden (2001) points out, merely placing students in groups does not automatically lead to the kinds of student talk that is related to deep learning and understanding. Students may adopt asymmetrical conversational roles modeled in whole class instruction, they may not understand the task or teacher directions, or in the absence of any direction and control, no on-task interaction may occur (see also Anderson and Weninger 2012, regarding student group work on digital storytelling).

Related, Webb *et al*. (2009) argue that teachers' interventions in student group activity can be powerful in promoting students' ability to provide explanations. Specifically, teacher probing of 'students' explanations to uncover details or further thinking about their problem-solving strategies … corresponded to students giving more details about their problem-solving strategies, especially their producing correct/complete explanations of how to solve the problem' (p. 64). In brief, teachers need to frame the task and guide students in their use of explanatory and exploratory talk in order for students' interactions in group-based activity to yield deep comprehension and understanding of academic content (see Figure 8.3).

One dimension within this theoretical model of scholarship on the role of language in group-based activity as key to effective student talk is the active engagement by students with each other's ideas (see, Corden 2001), what might be called 'interthinking.' That is, 'the use of language for thinking together, for collectively making sense of experience and solving problems' (Mercer 2000, p. 1).

A few studies have concerned themselves with which students are more likely to engage in those conversational structures and student talk related to the more desired educational outcomes. For example, Stauntson (2007) argues that female students in the United Kingdom provide more acknowledging moves in pupil group discussions, and thus better enable the kinds of conversational structures associated with deeper learning, than male students. Using an aptitude by treatment interaction model, Swing and Peterson (1982) argue that high and low ability students did better in small group contexts than medium ability

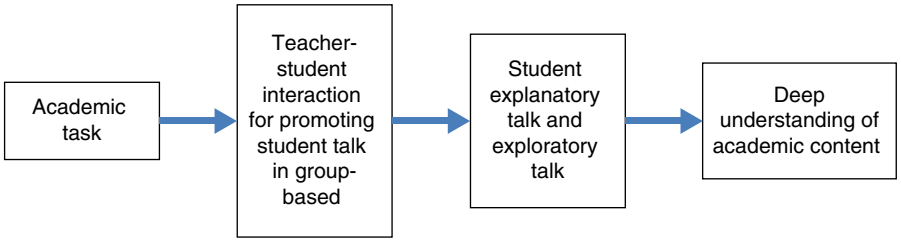


Figure 8.3.

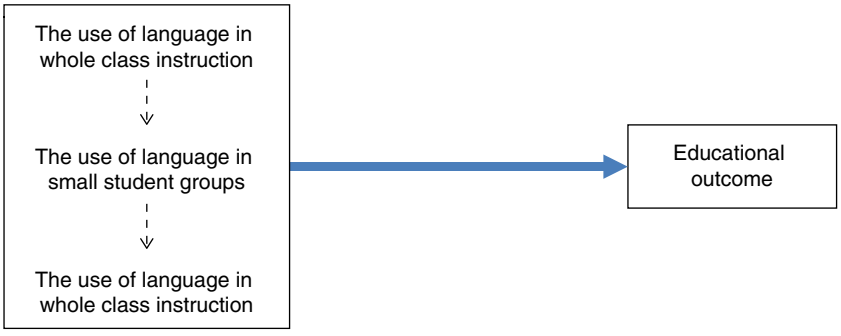


Figure 8.4.

students. It would seem reasonable that students who have background experiences in social settings where uses of language are analogous to those desired uses of language in classroom group-based activity would be more likely to academically benefit. However, it is not clear what student characteristics or background experiences would be facilitative, especially given wide cultural variation in uses of language and the indeterminate, informal, and diversely structured nature of talk in group-based activity.

An additional consideration for understanding the role of language in group-based activities has been to locate student group work as part of an orchestration with whole-class work. That is, rather than ask whether small student instructional groups are in and of themselves productive for desired educational outcomes, they are viewed as part of a sequence of instructional phases and the role of language related to learning examined within that context (see Figure 8.4). Indeed, teachers often orchestrate instructional activities to include multiple classroom organizational structures and any one phase or activity needs to be understood as part of the whole set. In brief, the pertinent unit of analysis here is the sequence of instructional activities including how each activity is related to the other.

When considered as part of a sequence of instructional activities, the roots of the genres of language found in a student instructional group may be found in previous instructional activities. For example, Webb, Nemer and Ing (2006) argue that students' discussion in small groups may reflect the nature and level of the language used in teacher-student interaction in whole-class instruction or other teacher-centered activities and thus the kinds of interactions hoped for in small student groups may not be manifest. Even if the educational goal of a group-based activity is to encourage the use of exploratory and explanatory talk, the uses of language in the instructional activities before and after may influence the nature of use of language in the group-based activity.

Bloome *et al*. (2009) had similar findings as Webb, Nemer and Ing (2009) except they found that what the teacher in their study did in whole-class instruction influenced student small groups in ways that facilitated students' use of language for deep understanding and the production of explanations that were evidence-based. The difference in the findings reflects differences in how teachers used language in the whole-class instructional context; and in how the language and learning from the small student group work was taken up subsequently by the teachers (see related findings by Rodnes 2012). Of course, as Barnes and Todd point out, the interest of students in the academic topic is also key. Students may become bored or have no interest in the topic or engage in what Bloome, Puro and Theodorou (1989) call procedural display.

4. Language in Group-Based Activity as a Situated Process

Although rarely explicitly stated in the studies themselves, the foundational theoretical model for this heuristic category of studies is based on the theoretical constructs that (1) people in interaction with each other construct the social situation(s) in which they are participating, (2) that the particularities (Becker 1988) of that social situation(s) are important; (3) that they construct the relationships between that social situation(s), past situations, and future situations; as well as (4) that they (and others who may not be present in the face-to-face interaction) construct the relationship between the local, face-to-face situation and broader social contexts.

Learning from this perspective is a social practice (e.g., Lave 1996) that over time can be viewed as the development of a repertoire of social practices (e.g., Gutierrez and Rogoff 2003). (Hereafter, we use the term 'learning practice' to refer to those social practices constructed in classrooms for the purpose of academic learning[1]). The situated nature of these learning practices – their location within specific interactional events and more broadly within specific 'communities of practice' (see, Lave and Wegner 1991) – places a premium on recontextualizing (van Leeuwen, 2008) and translating those learning practices across other situations, locations, communities of practice, institutions, etc. The means for constructing social situations and learning practices, constructing relationships among social situations and across levels of context, recontextualizing and translating learning practices, and acquiring a repertoire of learning practices, are linguistic and semiotic means. That is, it is through their uses of language in interaction with each other that teachers and students construct teaching and learning as a linguistic process (e.g., Bloome *et al*. 2005; Green 1983a, 1983b; Green and Dixon 1993) and the analysis of teaching and learning (both for researchers and for educators) a discourse analytic task (e.g., Rex and Schiller 2009).

An example is a study by Wilson (2012; Newell, VanDerHeide and Wilson 2013) of a first grade classroom engaged in a science unit. The teacher organized whole-class instruction to support the students' individual work and work with each other in a manner that made visible the learning practices she wanted them to employ. As they engaged in that work the teacher occasionally intervened and scaffolded student engagement in those learning practices. Throughout she framed classroom conversations and learning practices as if the students were engaged in those social practices scientists actually employ (although there were some similarities with the practices of scientists there were also substantive differences). The students built on the learning practices the teacher offered but modified and adapted those practices as they did their work and as they interacted with each other. Indeed, careful analysis of the teacher's interventions with the students while they were engaged in non-whole-class work showed that the teacher gave permission for and modeled adapting and modifying those practices. Throughout the instructional unit, the teacher held whole-class meetings that allowed the students to share and explain how they had accomplished their work, articulating the learning practices in which they had engaged and how those learning practices had been adapted. As students did so, the teacher and other students offered formative evaluations of how they had engaged in those learning practices while also valuing the academic content knowledge that the students were able to share. In some cases, the conversational structure took the form of I-R-E and I-R-F (Initiation-Response-Feedback) sequences[2] while on other occasions students asked questions, provided extended explanations and narratives or shared problems they were having with their science explorations which led to discussions with the group. In sum, the teacher orchestrated the use of directive, heuristic, informational, personal, emotive, explanatory, and exploratory language to present the academic task and the learning practices which the students were to employ. As the students

worked on the academic task the teacher intervened, scaffolding students' understandings of both the task and of the learning practices; the students used spoken and written language in enacting those learning practices while often discussing with others how to adapt and modify those practices to accomplish the task (suggesting a level of ownership, mutuality, and agency with those learning practices); and throughout the teacher and students used many varied conversational structures to evaluate the learning practices and how they had been used. Throughout, both the teacher and students connected what they were doing – their learning practices – with the social practices of scientists and as such connected their particular situation with the broader context of science as a social institution making available to the students social identities as young scientists. They referred to each other as scientists and as doing science, members of the science community of practice.

The picture above of students' acquisition of the social practices of scientists needs to be moderated by understanding that what students take from whole-class instructional events may not necessarily lead them to take risks in adapting or modifying the learning practices provided nor extend themselves beyond uses of language authorized by the teacher. Unless monitored and provided with a balance between the provision of desired learning practices to adopt and the opportunity and space to adapt and explore the affordances and constraints of those learning practices, what students may construct are linguistic forms of the learning practices without the meaning and substance of them. As Maybin (2006) writes in her study of young adolescents in and out of the classroom, 'In talk among themselves children used teacher and text-book voices to organize their own and other children's activity, for peer-sociable as well as schooled purposes. In this way…the exercise of institutional power becomes multi-circuited, as Foucault puts it, and children take an active part in their own institutionalization into schooling' (p. 188). Nonetheless, despite the potential for superficiality and phatic engagement, the learning practices in group-based activities may provide opportunities for shared understandings based on a heteroglossic and dialogic construction of the task, of inquiry, and of knowledge generation, such that what the students construct together is different than and more insightful than what any one of them could have constructed alone.

For example, consider the conversation below among four young women in a peer instructional group in their twelfth grade language arts classroom.[3] Their task was to provide feedback to each other on their draft argumentative essays.

1	S1	I have to start mine completely over
2		I just
3		*Deep breath* |||
4		Like
5		Do you guys ever feel like
6		you're kinda trying to like
7		To be like everyone else because you don't want to be who you really are
8		because
9		I do that all the time
10		A:nd
11		like
12		Because you know
13		Like trendsetting and things
14		I just don't know how to write
15		say that in a paper

16 Like I know what I want to say
17 S2 Could you say it through a story?
18 S3 I mean you could you could
19 S4 You could
20 S2 Like a really good hit home
21 S3 Hit home story
22 S2 Like a story that goes
23 oh my gosh
24 that happened to you
25 well
26 That happens to me
27 Like I do that too
28 I don't know
29 S3 Like these things happened to you
30 S2 That happens to me
31 S2 Like I did that too
32 S1 I don't know
33 S3 I think that could be a really good
34 S2 This could be one of those essays that's really | emotional
35 Like it like it hits on the emotions but then you're gonna have the logic part
36 That goes through it
37 But then you are going to have the ethics that make you
38 Wanna be you
39 Like your morals and your values

S1 shares with the other students in her group what appears to be a difficult topic for her to share (notice the deep breath in line 3 and the hedges in lines 2 and 4) and attempts to construct an intersubjective understanding (line 5–9) about being like everyone else and not being yourself. This is not a topic she has shared in whole class discussions and it is doubtful that she would. S2 suggests that she use a story to make her argument (line 17), an idea supported by the other young women in the group (lines 18 and 19) and then dramatizes a mini-version of such a story (lines 23–30). S2 then frames such a story as fulfilling the academic task by describing it as having 'logic' and 'ethics' which combined with the emotions of the suggested story constitute the rhetorical triangle of logos-pathos-ethos that the teacher has emphasized in other lessons. In brief, a topic that would not otherwise be discussed is discussed, an intersubjective understanding proposed and validated, a structure for argumentation (using a narrative) that had not been discussed in whole class discussions is generated. What they construct together is, for them, more than what any one of them could have constructed alone both with regard to topic and with how to represent it in written language as an argument.

There are a series of studies of second language learning that focus on the role and affordances of talk in group-based activity. For students learning another language, opportunities to hear comprehensible talk in the target language and the opportunities to use the target language in authentic communicative situations and situations where they can receive substantive and linguistic feedback are viewed as important for language learning (e.g., Krashen and Terrell 1983). In whole-class instruction, there may be few opportunities for students to produce the target language or hear the target language at an appropriate level or in ways that facilitate acquisition of academic discourse practices in the target language

(e.g., Chaudron 1988; Long and Porter 1985; Nunan 1989; Pica 1987). Small, instructional groups, including peer instructional groups and groups with both the teacher and students, are viewed by some scholars as an organizational structure that may, under appropriate circumstances, provide more opportunities for second language learning students' target language reception, production and acquisition (e.g., Ernst 1994; Long and Porter 1985; Pica and Doughty 1985).

Haneda and Wells (2008), building on theories of language derived from Bakhtin (1986) and Lotman (1988), studied a small group of second language learning female students whose first language was other than English who were working on a science experiment. Haneda and Wells argue that the small group context allowed the students to take risks in their uses of English because they had something to say (about the science experiment) and an audience who wanted to hear what they had to say (other students in the group who also wanted to accomplish the academic task). They conclude their study remarking that:

> '[The student's] remarkable progress in developing oral fluency in English undoubtedly owed much to her previous education in China, which had prepared her to understand the content of the curriculum in Ms Lee's class. However, this would have benefited her little without the frequent opportunities to work collaboratively on group projects with her peers, in which she was able to contribute from her own understanding of the problems to be solved – at first non-verbally and then, more and more by appropriating and using the oral language of her co-participants. In addition, [her teacher] encouraged an inquiry orientation to learning and included frequent whole-class discussions in which students put forward and debated alternative perspectives on the issues under consideration. These too provided models of the language to be learned from which [the student] was able to appropriate the genres of 'academic language' relevant to different school subjects, together with the discourse strategies for participating in such discussions. (p. 125)

Hawkins (2005) explains in describing a shift in second language acquisition classroom research, 'Learning, once looked at primarily as the transference of knowledge from the knower to the learner, is being reframed as social apprenticeship, where the learner comes to appropriate new forms of knowledge (and language and literacies) through social activities in specific local environments' (p. 26).

Despite the argument made by Haneda and Wells and Hawkins above, the complexities of language use and learning practices, both for L1 and L2 students, do not allow an unproblematic connection between instructional classroom discourse genres and second language learning or the learning of academic discourse practices.

Beyond opportunities for language learning and the acquisition of academic learning practices, some scholars of second language education have found that the multilingual character of small instructional student groups may also enhance metalinguistic awareness. For example, Planas (2011) asked bilingual students who spoke both Catalan and Spanish about the language they used in small groups. The students reported that they used both languages whichever made it easier for addressing their responsibilities to each other and to the academic task. Similarly, Angelova *et al*. (2006) found that children in peer learning groups were sensitive to each other's needs – both language needs and learning needs – and that they used what they knew of both languages to construct productive learning events. The roles they assumed in these events were fluid and changed depending on the context. Consistent with Planas (2011) and Angelova *et al*. (2006), D'warte's (2012) conversations with students about their use of multiple languages in small groups and other instructional settings found that the students had an emerging awareness of their skills and abilities across languages and of their metalinguistic knowledge (e.g., knowledge about register, slang, etc.). Collectively, what these studies suggest is that students' multilingual group-based activity,

including those who are second language learners and those who are monolingual speakers of the dominant classroom language, use the broad range of linguistic resources present to address the broad range of academic, social, personal, and linguistic needs of members of the group. Students who are second language learners may be provided with more appropriate opportunities to use their second language, to hear the second language at a level they can comprehend, as the students in the group adapt their uses of language, including code-switching to support each other's participation. And, as they do so they grow in awareness about their knowledge of language and language use.

5. Final Comments

The dominant frames and themes for the investigation of the role of talk in group-based activity in classrooms were captured by Barnes and Todd in their 1977 book. They have varied little since then. In that book, the authors distinguished between and described the affordances and limitations of empirically oriented and interpretive research for providing insights on language and learning in small instructional groups. They noted the complementarity of dialogue oriented to subject matter and to social relationships, what they called Content Frames and Interaction Frames, respectively. They highlighted the importance of the academic task and of teacher questions in influencing the nature of the talk in small student groups, and they noted that the meaningfulness of a conversational move or structure was not in its form but in its use and in how conversational moves were taken up by students. Barnes and Todd focused on student talk associated with deep understanding of academic content, problem solving, creativity, and the construction of new knowledge and insight, while recognizing that there were times when other educational outcomes were important. Although arguing for dialogue in the classroom and for group-based activity as a setting for dialogue, they held a complex understanding of dialogue that was not defined simply by the exchange of turns at talk. Further, they understood that small groups were not inherently facilitative of productive dialogue; rather it depended on the academic task, on how the teacher framed and intervened in the group, and on how students used language. Thirty years later, Barnes reiterated the central thesis of the 1977 book in writing, 'The communication system that a teacher sets up in a lesson shapes the roles that the pupils can play, and goes some distance in determining the kinds of learning that they engage in' (2008, p. 2).

Subsequent research can be viewed heuristically as framed either by a process–product research model or a situated social practice research model. Research categorized as reflecting a process–product model seeks relationships between conversational structures and educational outcomes. Of particular interest has been the prevalence and quality of dialogic talk in opposition to monologic talk (seesee Bakhtin 1935/1981). Small, instructional groups were viewed as a more likely setting for finding dialogic talk, characterized by its emphasis on addressivity, heteroglossia, interanimation, and the meeting of diverse student and teacher voices (e.g., Haworth 1999).

Research categorized as reflecting a situated research model focuses on how teachers and students interactionally construct through their uses of language classroom social situations, embedded learning practices, academic knowledge, what counts as literacy, and social identities. The goal is the situated linguistic engagement of students in those learning practices, as well as the acquisition, adaptation and modification of them. Students' uses of language constitute those learning practices; they are both the process and the product. The learning that occurs needs to be assessed by examining changes over time in students' 'ability to assume responsibility for different problem solving roles and to construct a shared understanding of task goals and strategies' (Forman 1989, p. 68).

Over time and across subject matter areas, the learning practices that students have acquired – their repertoire of learning practices – need to be recontextualized in order to address new tasks, problems, constraints, and opportunities. The process of recontextualization is itself a linguistic practice requiring flexibility and dexterity (see Gutierrez and Rogoff 2003). Too little attention has been paid to how language is used by teachers and students in the process of recontextualization and in how language is used to connect and orchestrate learning practices over time.

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NOTES

1 Our use of 'learning practices' includes those social practices involved in accomplishing authentic intellectual tasks such as comprehending a story, those educational tasks that are purely school-bound such as the social practice of taking a standardized test, and those tasks in which students are engaged in those social practices for learning about learning as occurs when students write reflective journals about their learning practices.

2 I-R-F sequences involve a teacher initiation followed by a student response followed by teacher feedback. The teacher feedback can be a simple summative evaluation or it can engage the student in deeper thinking and inquiry about the task and response (see Wells and Arauz 2006).

3 The transcript derives from a larger study supported in part by the Institute of Education Sciences, US Department of Education, through Grant 305A100786 and in part by the Center for Video Ethnography and Discourse Analysis (CVEDA) and the Department of Teaching and Learning at Ohio State University (OSU). The opinions and content expressed are those of the author and do not represent views of the Institute of Education Sciences, the US Department of Education, the CVEDA, or the OSU Department of Teaching and Learning.

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See Chapter 11: The Role of Tasks as Vehicles for Learning in Classroom Interaction
See Chapter 12: Comprehensible Input and Output in Classroom Interaction
See Chapter 13: An Interactionist Approach to Learner-Learner Interaction in Second and Foreign Language Classrooms
See Chapter 14: The Relative Effectiveness of Corrective Feedback in Classroom Interaction

9 The Sequential Analysis of Instruction

OSKAR LINDWALL, GUSTAV LYMER, AND CHRISTIAN GREIFFENHAGEN

1. Introduction

> Evidently, without question, and as a serious answer to various questions about the order and reproduction of social worlds, our worlds are teachable and learnable. It is as though social worlds were made to be available to instruction; perhaps they are made and sustained as instruction. Given that worlds are constructed, the question of how they are, and how they are as fields of structure, meaning, and gestalt that can be taught and learned, could lead to a distinctive sociology of instruction. (Macbeth 1994, p. 312)

For more than three decades, ethnomethodologists and conversation analysts have investigated the social and practical organization of classroom instruction. Within this work, a few central topics can be discerned (for overviews, see Gardner 2012; Heap 1997; Hester and Francis 2000). First, a number of studies have explored turn-taking and turn allocation in classrooms, including the differential rights of students and teachers respectively to sequence initiation and speaker selection (e.g., McHoul 1978). Second, there has been an interest in sequence organization; for instance, how classroom teaching is performed through questions with 'known' answers (e.g., Mehan 1979). Third, analyses have focused on the achievement of compliance and conformity to the 'rules' of classroom order, thereby addressing issues of control, discipline and teacher authority (e.g., Macbeth 1991; Payne and Hustler 1980). Implicit in these three prominent themes is a fourth, namely the work of instruction, not only as an institutionally conditioned organization of turn-taking, sequencing and participation, but also as instrument to the task of 'socialization to competence' (Macbeth 2004, p. 723), i.e., (to reiterate the opening quotation) as the realization of 'fields of structure, meaning, and gestalt that can be taught and learned' (Macbeth 1994, p. 312).

In the present chapter, the focus is on instruction in this latter sense and the ways in which sequential analysis under the auspices of ethnomethodology and conversation analysis can contribute to its explication. We begin with some brief notes on what characterizes ethnomethodology and conversation analysis as distinctive approaches within sociology. After this, we make some remarks on three different uses of the term instruction(s) (as education,

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as directives or as written handbooks). The substantive part of the chapter then consists of four illustrative empirical materials. None of these materials is taken from traditional classrooms and they may therefore seem exotic in the context of the present volume (but see also Kasper and Kim, this volume). Our intention, however, is to use them as perspicuous cases, whereby particular facets of the sequential analysis of instruction are outlined.

2. Sequential Analysis and Classroom Research

Given how commonplace it is to use recordings of classroom interaction for research purposes and to build analyses on 'retrievable data' and transcripts of actual talk, it is perhaps easy to forget that this was not always the case. Providing examples of actual, 'messy', talk, with all the 'uhms', repairs, overlaps, false starts, etc., was one of the radical contributions of conversation analysis (and other, related approaches) to social science in the 1970s. However, central to ethnomethodological and conversation analytic work is not just the emphasis on actual, 'naturally occurring' *records*, but a 'naturalistic' (as opposed to 'critical') *orientation* to these records (Macbeth 2003). This implies a 'non-ironic' stance (Watson 1994) in which the researcher refrains from passing judgment on whether what is captured is 'good' or 'bad', 'desirable' or 'undesirable', a 'success' or a 'failure'. In other words, the researcher tries to avoid imposing external standards and instead investigates the internal standards operating in the setting. This is in contrast to the more common approach in educational research, where instances of classroom discourse are compared against idealized or normative views of what this discourse *should* look like. For instance, teachers are often criticized for dominating pupils or for not employing the most efficient teaching methods. In a naturalistic approach, such criticism should be suspended if an adequate *explication* of classroom organization and instruction is to be made.

A good illustration of this analytic orientation—and one directly relevant for the topic of this chapter—is Garfinkel's (1967, pp. 18–24) investigation of the commonplace work in social science research of coding materials according to some set of explicit instructions (in this case, the work of coding medical records). Garfinkel was interested in what coders had to do in order to follow the coding instructions. His main finding was that coding instructions are, in an important sense, essentially incomplete and that coders therefore have to make various ad hoc adjustments in order to follow them. The point was *not* that the coding instructions were faulty (in that they required coders to rely on their common-sense knowledge), but rather that *any* explicitly formulated instruction would have this property. In short, Garfinkel was not interested in *criticizing* the instructions, but in *exhibiting* what following coding instructions would involve:

> To treat instructions as though ad hoc features in their use were a nuisance, or to treat their presence as grounds for complaint about the incompleteness of instructions, is very much like complaining that if the walls of a building were only gotten out of the way one could see better what was keeping the roof up. Our studies showed that ad hoc considerations are essential features of coding procedures. Ad hocing is required if the researcher is to grasp the relevance of the instructions to the particular and actual situations they are intended to analyze. (Garfinkel 1967, p. 22)

Another, and perhaps obvious, contribution of conversation analysis to the study of classroom discourse is the demonstrated power of investigating interaction as sequences of turns. The focus on sequential organization can be seen as a realization of Garfinkel's proposal to examine 'order in the concrete', and provides an illustration of what a 'non-ironic'

analysis can be. The starting point is the assumption that it is possible to analyze single sequences and find order within them. This implies rejecting the idea that it is necessary first to build a theory or model with which then to investigate the data. Rather than have the researcher speculating what a particular turn might be on theoretical grounds (a question? an insult?), the problem is thrown back to the participants; the researcher thus investigates how a next turn *treats* the prior turn. This provides the analyst with a powerful 'proof procedure':

> The turn-taking system has, as a by-product of its design, a proof procedure for the analysis of turns. When A addresses a first pair-part such as a 'question' or a 'complaint' to B, we have noted, A selects B as next speaker, and selects for B that he next perform a second part of the 'adjacency pair' A has started, i.e., an 'answer' or an 'apology' (among other possibilities) respectively. B, in so doing, not only performs that utterance-type, but thereby displays (in the first place to his co-participants) his understanding of the prior turn's talk as a first part, as a 'question or 'complaint'.' (Sacks, Schegloff and Jefferson 1974, p. 728)

It is notable that this 'proof procedure' implies a shift away from a conception of analysis as the privileged domain of the social science researcher to one where analysis is seen as initially performed by participants themselves. In that sense, 'conversation analysis' is a nicely ambiguous name for the project, since it is something that *both* the participants *and* the researcher are engaged in (albeit under different relevancies). Drawing on Schütz's conception of social science as 'second order' analysis, ethnomethodology and conversation analysis remind us that, 'ordinary cultural members are the first analysts on the scene' (Macbeth 2007, p. 200). For instance, in the domain of classroom interaction, Mehan's (1979) famous analysis of questions-with-known-answers exhibited a structure that was not only in public view for everyone in the classroom but that was also based on the mutual analysis of teachers and students. This focus on how participants *themselves* analyze talk and interaction becomes, as noted, another way of achieving a 'non-ironic' inquiry, of not analyzing talk through external standards.

3. Instruction

Before turning to the sequential analysis of instruction, we would first like to underline that the term instruction(s) has different uses. For the purpose of this chapter, three different but interconnected meanings can be discerned. First, the term is used for the act or practice of 'teaching' or perhaps more generally, 'education'. In this sense, instruction is the main business of a variety of settings, with schools and classrooms as paradigmatic examples. And while schools fulfill a variety of other functions (e.g., keeping children occupied, so their parents can go to work), at least officially, a primary task is to instruct their students. Mehan (1979, p. 36) distinguishes between three sequentially ordered phases in a typical classroom lesson: an opening phase, an instructional phase, and a closing phase. Of the three phases, the instructional phase is said to be at 'the heart of the lesson': it is where 'academic information is exchanged between teachers and students'. Instruction-as-teaching is the central domain of educational research and there are many attempts to formulate prescriptive and normative theories of instruction. It is common, for instance, to contrast so-called direct instruction with constructivist, experiential, or inquiry-based approaches. Although the theories differ substantially from each other, they typically rest on the common-sense notion that 'instruction consists of leading the learner through a sequence of statements and restatements of a problem or body of knowledge that increase the learner's ability to grasp,

transform, and transfer what he is learning' (Bruner 1966, p. 49). Thus there is a sense of sequence built into instruction so conceived—and, most centrally, the idea of getting learners from a state where they do not know to a state where they do know.

Second, the term can be used to refer to certain social actions, such as orders or directives, which are 'designed to get someone to do something' (Goodwin 2006, p. 517). It may be worth pointing out that this meaning of the term is now typically in the plural (to quote the Oxford English Dictionary: 'making known to a person what he is required to do; a direction, an order, a mandate [oral or written]. Now usu. *pl.*: Directions, orders.'). Although students are repeatedly told to open their books, raise their hands, and speak one at a time, it is clear that directions or orders are not specifically tied to the business of teaching. Parents instruct their children to behave appropriately at the dinner table, brush their teeth, or go to bed (e.g., Goodwin 2006; Goodwin and Cekaite 2013; Kent 2012). Instructions are also used to coordinate actions in various settings—from computer games to surgeries (e.g., Mondada 2013, 2014). The educational research literature has little to say about instructions so conceived. Instead, it is mainly scholars of language and communication who take an interest in instructions as commands, directives, or requests. Sociolinguistics and discourse analysts have traditionally investigated such actions or utterances in terms of politeness, power, and solidarity (e.g., Brown and Levinson 1978; Ervin-Tripp 1976). There are, for instance, several studies of how various 'social variables', such as gender, relative age and social roles, correlate with the relative directness of the syntactic form ('I need you to', 'Can you' or 'I wonder if'). More recently, studies of talk-in-interaction have problematized the static and formalistic character of previous work. Rather than focus on the sociolinguistic setting or social variables, it is argued that the design of directives display the speaker's orientation to contingencies associated with the recipient's willingness or ability to comply (Curl and Drew 2008).

Finally, the term instruction can refer to a written text such as a manual, recipe or a guidebook. Instructions in this sense have not received a lot of academic interest, although there are various practical guides on how to write effective instructions. There have been a few ethnomethodological studies that have explored, for example, the properties of occasioned maps (Psathas 1979), how to follow the assembly instructions for a chair (Garfinkel 2002) or how a written mathematical proof can be seen as an instruction for recovering the 'lived work' from the written traces (Livingston 1986). Instructions in this third sense overlap with both the first and second senses, since they can be used for educational purposes (i.e., 'self-learning') and consist of a series of implicit orders ('first do this, then do that'). Furthermore, there are properties of instructions and the following of instructions that are relevant regardless of the situation. As pointed out in relation to the coding study by Garfinkel, for instance, instructions are always incomplete in the sense that they always need to be worked out in relation to the particularities of the situation. However, as is further illustrated in the chapter, there are also central differences between the following of written instructions and being instructed by a physically present party. Most importantly, 'where written instruction relies on generalizations about its recipient and the occasion of its use, the coach draws pedagogical strength from exploitation of the unique details of particular situations' (Suchman 2007, p. 45).

Where does the 'sequential analysis of instruction' sit in relation to the different uses of the term instruction as they were outlined at the beginning of the chapter? First, it takes the turn-by-turn focus of studies of instruction(s)-as-directives, but applies this to social actions that have an educational import. Second, it addresses instruction-as-education but does so without the need for a general theory of instruction (such as a 'zone of proximal development'; see the Sociocultural Theory Tradition in this volume). Third, it provides some more general insights into instructions and the following of instructions while emphasizing the importance of explicating the innumerable and contingent ways in which instructions are played out.

4. Four Contexts of Instructions

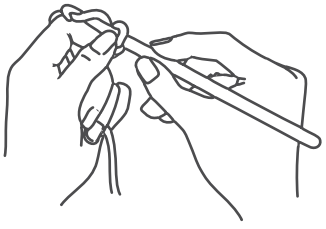
In the previous section, three different senses of the term instruction were outlined. In any actual situation, however, these senses are not that easy to isolate. In the following, we explore instructions in four different contexts that will allow us to address a variety of considerations. First, we discuss textual instructions on how to make chain stitches (a basic crocheting technique) in relation to some more general features of instruction following—the irremediable incompleteness of instructions, how the sense of instructions is found in the attempts to follow them and the intimate tie between instruction and assessment. After this, we turn to a short fragment in which a teacher instructs a student on how to make these stitches. Central here is the difference between the textual instructions and the ways the teacher designs her instructions; in particular, how the teacher continually monitors and assesses the attempts of the student and designs her instructions as corrections of these attempts. The third section includes a fragment in which a teacher provides feedback on a student text. Here the instructions are also based on what the students have done, but while the student in the handicraft example continually displays his understanding in and through the attempts to follow the teacher's instructions, there is a somewhat different temporal organization to this session. What the teacher's instructions mean must be worked out in the writing of the next iteration of the text. How the students understand these instructions is thus not fully exhibited in the situation. Finally, we turn to a short fragment from a seminar in a dentist education setting in which the teacher poses a 'question with a known answer' to the students. As in the previous two examples, the sequence is used to discuss how teacher utterances are contingent on previous actions and designed to provide the students with resources to find the lesson that is being taught.

4.1 Textual instructions

Our first exhibit is taken from a website aiming to help with learning how to make chain stiches. The instructions in Exhibit 1 (Figure 9.1) could come across as almost overly explicit. The text states that one should hold the hook 'in the right hand as shown', referring to a picture showing a right hand holding a hook. It then continues to describe the holding of the hook 'as a pencil' and 'between thumb and index finger', thereby providing two interchangeable formulations of what the picture is already showing. While this might be seen as unnecessarily redundant, it is significant that the instructions are not primarily written to be *read* but to be *followed*. Using the instructions in order to learn to make chain stitches, it is not sufficient just to understand what the instructions are *about*; one also has to enact the instructions into specific courses of action. As Garfinkel (1967) has remarked, the following of instructions involves various ad hoc considerations, not covered explicitly in their written form. The instructions themselves do not prescribe any definite way of following them. Instead, they need to be worked out in relation to the practical and material contingencies of the situation. The redundancy of images and texts might be seen as a way to address this issue. Nevertheless, this redundancy, or any other attempts to clarify or further specify the instructions, does not solve the issue raised by Garfinkel. His argument is not that just *some* instructions are 'incomplete', but that this is an *irremediable* aspect of all instructions however formulated.

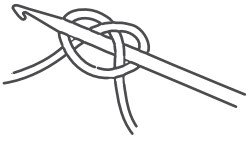
Garfinkel (1967, Chapter 6) writes about so-called 'normal, natural troubles'. It is a kind of trouble that can be expected in the following of instructions, even though it is impossible to anticipate fully when and how it will emerge—the kind of trouble that may demand both time and effort but which is easily forgotten once overcome. When trying to make the slipknot in line with the instructions in Exhibit 1, a number of questions might be raised: What part is

1. Getting a grip
The hook is generally held in the right hand as shown. Even lefties can learn to crochet this way or they can reverse the instructions.



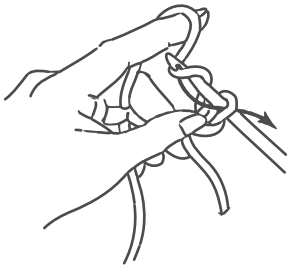
You hold the hook as you would a pencil, grasping the hook between your thumb and index finger. The left hand is used to control the yarn and to hold the stitches as they are created.

2. Let's start at the beginning
To begin, you'll need to make the first loop on your hook, a slip knot.

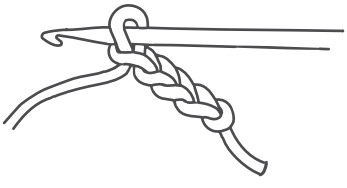


Pull the yarn strand from the center of the ball. Make a loop shape 10–15 cm from the end (the tail) by placing the tail in front of the ball yarn, then letting the rest of the tail yarn fall slightly behind the loop. Insert your hook into the loop. Scoop up the yarn in the back of the loop with the hook. Pull through the front of the loop. Gently pull the tail yarn to tighten loop around the hook. In crocheting, the slip knot does not count as a stitch.

3. Making a chain stitch



Hold the hook in you right hand and loop the yarn from the ball over your left index finger. Hold the end of the slip knot between the thumb and middle finger of your left hand. With your left index finger, wrap the yarn from back to front around the shaft of the hook. Use the hook to draw the yarn through the loop on the hook– one chain is now made.



Make as many chains as your pattern calls for. Do not count the slip knot or the loop currently on your hook as chain stitches. The resulting row of chains is called the foundation chain. You will build the crocheted fabric off of this foundation. The chain stitch is also used to produce spaces and loops in your fabric.

Figure 9.1. Exhibit 1

the tail? Where is the tail in the picture? What is the 'back of the loop'? When are you supposed to 'gently pull the tail yarn', what does 'gently' mean, and what does the loop look like when tightened? Here, the questions and issues are formulated as sentences, but when one is in the midst of actually using the instructions to learn how to crochet, neither questions nor answers are based on their linguistic form. Rather, they can be thought of as 'embodied inquiries' (see Lynch, Livingston and Garfinkel 1983), whose answers are to be found in the act and achievement of crocheting, and nowhere else. Words like 'loop', 'gently', and 'pull', as well as illustrated hands and arrows, 'take on their definiteness of meaning through the activity of the actual construction' (Livingston 2000, p. 247). To follow instructions is thus to orient towards the achievement of what the instructions promise, in this case, a row of chain stitches and the skills in producing such stitches.

Since there are certain projected outcomes tied to instructions, it is also possible to evaluate the adequacy or success of any attempt to do what the instructions instruct. In fact, assessment can be seen as an intrinsic and necessary part of the following of instructions: not only does one have to figure out what the instructions require, there is also a need to assess whether performed acts and achievements satisfy these requirements (see Amerine and Bilmes 1988; Livingston 2008). Such assessments build on the ability to recognize the fit between projected achievements and ongoing activities. When using instructions such as those here, this requirement might present a problem. It is not clear how one should recognize a fit between actions and achievements before knowing what actions and achievements look like. There are some resources that one can use in deciding whether a certain outcome is good enough or whether some procedure needs to be remade. In making a loop, for instance, it is helpful to know that it is in fact a loop one should make, because this makes it possible to use a general sense of what loops look like in order to decide whether that part of the instruction is successfully completed. Still, such resources do not provide any ultimate grounds or standards. In the midst of following the instructions, the correctness of any action therefore awaits its later settlement. Instructions therefore require what Garfinkel (2002, p. 202) glosses as a 'willingness to wait'. It is not until one gets a result that is similar to the row of chains in the last picture that a more definite sense of having successfully followed the instructions is achieved. Even at this point, however, uncertainties could remain. Although the picture of the finished chain stitches can be used to check whether one has managed to produce a result that is acceptable, a visual similarity between the picture and the produced chain stitches does not guarantee that the actual crocheting is particularly well performed. It is only the end product that is assessed, not the actions that produced it. Despite the fact that a row of chains is assembled, the yarn could have been collected in a less-than-perfect way, making the actions inefficient and clumsy.

4.2 One-to-one instructions in craft

We now turn to a sequence (Exhibit 2, see Figure 9.2) in which issues concerning the production of chain stiches are addressed in interaction between a student and an instructor. What becomes immediately apparent is that the conditions for action and assessment in such a situation differ markedly from those pertaining to the solitary reading of written instructions. The fragment is taken from a sequence that begins with the instructor walking towards the student after having noticed that he has some specific problems, and ends two minutes later when the instructor walks away while the student continues on his own (see Ekström 2011; Lindwall and Ekström 2012). In this sequence, the relevant assessments of acts and achievements are in no small measure made by the experienced party, a contingency that provides an inherently interactional character to both the design and understanding of the instructions. The instructed party still needs to enact instructions such as 'hold(s) this much closer to the finger' (line 1) as embodied courses of actions, and the following of instructions still necessitates inquiries and presents 'normal, natural troubles'. But in this interactional situation, the instructions can be designed as corrections or correctional sequences that trade on the specific troubles that the students display in and through their performance (see also Keevallik 2012; Macbeth 2004; Weeks 1985).

In an early study of instructions delivered over the telephone, Goldberg (1975, p. 273) notes that such instructions are regularly 'broken down into its smaller component parts each of which is delivered one-at-a-time over a series of sequentially placed turns'. She furthermore observes that the delivery of each component part makes conditionally relevant some acknowledgement on behalf of the recipient—such as repetition of what is said, receipt tokens such as 'okay' and 'mhm', or requests for clarifications. Both these observations can

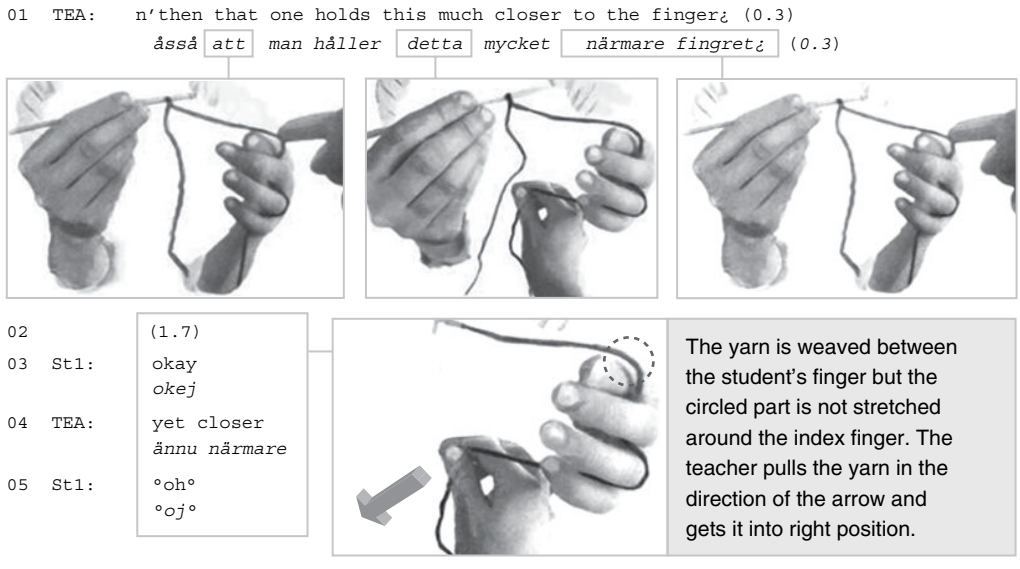


Figure 9.2. Exhibit 2 (Lindwall & Ekström 2012 p. 35) . With kind permission from Springer Science and Business Media

be applied to the instructional sequence in a co-present situation, as illustrated by Exhibit 2. In line 1, the teacher's turn initial 'åssåʼ/'n'then' projects what is to come as a next component of the instructional sequence: in this case, how the yarn should be stretched firmly around the left index finger. Her first instruction (line 1) then introduces, formulates, and points to the way in which the thread should be held, while the second (line 4) is delivered as a correction of the student's attempt and as a clarification of the teacher's previous turn. As a next step (not included in the transcript), the teacher then addresses another component: how one should pinch the yarn between thumb and index finger ('n'then you hold (.) this thumb (.) on this yarn'; see Lindwall and Ekström 2012, p. 37).

In line 2, the student verbally acknowledges the teacher's instruction with an 'okay'. While this has parallels with what Goldberg writes about receipts and recipient actions, there are also important differences. Her examples are all based on audio-recorded telephone conversations, including a radio talk show in which a listener has called for instructions on how to make a cheesecake. When the radio chef's instruction 'an then you press it into a *ten* inch spring pan t'form the crust' (Goldberg 1975, p. 275) is acknowledged by an 'o:kay' by the caller, there are no real grounds for further clarification. The caller is writing down the instructions, not following them. Given that the conversation takes place over the phone, moreover, there is no real access for the instructor to know what exactly the caller is doing besides the verbal interaction. In Exhibit 2, on the other hand, the instructions are occasioned by and designed to address the specific issues and problems that the student has encountered. That the thread should be stretched around the index finger is not part of the textual instruction (Exhibit 1) and it was not something that the teacher focused on in the original demonstration. Rather, the relevance of this particular instruction emerges in and through the student's performance as something that needs to be corrected. While the 'okay' in Exhibit 2 is a receipt of having heard the instruction, and in this way is similar to the caller's 'okay' in the radio talk show, it also signals a realized attempt at following the instruction. Before moving to the next component part, the teacher is able to monitor and

assess whether the student has managed to do what was instructed. To see that the student's embodied analysis of 'much closer' does not end up with the yarn stretched around the finger can thus be used as grounds for further instruction (see De Stefani and Gazin 2014; Stukenbrock 2014).

4.3 Feedback on text

The instructional sequence illustrated by Exhibit 2 can be characterized as a typical case of 'learning by doing' or 'experiential learning'. Without any practice or practical experience, it is unlikely that one could learn a manual skill such as crocheting. To some extent, however, this might be true for learning in other domains as well. It is, for instance, a feature of higher education that students engage in disciplinary activities before they are able to see, understand, or assess these activities in disciplinary ways. Within the humanities and the social sciences, one typical example of this is the writing of academic texts. The educational import of such activities is not only the ways in which students are allowed to gain experience by performing disciplinary activities, that is, learning to write and do social science by writing. It also concerns the ways in which the production of texts enables particular kinds of instruction. As the texts provide material manifestations of students' competencies and understandings, they can be used to make the students accountable for the knowledge they seek to acquire. In this way, the texts provide grounds for both assessment and further instructions (see Macbeth 2006; Park 2012; Vehviläinen 2009).

Exhibit 3 (see Figure 9.3) is from the beginning of a tutorial session on how to write fieldwork reports in social science. Before the session, a group of three students has submitted a text that the teacher has read. There are parallels with the previous exhibit in the ways in which the instructions are broken down into smaller component parts that are delivered step by step, and how the students provide various receipts as response to these instructions. However, there are also central differences in how the issues are formulated, how the instructions are responded to, and how the progressivity of the event is achieved.

```
01  TEA:   my big comment is (.) uh (0.3) sometimes (.) you describe (0.7) very
           min stora kommentar är (.) eh (0.3) ibland (.) beskriver ni (0.7) väldigt
02         0.4) interesting things (.) but it somet imes stops at descriptions
           0.4) intressanta saker (.) men det stannar ibland vid beskrivningar
03         (0.8) u:h: (0.3) when i:t=
           (0.8)    e:h: (0.3) när de:=
04  St1:   =especially in the analysis or?
           =speciellt i analysen eller?
05         (0.4)
06  TEA:   yeah (0.7) uhm yes I mean here in the introduction or in in=
           a: (0.7) eh ja jag menar här i introduktionen eller i i=
07  St1:   =m=
08  TEA:   =the methods it's y'know [des]criptions that one wants=
           =metoden så är de ju     [bes]krivningar man  vill  ha=
09  St1:                            [m: ]                        =m
```

Figure 9.3. Exhibit 3

```
10  TEA:   but that it in the analysis then perhaps you: (0.4) um could
           men att det i analysen så kanske ni: (0.4) eh skulle kunna
11         take it (0.4) one one roun:d mo:re (.) abs:tra:ct go deeper whatever
           ta det (0.4) ett ett var:v ti:ll (.) abs:trahe:ra gå på djupet vad
12         one now wants to call it.
           man nu vill kalla det.
```

Figure 9.3. *Continued*

The teacher begins by diagnosing the students' written 'analysis', arguing that they describe very interesting things, but go no further (line 1–3). He then suggests a number of ways in which they could develop the analysis: 'take it one round more', 'abstract', and 'go deeper' (line 11). By his 'whatever one now wants to call it' (lines 11–12), he acknowledges that these suggestions are presented not as technical terms but as tentative and informal ways of talking. This illustrates a central feature of instruction in this setting: the difficulty of saying what, in this case, a 'good analysis' is. Later in the session, the teacher provides further advice on how to make the analysis more analytical. Even though these instructions are more specific, their sense still cannot be established there and then. Rather, what they can mean in terms of writing has to be worked out later on when the students are producing the next iteration of the text. This ties in not only with the teacher's comments but also with the ways in which the students display their understanding of what the teacher instructs. In the case of the crocheting, the student responds by attempting to follow the instructions and the teacher can directly monitor the student's performance. In the case of text supervision, however, students provide mainly continuers and receipt tokens (such as 'mhm' and 'okay'). Such actions can be characterized as *claims* of understanding, as distinct from the class of performances that in a given situation are treated as *exhibiting* or *displaying* understanding (Sacks 1992 vol. 2, p. 252; Macbeth 2011). Or, as Vehviläinen (2009, p. 187) argues in one of her studies of supervision,

> Even responses that clearly convey acceptance of feedback and treat it as relevant (tokens such as "okay" or note-taking) do not necessarily display the recipient's viewpoints. This is what makes feedback tricky for teachers: what a student understands of the feedback is often not made available.

It should be noted here that there is not a complete absence of the treatment of student actions as displays of understanding. The student's 'especially in the analysis or?' (line 4), in particular, expands on the teacher's formulation at the same time as it requests a confirmation of the candidate understanding. As shown in the teacher's response, the expansion makes some additional instructional work relevant. An inquiry as to whether the teacher refers 'especially' to the analysis section puts into doubt the student's understanding of the differential characteristics of the sections of the report. But while the student's verbal contributions can be used in the design of further instructions, exactly how the student understands the distinction between analysis and description is not something that is displayed and assessed during the session.

Just as the proof of the pudding is in the eating, the proof of the students' understanding is, as it were, in the writing. The distinction needs to be worked out, and in this case the work takes the form of re-writing and re-submitting. The problem is not really that understanding is not 'made available' due to an unfortunate lack in the students' responses. It is rather that there is (unlike in our crocheting example) a temporal separation of the 'talking' part and the

'doing' part of the instruction–action pair, where the second part is the relevant display of understanding whose absence, along with its projected arrival in the form of a next submission, is so deeply formative of academic supervision talk. The actual following of the instructions take place at a later time. What the participants can do is to produce and operate on instructional talk and gesture (interpret, clarify, expand, reformulate etc.), but they can only *indicate* the actions that will be taken in enacting the talked-through instructions.

4.4 Cohort-organized instruction

In contrast to the examples so far, most research on classroom discourse concerns whole class instruction. Here, one typically finds 'a turn-taking system that, in the first place, allocates speaking turns to two parties—the teacher and the students' (Lerner 2002, p. 241). The constitution of the students as one party to the interaction, as a class or a cohort, furthermore 'rests on a variety of modes of organization of the talk—including the organization of turn-taking, aspects of the sequential structuring, and the formulation of identities in and through the talk' (Payne and Hustler 1980, p. 108; see Macbeth 2000). It has been pointed out repeatedly that teachers dominate speaker selection, initiate most of the sequences and have the right to assess and correct the contributions of students, whereas students have limited rights to allocate turns and predominantly produce talk as responses to what the teachers have said (e.g., McHoul 1978).

The last fragment (Exhibit 4, see Figure 9.4) is taken from a seminar in endodontics that took place in the sixth semester of a Swedish dental education program. What made this seminar somewhat different from most lectures in the dental program was that the students and the teachers were watching a live video broadcast of a root canal operation that was taking place in an adjacent room (see Lindwall *et al.* 2014). Throughout the seminar, the teachers continuously described and explained what was shown on the video. The teachers also posed questions in ways parallel to the familiar three-part sequence that often is referred to as *Initiation-Response-Evaluation* or *I-R-E* (Mehan 1979).

```
01  TEA:   do you see what he does with (.) with his fingers there now?
           ser ni va han gör mä (.) mä fingrarna där nu?
02         (0.6)
03  St1:   he twists
           han snurrar
04         (0.5)
05  TEA:   yeah what's the name of the movement then?
           a:h va heter rörelsen då?
06         (0.4)
07  St2:   watch win[ding]
           watch win[ding]
08  St3:             [right] watch win[ding]
                     [ja: ] watch win[ding ]
09  TEA:                                [watch] winding yes (.) preci:sely.
                                        [watch] winding ja (.) preci:s.
```

Figure 9.4. Exhibit 4

In the beginning of the fragment, the seminar leader asks if the students see what the dentist is doing with his fingers. It is evident that the teacher does not ask the question because she herself is unable to see what the dentist is doing. In this respect, it is a typical example of a 'known-information question' (Mehan 1979) or 'test question' (Searle 1969). At the same time, it is also clear that the question is not asked just to 'test' the students understanding. It is first and foremost an instructive question, designed to ensure that the students see the endodontics in the broadcast images. To borrow from Macbeth (2000), the teacher is here 'engaged in pulling a world-for-remark into view, and the students are not simply responding, they are finding the world she is pointing to' (p. 26). In a vernacular sense, the first answer (line 3) is correct. No special training is needed to see that the dentist twists his fingers back and forth in the video image. However, while the observation is confirmed, the answer is treated as incomplete. The teacher reformulates the question, 'yeah what's the name of the movement then?' (line 5) in a way that makes it clear that it is formal designation of the procedure that the teacher is after. In this way, the students are provided with additional resources for coming up with a locally appropriate answer; they now know that they are to look for a name that fits the twisting movement.

In research accounts of the three-part instructional sequence, the teacher's third turn has been referred to as an evaluation, feedback, or comment turn (see McHoul 1978; Mehan 1979; Sinclair and Coulthardt 1975). As noted by Lee (2007, p. 181), however, the teachers who produce these turns 'come to terms with far more local and immediate contingencies than what is projected by blanket terms such as 'evaluation' or 'feedback''. Pre-established and formal categories are simply unable to do justice to the manifold, contingent, and interpretive work that is achieved by these turns. Lee goes on to explicate some different uses of the third turn: parsing the question into several components, steering the students in some particular direction, suggesting what types of answers are sought, managing the order of the cohort, etc. It is emphasized that the third turn is contingent on the answers of the students. As in Exhibit 3, the students' answers can display particular problems and thereby indicate the resources needed for the students to come up with the sought-for answer.

5. Conclusion

We have chosen four exhibits to illustrate some different aspects of the work of instruction(s). The first exhibit, a written manual, is clearly the most distinctive since it does not deal with a situation of co-present teachers and students. Instead, it is used to discuss some challenges involved in following instructions more generally. These challenges are easy to overlook when one starts to investigate sequences of instructional interaction. As in Exhibit 3 and the study by Goldberg (1975), the delivery and the following of instructions are often separated in time. Although the recipients of the instructions provide 'receipts', the actual following and the associated ad hoc considerations take place somewhere else. One can observe, furthermore, that the analytical access to the problems of following instructions is restricted even in cases where instructions are immediately turned into courses of action. The struggles involved in making a chain stitch for the first time, writing an analysis in social science or following the professional actions of a dentist are not all transparently available to an observer. While this is clearly of consequence for the social researcher who wants to study classroom interaction, it is primarily a practical issue for teachers which needs to be addressed through the ways in which instruction is organized.

On a very general level, there is a similar organization to Exhibits 2–4, in that students are first asked to do something, then perform a particular action, and finally are assessed with respect to some locally operative criteria. Following this, the I-R-E sequence, conceived as a

string of turns at talk, represents a special case of a very general phenomenon: actions produced as responses to something and assessed with respect to their success. This general observation could profitably be taken into consideration, not in the first instance to say that all instruction has a common structure, but rather to highlight *differences* with regards to the temporal, material, and interactional organization of these 'facets' of instruction. There are, for example, significant differences between these three cases in how instructions are formulated, how these instructions are responded to within the fragments, the access the teachers have to student competence and understanding, what the relevant materializations of competence are, and the temporal organizations in which these instructions are embedded. As has been pointed out, competence in social scientific writing is displayed in the subsequent iterations of texts rather than in actions, verbal or otherwise, taken as next turns within the session. In crocheting, the relevant temporality and progression lie instead in the crocheting itself. Unlike spoken interaction, where progressivity is marked in turns at talk, participants are centrally oriented to the progression of the craft object and the associated skills. The student's verbal responses do have a role to play in the sequential organization of the instructional event, as in marking an accomplished attempt to follow the instruction, thereby making further assessment and correction of embodied action relevant. The talk is not, however, the primary assessable material for the work of instruction. It is only in the lecture, which we have described here as a special case, that talk itself carries the weight of functioning as the primary medium for the production of both instruction and displays of understanding. It is then perhaps not surprising that it is also only there that the I-R-E sequence is found in plenitude.

One consequence of these differing temporal and material organizations is that each setting or fragment under consideration places particular demands on the sequential analysis of instruction. An illustration of this is the treatment of displays of understanding as 'missing' in supervision talk, as if instructional work in academic writing were to be judged in relation to the tight coupling between instruction and visible action represented by the teaching of a craft. The temporal–material organization of a given setting is merely something with which both participants and analysts have to contend. How teachers and students do just that—how they for instance orient to and manage the essential absence of relevant displays of understanding as a condition of their work—is the topic of the sequential analysis of instruction sketched in this chapter.

Here, our concern has been with instruction for the purpose of teaching and learning rather than, for instance, coordination, collaboration or 'instrumental action'. As a heuristic, the distinction fulfills a function of demarcating a general topic of interest, and can serve to sort empirical instances with regard to the ways in which particular actions orient to the development of competence and skill. In this respect, a directive to 'stand up straight' in a military exercise is different from an instructional sequence regarding comportment in dance. A distinction can similarly be made between the written instructions on how to make chain stiches, which are oriented to the *learning* of a basic technique, and typical crocheting patterns, which presume basic competence and orient instead to the *production* of a particular object. At the same time, it would clearly be wrong to stipulate that certain instructions lead to learning while others do not. Following a number of patterns will most likely make for a better crocheter and pattern-follower, and a directive to stand up straight can be taken as a resource for learning what forms of comportment are valued in the setting in which the directive occurs. What we have referred to as step-by-step instructions can similarly be taken as resources to produce a particular outcome, or to learn how to produce it in the future (to get to a particular place, in the case of directions, or to learn how to get there). Borrowing from Pollner (1979, p. 229), any social interaction, or for that matter any course of embodied inquiry, 'may be monitored and analyzed for timely, successful, propitious, or otherwise

usable actions'. In addition, 'such potential or actual monitoring transforms encapsulated episodes into explicative transactions and endows them with their exemplary and definitional power' (ibid.). Just as the I-R-E sequence can be seen as a special case of a general structure of educational practice, the monitoring and analysis of ongoing courses of action with regards to their 'exemplary power', seems to be present as an always available possibility in social action. In this sense, social worlds are 'made and sustained as instruction' (Macbeth 1994, p. 312). It is, then, a matter for sequential analysis to work out, in each single case, in what ways the instructional aspect of social action and organized social settings is oriented towards, realized, and made relevant by members.

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See Chapter 6: Discourse and Learning in Contexts of Educational Interaction.
See Chapter 7: Can Neo-Marxian and Poststructural Theories in Education Inform Each Other? Using Genre Approaches to Bridge The Gap.
See Chapter 8: The Role of Talk in Group-Based Activity in Language Classrooms.
See Chapter 22: L2 Classroom Interaction as a Complex Adaptive System.
See Chapter 23: Institutional Talk-For-Learning Beyond the Classroom.
See Chapter 24: Documenting Change Across Time: Longitudinal and Cross-Sectional CA Studies of Classroom Interaction.
See Chapter 25: CA-for-SLA Studies of Classroom Interaction: Quo Vadis?

Part IV The Cognitive Interactionist Tradition

Overview of the Cognitive Interactionist Tradition

NUMA MARKEE

The chapter by Kim (this volume) is concerned with explaining the role of tasks as vehicles for interaction-driven language learning in classroom settings. Kim begins with a review of task definitions and also discusses the characteristics of interactive tasks. She then reviews several classroom-based studies that have examined a variety of task design variables and implementation factors from the cognitive-interactionist perspective, concentrating in particular on the use of collaborative priming tasks in classroom contexts.

The chapter by Gass (this volume) is a review of one of the most important and persistent themes in modern SLA studies, namely, the roles and contributions of input and output to second language learning. The chapter aims to clarify what these terms mean and to provide a critical evaluation of their relevance for both instructed and non-instructed SLA. The chapter begins with a discussion of the roles of input and output in SLA and why these constructs are so central to understanding the Interaction Hypothesis (IH: Long 1996). Next, the chapter explains how two important individual variables, namely attention/noticing and working memory, fit in this hypothesis. And finally, the chapter discusses how important it is for teachers to provide learners with opportunities for producing comprehensible output, and how teachers' relative (in)experience in managing this process plays a crucial role in instructed SLA.

The chapter by Bowles and Adams (this volume) posits that research on non-native speaker (NNS) learner-learner interaction may be more relevant to understanding what is going on in classroom language learning contexts than research on interaction between native speakers (NSs) and NNS learners. The chapter begins by reviewing the basic claims of the IH. It then shows how research on learner-learner interaction has evolved over time, and discusses three factors that affect interaction and subsequent learning outcomes: proficiency and language background in peer interaction; tasks in peer interaction; and the role of modality in peer interaction. The authors exemplify their theoretical perspective by providing examples of interactions drawn from Spanish as a second/foreign language (S/FL) classrooms, thus contributing to the multilingual character of the Handbook.

The chapter by Lyster (this volume) begins with the observation that there is broad consensus that oral corrective feedback (CF) is beneficial (perhaps even necessary) for desta-

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bilizing learner interlanguage. However, there is still considerable disagreement concerning how relatively effective different kinds of CF are. The chapter therefore distinguishes between two main kinds of CF — *prompts* and *elicitations* — and then reviews the available empirical research on their relative effectiveness. Next, the chapter identifies a range of instructional variables that have a potentially negative impact on the effectiveness of different kinds of CF that are widely used in interactionally-driven approaches to pedagogy. More specifically, Lyster considers whether it is preferable to provide positive rather than negative feedback, whether an intentional rather than an incidental focus on language is more desirable, and how teachers' and students' different preferences for particular kinds of corrective feedback affect its ultimate effectiveness. This chapter not only shows how theoretically complex research on CF is in its own right but also demonstrates how challenging it is for teachers to apply the results of empirical research to everyday classroom situations. The chapter is illustrated with examples of interaction drawn from both English and French S/FL classrooms.

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10 The Role of Tasks as Vehicles for Language Learning in Classroom Interaction

YOUJIN KIM

1. Introduction

Over the last three decades, there has been a surge in the amount of second language (L2) literature on tasks and task-based language teaching (TBLT) (e.g., Ellis 2003; Nunan 1989; Samuda and Bygate 2008; Van den Branden 2006; Van den Branden, Bygate and Norris 2009). Since the first publications on TBLT by Long (1985), Long and Crookes (1993), and Prabhu (1987), tasks have been used in diverse domains in both applied linguistics and education. Tasks have been seen as a primary unit of instruction and as building blocks for classroom language learning (e.g., Bygate, Skehan and Swain, 2001; Ellis 2003; Long 1985; Skehan 1998). This growing interest has largely been motivated by the fact that tasks provide contexts for L2 use and acquisition. Accordingly, tasks have become central to both L2 pedagogy and research, and have bridged the gap between the two areas (Mackey 2007). Given the overwhelmingly positive findings from many empirical studies, the benefits of tasks are indisputable. The important question remaining is: how to promote task-based language learning in diverse natural classroom settings?

Researchers from various theoretical backgrounds (e.g., Interaction Hypothesis, Cognition Hypothesis, Output Hypothesis, Noticing Hypothesis, Sociocultural Theory) have used a range of research methodologies to explore the role of tasks in different aspects of language use and learning (e.g., see reviews in Ellis 2003; Van den Branden, Bygate and Norris 2009; Samuda and Bygate 2008). Employing a cognitive–interactionist perspective in second language acquisition (SLA) research, this chapter discusses the role of tasks as vehicles for interaction-driven language learning in classroom settings. To begin, a review of task definitions as well as the characteristics of interactive tasks is provided. The chapter then discusses a number of classroom-based studies that have examined a variety of task design variables and implementation factors from the cognitive–interactionist perspective. This discussion includes research on the use of collaborative priming tasks in classroom contexts, a recent and promising area in the field of instructed SLA. The chapter concludes with directions for future research.

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2. What are Tasks?

Researchers and L2 practitioners alike have offered various definitions of '*task*.' As shown in Table 10.1, Long's (1985) broad definition of the term *task* includes tasks that require students to produce language, such as ordering food at a restaurant, as well as tasks that can be performed without using language, such as painting a fence. Since Long's initial definition, several modified definitions have been proposed.

As seen in Table 10.1, researchers generally agree that tasks are associated with real world applications (e.g., Long's and Skehan's definitions). However, many researchers have problematized the definition of a task for being loosely formulated and for not being clearly distinguished from other traditional classroom activities (e.g., Widdowson 2003), and this is somewhat evident in the ongoing discussion of what tasks are in the literature (Ellis 2003; Samuda and Bygate 2008). As a guiding principle, Ellis (2003, cited in Ellis and Shintani 2014,

Table 10.1. Definitions of Task (Adapted from Ellis 2003 p. 4)

Source	*Definition*
Long (1985)	A task is 'a piece of work undertaken for oneself or for others, freely or for some reward. Thus, examples of tasks include painting a fence, dressing a child, filling out a form … In other words, by 'task' is meant the hundred and one things people *do* in everyday life, at work, at play, and in between. 'Tasks' are the things people will tell you they do if you ask them and they are not applied linguists'.
Nunan (1989)	A communicative task is a 'piece of classroom work which involves learners in comprehending, manipulating, producing, or interacting in the target language while their attention is principally focused on meaning rather than form. The task should also have a sense of completeness, being able to stand alone as a communicative act in its own right'.
Skehan (1996)	A task is 'an activity in which meaning is primary; there is some sort of relationship to the real world; task completion has some priority; and the assessment of task performance is in terms of task outcome'.
Bygate, Skehan, and Swain (2001)	A task is an activity, susceptible to brief or extended pedagogic intervention, which requires learners to use language, with emphasis on meaning, to attain an objective.
Ellis (2003)	A task is intended to result in language use that bears a resemblance, direct or indirect, to the way language is used in the real world. Like other language activities, a task can engage productive or receptive, and oral or written skills, and also various cognitive processes.
Van den Branden (2006)	A task is an educational activity which is designed and organized in order to stimulate and support learners into reaching [their] language learning goals.

p. 135) proposed four criteria for an instructional activity to qualify as a 'task' highlighting that learners use language as a tool for achieving communicative outcomes:

1. The primary focus should be on meaning.
2. There should be some kind of gap (i.e., a need to convey information to express an opinion or to infer meaning).
3. Learners should largely rely on their own linguistic and non-linguistic resources to complete the activity with some help from task input.
4. There is a clearly defined outcome other than the use of language.

While the main purpose of instructional exercises is to practice target-like language, *tasks* are meant to elicit semantic and pragmatic processing of language. In order to create a meaningful situation for language use, tasks encompass a variety of features. Candlin (1987) discusses several key features of tasks that need to be considered when designing tasks (also described in Robinson 2011, p. 7):

1. Input: The written, visual, or aural information that learners performing a task work on to achieve the goal of the task
2. Roles: The roles that learners have in performing a task, such as information-giver and information-receiver
3. Setting: The grouping arrangements in and outside of classrooms for which pedagogy prepares learners to communicate
4. Actions: The procedures to follow in performing the task or the various steps that learners must take along the road to task completion
5. Monitoring: The supervisory process of ensuring that task performance remains on track
6. Outcomes: The oral, written, and/or behavioral outcomes in which the task is intended to result
7. Feedback: The evaluation of the whole or parts of a task performance by the teacher or other learners, including corrective feedback on language use.

These features provide a useful framework when examining task design and task implementation factors in classroom contexts. For example, it has been observed that both 'roles' and 'actions' are the two features which have been most widely addressed in the previous literature when examining constructs such as task types, task complexity, task repetition and task planning (see the next section for examples). When manipulating these features, it is important to consider tasks in their specific context of use (Carless 2007). For instance, some tasks seem more appropriate in second language contexts, as compared to foreign language contexts, where learners do not have many (if any) opportunities to practice their second language (L2) outside the classroom.

Due to the pedagogical benefits of aforementioned characteristics and components of tasks, tasks have been considered one of the major means by which teachers conduct language teaching. Besides having pedagogical purposes, the use of tasks in classroom contexts is well supported by various SLA theories and empirical research on how language learning happens (see Van den Branden, Bygate and Norris 2009, for a review of seminal papers). Among many approaches to task performance, work by cognitive–interactionist researchers has provided significant insight for our understanding of how to promote interaction-driven, task-based language learning in classroom contexts. Three SLA theories which support the benefits of communicative tasks from this perspective are Long's Interaction Hypothesis (Long 1996), Schmidt's Noticing Hypothesis (1990, 2001), and Swain's Output Hypothesis (1995). For instance, tasks provide input and output opportunities which are

necessary processes for language learning (e.g., see Gass this volume). While carrying out tasks, learners are able to notice necessary linguistic forms while focusing on meaning. Additionally, since tasks are designed based on learners' real-world needs, it is expected that such task characteristics would motivate learners to be involved in interaction and to produce output while completing tasks.

Cognitive–interactionist researchers are often interested in the role of specific task variables; for this reason the majority of studies have been conducted in lab-based contexts, where researchers have attempted to strictly control for potential mediating factors. However, the question, whether or not the findings of lab-based studies can be applicable to classroom contexts is of interest to instructed SLA researchers (Gass, Mackey and Ross-Feldman 2005). The studies reviewed in the following section thus examine the role of task design and implementation features on various aspects of task performance as well as subsequent learning in classroom contexts.

3. Previous Research on Task-Based Interaction in Classroom Contexts

Previous studies adopting a cognitive–interactionist perspective have often used tasks as a vehicle to elicit L2 learners' oral and written language use as well as to promote negotiation of meaning during interaction (see Gass this volume for input and output opportunities and Bowles and Adams this volume, for task-based learner-learner interaction). According to Ellis (2012), tasks vary in terms of how they are designed and also how they are implemented in the classroom. Recently, an increasing number of studies have shown evidence for language learning as a result of task-based interaction in classroom contexts. Looking at task design features and how they differentially mediate language interaction in the classroom context can inform the types of tasks teachers should use to maximize task-based learning.

Figure 10.1 shows how task performance in the classroom has been operationalized, and provides a visual summary of what task design and task implementation variables have been researched in classroom settings. Researchers have mostly investigated how tasks performed in the classroom have the capacity to impact features of interaction that are theoretically posited to be beneficial for L2 learning. Also depicted in Figure 10.1 are the following features of interaction. These include Language-Related Episodes (LREs), which are instances in the interactions where learners talk about, question, and/or self-or-other correct language use (Swain and Lapkin 1998), the provision of, noticing of, and use of corrective feedback, and negotiation of meaning (e.g., Fuji and Mackey 2009; McDonough 2004; Philp, Oliver and Mackey 2006; Révész 2011; Slimani-Rolls 2005). Additionally, another primary task performance outcome has been linguistic performance (complexity, accuracy, fluency) (e.g., Housen, Kuiken and Vedder 2012; Michel, Kuiken and Vedder 2012; Révész 2011). Some studies have focused on subsequent language learning as a result of task-based interaction in the classroom (e.g., Adams 2007; Nuevo 2006; Newton 2013), focusing on lexical items as well as grammatical forms such as English question formation, the past tense, and prepositions (e.g., Kim 2012; Nuevo 2006; Patanasorn 2010).

Finally, learner factors such as interlocutor proficiency and anxiety have been investigated either as separate independent variables or as moderating variables affecting task performance. While the topic of individual differences is beyond the scope of the current chapter, studies examining learner factors as potential moderating variables are discussed in the following sections. For instance, some studies have examined how individual differences

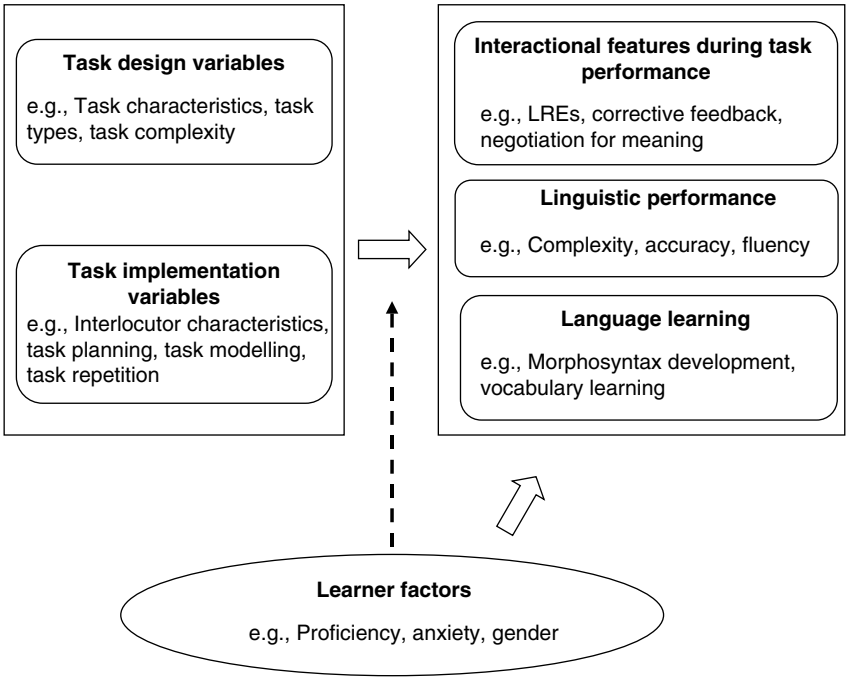


Figure 10.1. Task design and implementation variables investigated in classroom interaction studies

such as anxiety and gender moderate task performance in the classroom setting (e.g., Azkarai and Garcia Mayo 2012; Kim and Tracy-Ventura 2001).

3.1 Task design variables: Task characteristics, task types and task complexity

A main goal of the interaction-driven TBLT agenda is to inform what task design characteristics best promote interaction in the classroom. This is important because many SLA research has shown the importance of interaction in L2 learning (e.g., Mackey, Abbuhl, and Gass 2012). Some of the widely researched task characteristics include information exchange (required versus optional), information gap (two-way versus one-way), and outcome (closed versus open) (see Ellis 2003, for a review). Pica and colleagues conducted a series of studies that examined task characteristics (e.g., Doughty and Pica 1986; Pica, Lincoln-Porter, Paninos and Linnell 1996). Doughty and Pica (1986) found that with obligatory exchange of information tasks, learners tended to produce more modified output. Additionally, Foster (1998) reported that required information exchange tasks elicited more negotiation than the optional-information exchange tasks. Gass, Mackey, and Ross-Feldman (2005) also found that there was more negotiation of meaning and LREs in a required-information exchange task. Overall, task characteristics that involve required information exchange and two-way information gaps tend to elicit more negotiation work during task-based learner–learner interaction than during optional information exchange.

The role of task types in interaction-driven language learning for vocabulary has been investigated as well. Building on previous task-based vocabulary studies, Newton (2013) investigated the ways in which adult ESL learners responded to and engaged with

unfamiliar words that they met in two types of communication tasks in classroom: opinion gap versus information gap. His findings suggested a strong task type effect on both the amount and type of negotiation: information gap tasks elicited more negotiation on the form of words, whereas opinion gap tasks elicited more negotiation of meaning.

Loschky and Bley-Vroman (1993) noted that there were three factors that need to be considered for successful structure-based communication tasks: Task-naturalness, task utility, and task-essentialness. The same premise can be applied to interaction-driven language learning. For instance, in order to meet task-naturalness, collaborative tasks should be designed to naturally create collaboration. Secondly, learners should feel that collaborative tasks are useful for their language learning (i.e., task utility). Finally, tasks should be designed so that learners collect information from each other to complete the task, therefore the act of collaborating becomes essential (i.e., task-essentialness).

With regards to task design variables, research on task complexity has received a great deal of attention recently. Skehan's (1998) Limited Capacity Hypothesis and Robinson's (2001) Cognition Hypothesis are two guiding theoretical frameworks that have mostly informed this line of research. The Limited Capacity Hypothesis states that learners' attentional resources are limited and that increasing task complexity reduces learners' attentional capacity. Moreover, it has been argued that a trade-off exists between attention to form and attention to meaning during task performance (Skehan 1998; Skehan and Foster 1999). As a result, more complex tasks will demand more attention to content, and correspondingly, allow less attention to be allocated to language. Contrarily, Robinson's (2001, 2005) Cognition Hypothesis predicts that learners are able to access multiple and non-competitive pools of attention. According to Robinson, there need not be a trade-off between attention to accuracy and attention to complexity of language production. Rather, he claims that increasing task complexity promotes more accurate and more complex language. While Skehan did not make specific claims about the roles of task complexity in task-based interaction, Robinson claims that increasing complexity would promote more interactional features such as negotiation for meaning and corrective feedback, which in turn lead to language development (Robinson 2001, 2007, 2011).

Table 10.2 summarizes previous research on task complexity and task-based interaction in classroom contexts which are based on Robinson's Cognition Hypothesis. Some of the studies further investigate the learning outcomes of carrying out tasks with different complexity levels.

In these studies, interactional features or learning opportunities during task performance have been operationalized by different feedback types such as recasts and LREs. The benefits of carrying out more cognitively demanding tasks on interaction-driven learning opportunities in classroom contexts, especially when learning opportunities were operationalized as LREs, are partially supported, contingent upon the mediating role of task design and learner factors. For instance, Kim (2009) showed that the benefits of carrying out complex tasks varied depending on learner proficiency and task types. She found that with more proficient learners, the complex version of the picture narration task yielded more LREs than the simple version; however, the opposite pattern was found for the less proficient learners. Although task complexity did not appear to significantly mediate resolution of LREs, a slightly higher percentage of LREs were correctly resolved during the complex tasks. Révész (2011) examined interaction-driven learning opportunities during decision-making tasks with ESL learners. She found that the more complex task caused greater amounts of LREs during learner–learner interaction but the amount of different types of corrective feedback did not support the Cognition Hypothesis. Reflecting on the increasing interest in online classes, classroom contexts were compared to the online settings, and complicated the picture related to the pedagogical effects of task complexity. For instance, Baralt (2014), found that students doing collaboratively more complex tasks in traditional classrooms

Table 10.2. Previous classroom-based studies focusing on task complexity, interaction, and L2 learning

Study	*Task complexity factors*	*Other variables*	*Contexts*	*Tasks*
Nuevo (2006)	+/−Reasoning	Task type	ESL	Narrative task Decision-making task
Kim (2009)	+/−Few elements +/−Reasoning	Proficiency Task type	ESL	Picture difference task Picture narration task
Gilabert, Barón, and Llanes (2009)	+/− Here-and-now +/− Few elements +/− Causal reasoning	Task type	Spanish EFL	Narrative task Instruction-giving task Decision-making task
Nuevo, Adams and Ross-Feldman (2011)	+/−Reasoning	Task type	ESL	Narrative task Decision-making task
Révész (2011)	+/−Reasoning +/−Few elements	None	ESL	Decision-making task
Kim and Tracy-Ventura (2011)	+/−Reasoning +/−Few elements	Anxiety	Korean EFL	Information exchange task Decision-making task
Kim (2012)	+/−Reasoning +/−Few elements	None	Korean EFL	Information exchange task Decision-making task
Kim and Payant (2014)	+/−Reasoning	Task repetition	Korean EFL	Information exchange task Decision-making task
Baralt (2014)	+/− Intentional reasoning	Traditional versus online classroom	Spanish FL	Decision-making task Story re-tell task

produced LREs, but in online classroom contexts, where they were interacting with each other in synchronous computer-mediated chat, not a single LRE was produced. Baralt hypothesized that this may have been due to: (1) the role of the interlocutor or (2) the low saliency of the targeted form (the Spanish past subjunctive) during task performance. Baralt's study reiterates the need to investigate interlocutor roles, e.g., participant variables that make different demands on interlocutors, and also linguistic items that range in saliency.

In terms of the relationship among task complexity, interactional features, and L2 development, Nuevo (2006) examined the role of task complexity manipulated by [+/− reasoning] on L2 learning opportunities and development, targeting past tense and locative prepositions. She analyzed nine different interactional features such as recasts and

confirmation checks. Findings indicated that different task complexity conditions promoted different sources of learning opportunities. In terms of L2 development, results showed no association between task complexity and L2 learning, counter to the predictions of the Cognition Hypothesis. However, Kim (2012)'s findings supported Robinson's hypothesis in that a greater number of LREs during complex tasks were found, which in turn facilitated Korean EFL learners' question development.

Recently, studies have investigated task complexity along with other task- or learner factors such as task repetition and learner anxiety. For instance, Kim and Tracy-Ventura (2011) found that carrying out complex tasks led to the development of the simple past among Korean EFL learners; however, no significant interaction effects between task complexity and learner anxiety were found. Additionally, Kim and Payant (2014) examined how task complexity and task repetition affected the occurrence of interaction-driven learning opportunities operationalized as LREs. The findings did not support the Cognition Hypothesis: the more complex tasks did not promote the occurrence of LREs. Instead, strong task repetition effects were found. Research on the individual differences in the task complexity research domain is still in its infancy, leaving many unanswered questions. Building on lab-based studies on similar topics, more classroom-based research is needed to provide insights on how to address learners' backgrounds when manipulating task complexity.

3.2 Task implementation factors: Interlocutors, task planning, and task repetition

Researchers have also been increasingly interested in how task implementation factors in the classroom differentially affect interaction-driven language learning. The three most widely addressed factors in previous classroom-based studies are those of the interlocutor, task planning, and task repetition. Studies looking at these variables are summarized in Table 10.3.

One of the fundamental questions examining the benefits of task-based interaction is the extent to which collaborative tasks may be more beneficial as compared to individual tasks. For instance, Storch (2007) examined ESL learners' text-editing task performance in terms of accuracy and compared individual and collaborative task performance. She found no difference between the two groups; however, she argued that carrying out the task collaboratively was advantageous as it increased L2 input/output opportunities. Kim (2008) asked KSL learners to perform dictogloss tasks either individually or in pairs. She found that learners who performed the dictogloss task in pairs scored significantly higher on the vocabulary tests compared to those who completed the task individually. On the other hand, Nassaji and Tian (2010) found that although completing tasks (i.e., editing tasks, cloze tasks) collaboratively led to a greater accuracy of task outcome than completing them individually, collaborative task performance did not result in better vocabulary learning than individual task performance.

When implementing collaborative tasks in class, researchers and teachers should also consider pairing strategies. For instance, previous task-based classroom research focusing on interlocutor effects investigated the role of gender and proficiency. Ross-Feldman (2007) suggested that the gender of the learners during task performance impacted the interactional patterns in terms of the occurrence of LREs. When LRE occurrence was compared across the three types of dyads (male-male, male-female, female-female), it was found that on a picture story task, male-male dyads engaged in fewer LREs than the other pairing conditions, suggesting that females are more successful in producing LREs during collaborative tasks. However, Azkarai and García Mayo (2012) showed that the gender composition of learner dyads did not impact the occurrence of LREs.

Table 10.3. Studies examining task implementation factors during task-based interaction

Task implementation factor	*Study*	*Contexts*	*Tasks*
Interlocutor-with or interlocutor-without	Storch (2007)	ESL	Text-editing task
	Kim (2008)	Korean as a Second Language (KSL)	Dictogloss
	Nassaji and Tian (2010)	ESL	Reconstruction cloze task Reconstruction editing task
Interlocutor-gender	Azkarai and García Mayo (2012)	EFL	Dictogloss
	Ross-Feldman (2007)	ESL	Picture difference task Picture placement task Picture story task
Interlocutor-proficiency	Kim and McDonough (2008)	KSL	Dictogloss
	Watanabe and Swain (2007)	ESL	Paired writing task
Task planning-planning time	Philp, Oliver, and Mackey (2006)	ESL	Information gap task
Task planning-planning condition	Park (2010)	Korean EFL	Narrative task
	Ahmadian and Tavakoli (2011)	Iranian EFL	Story narration task
	Kim (2013)	Korean ESL	Information exchange task
Task repetition	Kim and Tracy-Ventura (2013)	Korean EFL	Information exchange task
	Patanasorn (2010)	Thai EFL	Story narration task
	Lynch and Maclean (2000)	ESL	Poster presentation task

Besides gender, interlocutor proficiency has also been found to affect interaction in collaborative tasks (Kim and McDonough 2008; Watanabe and Swain 2007; Yule and Macdonald 1990). Both Watanabe and Swain (2007) and Kim and McDonough (2008) compared the occurrence and resolution of LREs when intermediate level learners (ESL and KSL respectively) performed a collaborative task (e.g., paired writing task, dictogloss) with a learner of the same level and with a more advanced learner, respectively. The findings indicated that the intermediate–advanced pairing produced more LREs than the intermediate–intermediate pairing.

A second important factor in classroom implementation is task planning time. Earlier research tended to focus on whether or not task planning time would promote better linguistic performance in terms of increased complexity, accuracy and fluency (see review by Ellis 2005). It was claimed that due to L2 learners' limited attentional resources (Skehan and Foster 2005), pretask planning time would enable them to produce higher quality samples of language (i.e., fluency, accuracy, complexity) as well as to pay more attention to linguistic

forms during task performance. To date, there is a substantial body of cognitively-oriented research on the effects of planning time on oral production tasks in various contexts (e.g., Foster and Skehan 1996, 1999; Mehnert 1998; Ortega 1999, 2005; Sangarun 2005; Skehan and Foster 2005; Truong and Storch 2007). Overall, the findings have indicated that pretask planning facilitates oral performance, particularly in terms of complexity and fluency, but consistent results have not been found with respect to accuracy. These studies, however, were conducted using monologic tasks, and only a few focused on the role of planning time during collaborative tasks. For instance, Philp, Oliver and Mackey (2006) investigated the relationship between planning time and amount of interaction and found that little or no planning time led to more talk between ESL learners, but that increasing planning time led to fewer opportunities to use feedback provided by their peers. Truong and Storch (2007) examined group planning prior to oral presentation tasks, and found that group planning is useful for the subsequent oral presentation tasks. Their results suggested that groups composed of mixed proficiency learners were more interactive and focused on both content and language issues related to the upcoming presentation tasks during task planning.

Previous planning studies have also addressed the role of guided planning in task performance. The findings of this research have generally showed that instructions that guide the learners on how to plan their task performance resulted in positive effects on both the complexity and fluency of language production (e.g., Foster and Skehan 1996; Skehan and Foster 2005). Two studies also demonstrated positive effects of guidance during planning time on accuracy (Mochizuki and Ortega 2008; Sangarun 2005). However, Mochizuki and Ortega did not find significant guided planning effects on complexity and fluency. Recently, Park (2010) examined the effects of task planning with or without specific instructions regarding linguistic aspects on task performance. Park asked Korean EFL learners to attend to content, organization, vocabulary, and to grammar while carrying out narrative tasks in pairs. The results indicated that, regardless of pretask instructions and planning opportunity, the learners focused mostly on vocabulary. Some of the mixed results in the previous studies might be influenced by how instructors provided guidance to students in order to perform the tasks (e.g., using grammar review handouts, showing task modeling videos). For instance, in terms of providing guided planning, researchers have suggested that showing task modeling videos might facilitate interaction and collaborative task performance (e.g., Kim 2013).

A third crucial task implementation factor that needs to be taken into consideration is task repetition. Based on Levelt's speech production model, Bygate (2001) claimed that when learners repeat a task, they are able to allocate more cognitive resources to focus on language rather than content, which may lead to interlanguage development. Similar to other task design and implementation variables, task repetition has been mostly investigated using monologic oral tasks. Only recently have task repetition studies investigated the effect of task repetition during task-based learner–learner interaction with intact classrooms (Kim and Tracy-Ventura 2013; Patanasorn 2010). These studies also brought attention to the different ways in which task repetition can be operationalized: repeating exactly the same tasks; repeating procedure only; and repeating content only. Patanasorn (2010) examined the role of different characteristics of task repetition in the acquisition of past tense morphology during learner–learner interaction with Thai EFL learners. Results showed that repeating the same task procedure was more beneficial for promoting the development of past tense accuracy, and that content repetition was more beneficial for global fluency at the expense of past simple accuracy. Although Kim and Tracy-Ventura (2013) found no differences on learners' accuracy and fluency development after either repeating the same task procedure or the same exact task, they found that repeating the same collaborative task procedure with different

contents resulted in significantly more syntactic complexity development than repeating the exact same task. Furthermore, this study showed that both types of task repetition showed significant improvement on one task-induced grammar feature, the simple past.

In sum, there is clear evidence that task design and implementation affect how learners interact during collaborative tasks in the classroom and that this can mediate their language production and/or learning outcomes. Despite the increasing amount of empirical evidence that supports the positive aspects of collaborative tasks in classroom contexts, questions have been continuously raised about the extent to which task-based learner–learner interaction is effective, particularly in FL contexts. McDonough and Sunitham (2009) in fact indicated that although the majority of learners' LREs focusing on vocabulary were resolved correctly, they were able to remember less than half of the lexical items and one-third of the grammatical forms that they had discussed during computer-based tasks. In order to design and implement collaborative tasks that can promote L2 learning, cognitive–interactionist researchers have begun to use collaborative priming tasks which are motivated by previous priming research from psycholinguistic perspectives. The following section will closely examine how insights from priming studies can be linked to task-based instruction.

4. Collaborative Priming Tasks as Vehicles for Classroom-Based Language Learning

Priming refers to 'the phenomenon in which prior exposure to language somehow influences subsequent language processing, which may occur in the form of recognition or production' (McDonough and Trofimovich 2009, p. 1). Researchers from other theoretical and methodological perspectives also acknowledge such phenomenon in language use contexts. For instance, the ethnomethodological account by Markee and Kunitz (2013) refers to it as cannibalization and recycling. Priming is an implicit cognitive phenomenon, which involves the mechanisms of implicit language learning (Chang Dell and Bock 2006). There are several types of priming depending on target linguistic foci: e.g., auditory, structural (also called syntactic), and semantic priming (McDonough and Trofimovich 2009). Regardless of the linguistic targets that might be affected during discourse, all types of priming commonly explore the impact of previous language use and exposure on subsequent language performance in either written or spoken discourse (for an overview of priming, see Pickering and Ferreira 2008; and McDonough and Trofimovich 2009). In this chapter, I will focus on structural and auditory priming which have been adopted to design collaborative tasks in the recent classroom-based literature on tasks.

Among the different types of priming, structural priming has been studied the most in L2 classroom contexts. Structural priming is the tendency for speakers to produce a structure that occurred in the recent discourse rather than an alternative structure that could be used to express the same meaning (Bock 1986; Pickering and Ferreira 2008; McDonough and Trofimovich 2009). For example, during a conversation, one speaker might produce a passive construction, *My laptop was stolen by a thief*. Later in that same conversation, the same speaker or an interlocutor is likely to produce another passive construction (*The police officer was called by my neighbor*) rather than an alternative one, such as an active construction (*My neighbor called the police officer*). The premise of structural priming is that although alternate structures that express similar meaning are available to speakers, they will most likely produce a syntactic construction that they have just been exposed to in the preceding discourse. Structural priming is believed to occur when structural and lexical information of the prime (i.e., a specific grammatical construction that occurred in the previous discourse such as passives,

datives, relative clauses) becomes activated, and this activation facilitates subsequent production (McDonough and Chaikitmongkol 2010).

In order to facilitate interaction-driven task-based language learning, researchers have built structural priming techniques into task design. Collaborative structural priming tasks are designed so that one interlocutor is provided with a list of sentence models (i.e., primes) targeting a particular syntactic construction (e.g., passives, relative clauses), and the other student is asked to generate an utterance from a prompt, which is often a single verb, a noun, or a noun–verb pairing (e.g., McDonough and Chaikitmongkol 2010). This format does not impact the flow of the interaction, which meets the basic requirement of task design. The occurrence of structural priming is demonstrated when the speaker with a prompt (e.g., given verbs and nouns) produces an utterance that has the target structure which was the structure of the preceding prime.

Previous L2 structural priming studies have shown that structural priming occurs in L2 speech production (McDonough 2006) with linguistically complex structures such as passives and double-object constructions. Results of these studies also suggest that priming effects promote subsequent production of target-like forms as opposed to interlanguage forms (McDonough and Chaikitmongkol 2010; McDonough and Mackey 2008). For instance, English L2 learners often have a problem with producing wh-questions with inversion (e.g., How do you go to school?), and produce an alternative form without an auxiliary verb instead (e.g., How you go to school?). If learners are successfully primed with wh-questions with inversion, they would produce the same structure with either the same or different lexical items in subsequent production during the same discourse.

Since McDonough and her colleagues have implemented structural priming research in the field of SLA, there has been a growing interest on how to promote task-based language learning through structural priming tasks. For instance, McDonough and Chaikitmongkol (2010) designed structural priming tasks to model and elicit target-like wh-questions with inversion. Working in pairs, EFL learners asked each other questions based on the texts they had read as part of a content-based lesson on nutrition and vitamins. As shown in Example, one student, Teerasak, was given materials that provided him with six priming wh-questions, created by the instructor (e.g., How have scientists defined vegetables?). Teerasak's task was to ask his partner Pranut these questions and to check whether her responses were correct based on the text content. After Pranut answered Teerasak's questions, she was required to ask questions about Teerasak's text on vitamins using the two words provided as prompts. Each prompt encompassed a subject-verb pairing like people/get (see line 4). In Line 4, Pranut asked 'How do people get scurvy?' and McDonough and Chaikitmongkol claimed that the fact that Pranut produced a wh-question with inversion provides evidence of structural priming during collaborative tasks.

Example: Structural Priming (taken from McDonough and Chaikitmongkol 2010, p. 821)

1.	Teerasak	How have scientists defined vegetables? [priming]
2.	Pranut	As seedless edibles.
3.	Teerask	That's right. Okay, your turn.
4.	Pranut	How do people get scurvy? [prompt=people/get]
5.	Teerasak	Lack of vitamin C.

McDonough and Chaikitmongkol (2010) compared the subsequent production of wh-questions with auxiliary verbs between students who carried out collaborative structural priming tasks and those who followed the regular curriculum. The results showed that learners who carried out the priming tasks outperformed the comparison group who did not perform

priming tasks on subsequent production of wh-questions, suggesting that collaborative priming tasks facilitate L2 development even at the delayed posttest.

In a recent study McDonough, Neumann, and Trovimovich (2015) implemented collaborative structural priming tasks in an English for academic purposes context over a 13-week semester targeting three English structures: passives, relative clauses, and adverbial clauses. The findings showed that students who carried out the priming activities produced significantly more relative and adverbial clauses than those who did not receive any primes; however, no group difference was found with the passive constructions. This suggests that structural priming can be useful to elicit complex structures in meaningful collaborative task performance contexts.

In addition to structural priming, auditory priming has started receiving increasing attention in SLA research. Auditory priming refers to speakers' tendency to process a spoken word more quickly and to produce a word more accurately when they have previously heard that word compared to a word they have not heard (Trofimovich, McDonough and Neumann 2013). For instance, if learners heard the word 'spectacular' in a prior discourse, they would process the word and/or respond to it more quickly and accurately in terms of its phonological information and/or stress patterns than if they had not recently or previously heard that word. Listeners demonstrate successful auditory priming if they can make word familiarity judgments faster for the words they have heard previously compared to the ones they have not heard previously (Bird and Williams 2002). For auditory priming, repetition of word stress can occur with different words which have the same word stress pattern.

To date, the majority of auditory priming studies have been carried out with computer-based tasks in psycholinguistic experimental settings. For instance, Trofimovich and Gatbonton (2006) found evidence of auditory priming, and the results suggested that L2 learners benefitted from repeated L2 phonological information. Only recently have researchers begun to implement auditory priming in task design. In a classroom-based study, Trofimovich, McDonough, and Foote (2014) examined the auditory priming effects during collaborative learner-learner interaction tasks in ESL classroom contexts. The target words with target stress patterns (e.g., 'intélligent-4-2' stress pattern; four-syllable word with the stress on the second syllable) were embedded into four collaborative, information-exchange tasks that were created following the course syllabi. For each of these tasks, each learner was given sentences which included words with target stress patterns. Using the accuracy rates of target stress patterns, Trofimovich *et al*., found that auditory priming occurred during collaborative tasks (i.e., the accurate production of target stress patterns by learners which were produced by their peers previously). Auditory priming studies have shown great potential to teach L2 learners how to pronounce new words (e.g., Bird and Williams 2002; Trofimovich and Gatbonton 2006).

Trofimovich, McDonough, and Neumann (2013) carried out an L2 priming study targeting both auditory and structural priming with ESL learners. The two tasks targeted three- and four-syllable words with primary stress on the second syllable (auditory priming) and either English passives or relative clauses (structural priming). Similar to McDonough and Chaikitmongkol (2010), one learner produced the primes which included the target forms and the other learner was asked to produce prompts. The findings showed that priming tasks facilitated learners' production of target linguistic forms (both target stress pattern and structures). What is noteworthy about the findings by Trofimovich *et al*. (2013) is that integrated auditory (i.e., stress) and structural primes were more successful at eliciting the target forms, compared to auditory-and structure-only primes. This suggests that integrated patterns of language, with repeated lexis and grammar or repeated grammar and phonology, that are available to learners through primed interaction guide learners to produce novel constructions.

In sum, research in this area suggests that priming tasks are useful for promoting L2 learning opportunities. Building on previous structural priming research, McDonough, Trofimovich and colleagues have made an interesting connection between psycholinguistics and instructed L2 language learning. They have applied insights from structural priming research to task design in an effort to implicitly elicit grammatical structures that are challenging for students to acquire during learner–learner interaction focusing on meaning. As suggested by Trofimovich and McDonough (2012), priming tasks can provide learning opportunities during classroom interaction when carefully designed. L2 production of target linguistic forms could be facilitated when learners are exposed to language models that include repetition at multiple levels of language, including phonology, lexis, and structure (Trofimovich, McDonough and Neumann 2013). Additionally, primed interaction in class may guide learners' use of novel constructions. These benefits of collaborative priming tasks could address some of the concerns related to learner–learner interaction during task performance, for instance, the provision of incorrect input and avoidance of complex structures between the learners. By providing carefully designed target-like language models (i.e., primes), instructors can elicit the same target structures during interaction while learners focus on messages. During this process, learners may be able to develop their interlanguage in meaningful contexts.

5. Future Directions

Although a considerable amount of recent research has investigated the use and potential benefits of collaborative tasks in instructed language learning, questions which need to be addressed in future research still remain. While several pedagogical implications for task design and implementation can be drawn from this large body of research, limitations can be found, particularly in reference to research design. In order to understand what happens during task-based interaction, and how learners' task performance is related to their subsequent language production or L2 learning, future research must design empirical studies so as not to neglect both the process and product of carrying out collaborative tasks in classroom contexts, as proposed by Ortega (2005). Ortega has argued that a process–product approach to task-based research that considers the full landscape of variables contributed by task, various stakeholders (e.g., learner, instructor), and learning outcome, is warranted to illuminate our understanding of task-based language learning and teaching.

Additionally, from a methodological perspective, it is important to document the fidelity of task treatments, i.e., whether learners actually approach task performance as researchers or teachers expected that they would (Coughlan and Duff 1994). Recently an increasing number of researchers have become concerned with the validity of task design in addition to validating language outcome measures. For instance, within the research domain of task complexity, researchers have provided additional information regarding whether task complexity manipulation led to the desired changes in cognitive demands (Révész 2014). Data from self-report questionnaires, stimulated recall sessions (i.e., asking students what they were thinking) or time estimation surveys (i.e., asking students how long they think it took them to complete the task) have been suggested as useful additions to studies in classroom settings to validate task complexity levels.

Furthermore, in order to examine the role of collaborative tasks in L2 learning for a wide range of language learning contexts, expanding the scope of target linguistic features is warranted. As reviewed in the current chapter, the majority of previous task-based studies from the cognitive–interactionist perspective have focused on grammar. Because the primary focus of tasks is on the processing of semantic and pragmatic meaning (Ellis 2009), various

aspects of language learning such as pronunciation, vocabulary use, pragmatics, and the content and quality of L2 writing needs to be explored.

More importantly, researchers need to be reminded that our goal is not to inform readers how to design or implement a single task in a classroom but rather to address course curricula in a broader sense. Language classrooms involve a variety of factors and stakeholders, which causes interactions between various task factors. Carrying out task-oriented classroom-based studies focusing more globally on long-term performance in a course or a language program and the role of the teachers would be an ideal direction for future research.

In terms of the literature on L2 priming tasks, the role of priming for application to classroom contexts is still in its infancy. Although the previous literature on priming has supported the notion that priming techniques could be beneficial for language learning, the majority of these studies were conducted in tightly controlled lab-based settings. As McDonough and Chaikitmongkol (2010) have suggested, additional classroom-based priming research is needed to identify the most effective ways to design, sequence, and implement such tasks.

Another research area in need of more attention is the teacher's role during task-based interaction. Although tasks are typically designed to elicit specific learner behaviors, the way they are used by teachers in actual classrooms might turn out to be different. Because tasks are arguably one of the main vehicles for language learning these days, teachers who actually design and implement tasks first-hand need to be trained in a way to maximize language learning via tasks. Additionally, their voice needs to be heard and become part of classroom-based research projects (see Baralt, Harmath-de Lemos and Werfelli 2014, for a discussion of this critical need). This is one area in which the fields of task-based research and teacher education could work together, and more studies on this relationship are needed.

To summarize, considering the short history of task-based research in SLA, there is a large amount of evidence showing the benefits of tasks as vehicles for interaction-driven language learning in classroom contexts. A process–product approach to studying task-based language learning in diverse instructional contexts with learners from different backgrounds will hopefully continue to contribute to our understanding of the role of tasks.

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See Chapter 11: Comprehensible Input and Output in Classroom Interaction.
See Chapter 12: An Interactionist Approach to Learner-Learner Interaction in Second and Foreign Language Classrooms.
See Chapter 13: The Relative Effectiveness of Corrective Feedback in Classroom Interaction.

11 Comprehensible Input and Output in Classroom Interaction

SUSAN M. GASS

1. Introduction

The constructs of comprehensible input and comprehensible output have been influential in classroom teaching for the past few decades. At times there has been a lack of understanding of their significance and there is even a lack of concern of whether the constructs are theoretically valid or not. To give an idea of the pervasiveness of the term as well as the lack of theoretical interest in the lay world, consider the following blog post:

> …comprehensible input helps us internalize the language, recognize words and patterns and leads to our learning the language. I am not too concerned over what is meant by acquisition or learning. I am also not concerned with whether Krashen's theory is 100% true or not. I'm pretty sure most of you don't even care who Krashen is! I am only concerned with trying to take what I feel are the best parts of this idea and trying to realistically help learners apply them to their language learning journey. That's what I am trying to do here. (posted on *The Everyday Language Learner*, May 30, 2011 by Aaron Myers)

The purpose of this chapter is to provide a clearer understanding of these terms and to critically evaluate their relevance for learning both in and out of the classroom. The chapter is organized as follows. First there is a discussion of the roles of input and output and their centrality to the Interaction Hypothesis, referred to as the Interaction Approach (see Gass and Mackey 2007). This is followed by a discussion of two central concepts to this approach, namely attention and noticing. The final parts of the chapter relate these concepts to the classroom through a discussion of the teacher's role, classroom tasks, and the role of experience versus training in preparing teachers in appropriate uses of input, feedback, and elicitation of output.

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2. Input

Input refers to the language that learners are exposed to (reading, spoken language or signed language). *Comprehensible* input was a term coined by Krashen (1977). It was part of a model of learning, known as the Monitor Model with the Input Hypothesis being one of five components of that model. Essentially, the claim is that learning takes place when learners receive comprehensible input, which Krashen defined as the language that is slightly more advanced than a learner's current level of language. In Krashen's terms, this is known as $i + 1$ with i being the learner's current level of interlanguage and i+1 the level just beyond. Besides the difficulty (if not impossibility) of determining a learner's level of grammatical knowledge, there have been many theoretical and practical criticisms to this approach, not the least of which is the implicit assumption of language learning being linear and proceeding from one stage to the next (see Gass with Behney and Plonsky 2013 for further discussion). To put this into the context of the classroom, the teacher's role is to make the input comprehensible (see http://www.youtube.com/watch?v=4K11o19YNvk for a demonstration by Krashen of the importance of comprehensible input).

One difficulty with the construct of comprehensible input is that it is the input provider who is determining comprehensibility when in fact, the important point is whether or not the learner comprehends. Schmidt and Frota (1986, p. 311) point this out: 'a second language learner will begin to acquire the target like form if and only if it is present in comprehended input and "noticed" in the normal sense of the word, that is consciously.' Gass (1988) furthered this notion of comprehended input by making it one of five parts of her model of acquisition. Her emphasis is on the learner (as opposed to the input provider) who attempts to make sense of the input and works to comprehend it. Other differences between comprehensible input and comprehended input (e.g., whether or not it is a dichotomous variable and the delineation of levels of comprehension—meaning, grammar) are treated in Gass' original article.

In attempting to understand the significance of input to second language learning, one must understand its characteristics. One thing that is clear is that the language spoken to non-proficient learners differs from that spoken to proficient speakers (either native or non-native speakers). In general, speech is often slower, simpler in grammatical structures, simpler in vocabulary, and simpler in delivery (e.g., contractions are eliminated). What is particularly noteworthy is that input to learners is not stable and may change as input providers (e.g., teachers) assess the linguistic ability of the non-native speaker addressee. The following examples (from Kleifgen 1985) illustrate this with speech from a single teacher providing input to students in a kindergarten class in which the students have a range of proficiency levels. To the entire class, she says:

1. These are babysitters taking care of babies. Draw a line from *Q* to *q*.
   From *S* to *s* and then trace.

To a single native speaker, she says:

2. Now, Johnny, you have to make a great big pointed hat.

But to an intermediate level NS of Urdu (example 3), she modifies the speech from what was said to a native speaker by breaking the sentence into two parts:

3. Now her hat is big. Pointed.

Her speech is even further modified to a less proficient child (low intermediate level NS of Arabic) as seen in example (4). She starts with an attention-getting question and then makes two comments on what she has identified as the topic of the sentence:

4. See hat? Hat is big. Big and tall.

To two beginners (the first Japanese [5] and the second Korean [6]), there is even further modification.

5. Big, big, big hat.
6. Baby sitter. Baby

Thus, this skilled teacher varies her language according to her perception of the interlocutor's (in this case the kindergarten child) ability to understand.

In this section, we have provided a brief description of the role of input. What is clear is that language learning cannot take place without it. What is not clear is precisely what learners do with the input provided to them. We deal with these issues in sections that follow.

3. Comprehensible Output

In the mid-1980s, it became apparent that relying on the construct of input to account for language learning was not sufficient. An early piece of evidence for the insufficiency of input came from studies in Canadian French immersion schools where children, after many years in these school settings, lacked in proficiency when compared with native-speaking French children. This was so despite their mastery of academic content (Swain 1985). Swain further noticed that these children were not actively engaged in productive use of the language. To account for this, she proposed what she called the Comprehensible Output Hypothesis (1985; see also 1995, 2005) and argued for the necessity of productive use of language (output) as part of the path to acquisition. As she stated, producing language 'may force the learner to move from semantic processing to syntactic processing' (Swain 1985, p. 249). In other words, when producing language, one is forced to use syntax, whereas, in comprehending language there are circumstances in which one need only understand lexical items and not necessarily the details of syntax. Swain claimed that 'output may stimulate learners to move from the semantic, open-ended, nondeterministic, strategic processing prevalent in comprehension to the complete grammatical processing needed for accurate production. Output thus would seem to have a potentially significant role in the development of syntax and morphology' (Swain 1995, p. 128).

Pushed output is a subset of output and refers to the fact that when producing language, learners are

> pushed toward the delivery of a message that is not only conveyed, but that is conveyed precisely, coherently, and appropriately' (Swain 1985, p. 249)

Being pushed in output often comes as a result of an exchange in a classroom with teachers or with classmates. Below is an example (7) where, through the interaction, the learner is pushed to use language precisely. It is clear from her comments following this exchange that this interaction with a NS pushed her into using more precise and accurate language. The interaction is one in which the NNS is describing a picture to the NS.

7. From Mackey (2002, pp. 389–390)

NNS: And in hand in hand have a bigger glass to see.
NS: It's err. You mean, something in his hand?
NNS: Like spectacle. For older person.
NS: 'Mmmm, sorry I don't follow, it's what?
NNS: In hand have he have has a glass for looking through for make the print bigger to see, to see the print, for magnify.

NS: He has some glasses?
NNS: Magnify glasses he has magnifying glass.
NS: Oh aha I see a magnifying glass, right that's a good one, OK.

Recall comments following this episode:

> In this example I see I have to manage my err err expression because he does not understand me and I cannot think of exact word right then I am thinking thinking it is nearly in my mind, thinking bigger and magnificate and eventually magnify. I know I see this word before but so I am sort of talking around around this word but he is forcing me to think harder, think harder for the correct word to give him so he can understand and so I was trying, I carry on talking until finally I get it, and when I say it, then he understand it, me.

In this instance, the learner, in comments following the interaction and reflecting on it, reports being pushed (e.g., *he is forcing me to think harder, think harder for the correct word*) into making language more precise and comprehensible.

Over the past few decades, considerable empirical attention has been paid to the determination of the output–learning relationship both within and out of the classroom. (Nobuyoshi and Ellis 1993; Ellis and He 1999; Izumi, Bigelow, Fujiwara, and Fearnow 1999; Izumi and Bigelow 2000; McDonough 2005; Uggen 2012, among others). We consider two illustrative examples: McDonough (2005) and Uggen (2012). In the first, McDonough investigated the acquisition of English questions by Thai learners. In an interactive task, four groups of learners were given differing opportunities by an interlocutor to modify their output. What McDonough found was that the best predictor of learning came when there was an opportunity to modify one's speech, as in example (8) below in which the NS asked for clarification. Following the clarification request, Sasitorn produced the correct question form.

8. From McDonough (2005).

Sasithorn: why she made an injection?
NS: why she made? Huh?
Sasithorn: why did she make an injection?

Initially Sasithorn did not use an English question form with *do.* After the NS sought clarification, she modified her question and uttered a fully grammatical question. In other words, she was pushed to produce the correct form.

Uggen (2012) in her study of output, found that when learners produced output (writing), they were able to subsequently learn vocabulary and were more aware of gaps in their knowledge of the L2. We return to this below in our discussion of attention and noticing.

In general, the mere fact of modifying one's output (regardless of outcome) is a significant factor in learning. This is so because the process of modification entails thinking about and even analyzing one's language. From a theoretical standpoint, the main question is: how does output contribute to learning? In this chapter, we focus on: 1) hypothesis testing, 2) feedback, 3) developing automaticity, and (4) forcing a shift from more meaning-based processing of the second language to a more syntactic mode. We return below to the important role of teachers in this process.

One of the functions of output is that it gives learners an opportunity to test hypotheses. When producing (oral) language, learners are able to determine if their message has been understood. An example of hypothesis testing by an L2 learner of Italian is provided below in (9). The exchange was immediately followed by a session with a researcher in which the learner was asked to comment on the thoughts she had had during the original interaction.

9. Data collected by Mackey, Gass, McDonough (2000), but not published in that study. (INT = interviewer)

NNS: *poi un bicchiere*
then a glass
INT: *un che, come?*
a what, what?
NNS: *bicchiere*
glass
Recall by NNS: I was drawing a blank. Then I thought of a vase but then I thought that since there was no flowers, maybe it was just a big glass. So, then I thought I'll say it and see. Then, when she said '*come*' (what?), I knew that it was completely wrong.

In this instance, the learner of Italian was not sure of the proper word and threw out a word waiting for a response. Thus, she had an hypothesis and she tested it.

A second proposed function of output relates to the feedback that one receives when producing language (oral or written). Much research has been conducted within what was originally known as the Interaction Hypothesis (see Long 1996; Mackey 2012; Gass and Mackey 2006, 2007 for overviews). Simply put, through conversation learners receive feedback on their production; this feedback provides them with opportunities to recognize where their utterances are or are not successful and to then modify their utterances in response to that feedback (see Loewen 2012 and Lyster, this volume for extensive treatments of corrective feedback). In general, it is through the cycle of utterance, feedback, noticing of feedback, and modification that learning takes place.

A third, and perhaps the most traditional, function of output is the opportunity it provides for practice. This is a prevalent part of skill acquisition theory (see Lyster and Sato 2013 for a review). In earlier traditions, classroom lessons were organized around presentation of material (often an explanation of a grammatical structure). This would be followed by exercises (including dialogues and role-plays) in which the newly-presented information would be used/practiced. Even though classrooms today are different with learners producing language through structured tasks, a similar underlying philosophy exists. Through repeated use of language, automatization occurs such that routine phrases and/or words come to learners without a great deal of effort or deliberation (see N. Ellis 2005). As native speakers (or even fluent second language speakers) use language, production is generally not effortful and is often without a focus on each word/phrase. This does not mean that there is not planning; it means that the message does not require the same degree of conscious effort as is required for second language learners.

A final proposed function for output has to do with processing. When comprehending a message, syntax is not always necessary. For example, if one hears the words *want* and *dinner* and the sentence is uttered with rising intonation, it doesn't take much to determine that the interlocutor is asking something like *What do you want for dinner?* Or *Do you want dinner*? This can be understood even if the hearer has not learned how to form English questions. On the other hand, to produce these sentences, a learner is forced to use his/her syntactic knowledge to ask a question. In other words, through output, learners are required to use their knowledge of syntax.

4. Interaction Approach

In preceding sections, we have dealt with input, output and feedback, all of which are united in what we refer to here as the Interaction Approach (see Long 1996; reviews by Gass and Mackey 2006, 2007; and Mackey, Abbuhl, and Gass 2012). As a preliminary, it is important to

point out that learning a second language involves receiving what is known as positive evidence and negative evidence. The former is essentially the input and is the basis for forming hypotheses about the language being learned. In other words, learners make use of the input (among other information) to determine the structure of the second language. The input can be natural or, as in the case of classrooms, more nuanced and structured. Negative evidence, on the other hand, is what enables a learner to determine the correctness of his/her L2 system. This is most notably provided through feedback, often following an erroneous utterance. Feedback occurs in many ways, as outlined in Lyster's paper in this volume. For example, corrective feedback can be a simple request for clarification or it can be a response to an utterance, as in a recast (a reformulation of an incorrect utterance while maintaining semantic content). There are two important components to recasts: 1) there is a subtle indication of a problem in that a correct form immediately follows an incorrect form and 2) there is a provision of a correct form. In other words, recasts combine positive and negative evidence. In cases not involving recasts, correction can be direct, such as an overt statement that something is wrong.

The basic underlying premise of the interaction approach is that interaction and learning are connected (see Gass and Mackey 2007) and, importantly, conversational interaction serves as a basis for language development (Wagner-Gough and Hatch 1975). Long (1996) provides the following explanation for how the various components fit together:

> *negotiation for meaning*, and especially negotiation work that triggers *interactional* adjustments by the NS or more competent interlocutor, facilitates acquisition because it connects input, internal learner capacities, particularly selective attention, and output in productive ways. (pp. 451–452, emphasis in original)

He further states that:

> It is proposed that environmental contributions to acquisition are mediated by selective attention and the learner's developing L2 processing capacity, and that these resources are brought together most usefully, although not exclusively, during *negotiation for meaning*. Negative feedback obtained during negotiation work or elsewhere may be facilitative of L2 development, at least for vocabulary, morphology, and language-specific syntax, and essential for learning certain specifiable L1–L2 contrasts. (p. 414)

As negotiation takes place, a learner's attention is directed toward a particular problem in his/her target language production. It does not necessarily mean that learning takes place right at that moment; what it does mean is that there is at least initial recognition of a problem with full understanding of the target language structure only coming at a later point in time. An example of how an interaction provides a forum for selectively attending to a problem area was seen in example (7) in which the learner was working on the concept 'magnifying glass'. Following various forms of negotiation (*It's err. You mean, something in his hand?; 'Mmmm, sorry I don't follow, it's what?; He has some glasses?*) the learner was able to produce 'magnifying glass'. Crucial in this process is the concept of attention.

Not all individuals are equally successful at making use of the cycle of production, feedback, noticing, and modification. We turn now to some ways in which individuals vary in their abilities to appropriate benefit from this cycle.

5. Individual Learner Variables

In this section two related constructs are presented: attention/noticing and working memory capacity. Both have been central in understanding how and why interaction benefits acquisition. As mentioned earlier in this chapter, input and feedback rely on learners'

noticing which in turn depends on learners' attentional resources being directed to the input and/or feedback.

5.1 Attention and noticing

Schmidt (1990, 1993, 1994, 2001) and particularly Schmidt and Frota (1986) brought the notion of conscious noticing to the forefront of SLA research. Earlier, Krashen (1983) had proposed that learners notice the gap between their own interlanguage knowledge and that of the TL, but in his view, this was a subconscious process. Schmidt, through his own learning of Portuguese, recognized that his learning progressed when he consciously noticed the difference between the input that was provided to him by NSs of Portuguese and what he himself produced. Through diary entries he was able to trace his own noticing of form and his later production of that form. Example (10) from his early work is provided below.

10. Journal entry, Week 22
    I just said to N *o que è quevocèque*, but quickly [*kekseker*]. Previously I would have just said *o que*. N didn't blink, so I guess I got it right, except now I wonder if it should have been *quiser*. I can't believe that what I notice isn't crucial for what I can do.

Schmidt and Frota (1986, p. 281) conclude from this:

> It seems, then, that if R was to learn and use a particular type of verbal form, it was not enough for it to have been taught and drilled in class. It was also not enough for the form to occur in input, but R had to *notice* the form in the input. As indicated by [the entry in (10)], R subjectively felt as he was going through the learning process that conscious awareness of what was present in the input was causal. (Emphasis added)

From this detailed record keeping of his language learning experiences evolved the Noticing Hypothesis (Schmidt 1990, 1994, 1995, 2001), according to which acquisition is a multi-staged process with an early stage being the noticing of a language feature (e.g., the verbal form mentioned in example 10). He even goes so far as to state that noticing is a requirement of learning and that subconscious learning, as in Krashen's sense, is not possible: 'subliminal learning is impossible' (Schmidt 1990, p. 149). The role of noticing has been prevalent in a great deal of SLA research (see Robinson, Mackey, Gass and Schmidt 2012 for a recent overview).

One cannot talk about noticing without addressing the construct of attention, which is claimed to 'bear on every area of cognitive science' (Allport 1989, p. 631). Similarly, SLA researchers have discussed attention in terms of a range of SLA subareas, such as variation in use and psycholinguistic processing. It is also relevant when considering classroom practices in which attentional resources can be manipulated by the teacher or the demands of classroom tasks (see the review of these terms (and awareness) and concepts by Godfroid, Boers, and Housen 2013). One of the persistent questions has been the verification of noticing. Because a researcher or a teacher manipulates a language form (by making the input salient in some way), we cannot always be certain that the perception of the learner matches the intent of the teacher, researcher, or materials developer. Typical methods of determining noticing have been through 1) diary studies (e.g., Schmidt and Frota 1986); 2) self-reports stemming from verbalizations, such as stimulated recalls (e.g., Gass and Mackey 2000; Mackey, Gass, and McDonough 2000), think-alouds (e.g., Bowles 2010; Hama and Leow 2010; Sachs and Polio 2007) or note-taking (e.g., Hanaoka 2007; Izumi 2002; Izumi and Bigelow 2000; Uggen 2012); 3) examination of language production, such as hesitations,

pauses, self-corrections (Kormos 1999; Smith 2009) and 4) online processing, such as neurobiological methods (see Morgan-Short and Ullman 2012 for a review of neurocognitive approaches) or online processing using eye-tracking (see Godfroid, Winke and Gass 2013; Winke, Godfroid and Gass 2013).

For the purposes of this chapter, it is important to emphasize that there is frequently a mismatch between what is intended to be corrected and what is perceived as a correction. This was made clear in a study by Mackey, Gass, and McDonough (2000). An example from that study is provided in (11) in which the NNS is describing a picture in her L2 Italian. She mispronounces a word, is corrected with a comprehension check (*vicino?*), and, importantly, she recognizes the correction as is evidenced through her post-task verbalization. One notes, however, that even though the comprehension check served the purpose of drawing her attention to an error, she made no overt change in her language. It is only through the recall comments that one has verification of her noticing. This points to the difficulty that every classroom teacher has: how does one know from production if the learner has learned what the object of instruction was?

11. An example of feedback with correction

NNS:	*Vincino la tavolo è. (the correct form is *vicino*) 'Near the table is'
INT:	Vicino? 'Near?'
NNS:	La, lu tavolo. 'The ? table.'
Recall:	I was thinking . . . when she said *vicino* I was thinking, OK, did I pronounce that right there?

In the following example (12), an ESL learner is provided with correction about morphology, but as can be seen in her follow-up comments, the intended corrective feedback is not perceived as it was intended.

12. Morphosyntactic feedback (perceived as semantic feedback)

NNS:	So one man feed for the birds.
NS:	So one man's feeding the birds?
NNS	The birds.
Recall:	When I saw the picture I thought this is a park and I tried to describe.

What Mackey, *et al.* (2000) found was that there is a greater likelihood of feedback to be perceived as intended in instances of pronunciation and the lexicon, and less likely so in cases of morphosyntax. Thus teacher intent and learner understanding of that intent are not always isomorphic.

5.2 Working memory

Working memory capacity is a construct closely related to attention and in some views (see Engle and Kane 2004) the two are not differentiated (for recent reviews of working memory and SLA, see Williams 2012; Juffs and Harrington 2011). Juffs and Harrington (p. 138) define working memory as 'the mental processes responsible for the temporary storage and manipulation of information in the course of ongoing processing.' To relate this to interaction-based

research, consider a learner who produces an error and who then receives feedback on that error, as in example (13) below from McDonough and Mackey (2006).

13. Error and feedback (recast)

Learner:	Why he hit the deer?
NS:	Why did he hit the deer? He was driving home and the deer ran out in front of his car
Learner:	What did he do after that?

This particular learner has to recognize that 'why did he hit the deer?' is in fact different from her original utterance 'why he hit the deer?' To do this, she needs to store both bits of information (her original utterance and the recast), process the difference and ultimately recognize what the problem is and how to correct it. This requires storage of information and processing.

A common model of working memory and one within which much SLA research is conducted is that of Baddeley (2000) based on earlier models (e.g., Baddeley and Hitch 1974). The model consists of so-called 'slave systems' designed for such purposes as storage of visual/spatial information and storage of phonological and acoustic information and a buffer that is capable of linking temporary storage areas with one's long-term memory. Another part of the model is the central executive that brings together information from the various storage mechanisms. Relating this to attention, the central executive controls the attention needed to focus on some things (parts of language) and inhibit others. In other words, it controls selective attention.

In recent years, there have been a number of empirical studies that address the role of working memory and attention in SLA as a way of accounting for individual variation in learning from interaction. We briefly mention four studies selected here for their recency (Mackey, Adams, Stafford and Winke 2010; Goo 2012; Révész 2012; Gass, Behney, and Uzum 2013), although these are by no means the only ones conducted that attempt to link interaction and working memory (e.g., Trofimovich, Ammar, and Gatbonton 2007; Mackey and Sachs 2012; Mackey, Egi, Fujii, and Tatsumi 2002; Sagarra 2007).

It is important to point out in this discussion of working memory capacity that there is not a single measure used that uniquely captures working memory capacity. Some researchers use a test of phonological short-term memory (PSTM) that requires learners to listen to and repeat digits or non-words. This measures the capacity one has in the phonological loop, one of the so-called slave systems mentioned earlier. Others use a variety of measures, with span tests (listening, reading) and operation (mathematical operations) being the most common in SLA research. In these, participants hear a sentence and generally respond to its plausibility (e.g., *He went to the park and listened to the pencil* versus *He went to the park and listened to the music*.). This is the processing part. Sentences appear in sets of increasing length at the end of which participants are asked to recall the last word of each sentence or a letter that has appeared after the presentation of each sentence. This is the storage part. When comparing studies that purport to examine the relationship between learning and working memory, one must keep in mind that different studies may in fact be measuring something different. This is an area that is ripe for development and/or replication (see Gass and Valmori in press).

Révész (2012) specifically focused on the effectiveness of recasts as mediated by an individual's working memory capacity, using two working memory measures (PSTM and a reading span test). Through her study of Hungarian high school students learning English, she investigated their use of the English past progressive. With regard to working memory, there were strong correlations between: 1) the phonological short-term memory score and

the oral test scores and 2) the reading span test scores and writing production scores. Révész suggested that 'learners engaged in different types of learning processes as a function of their complex WM [reading span] and PSTM capacities.' (p.124). In other words, working memory does impact learning, but it varies according to the different capacities of working memory and the type of language being produced (e.g., written versus oral).

Goo (2012) considered working memory capacity as it differentially impacted the benefits of two types of corrective feedback: recasts and metalinguistic feedback (e.g., 'Don't use the conjunction 'that' when you ask about the subject of the subordinate clause', p. 455). His study was based on the acquisition of what is known as *that*-trace filter (e.g., **Who does John think that is reading the newspaper?*). His data came from Korean university students studying English. He used a reading span and an operation span test to assess working memory capacity and he assessed gains following a treatment by means of a written production test and a test of grammaticality. Both feedback types resulted in learning, but with specific regard to working memory, there was a significant correlation between one's working memory capacity and the provision of feedback by means of recasts. For metalinguistic feedback, there was no significant correlation with an individual's working memory score. Goo concludes that different feedback types 'reflect two different mechanisms for how noticing occurs' (p.465). This is so because recasts require a learner to use his/her attentional resources to notice the feedback component of recasts. On the other hand, metalinguistic feedback, because it is overt, does not require as much of the learner. Rather, the provider of metalinguistic feedback is the one who is doing the work of drawing attention to the error.

Mackey *et al.* (2010) looked at individual learner differences in modifying output following feedback and related those differences to varying working memory capacities. Modifying one's output requires that a learner focus attention on the linguistic feedback provided. In so doing she/he compares the feedback with the original utterance, notices the difference and makes an attempt at correction. Thus, an individual must store and process information, the two components of working memory. In the Mackey *et al.* study of L2 learners of Spanish, there was a significant correlation between those with higher working memory scores and those who produced more modified output. Thus, from the three studies discussed here, we can conclude that there is a relationship between one's working memory capacity and learning from feedback although caution must be taken in interpreting this to mean that those with higher working memory scores are better learners in all cases, as many variables can intervene, including proficiency, age, and even classroom instruction.

Gass, Behney, and Uzum (2013) took a different perspective and considered not only working memory capacity, but also inhibitory control. As mentioned earlier, when in an interactive context, learners must not only make the necessary comparisons between their output and the input/feedback from their interlocutor. As learners attend to feedback they have to inhibit extraneous information (e.g., information that is not related to the original error). Gass, Behney, and Uzum investigated both working memory capacity and inhibitory control in L2 learners of Italian. The former was done through a reading span test and the latter through a Stroop test which requires individuals to respond as quickly as possible to a stimulus in which certain information must be inhibited. In their study, participants were presented with color words (*red*, *blue*, *green*) written in a font color that either matched the word (*red* written in a red font) or not (*red* written in a green font). This was done in both the learners' L1 and L2. In general, processing is delayed when there is a mismatch between two stimuli (meaning and visual).

In a pre-test/post-test design Gass, Behney, and Uzum provided feedback to learners on gender and number agreement in their L2 Italian. They divided the participants into two groups according to how much they had learned from the interactive task (treatment). The two groups did not differ in working memory capacity, but did differ in their ability to inhibit information in their L2.

In combination, these studies suggest that the feedback that is provided to learners in and out of the classroom may be differentially effective depending on individual variables such as their ability to selectively attend to linguistic features, to store and process information, and to inhibit information. None of this can be understood without a consideration of proficiency levels and parts of language (e.g., pronunciation, syntax, morphosyntax; see Gass, Svetics and Lemelin 2003). In the next sections we deal with issues related to eliciting output in classroom contexts, in particular the teacher's role in elicitation and selection of task type. We conclude with a consideration of ways in which teachers influence output production.

6. Interaction and the Classroom: A Focus on Output

The Interaction Approach relies on the efficacy of feedback. Other chapters in this volume focus directly on some of these (See Kim; Bowles and Adams; and Lyster, this volume). In this chapter, the focus is more directly on providing learners with output opportunities and the role of teacher experience in this process. We assume the importance of implicit feedback, as in recasts (see R. Ellis, Basturkmen and Loewen 2001; Oliver 1995; Braidi 2002; and Goo and Mackey 2013 for a review, but see Lyster and Ranta 1997 for an opposing view) and highlight work that considers differences between experienced and inexperienced teachers as well as teachers' overall role with regard to output. A term frequently used within a classroom context is 'uptake' which has been defined as 'a student's utterance that immediately follows the teacher's feedback and that constitutes a reaction in some way to the teacher's intention to draw attention to some aspect of the student's initial utterance (Lyster and Ranta 1997, p. 49). Uptake can take many forms, some of which are less relevant than others. For example, a mere repetition of a teacher's utterance may or may not indicate processing of the feedback. It could just be an instance of mimicking or repetition of sounds without a deeper understanding of the feedback. On the other hand, feedback can be a prompt for possible output modification. It is the latter that interests us in this chapter.

Mackey, Polio and McDonough (2004) investigated differences between preservice (i.e., inexperienced) and experienced teachers' use of recasts, explicit feedback, and negotiation. They found that experienced teachers were more likely to provide recasts and explicit feedback but there were no quantitative differences between the groups in negotiation.

Polio, Gass and Chapin (2006) focused on differences between two groups of teachers: eleven preservice and eight experienced (average teaching experience of nearly thirteen years) teachers. Each teacher was paired with an ESL learner with whom they conducted a picture description task followed by a stimulated recall session between a researcher and each teacher (Gass and Mackey 2000). In general, the experienced teachers used on average more recasts than the preservice teachers (although the difference was not significant). As in the Mackey, Polio and McDonough (2004) study there was no difference in the amount of negotiation. Further, there were significantly more errors produced by learners when talking to experienced teachers and the number of words (a measure of output) approached significance with experienced teachers eliciting more words than preservice teachers. What was particularly interesting were the moves the two groups of teachers made as they began the task. Experienced teachers were more likely to begin with an open-ended question, such as (*OK we're looking at a picture*. *What does your picture look like?*, or *Just tell me what's in your picture*.) On the other hand, preservice teachers, as noted in their recall comments, were focused on their own roles rather than on the learning experiences of the learner (e.g., *Um, yeah, at the beginning of experiment or whatever you call it … activity, like I wasn't sure exactly what to do, like, and, and so, like I just, just was kinda trying to figure this stuff out without really thinking about the ESL student*.). They were more likely to begin with statements such as the following *Um, OK.*

So let's start by comparing the pictures. So, is your-is your window closed? or, *OK. My picture is of a room. Is your picture of a room?* Thus a major difference in the way experience impacts a teacher's role in eliciting output is through an understanding (and perhaps greater self-confidence) of the need to put the burden of production on the learner. As Polio, Gass and Chapin point out, there were many comments by the experienced teachers of their role in eliciting speech (e.g., *I should have had her asking me questions; was just trying to get her to start first; I was just trying to get her to describe it…; and then trying to help her get it out; just trying to get her to elaborate*…).

Thus output in the classroom is dependent on a number of variables, including experience a teacher has in the classroom. However, a teacher's role is not only in elicitation of output, but in setting up the classroom environment whereby features known to be beneficial are likely to emerge. We mention two variables below: task type and task repetition.

Gass, Mackey and Ross-Feldman (2005 and reprinted in 2011), in a study whose purpose was to compare differences in interactional pattern between classroom and laboratory settings (Spanish as a foreign language), found that the major differences were not in setting, but in task type. They elicited data from pairs of learners in three different types of task: 1) a task in which the participants needed to reach a consensus, 2) a task in which differences in two similar pictures needed to be found, and 3) a map task in which participants with different information had to share that information to go from point A to point B. They found that there was the least number of instances of negotiation (including comprehension checks, clarification requests, and confirmation checks) in the consensus tasks when compared to the other two task types. A similar finding occurred in instances where participants stopped the interaction to talk about language (language-related episodes, LRE). This happened least often in the consensus task. For recasts, the results were somewhat different; in the classroom context, the greatest number occurred in the picture differences task with an equal number in the other two tasks. An example from a classroom in which negotiations, LREs, recasts, and uptake occur can be seen in example (14) taken from Gass, Mackey and Ross-Feldman 2005, pp. 598–599).

14. Example of classroom interaction

Learner 1:	¿Cuántas personas tienes? *How many people do you have?*
Learner 2:	(counting) Trece. *Thirteen.*
Learner 1:	¿Trece? Tengo uh diecisiete … ¿Cuántos **parejas**? *Thirteen? I have uh seventeen . . . How many **pairs**?*
Learner 2:	¿**Parejas** de amores? ←**clarification request** ***Pairs** of lovers?*
Learner 1:	¿Qué es **parejas**? ← **LRE** *What is '**parejas**'?*
Learner 2:	**Pairs**.
Learner 1:	Oh
Learner 2:	No tiene el merry-go-round. *It doesn't have the merry-go-round.*
Learner 1:	Hmm. ¿Cómo se dice **bird**? ← **LRE** Hmm. How do you say bird?
Learner 2:	**Pájaro**
Learner 1:	Oh! That's what I was trying to say. ¿Cuántos **pájaros**? *How many **birds**?*

Learner 2: Uhm cinco.¿Cuántos tienes?
Uhm, five. How many do you have?
Learner 1: Tengo nueve, tengo más **parejos, ¿parejos?¿parejas?**
I have nine, I have nine more **[trouble with pronunciation of 'birds']**
Learner 2: **Pájaros**
***Birds** [correct pronunciation]* ←**recast**
Learner 1: **Pájaros**. . ←**uptake**
***Birds** [correct pronunciation].*

In sum, one cannot consider output opportunities in the classroom without, *inter alia*, a consideration of the demands of the particular task on learners.

A second intervening variable and one over which a teacher has control, is task repetition, discussed earlier in relation to automaticity. In Gass *et al*. (1999), a study of L2 Spanish learners, their goal was to consider output as a function of content familiarity (determined by multiple viewings of the same video). Learning was greatest when content demands had been reduced and thereby allowing learners to focus on form.

7. Directions for Future Research

This chapter has barely scratched the surface of the roles of input, output, learner variables and teacher roles in furthering learning. Not only is there a need for replication of some of the more recent work, but ongoing research on ways in which learners interact with different tasks socially and cognitively is needed. How, in general, can we ensure that students in the classroom are appropriately engaging with the input, understanding the feedback, and making appropriate modifications? How can we ensure that teachers fully understand the importance of the variables discussed in this chapter and their impact on learning? And, finally, experience is a luxury that we may not be able to afford. Can we really wait 5–10 years for teachers to gain appropriate experience? Are there intervention programs that can be designed and effectively implement to speed up the process?

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See Chapter 10: The Role of Tasks as Vehicles for Learning in Classroom Interaction.

See Chapter 12: An Interactionist Approach to Learner-Learner Interaction in Second and Foreign Language Classrooms.

See Chapter 13: The Relative Effectiveness of Corrective Feedback in Classroom Interaction.

12 An Interactionist Approach to Learner–learner Interaction in Second and Foreign Language Classrooms

MELISSA A. BOWLES AND REBECCA J. ADAMS

1. Introduction

The interactionist approach to second language acquisition (SLA) is premised on the notion that conversational modifications that take place during interaction promote second language development. Specifically, interaction allows for comprehensible input, interactional feedback, and opportunities for negotiation for meaning (Gass and Mackey 2007; Long 1996). Solid empirical support for these claims comes from a large base of both primary studies and meta-analyses (Keck, Iberri-Shea, Tracy-Ventura and Wa-Mbaleka 2006; Mackey and Goo 2007; Plonsky and Gass 2011), most of which have focused on interactions between native speaker (NS) interlocutors and language learners. However, language learners in communicatively-oriented language classrooms, especially those in a foreign language setting, engage in conversational interaction in the classroom with other learners far more frequently than they do with native speakers (Adams 2007; Adams, Nuevo and Egi 2011). Therefore, research on learner–learner interaction may in fact be more germane to classroom language learning contexts than research on NS–learner interaction.

This chapter begins by describing the basic underpinnings of the interactionist approach and then moves on to present an overview of the research to date on learner–learner interaction, discussing factors that affect the interaction and subsequent learning outcomes, and presenting directions for future research in the field.

2. Basic Tenets of the Interactionist Approach

We first turn our attention to the underpinnings of the interaction approach to SLA, which grew out of the Interaction Hypothesis (Long 1996), the basic tenet of which is that input from and interaction with interlocutors affords language learners opportunities to notice differences between their own target language production and the language of their conversational partners. The interaction approach is multi-faceted, drawing together a host of processes that come into play in language acquisition. Specifically, as learners interact in a

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second/foreign language, they receive comprehensible input and interactional feedback from their interlocutor (Gass 1997; Long 1996; Pica 1994). As a result, learners may negotiate for meaning (Gass 2003), which Pica (1994) describes as occurring when 'learners seek clarification, confirmation, and repetition of L2 utterances they do not understand' (p. 56). In addition, interactions may push learners to modify their output (Swain 1995, 2005), elaborating on what they originally said and, in some cases, making modifications to the grammar, vocabulary, or pronunciation of aspects of the original utterance.

In the example below, from Bowles (2011), two learners are working together to complete a spot-the-differences task. Learner 1 begins a negotiation sequence by indicating that she does not understand the word that Learner 2 has said (*moño*, 'bun hairstyle'). This, in turn, leads her partner to expand on the word *moño*, providing pushed output and further describing the woman's hair as being at the back of her head, up high. In the following turn, Learner 1 catches on to the meaning and identifies the hairstyle as a difference between her picture and that of her partner.

Learner 1:	Y su pelo está, como…
	And her hair is, like…
Learner 2:	como en un moño encima, or…
	like in a bun on top, or…
Learner 1:	Sí, no sé si es un moño, si no es solamente un poco, eh…como diría, no bien peinado.
	If, I don´t know if it is a bun, if it is not just a little, uh…like you would say, not well combed.
Learner 2:	En la mía tiene como un, una, un moño atrás, así alto
	In mine [my picture] she has like a, a, a bun behind, up high
Learner 1:	¡Oh, oh! La mía tiene como pelo que, que rodea su cara.
	Oh, oh! Mine has like hair that, that surrounds her face.

A large base of empirical research has been carried out in the interaction approach, showing that in both classroom and laboratory settings interaction facilitates SLA. Clear links have been made between individual components of interaction and learning. However, the vast majority of studies in the interaction approach have been conducted on native speaker (NS)-learner pairs. As task-based language teaching and other communicatively-oriented methods have taken hold, learners in classroom language learning environments are likely to interact far more with their peers than with native speakers. This may be especially true in foreign language contexts, where the classroom is, for many students, the only opportunity for exposure to and use of the target language. With this context in mind, we turn to an overview of the subset of research in the interaction approach on learner–learner interactions.

3. Learner–learner Interactions

3.1 Early studies

Early studies of learner–learner interactions were largely descriptive and typically set out to compare the interactions of learner dyads with NS–learner dyads. The main quantitative and qualitative findings of that research are summarized below.

Just as in NS–learner interactions, feedback in learner–learner interactions can take a range of forms along the implicit–explicit continuum. In both dyad types, feedback tends to be more

implicit rather than explicit, presumably because implicit feedback forms such as confirmation checks can be seen as less face-threatening and less likely to interrupt the communicative flow than more explicit types of feedback. Both child and adult learners were found to be able to provide feedback as well as be able to respond to it from other learners (Bruton and Samuda 1980; García-Mayo and Pica 2000; Gass and Varonis 1985a, 1989; Mackey, Oliver and Leeman 2003; Oliver 1995; Porter 1986). Regarding the provision of corrections, both native speakers and learners self-correct more than they provide other-corrections, and this is unsurprising given the same tendency in ordinary conversation (Schegloff, Jefferson, and Sacks 1977). Perhaps for similar reasons, both learners and native speakers provide other-corrections relatively infrequently. García-Mayo and Pica (2000) quantified the amount of error correction in the two types of dyads, finding that learners corrected substantially fewer of their peers' errors than native speakers interacting with learners did. That notwithstanding, percentages were quite low for both types of interlocutors, with native speakers correcting less than 10% of learners' errors and with learners correcting less than 2% of their peers' errors. Furthermore, early research found that learners did not always provide corrective feedback to their peers, even when communication breakdowns occurred (Bruton and Samuda 1980). It seems clear that learners are not able to detect all of their peers' errors and also that the errors they correct seem to be a good reflection of instructional targets. Also perhaps unsurprisingly, learners occasionally give each other incorrect feedback, either by erroneously 'correcting' already correct forms or by providing another incorrect form to replace a peer's erroneous form (Bruton and Samuda 1980; Porter 1986). Fortunately, only in a small percentage of cases do learners retain such erroneous forms from their partners (Adams 2007).

Learners have been shown to give their peers more opportunities to incorporate feedback by producing modified output than native speakers do (Bruton and Samuda 1980; Mackey, Oliver and Leeman 2003), suggesting one important difference that might make learner–learner interaction more conducive to learning than NS–learner interaction. Research has also suggested that there are qualitative differences between learners and native speakers when it comes to feedback moves. Whereas both types of interlocutors may make an equal number of feedback moves, native speakers seem to have a greater repertoire of feedback strategies at their disposal than do learners (Pica, Lincoln-Porter, Paninos and Linnell 1996). This is not necessarily a disadvantage for learners, however, since learners in the study by Pica *et al*. (1996) made frequent, successful use of segmentation, whereas native speakers relied more heavily on reformulations, which may have tended to overwhelm the learners.

Regarding other aspects of interaction, early studies found that learner–learner pairs engaged in negotiation for meaning more than either native speaker pairs or NS–learner pairs (Varonis and Gass 1985b). Additionally, more negotiation for meaning occurred in learner–learner dyads where there was a proficiency mismatch between the interlocutors and also in dyads where the learners came from different L1 backgrounds (Gass and Varonis 1989). The focus of negotiation sequences also tends to be different in learner–learner interactions than in NS–learner interactions, given that learners have been shown to focus more extensively on lexical issues than on morphosyntax or other discourse features (García-Mayo and Pica 2000; Williams 1999).

Taken as a whole, early studies on learner–learner interaction show that many of the opportunities for SLA arising in NS–learner interactions also occur in peer interactions. Specifically, learners have been shown to provide each other with comprehensible input, as well as opportunities to negotiate for meaning and produce modified output. That notwithstanding, the research also demonstrated that learner–learner interactions are not identical to NS–learner interactions and thereby identified areas for further research. Just as the field of interaction research as a whole shifted from investigating *whether* interaction worked to studying *how* it worked, research on learner–learner interaction shifted directions, from its early focus on

comparing NS–learner interactions and learner–learner interactions to studying what variables affect the nature of learner–learner interactions and their resulting learning outcomes.

3.2 More recent studies

Indeed, two recent studies, Toth (2008) and Adams, Nuevo and Egi (2011), demonstrate important differences between peer interaction and other interactional contexts and call into question whether learning opportunities are equivalent across settings. Both studies questioned whether the occurrence of similar interactional features in peer and NS–learner interactions led to similar levels of language learning. Toth contrasted learning gains from tasks in teacher-led full class interactions and in peer interactions. Students in the teacher-led condition made significantly higher learner gains than learners in peer interactions, despite similar quantities of interactional modifications. Toth noted, however, that the focus of the interactions differed in the two contexts. In the teacher-led context, interactional modifications nearly always focused on the target forms for the task, whereas learners in the peer interaction context focused on many different forms in their interactions. This difference in focus may have led to differences in learning outcomes; repeated focus on one form raises the salience of the form, making it more likely that learners will notice and then process it. Distributed focus on many forms, typical in peer interactions, makes it less likely that any one form will rise to the level of salience, and therefore be learned.

Similarly, Adams, Nuevo and Egi (2011) found little evidence that the interactional modifications that lead to learning in NS–learner discourse can promote learning in peer interactions. Their study examined the amounts of feedback in peer interactions and subsequent learning, finding no correlation between either implicit or explicit feedback and learning for the target forms. Adams, Nuevo and Egi (2011) point out that their data, like Toth's (2008), call into question the similarity between interactions with a peer and those with a NS. Although multiple early studies noted that interactional features like negotiation of meaning, feedback, and modified output occur in both contexts, this more recent research suggests that surface similarities between peer and NS–learner interactions may not be indicative of similar learning outcomes. Adams, Nuevo and Egi (2011) point out, for example, that what a learner can assume about their interlocutor's knowledge of the L2, and therefore what she/he can assume about the quality of the feedback, differs substantially between peer and NS–learner interactions. While the feedback move may look very similar, what the learner takes away from it may be quite different.

If peer and NS–learner interactions are fundamentally different from each other, then it is not possible to understand the learning potential of peer interactions by comparing them to NS–learner interactions. Rather, peer interaction should be investigated as a learning context in its own right, with unique opportunities and affordances for learning. To understand peer interaction and its potential for learning, it is important to understand the range of factors that impact the nature and outcomes of interaction. For the remainder of this chapter, we will explore three factors that have been shown to impact peer interaction: proficiency and language background (who the participants are), learning task (what the interaction is for), and modality (how the interaction is carried out).

4. Proficiency and Language Background in Peer Interaction

Some teachers and researchers have raised concerns about the appropriateness of peer interaction across proficiency levels (e.g., Swan 2005). However, research has indicated differences and benefits across a range of proficiency levels. Gass and Varonis (1985), for

example, found very few differences between interactions among high proficiency interlocutors and interactions among low proficiency interlocutors in terms of whether and how learners resolved miscommunications in interactions. Iwashita (2001) did note that high proficiency dyads were more likely to modify their own language use in response to negotiation signals than low proficiency dyads, a finding she attributes to the reliance among lower proficiency learners on interactional moves that do not push learners to modify their output, such as repeating the interlocutor's utterance to confirm understanding. While this finding may seem to signal more learning opportunities for higher level than lower level learners, this was a small scale study, and the differences among the groups did not reach statistical significance.

On the other hand, higher proficiency learners do seem to attend to linguistic form more often than lower proficiency learners. Williams (1999), for example, compared four dyads, each from a different level of an English language program, completing similar interactive tasks. She found that as proficiency level increased, so did attention to form, with learners at higher levels consistently discussing linguistic form more often with their interlocutors than learners at lower proficiency levels. Williams' small-scale study therefore provides evidence that 'the degree and type of learner-generated attention to form is related to proficiency level and the nature of the activity in which the learners are engaged' (p. 583). Leeser (2004) similarly found an effect of proficiency on attention to form, again with higher proficiency learners attending more often to form. Rather than looking across course levels, Leeser examined the range of proficiency within L2 Spanish classrooms, pairing students according to the proficiency judgments of their teachers. More advanced learners not only attended to form more often but when they discussed linguistic form with each other they were more likely to arrive at a target-like form. They also attended to a wider range of linguistic forms; whereas learners at lower proficiency levels focused almost exclusively on lexis, higher proficiency learners increasingly also focused on morphology and syntax. While there are not clear advantages for higher proficiency dyads in terms of resolving miscommunications, these studies show that their interaction may afford them greater consciousness-raising.

Research has also shown that proficiency-related differences extend beyond attention to form, influencing the way that dyads' interactions are structured. Storch (2002) documented four different patterns of interaction in peer work, with differing outcomes. She noted that some dyads approached the interaction collaboratively, working together to arrive at a consensus in decisions related to task completion and language use. In others, one learner took on an expert role and guided the more novice interlocutor through the interaction. In still others, learners attempted to control the interaction, either dominating a more passive interlocutor, or clashing with an equally dominant interlocutor. The first two interaction types led to more collaboration and better outcomes in terms of the linguistic products of the interaction (in this case, a written artifact) while the second two led to little attention to form and less well-formed writing.

Kim and McDonough (2008) and Watanabe and Swain (2007, 2008) both investigated whether proficiency impacted the patterns of interaction in peer discourse. In each of these studies, a core group of learners engaged in two interactions with interlocutors of different proficiency levels. Kim and McDonough (2008) paired intermediate level L2 Korean learners with learners of a similar level and with advanced level learners. While their findings on learner attention to form mostly corroborated Leeser's finding that learners discussed form overtly more often when they worked with a more proficient interlocutor, their examination of interactional patterns called into question whether this was necessarily beneficial for their learning. Learners who had interacted collaboratively with their same proficiency partner tended to become passive learners in dominant-passive dyads when interacting with a more

proficient interlocutor. These findings recall Yule and McDonald's (1990) conclusion that it is important to assign task roles carefully to avoid having a lower proficiency interlocutor's contributions completely overrun by the higher proficiency partner. Kim and McDonough's learners indeed indicated in a post-task questionnaire that they felt that such dynamics hampered their ability to benefit from the interaction. In contrast, when they worked collaboratively and co-constructed language use, they reported benefitting more than when a more proficient interlocutor took over the interaction. Furthermore, they reported that their own active participation in the interaction was fundamental to learning, and that the more proficient peer cut off their ability to engage effectively for their own learning.

These findings suggest that simply engaging in more discussion of form, even when that results in target-like usage, may not necessarily be the most important aspect of peer interaction in terms of language learning, echoing the findings reported by Adams, Nuevo and Egi (2011). They also demonstrate the unique potential of peer interaction to promote language learning, compared to NS–learner interaction, where the NS interlocutor is clearly of higher proficiency and may also tend to dominate the interaction in both child and adult settings (e.g., Mackey, Oliver and Leeman 2003). While learners in NS–learner interactions may benefit more from interactional modifications like receiving corrective feedback (e.g., Mackey 1999; Leeman 2003), they may miss out on opportunities to more actively participate in the interaction and stretch their own interlanguage resources, and this may limit their learning. These findings highlight the importance of considering peer interaction in its own right as an interactional context, rather than comparing it to NS–learner interaction based on surface features.

Watanabe and Swain's (2007) study largely corroborates Kim and McDonough's findings, but with L1 Chinese learners of English. Their core learners interacted with both a lower proficiency interlocutor and a higher proficiency interlocutor. Although working with a higher proficiency peer did lead to more discussion of form, this was partially mediated by the nature of the task. In segments of the task where learners discussed corrections the researcher had made to their co-written text, there was more discussion of form with a lower proficiency peer, likely because more mistakes were made in those texts, so more corrections were present to discuss. Watanabe and Swain also noted that, regardless of proficiency, learners who interacted collaboratively with their peers discussed form more and indicated that they found the interaction more beneficial than non-collaborative interactions.

These findings suggest that it may not be proficiency, but rather collaborative orientation to the interaction, that determines how helpful the interaction is for learning. Proficiency plays a mediating role, with learners shifting their interactional style according to the proficiency of their peer. Learners who are dominant with a lower proficiency peer, for example, may become more collaborative when working with a higher proficiency peer. It may not be that proficiency determines the learning potential of the interaction, but rather that individual and partner proficiency both shape the nature of the interaction, which in turn influences the types of affordances that are present.

It should be noted as well that the effect of proficiency on an interaction may be determined not by absolute scores on tests, but rather by how proficiency and differences in proficiency are perceived by learners. For example, Watanabe and Swain (2008) discuss the case of a learner from their 2007 study who engaged in two expert/notice interactions, but never in the expected direction based on interlocutor proficiency. In her interaction with a lower proficiency learner, she took on a novice role, and in her interaction with a more proficient learner, she took on the expert role and guided the interaction. In a post-task interview, it became clear that her perceptions of her peers were not determined by their proficiency as measured through test scores. For example, the more proficient peer was quieter, which her partner interpreted as a lack of confidence due to lower language proficiency. It was her

perception of her peers' proficiency, rather than their actual language ability, that determined how she engaged in the interactions.

The role of perceptions in mediating the effect of proficiency is highlighted in the case of heritage[1] learner–L2 learner peer interactions. These interactions can, in some ways, resemble higher proficiency–lower proficiency peer interactions, even when both learners have very similar global proficiency, with the heritage learner often falling into the expert role in the interaction. Despite the overwhelming trend in educational settings for heritage and other language learners to be streamed together by proficiency in language programs (Lynch 2008), very little research has examined how these learners interact. A study by Blake and Zyzik (2003) suggests that heritage learners are more likely than their classroom peers to take on expert roles in the conversation. Their prior home exposure to the language (and possibly also their names and appearances) may make their peers perceive them as more likely to be expert. While Blake and Zyzik questioned whether the heritage learners benefited from the interaction as much as their peers, the heritage learners indicated that they perceived the interactions as helpful for their language learning. The researchers noted that these positive perceptions may be related to increased confidence for these learners when they communicated with a peer, rather than with more proficient family members. Working with a peer may have allowed them to participate in the discourse and direct the communication in ways that they often do not in interactions beyond the classroom.

There are also drawbacks for heritage learners in classroom interaction with second language learner peers. For example, Bowles (2011) noted that when heritage learners initiate discussion of form, their interlocutors are less likely to pick up the topic and co-construct forms with them. This could mean that their interlocutors gain more from working with them than the heritage learners themselves gain from the interaction. However, this effect was moderated by the forms being focused on. Heritage learners were more likely to assist their peers in questions of lexis and grammar, while their peers were more likely to help them with orthographic issues. While all the learners had similar global proficiency, as measured by a written cloze test, their differing background experiences with the language allowed them to pool knowledge resources in ways that were beneficial to each.

This short review highlights the complexity inherent in peer interactions stemming just from who the participants in the interaction are. Learners come to interactions with different proficiencies, different experiences with the language, and different relationships with and perceptions of each other. Each of these can color the way that they engage in interaction, in ways that can potentially promote or diminish developmental benefits of interaction. While it is satisfying to assert, for example, that more advanced learners help their peers to focus on language more, this may give an over-simplified view of the affordances associated with working with a peer of a different proficiency. Simply focusing on form more often is no guarantee of learning. Indeed, even putting aside issues of perception or other social factors, as Leeser (2004) notes, lower proficiency learners may not be developmentally ready to learn forms that their higher proficiency peers are grappling with. Higher proficiency peers are more likely to take on expert roles (Watanabe and Swain 2007), and experts may gain the most from the interaction. Van Lier (1996) asserts that the benefit for peer interaction comes primarily to learners who teach their peers. These learners may be best at exploiting interaction for opportunities to actively practice language use and talk their way through their understanding of more complicated forms. In sum, research beyond simple comparisons of interactions is needed to understand the way that factors related to individuals in the interaction shape communication and learning benefits.

5. Tasks in Peer Interaction

Part of the complexity of peer interactions is in understanding not just who is involved in the interaction, but also how the task they are engaged in moderates their language use and attention to form. In NS–learner interactions, the native speaker is able to guide and focus language use and attention to form according to instructional goals, as Toth's (2008) study demonstrated. In peer interactions, this is more likely to be shaped by the task itself. Two bodies of research have examined the role that the task plays in shaping peer interaction–research on task types and research on task complexity.

Research on the effect of different types of tasks (e.g., information gap versus shared information, one-way versus two-way information flow) on peer interactions have generally been conducted to understand how tasks can best be employed to meet classroom learning objectives. Generally, task effects have been measured in terms of the occurrence of interactional modifications like negotiation of meaning sequences or corrective feedback moves. For example, Duff (1986) found that convergent tasks (where all learners must come to a consensus) led to more interactional modifications than divergent tasks (where learners could individually select their response). Pica, Kanagy and Falodun (1993) found that required two-way information exchange tasks promoted more negotiation sequences than one-way tasks or tasks in which information exchange was optional. Gass, Mackey and Ross-Feldman (2005) also examined the role of required and optional information exchange in their study of L2 learners of Spanish in classroom and laboratory settings. Their study was prompted by prior research that suggested that interactional modifications during task completion were an artifact of the laboratory setting of most studies (e.g., Foster 1998). Gass, Mackey and Ross-Feldman (2005) did not uncover differences between the two settings, but rather found that the interactions varied most according to the task type. They found higher incidence of interactional feedback, negotiation moves, and other discussion of form when learners were required to exchange information, with this pattern holding across both settings. They suggest that it is the task, rather than the setting, that determines how learners engage in interactions.

The difficulty with this line of research is that tasks differ in multiple ways. For example, in the work of Gass, Mackey and Ross-Feldman (2005), one task was a map task and another a spot-the-differences task. While they both required information exchange, they differed by topic and by task goal, which may also have influenced interest and engagement in the tasks. Research on task complexity, in contrast, generally seeks to narrowly modify tasks to determine how very specific factors impact language use and learning in the task. Task complexity research arose initially to resolve the issue of task sequencing for task-based courses. The idea behind task complexity research is that by moderating the complexity of tasks, teachers can direct student attention to different aspects of language use in ways that help them meet learning outcomes (see Skehan 1996).

Many recent studies on task complexity are based on Robinson's (2007a) Cognition Hypothesis, which is premised on the idea that manipulating task features can help determine how learners allocate their attentional resources to language form. In particular, Robinson hypothesizes that making tasks more complex along a set of factors labeled *resource-directing* increases demands on cognitive resources in a way that pushes learners to focus their attention on specific aspects of linguistic code, while making tasks more complex along a second set of factors labeled *resource-dispersing* increases demands on cognitive resources in a way that does not push them to attend to form. The prediction for interactive tasks is that increasing task complexity along resource-directing factors should result in language use that is less fluent and less complex, but more accurate. Robinson suggests that

manipulating task complexity in this direction helps learners develop new linguistic forms. On the other hand, increasing task complexity along resource-dispersing factors should result in language use that is less accurate, less fluent, and less complex. Robinson suggests that this helps learners practice their linguistic performance in conditions that reflect real-life language use. In both cases, increasing task complexity is hypothesized to result in more use of interactional modifications, as learners will struggle to communicate clearly as the tasks become more complex.

There is evidence that increasing the complexity of tasks indeed increases the use of interactional modifications. For example, Robinson (2001) increased the complexity of tasks along both resource-directing and resource-dispersing dimensions, finding that learners produced more negotiation of meaning moves when completing the more complex task. Similar findings were reported by Robinson (2007b). On the other hand, Nuevo's (2006) results ran almost exactly opposite to the predictions of the Cognition Hypothesis. She manipulated reasoning demands (a resource-directing factor) in a series of tasks completed by 96 adult ESL learners. Half of the learners completed less complex versions of the tasks, while half completed more complex versions; Nuevo examined their discourse for the use of corrective feedback and negotiation moves. Overall, increasing task complexity had a minimal effect on the use of interactional modifications, but in each case, learners completing less complex tasks produced more interactional modifications than learners completing more complex tasks.

While Nuevo's findings run counter to the Cognition Hypothesis, work by Gilabert, Baron and Llanes (2009) suggests that the effect of task complexity on interactional modifications can differ within the sets of factors. They examined three different resource-directing factors: the number of elements, 'here and now' versus 'there and then', and reasoning demands. Increasing task complexity along the first two dimensions increased the use of interactional modifications including negotiation moves, corrective feedback, and discussion of form. However, for reasoning demands, increasing task complexity had no effect on the use of interactional modifications. Together, these studies call into question whether task complexity factors can be grouped the way that Robinson has suggested, and whether these factors have predictable effects on interactional modifications when learners work together.

A further study by Kim (2009) suggests that the effect of increasing task complexity on interactional modifications may be moderated by interlocutor proficiency. In her study, low proficiency participants produced more interactional modifications when completing a task under the lower complexity condition, while higher proficiency learners produced more interactional modification in a higher complexity condition. Work by Philp, Oliver and Mackey (2006) suggested that learner age may also moderate the effects of task complexity. They examined whether a resource-dispersing variable (pre-task planning time) affected the fluency, accuracy, and complexity of learner production among child L2 learners of different ages. The older children (ages 8–12) in their study produced more syntactically complex language when they had pre-task planning time (the less complex condition), whereas younger learners (ages 5–7) produced more complex language when they had no pre-task planning. Philp, Oliver and Mackey suggest that learners of different ages may have made different use of planning time. The older learners seemed to use planning time to prepare exact phrases they would use in the task. These complex utterances were often picked up and mimicked by their peers, leading to greater use of complex syntax in the task overall. Younger learners did not seem to plan phrases to use during the task. However, when they did not have planning time, they struggled more to communicate in the task, and engaged in more frequent negotiation sequences. Since these sequences were more syntactically complex than the other task-focused utterances, their presence increased the

complexity of language use overall. These studies suggest that isolating task complexity factors in studies may lead to findings that do not hold in other conditions. Rather, task type, task complexity, and learner factors such as proficiency and age may interact in complex ways.

Mochizuki and Ortega (2008) found that it was not simply the provision of planning time, but the specific type of planning time that influenced language use for their learners. The learners in their study either had no pre-task planning, unguided pre-task planning, or pre-task planning in which learners were guided through a worksheet focused on relative clauses. Learners from the guided planning condition produced more relative clauses, and their production was more accurate. Park (2010) similarly found that instructions given in planning time also influenced learner language use in peer tasks. These studies demonstrate that simple, polar designations of complexity factors may not capture the range of ways these factors can influence peer interaction. Planning time, for example, is itself a complicated variable. Different lengths of planning time, different amounts of guidance, and different instructions can lead to different outcomes for pre-task planning and interaction. Research on other complexity factors, including prior knowledge (see Adams and Nik 2014) also support this conclusion.

Research on task complexity in peer interaction overall suggests that simple categorizations of factors may not lead to predictable outcomes, perhaps because of the inherent complexity associated with interaction in general and peer interactions in particular. In interaction, whether with a peer, a NS, or a teacher, language use and learning are promoted in different ways than in individual, monologic production, where a range of features that promote learning in NS–learner interactions, including discussions of form, corrective feedback, and negotiation of meaning, are simply not present. Peer tasks may also feature co-construction sequences and other communication when peers pool their linguistic resources to produce language that they could not produce on their own (see Swain and Lapkin 2002). In any task, personal factors like age and proficiency may play a role, but in peer interaction, similarities and differences between interlocutors also influence the way interactions unfold. Predictions about the impact of task complexity on peer interaction have typically not taken this level of contextual complexity into account, which may limit their usefulness in terms of providing guidance on how tasks should be used in language classrooms for specific learning purposes.

This points to the possibility that qualitative research, which allows researchers to examine the interplay of many factors in authentic settings, may give us a fuller picture of how different tasks can impact on language use in peer interactions. One study that takes this stance is Philp, Walter and Basturkmen's (2010) qualitative analysis of task-based interactions and post-task interviews from authentic classrooms. The research goal was to describe the interplay of personal and contextual factors that influence the way that learners engage in discussions of form in peer interactions. The researchers found that learner choices to engage or not engage in discussions of form during tasks were related to a wide range of factors beyond task complexity, including personal and interlocutor attitude to error and error correction, each individual's feelings about their interlocutor, and each individual's orientation to task. Each of these variables clearly falls beyond the scope of research on either task type or cognitive complexity. Moreover, this type of research demonstrates that the effects of task-based engagement on language production and learning cannot be understood solely through the lens of cognition; rather, many aspects of how peers engage in tasks relate to the ways that different pairs or groups of learners form social units as they engage in tasks. Models of task complexity cannot accurately predict how learners will engage in language production in peer tasks without considering these factors.

6. Modality of Peer Interaction

Social factors also come to the forefront when considering the role of modality in peer interactions and learning. When modalities beyond oral communication are included in peer interactions, the social dynamics can shift, and different learning opportunities may arise. In this chapter, we will focus on collaborative peer writing as an example of how modality impacts peer interactions.

Collaborative writing refers to interactive opportunities when pairs or groups of learners work together to co-construct a written text. Collaboration and collaborative writing are often understood through the lens of Sociocultural Theory, which is based on the premise that learning is inherently social, and that through interpersonal interactions, higher-order cognitive functions can emerge (Vygotsky 1978). Weissberg (2000) examined the potential of writing for promoting second language learning, finding that syntactic forms are more likely to emerge in written than spoken production. He affirms that writing has a positive impact on second language learning, and suggests that the effectiveness of writing for promoting learning might be increased through collaborative writing. This is because collaborative writing requires learners to use both oral and written modalities together, and to take multiple roles in the interaction (e.g., as peer tutors, co-authors, and/or sounding boards).

Several studies have suggested a link between engagement in peer collaborative writing and second language development. For example, several studies have linked collaborative writing with increased grammatical accuracy in texts. For example, Wigglesworth and Storch (2009) compared argumentative essays produced by ESL learners working individually and with peers. Although essays written collaboratively were not necessarily longer or more complex, the language use was more accurate, which Wigglesworth and Storch ascribe to the opportunity learners had to pool resources when writing as well as to help each other monitor and edit their writing as they constructed the texts. When the researchers examined the oral discourse that learners produced as they engaged in the collaborative writing, they noted that a third of the turns focused on discussing language use and attempting to refine the accuracy of the essays, further supporting their claim.

Fernandez-Dobao (2001) compared individual, pair, and group writing, also finding that both sorts of peer writing led to more linguistically accurate texts. She also noted that groups discussed form more often than pairs and resolved discussions of form in a target-like way more often, likely because groups were able to leverage the interlanguage assets of more learners in co-constructing texts. Wigglesworth and Storch (2009) and Fernandez-Dobao (2001) conclude that learner discussions of form when co-constructing written texts allow learners to test and refine their use of second language forms, and can play an important role in language learning through peer interactions. Storch's (2005) work includes interviews with learners about their perceptions of the utility of collaborative writing, finding that learners also considered peer interactions as a positive opportunity to learn, noting that they attended to each other's language use, trying out forms they heard from their peers in their subsequent turns.

A second body of research on peer collaborative writing compares interactions where learners work together on oral tasks and interactions where they also engaged in collaborative writing to determine whether collaborative writing adds learning opportunities. Adams (2006), for example, compared the interactions of adult ESL learners engaged in a two-part task. In one part of the task, learners only needed to communicate orally; in the second part, they also engaged in collaborative writing. Adams noted that learners discussed linguistic form, self-corrected, and used the target forms for the task significantly more when engaged in collaborative writing than when they were engaged in oral interaction only. In the oral

communication phase, learners tended to focus on conveying meaning. Even when there were miscommunications, they often let them go by unresolved, presumably to keep the discussion going. When the learners began to write, however, their orientation to the task seemed to shift, and they began to attend more seriously to the accuracy of their output. Adams speculated that the relative permanence of the collaboratively written text helped anchor the discussion of form, allowing learners to revisit and revise their production beyond what memory constraints allow in oral communication. In that way, collaborative writing may expand the opportunities available in oral peer tasks, allowing learners to discuss more forms than they would be able to keep track of when communicating orally.

Adams and Ross-Feldman (2008) further found that when learners engaged in collaborative writing, their discussions of form were qualitatively different than when they communicated orally without writing a text. They found that when learners worked on peer writing tasks, they were more likely to use explicit signals and overt discussions of form, whereas in speaking tasks, they tended to use implicit negotiation signals to open discussions about language use. Interestingly, they found that self-repair became more rare as learners engaged in collaborative writing. They hypothesized that learners focused more on peer co-construction and on their collective output when writing together, whereas when speaking, they focused more on their individual production, in line with Villamil and de Guerrero's (1996) suggestion that engagement in collaborative writing may offer learners 'an opportunity for bilateral, rather than unilateral, participation and learning; in other words, both peers may give and receive help, both peers may teach and learn' (p. 69).

Collaborative writing may also influence how learners use the discussion of form to aid their own learning. Niu (2009) found that learners commented on each other's language use and questioned their own language use much more often in collaborative writing than in collaborative speaking tasks. In addition to differences in the number of episodes focused on language use, the learners discussed forms in different ways when engaged in collaborative writing. When they were speaking with peers, learners tended to suggest forms or corrections without offering explanations. But when writing, they tended to elaborate on their suggestions, explaining why they thought one form was better than another and presenting rationales for forms they agreed on. Their discourse during collaborative writing was much more focused on hypothesis formation and testing than their talk before they began to write.

While aspects of peer interaction such as oral corrective feedback may not be helpful for learning (see Adams, Nuevo and Egi 2011), there is evidence that discussion of form during collaborative writing can help learners extend their interlanguage knowledge. Kim (2008) found that learners retained more vocabulary from collaborative than individual writing, a finding echoed by Watanabe and Swain (2007). These studies suggest that reframing oral tasks to include collaborative writing may increase their learning potential. The body of research on collaborative writing as a whole illustrates need to consider the range of ways that peer interaction can be realized in classroom settings. A narrow view of peer interaction as an oral communication context may unnecessarily limit the contribution of peer interaction to language learning.

7. Conclusion

As this overview has shown, research on peer interaction has changed over the years. Whereas early studies largely sought to compare and contrast learner–learner interactions with learner–NS interactions, more recent work has uncovered the myriad complexities inherent in peer interaction, finding it to be 'a horse of a different color' and identifying complex interplays between proficiency, task type, complexity, and any number of learner-internal factors such as

peer and self-perception and pattern of interaction, which can have a considerable impact on the nature of the interaction and on the outcomes. As research moves forward, it would be well-served to take mixed methods approaches, examining both quantitative and qualitative data sources and drawing not just on the cognitivist underpinnings of the interactionist approach but also drawing on social theories of SLA as well.

NOTE

1 A heritage speaker is someone who is raised in a home where a non-mainstream language is spoken and who is to some degree bilingual in the home language and in the mainstream language, but whose home language does not typically reach native-like attainment in adulthood.

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See Chapter 8: The Role of Talk in Group-Based Activity in Language Classrooms.
See Chapter 10: The Role of Tasks as Vehicles for Learning In Classroom Interaction.
See Chapter 11: Comprehensible Input and Output in Classroom Interaction.
See Chapter 13: The Relative Effectiveness of Corrective Feedback in Classroom Interaction.

13 The Relative Effectiveness of Corrective Feedback in Classroom Interaction

ROY LYSTER

1. Introduction

Theoretical perspectives that run the gamut from skill acquisition theory to cognitive-interactionist and sociocultural orientations posit that corrective feedback (CF) is not only beneficial but may also be necessary for moving learners forward in their second language (L2) development. At the same time, four meta-analyses of primary studies have together provided strong empirical support for the overall effectiveness of CF (Russell and Spada 2006; Mackey and Goo 2007; Li 2010; Lyster and Saito 2010). Although the provision of CF has consistently proven more effective than no CF, however, there are still many variables that interact to moderate its effectiveness.

This chapter will first identify different types of oral CF and then focus on their relative effectiveness as attested by empirical classroom research. Next a range of variables that moderate CF effectiveness will be identified to illuminate the challenges that teachers face in providing CF despite the positive outcomes of empirical studies. A discourse perspective will be adopted to illustrate the complexity of CF that teachers use in ways to sustain classroom interaction and maintain its coherence, but without consistently fulfilling a corrective function.

2. Corrective Feedback Types

One way to classify different types of CF is to distinguish between either providing target forms or not. Such was the distinction made by Ranta and Lyster (2007) between *reformulations* and *prompts*, which was based on their taxonomy of CF types identified in teacher–student interaction in French immersion classrooms (Lyster and Ranta 1997). On the one hand, reformulations include recasts and explicit correction because both these moves supply learners with target reformulations of their non-target output. On the other hand, prompts

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are signals that push learners to self-repair without supplying the correct form, including CF moves such as elicitations, clarification requests, repetitions of learner error, metalinguistic clues or explanations, and paralinguistic signals.

Elicitations enable teachers to elicit self-corrections in at least one of two ways: either by asking *wh-* questions or by pausing to allow students to complete the teacher's utterance, as illustrated respectively in the following examples (where 'cabane' is the French word for 'tree house'):

Extract 1 (Blanc, Carol, Griggs and Lyster 2012, p. 37)

S: They went… they went in the [*cabane*].
T: They went in their [*cabane*]. What's another word for [*cabane*]?

Extract 2 (Yang and Lyster 2010, p. 244)

S: Once upon a time, there lives a poor girl named Cinderella.
T: Once upon a time, there…?

Clarification requests include utterances such as 'Pardon?' and 'I don't understand' that teachers use in response to learner errors to elicit self-correction and often to feign incomprehension:

Extract 3 (Lyster, Collins and Ballinger 2009, p. 374)

S: When they fire the books uh–
T: When they what?
S: When they fire the books.
T: What do you mean 'when they fire the books'?

Repetitions – not to be confused with recasts (see Doughty and Varela 1998) – reproduce the error verbatim, often with rising intonation to highlight the error:

Extract 4 (Lyster 2002, p. 243)

S: *Il bond.* [It jump.]
T: *Il bond?* [It jump?]

As seen in Extracts 1 and 3 above (and also in Extracts 5, 7, 9, and 10 below), repetitions of learner errors often co-occur with other types of CF. In fact, Lyster (1998a) reported that repetitions of learner errors were more likely to occur with other CF types than to stand on their own as in Extract 9.

Metalinguistic information provided without the correct form is considered a prompt, but prompts of this type vary in degrees of *informativeness,* that is: 'how much information is provided about the blame of the ungrammaticality' (Ortega 2009, p. 75). On the one hand, *metalinguistic clues* provided to young learners may simply include a negator serving to reject the form as in the following example triggered by the student's use of a masculine rather than a feminine possessive determiner:

Extract 5 (Lyster 2004, p. 405)

S: *Parce qu'elle cherche, euh, son, son carte.* [Because she's looking for, um, her, her (M) card.]
T: *Pas son carte*. [Not her (M) card.]

Similarly, in the following example also with children, the teacher provides a metalinguistic clue in an attempt to push the student to use the verb 'repel' when discussing magnets in the science class:

Extract 6 (Gibbons 2003: 264)

S: We found out that the south and the south don't like to stick together
T: Now let's/let's start using our scientific language…

On the other hand, *metalinguistic feedback* provided to older learners may include a metalinguistic explanation as in the following example:

Extract 7 (Ellis, Loewen and Erlam 2006, p. 353)

Learner: He kiss her.
Researcher: Kiss – you need past tense.

Finally, to this list of prompts, Sheen and Ellis (2011) added the much under-researched phenomenon of paralinguistic signals, defining them as attempts to non-verbally elicit the correct form from the learner.

With respect to reformulations, *explicit correction* provides the correct form and 'clearly indicates that what the student had said was incorrect' (Lyster and Ranta 1997, p. 46), as in the following example where the teacher zeros in on the student's lexical error (use of 'grosseurs' rather than 'longueurs'):

Extract 8 (Lyster and Ranta 1997, p. 63)

St: *Nous coupons les pailles en six différents grosseurs et attache les pailles avec le ruban gommé.* [We cut the straws into six different thicknesses and attaches the straws with tape.]
T4: *Euh, David, excuse-moi. Je veux que tu te serves du mot « longueurs ». Vous avez coupé les pailles en différentes longueurs. Pas grosseurs.* [Uh, David, excuse me. I want you to use the word 'lengths'. You cut the straws into different lengths. Not thicknesses.]

Whereas the teacher in this example from a 4th-grade classroom does not actually explain the source of the error, explicit corrections provided to adult learners can include metalinguistic information in addition to the correct form, as in the following example:

Extract 9 (Sheen 2007, p. 307)

S: There was a fox. Fox was hungry.
T: The fox. You should use the definite article 'the' because you've already mentioned 'fox'.

Lyster and Ranta (1997) defined a *recast* as 'the teacher's reformulation of all or part of a student's utterance, minus the error' (46), as in the following example where the verb 'avoir' ('to have') is required in French to express the notion of being cold:

Extract 10 (Lyster 1998c, pp. 60–61)

T: *Pourquoi est-ce qu'elle veut se faire réchauffer vous pensez? Oui?* [Why do you think she wants to warm up do you think? Yes?]
S: *Parce qu'elle est trop froid pour aller dans toutes les…* [Because she is too cold to go into all the…]
T: *Parce qu'elle a trop froid, OK.* [Because she has too cold, OK.]

In the field of education, recasting has been defined more broadly than an error correction technique and rather as a scaffolding strategy that entails 'the teacher's relexicalising a student's everyday word or words into more technical ones' (Sharpe 2006, p. 218), especially in content-based instructional contexts (Gibbons 2003; Mohan and Beckett 2001). Additionally, whereas recasts have often been characterized as implicit (Long 1996, 2007; Long and Robinson 1998), research has shown that – depending on their context and characteristics such as linguistic targets, length, and number of changes made to the original utterance – recasts can also be explicit in terms of their salience (Nicholas, Lightbown and Spada 2001; Sheen 2004, 2006; Ellis and Sheen 2006; Sato 2011). Accordingly, Sheen and Ellis (2011) distinguished between *conversational recasts* (i.e., implicit) and *didactic recasts* (i.e., explicit). What follows is an example of a conversational recast that occurred in a 4th-grade French immersion classroom:

Extract 11 (Lyster and Mori 2006, pp. 291–292).

S: Nous sommes allés au Biodôme parce que ma grand-mère elle a jamais allé à là-bas. [*We went to the Biodome because my grandmother never goed to there.*]
T: Elle était jamais allée. [*She had never gone.*]
S: Puis on a allé à /Jungle Adventure/ et on a gagné des prix. [*Then we goed to Jungle Adventure and we won prizes.*]
T: C'est quoi ça? [*What is that?*]

The student's error in choice of auxiliary and tense ('elle a jamais allé') is recast by the teacher ('Elle était jamais allée'), but there is no repair as the student simply continues recounting his March break activities without repeating the recast. Not only does the student not repeat the teacher's recast, as he proceeds he makes a similar error ('on a allé'), which the teacher ignores and instead asks the student to elaborate on the content of his message ('C'est quoi ça?), thus reinforcing the conversational nature of this exchange.

By way of contrast, the next example illustrates didactic recasts provided in the context of a 4th-grade English-medium content-and-language integrated learning (CLIL) classroom in Spain during a similar type of personal account in which the teacher is much more consistent in recasting the student's errors:

Extract 12 (Llinares and Lyster, 2014, p. 189)

S: On Sunday I go to a
T: I went to
S: I go to a
T: I went
S: I went to a … How do you say exposición [*exhibition*]?
T: Exposition, exhibition.
S: Exhibition and I find and I found a… a… person that that that is making with two, … with two … dos palos [*two sticks*]
T: She was making
S: She was making glass.

The teacher's initial recast ('I went to') is followed by the same error ('I go to') so the teacher provides a similar recast but, this time, she makes it more salient by placing the correct verb in final position ('I went'). This more explicit recast is followed by the student's repair but then two turns later by yet another use of the present tense, which the teacher again recasts ('she was making') and which is repaired by the student as well.

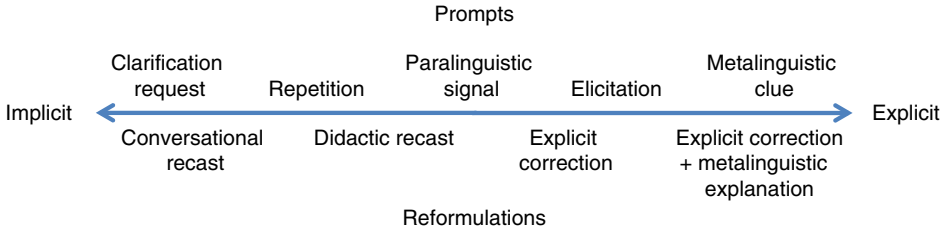


Figure 13.1. Types of CF (from: Lyster, Saito and Sato 2013, p. 5). Reproduced by permission of Cambridge University Press

Figure 13.1 attempts to illustrate different types of oral CF along a continuum that ranges from implicit to explicit and also according to the dichotomous distinction between reformulations and prompts. The classification of prompts along this continuum as implicit or explicit is based tentatively on suggestions that clarification requests and repetition might be considered more implicit than elicitation and metalinguistic clues (see Ellis 2006; Loewen and Nabei 2007; see Li 2010).

In psycholinguistic terms, the distinction between reformulations and prompts is of theoretical interest because it generates the hypothesis that different types of CF require different types of processing and thus will have differential effects on learning. For example, de Bot (1996) submitted that L2 learners benefit more from being pushed to retrieve and produce target language forms stored in memory than from merely hearing (and possibly repeating) forms in the input, because the processing entailed in retrieval of stored items and subsequent production is more likely to strengthen associations in memory. Additionally, in linguistic terms, CF types can be distinguished according to different types of linguistic evidence (either positive or negative). Positive evidence is information about what is possible in the language, provided through exposure to target exemplars in the input, whereas negative evidence is information about what is not possible in the language, usually provided through explanations or corrections (Gass 1997). With respect to CF, explicit correction aims to provide both negative and positive evidence whereas prompts aim to provide only negative evidence; recasts provide positive evidence and also provide negative evidence if the learner perceives the recast as an indication that an error has occurred.

3. Corrective Feedback Effectiveness

Research into CF effectiveness was first conducted through classroom observational studies that quantified the use of different types of CF as well their students' immediate responses, also known as uptake. A second phase of research into CF effectiveness is characterized by a set of quasi-experimental classroom studies designed to assess the effects of CF on L2 development over time.

3.1 Observational studies of CF and learner uptake

Lyster and Ranta (1997, p. 49) defined *uptake* as 'a student's utterance that immediately follows the teacher's CF and constitutes a reaction in some way to the teacher's intention to draw attention to some aspect of the student's initial utterance.' They borrowed the term 'uptake' from speech act theory with the aim of examining the illocutionary force of CF and to refer to the range of possible utterances made by students in response to CF. Uptake was

characterized as a discourse move and not as an instance of acquisition, although some researchers have suggested that uptake may be '*facilitative* of acquisition' (Ellis, Basturkmen and Loewen 2001, p. 287) or at least 'related to learners' perceptions about CF at the time of CF' (Mackey, Gass and McDonough 2000, p. 492). Uptake comprises student utterances that (a) are still in need of repair or (b) have been successfully repaired. Utterances in need of repair include simple acknowledgements such as *yes*, hesitations, off-target responses, partial repair, and occurrences of either the same or a different error, whereas utterances with repair entail the correct reformulation of an error, and thus differ from modified output, which may or may not be a correct reformulation. Learner repair can either be a repetition or self-repair, and these different types of immediate repair are specific to one type of CF or another: Recasts and explicit correction can lead only to repetition of correct forms by students, whereas prompts can lead – not to repetition – but either to self-repair or peer-repair.

Classroom studies have shown that the amount of student uptake following CF depends on the linguistic target of the CF and also on the instructional context. With respect to linguistic targets, studies by Lyster (1998b) and Sheen (2006) revealed that the rates of immediate repair in French immersion as well as adult ESL /EFL classrooms were highest after CF targeting phonological errors followed closely by CF targeting lexical errors, whereas the lowest rates were associated with grammatical errors. Other studies as well have shown that immediate repair specifically after recasts is greater in the case of phonological and lexical errors than errors in morphosyntax (e.g., Ellis, Basturkmen and Loewen 2001; Mackey, Gass and McDonough 2000), owing arguably to the fact that, compared to morphosyntactic errors, inappropriate lexical choices and inaccurate pronunciation have 'more potential to seriously interfere with understanding' (Mackey, Gass and McDonough 2000, p. 493).

Concerning instructional setting, Llinares and Lyster (2014) compared classroom interaction at the 4th/5th-grade level in (a) two CLIL classrooms in Spain with English as the target language, (b) four French immersion classrooms in Quebec, and (c) three Japanese immersion classrooms in the US. The findings revealed that teachers in all three settings used recasts, prompts, and explicit correction in similar proportions, with recasts being the most frequent, followed by prompts then explicit correction. However, in the CLIL and Japanese immersion classrooms, the majority of learner repair moves followed recasts, whereas the majority of repair moves in French immersion classrooms followed prompts. They attributed similarities and differences across contexts to the different types of recasts used by the teachers: namely, didactic recasts in CLIL and Japanese immersion, and conversational recasts in French immersion.

As to whether repetitions of recasts are of any value, some studies have found that, when learners repeat a recast, they are more likely to subsequently perceive its corrective intention during stimulated recall sessions (e.g., Mackey, Gass and McDonough 2000; Egi 2010). In their classroom study with adult ESL learners, however, Loewen and Philp (2006) found that successful repair following recasts did not predict accuracy on post-test scores. Other studies conducted in laboratory settings also suggest that the potential effects of recasts on L2 development may be unrelated to immediate repair (Mackey and Philp 1998; Leeman 2003; Lyster and Izquierdo 2009; McDonough and Mackey 2006; McDonough 2007), leading Mackey and Philp to propose that repetitions of recasts 'may be red herrings' (Mackey and Philp 1998, p. 338).

3.2 Quasi-experimental classroom studies

The implication of associating different types of repair with different types of CF is that different types of CF are predicted to have differential effects on learning insofar as they trigger different processing mechanisms. To determine the variable effectiveness of different

types of CF, however, the immediate effect on learner responses in insufficient and instead longer-term effects on language development need to be investigated in quasi-experimental classroom studies. Reviewed next is a selection of eight such studies undertaken with both child and young adult learners in contexts ranging from ESL and EFL to French immersion. The purpose of the review is to illustrate three patterns that emerge from this line of research with respect to significant differences: (a) provision of CF is more effective than instruction without CF; (b) explicit correction is more effective than implicit correction; (c) prompts lead to more gains than recasts on some measures but not others.

First, quasi-experimental classroom studies confirm that oral CF is significantly more effective than no CF. For example, repetitions of learner errors followed by recasts if necessary were significantly more effective than no CF in improving the use of past tense and past conditional forms by 11–14-year-learners in content-based ESL classes (Doughty and Varela 1998). Similarly, recasts proved more effective than no CF for improving the pronunciation of /r/ by adult Japanese learners of English in the case of familiar lexical items that appeared during instruction but not unfamiliar items (Saito and Lyster 2012). In a related study, however, learners who received explicit instruction on the pronunciation of /r/ prior to the CF treatment demonstrated considerable improvement with large effects not only for familiar lexical items but also for unfamiliar lexical items (Saito 2013). This result highlights the importance of first providing adult learners with explicit information so that they can subsequently make the best use of recasts.

Second, quasi-experimental classroom studies have demonstrated a tendency for learners receiving explicit correction to demonstrate greater gains than learners receiving recasts. With adult ESL learners, Ellis, Loewen and Erlam (2006) compared the effects of recasts and metalinguistic feedback on the acquisition of regular past tense in English. The metalinguistic feedback, which entailed repetition of the error followed by a metalinguistic explanation, was more effective than recasts and the effect was found more in the delayed post-test than the immediate post-test. Also with adult ESL learners, Sheen (2007) examined the effects of CF on the use of English articles, comparing the effects of recasts with those of metalinguistic corrections, which included provision of the correct form followed by a metalinguistic explanation. The metalinguistic group significantly outperformed both the recast and control group while the recast group performed no differently than the control group.

Third, quasi-experimental classroom studies have revealed a tendency for learners receiving prompts to demonstrate more gains on some measures than learners receiving recasts. For example, Ammar and Spada (2006) investigated the effects of recasts and prompts on the acquisition of possessive determiners by 6th-grade French-speaking ESL learners. While both groups receiving CF showed superior performance compared to the control group, the group receiving prompts significantly outperformed the recast group on written and oral post-tests. When initial pre-test scores were taken into account, however, recasts proved as effective as prompts for learners with high pre-test scores but less effective than prompts for learners with low pre-test scores. This result lends support to Nicholas, Lightbown and Spada (2001) argument that 'recasts can be effective if the learner has already begun to use a particular linguistic feature and is in a position to choose between linguistic alternatives' (p. 752).

Also with young learners, Lyster (2004) investigated the effects of form-focused instruction and different types of CF on 5th-grade French immersion students' acquisition of grammatical gender. The form-focused instruction, designed to draw attention to selected noun endings that reliably predict grammatical gender and to provide opportunities for practice in associating these endings with gender attribution, was implemented in the context of regular subject-matter instruction by three teachers – each of whom implemented a different CF treatment (recasts, prompts, or no CF) – while a fourth teacher taught the same subject matter

with neither form-focused instruction nor CF to a control group. Overall, of the eight post-test measures, the control group was significantly outperformed by the prompt group on all eight, by the recast group on five, and the no-CF group on four. The prompt group exhibited significantly higher scores than (a) all other groups in written production at the time of immediate and delayed post-testing and (b) the control group in oral production at the time of immediate post-testing.

Finally, in EFL classrooms in China, Yang and Lyster (2010) compared the differential effects of recasts, prompts, and no CF on the use of regular and irregular past-tense forms by undergraduate English majors. In the case of regular past-tense forms, learners receiving prompts significantly outperformed those receiving recasts, owing arguably to the non-salient past-tense morpheme *-ed* in regular forms (i.e., a recast of 'shop' is 'shopped' and thus hard to notice). In contrast, recasts were as effective as prompts for improving accuracy in the use of irregular past-tense forms, arguably because recasts of irregular past-tense forms entail a revised intact syllable associated with high saliency (i.e., a recast of 'buy' is 'bought' and thus easier to notice).

This line of quasi-experimental research has the potential to provide useful information to teachers concerning the best match between specific types of CF on the one hand and particular learners or specific language features on the other. At the same time, however, it may not be necessary or even possible for researchers to identify the single most effective type of CF (Ellis 2012; Lyster, Saito and Sato 2013). Instead, teachers may be well advised to use a range of CF strategies and, to do so, they need to make choices in accordance with a host of factors including linguistic targets, interactional contexts, students' age and proficiency, and curricular objectives. Use of only one type of CF could never cover all these bases, because, as Ammar and Spada (2006) concluded, 'one size does not fit all' (p. 566). What follows next is a look at still other variables that moderate CF effectiveness and that also make the task of providing clear CF in the hurly-burly of classroom interaction a challenging one for teachers.

4. Instructional Variables Moderating CF Effectiveness

CF research has brought to the fore various instructional variables that are characteristic of pedagogical approaches driven primarily by interaction and that seemingly militate against optimal CF effectiveness. These variables might be thought of as tensions deriving from (a) perceptions of classroom interaction as being either conversational or didactic and (b) curricular objectives emphasizing either content knowledge or language ability. These variables underlie challenging decisions that teachers need to make – often on the spot – concerning various instructional options as well as their own beliefs about CF provision relative to their students' beliefs. Whether the goal is to maximize CF effectiveness or to appreciate its limitations, educators are likely to benefit from increased awareness of the forces at play in their decision-making.

4.1 Positive versus negative feedback

Teachers are known to frequently repeat students' well-formed utterances in order to confirm referential meaning, while buying time to plan the next move, and often to 'rebroadcast' the student's message to ensure that the whole class has heard (Weiner and Goodenough 1977). Lyster (1998a) reported that French immersion teachers repeated students' well-formed utterances even more frequently than they recast ill-formed utterances and that, together, non-corrective repetition and recasts followed almost one-third of all student utterances,

both serving to acknowledge content or to elicit additional information related to the student's message. The next example illustrates a 4th-grade French immersion teacher's recast of an error in grammatical gender preceded in the same exchange by a non-corrective repetition and followed by two others. (Note: the recast and non-corrective repetitions are underscored; M = masculine; F = feminine.)

Extract 13 (Lyster 2007, p. 99–100)

T: *Qu'est-ce que c'est un ruisseau encore? …* [What's a stream again? …]
S1: *C'est comme un petit lac.* [It's like a small lake.]
T: *Un petit lac qu'on a dit?* [Did we say a small lake?]
S2: *C'est un petit rivière.* [It's a-M small-M river.]
T: *C'est ça. C'est plus une petite rivière, OK? Parce qu'un lac c'est comme un endroit où il y a de l'eau mais c'est un…?* [That's it. It's more like a-F little-F river, OK? Because a lake it's like a place where there's water but it's a…?]
Ss: *Comme un cercle.* [Like a circle.]
T: *C'est comme un cercle… Puis là elle se retrouve près d'une forêt. Et qu'est-ce qu'ils font dans la forêt? William?* [It's like a circle… And then she finds herself near a forest. And what is it that they do in the forest? William?]
S3: *Ils coupent des arbres.* [They cut down trees.]
T: *Ils coupent des arbres.* [They cut down trees.]

The teacher begins by asking students to define a stream and then repeats the student's response (*un petit lac*), which is referentially wrong but linguistically accurate. The next student's answer (*un petit rivière*) is referentially correct but grammatically incorrect. The teacher confirms the referential meaning with *c'est ça* and then unobtrusively supplies the correct grammatical form in a recast. She then repeats the students' correct response *comme un cercle* and yet again repeats verbatim the next student's response, *ils coupent des arbres*, each of which is accurate both referentially and grammatically.

In instructional settings such as this 4th-grade immersion classroom, non-corrective repetitions and recasts are likely to converge to create contexts of *pragmatic ambivalence* whereby students perceive both moves as a form of positive feedback confirming the content of their message. According to Thomas (1995), pragmatic ambivalence occurs when an interlocutor's intentions are left unclear, perhaps deliberately to circumvent a face-threatening act or to encourage further communication. Prompts are also susceptible to pragmatic ambivalence, as suggested by the low rates of repair following clarification requests in French immersion classrooms (Lyster and Ranta 1997) and by Koike and Pearson's (2005) observation that in response to clarification requests 'the learners would say the same response much louder a second time' (p. 491).

Prompts, however, do not co-occur with signs of approval, whereas recasts do. Signs of approval include affirmations such as *oui*, *c'est ça*, and *OK*, as well as praise markers such as *très bien*, *bravo*, and *excellent*. In immersion classrooms, signs of approval were observed in equal proportions across three types of teacher responses: Approval accompanied 27% of all recasts, 26% of all non-corrective repetitions, and 29% of all teacher topic-continuation moves immediately following errors (Lyster 1998a). Thus, as documented in early studies of parent-child interaction, truth value rather than well-formedness would seem to govern approval of learner responses in these classrooms. The indiscriminate use of signs of approval indicates that the use of recasts may not be primarily for the purpose of correcting but rather for confirming the content or veracity of the student's utterance, as illustrated in the following example:

Extract 14 (Lyster 1998c, p. 62)

T: *Alors qu'est-ce que les gens ont dit quand ils ont goûté? Ils ont dit….* [So what did the people say when they tasted the cookies? They said…]
S: *Ils adorent…* [They love…]
T: *Qu'ils adoraient ce fameux biscuit l'Empire. Excellent.* [That they loved the famous Empire cookies. Excellent.]

In this class discussion in social studies about the manufacturing of Whippet cookies (formerly know as Empire cookies), this 4th-grade teacher sets up an obligatory context for the past tense with *Ils ont dit (They said…)* and so in response to the student's use of the present tense *Ils adorent (They love),* she uses the past tense *Qu'ils adoraient* (*That they loved*) in a recast that concludes with a sign of approval (*Excellent!*).

The use of signs of approval in this way was thought to be typical of content-based instructional contexts where teachers and students alike are more focused on content than on language. In these contexts, signs of approval serve to say 'yes' to content while the recasts serve to say 'no' to form, with the inevitable result that learners are more likely to notice the positive feedback than the morphological modification in a recast. More recently, however, even in the context of form-focused lessons in ESL classes, Wong and Waring (2009) also reported that, unbeknownst to teachers – the use of approval markers such as 'very good' may inhibit learning opportunities insofar as they serve a 'finale' function that precludes further attempts by others to articulate their (mis)understanding or explore alternative answers. The interplay between positive feedback in the form of approval markers on the one hand and CF on the other, as well as their effects on L2 development and learner motivation, would be worthy of further pursuit in research on classroom discourse.

4.2 Incidental versus intentional focus on language

In his article aptly titled 'The case of the missing 'no',' Seedhouse (1997) argued that, in their extensive use of implicit CF as a means to camouflage learner errors, teachers unwittingly signal linguistic errors as embarrassing and problematic, which contradicts the pedagogical message of 'it's OK to make linguistic errors' (p. 567). Seedhouse suggested that if teachers used more direct and overt CF, pedagogy and interaction could work more effectively in tandem. Results of the aforementioned quasi-experimental classroom studies support such a recommendation. That is, when different types of CF are compared, the more direct types lead to larger gains. Similarly, narrative and meta-analytic reviews alike have concluded that instruction targeting explicit learning (i.e., awareness of what is being learned) is more effective than implicit treatments (DeKeyser 2003; Norris and Ortega 2000; Spada 1997; Spada and Tomita 2010). Thus, there would appear to be insufficient empirical support for the effectiveness of implicit focus on form operationalized as incidental asides and unobtrusive focus on language during negotiation for meaning (Long 1991, 1996). Instead, learners have been shown more likely to notice explicit CF than implicit CF (Mackey *et al*. 2007; Nassaji 2009) and prompts more than recasts (Ammar 2008). Nonetheless, some researchers have tentatively put forth that the effects of implicit CF might be longer lasting than the effects of explicit CF (Li 2010; Mackey and Goo 2007). The classroom study by Ellis, Loewen and Erlam (2006), however, showed the opposite to be the case.

Important to mention here is that studies yielding superior outcomes for explicit treatments have been criticized for being biased towards such outcomes insofar as the measures were designed to tap into explicit rather than implicit knowledge (Doughty 2003; Norris and Ortega 2000). However, the meta-analyses by Mackey and Goo (2007), Lyster and Saito

(2010), and Spada and Tomita (2010) have since reported a tendency for more recent studies to employ measures that require learners to produce target structures, with or without constraints, more than selective-response measures or grammatical judgment tasks. Having included such studies, Spada and Tomita's (2010) meta-analysis, which specifically compared the effects of explicit and implicit instruction, found larger effect sizes for explicit over implicit instruction and also that explicit instruction contributed to both explicit and implicit knowledge.

Moving away from implicit and incidental focus on form towards a more intentional focus on language is in line with broader educational objectives targeting literacy development, but does not entail a return to traditional language teaching, which, by definition, engages learners in structural analyses of the target language in a decontextualized manner that remains disconnected from actual language use. A more promising approach is *form-focused instruction*, which is defined as 'any pedagogical effort … used to draw the learners' attention to language form either implicitly or explicitly (Spada 1997, p. 73) and is usually embedded in content-based or meaning-oriented tasks.

Form-focused instruction has been operationalized as either proactive or reactive. Proactive form-focused instruction involves pre-planned instruction designed to enable students to notice and to use target language features that might otherwise not be used or noticed in classroom discourse. Reactive form-focused approaches comprise CF as well as other attempts to draw attention to language features in relatively unplanned and spontaneous ways in response to students' language production during teacher–student interaction. Proactive and reactive approaches are arguably best seen as complementary, meaning that the effectiveness of CF is likely to be optimal when provided strategically in conjunction with proactive form-focused instruction (Lyster and Ranta 2013). Such an approach is compatible with Hattie and Timperley's (2007) assertion that 'feedback can only build on something; it is of little use when there is no initial learning or surface information' (p. 104).

Several of the above-mentioned classroom studies point to both the feasibility and effectiveness of systematically providing CF in contexts of meaningful interaction devised to create opportunities for frequent occurrence of target forms. For example, in Saito's studies (Saito 2013; Saito and Lyster 2012), the adult EFL learners in the experimental group engaged in tasks designed to develop argumentative skills in English while having their attention drawn to /r/ through typographically enhanced input and opportunities for production practice. The young ESL students in Doughty and Varela's (1998) intervention study conducted a set of experiments in accordance with their regular science curriculum and received CF during the reporting phase on simple past and past conditional forms. The young French immersion students in Lyster's (2004) study received CF on errors in grammatical gender as they engaged in noticing, awareness, and practice tasks that were related to their regular curriculum materials, which integrated language arts, history, and science. The young ESL students in Ammar and Spada's (2006) study received CF on third-person possessive determiners as they engaged in a variety of communicative activities designed to maximize their chances of producing the target forms.

The integration of reactive and proactive form-focused instructional approaches for the purpose of creating meaningful opportunities for students to produce target forms and for teachers to provide relevant CF is no small undertaking and needs to be addressed through teacher education and other opportunities for professional development. The challenge for teachers in this regard lies in devising their use of CF so that it aligns with current instructional objectives rather than appearing random and provided 'in a confusing and unsystematic way' as observed by Allen, Swain, Harley and Cummins (1990, p. 67).

4.3 Teachers' versus students' preferences for CF

Research into teacher and learner preferences for CF has consistently revealed a mismatch between teachers' disinclination for providing CF and students' inclination for receiving it. In one of the first of these studies by Cathcart and Olsen (1976), ESL students responded almost unanimously that they wished to be corrected, whereas their teachers exhibited clear hesitations to do so. Similarly, in a more recent study by Jean and Simard (2011) involving 2321 high school students and 45 teachers, the majority of students stated that they would like to 'get their oral errors corrected all the time' (p. 474) whereas the teachers expressed a preference for correcting only errors that impede communication so as not to interrupt the flow of communication and not to diminish their students' confidence.

With respect to specific types of CF, Yoshida (2008) compared the preferences of learners and teachers alike in the context of Japanese as a foreign language in Australia. The two teachers reported that, although they believed prompts to be beneficial because they give learners a chance to work out linguistic problems, they preferred giving recasts because they are conducive to maintaining a 'supportive classroom environment' (p. 89) and also more efficient with respect to time management. During stimulated recall sessions, however, most of the students expressed a preference for being given time to self-repair rather than being given the correct form right away.

One way to address this mismatch is illustrated by Vásquez and Harvey's (2010) multiple-case study in a tertiary-level SLA course. The purpose of their study was to examine whether graduate students, who were enrolled in the course and were also L2 teachers, would change their views of CF after participating in a partial replication of Lyster and Ranta's (1997) study. In small groups, they videotaped a group member who was a second or foreign language teacher, transcribed and coded the interactional moves, and wrote reflective journal entries. Initially, teachers expressed concern that CF entailed complicated decisions and they raised many questions about its appropriateness, frequency, and effectiveness, and how it might directly affect students' self-esteem and motivation in a negative manner. By the end of the study, however, 'their preoccupation with learner affect appeared to decrease' as they 'became aware of other variables associated with corrective feedback,' which included 'the relationship between feedback and uptake, the interaction between error type and feedback, understanding the differences between various feedback moves that supply learners with correct responses versus those feedback moves that do not' (Vásquez and Harvey 2010, p. 437).

Teachers' disinclination for providing CF or their preferences for implicit CF may be due to the influence of teacher education literature and courses where the potential negative affective impact of didactic forms of CF is often stressed. Worthy of further pursuit, therefore, would be research initiatives similar to the study by Vásquez and Harvey (2010; see also Junqueira and Kim 2013) and designed to explore how teacher education courses and other professional learning opportunities might draw on classroom research to close the apparent gap between students' inclination to receive CF and teachers' disinclination to provide it.

5. Future Research Directions

Russell and Spada (2006) called for greater attention to 'the constellation of moderating variables that could make a difference regarding CF effectiveness' (p. 156). This constellation evokes a complex of variables intersecting at cognitive, linguistic, and contextual levels, all of which have theoretical value but also practical implications for teachers who still face the timeless questions of when, what, and how to correct (e.g., Hendrickson 1978).

At the cognitive level, it would be timely in future research to match the increasingly detailed information about how recast effectiveness is constrained by individual differences with similar information about other types of CF. Also of importance in relation to cognitive variables are the effects over time of the different types of processing triggered by different types of CF as manifested (or not) by immediate (or delayed) learner repair. Positive learning outcomes have been associated with self-repair following prompts but not necessarily with learner repetition following recasts, whose effectiveness may instead be associated with timely exposure to relevant input. This is important to explore further in classroom contexts because teachers want and need to know the value of pushing students to modify their output after CF, especially in contexts of *assessment for learning* where teachers aim to monitor their students' current levels and to push to the next level. As Leung and Mohan (2004) noted in this regard, 'Feedback … is far from a straightforward matter in classroom assessment' (p. 339).

At the linguistic level, recast effectiveness has been shown to increase as the length of the recast and the number of changes it contains decrease, and also as more intonational stress is added. It would be of interest to match this information with similar information about the characteristics of prompts and explicit correction that make some types more effective than others. Moreover, there is growing evidence that CF effectiveness varies not only with respect to specific grammatical targets, but also in accordance with linguistic domain (morphosyntax versus vocabulary versus pronunciation versus pragmatics). The effect of different types of CF on different linguistic targets is an especially propitious topic for further investigation.

At the contextual level, an increasing number of studies have shown that learner responses to CF vary across a range of instructional settings; as yet, however, no research has investigated whether the observed differences in discourse patterns across instructional settings differentially affect target language development. Another contextual variable ripe for further research pertains to CF provided by peers and the potential benefits of strategy training (Sato and Ballinger 2012; Sato and Lyster 2012) for strengthening the role CF provided by learners during peer interaction.

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See Chapter 4: Experimental Perspectives on Classroom Interaction.
See Chapter 10: The Role of Tasks as Vehicles for Learning in Classroom Interaction.
See Chapter 11: Comprehensible Input and Output in Classroom Interaction.
See Chapter 12: An Interactionist Approach to Learner-Learner Interaction in Second and Foreign Language Classrooms.

Part V The Sociocultural Theory Tradition

Overview of the Sociocultural Theory Tradition

NUMA MARKEE

The chapter by Negueruela-Azarola, García and Buescher (this volume) starts by reviewing Vygotsky's (1978) claim that (language) learning and development begin as interactionally mediated processes, which subsequently become transformed into individually appropriated achievements. Central to this idea is Vygotsky's notion of the zone of proximal development (ZPD) – broadly speaking, the developmental space between what may be *currently* achieved through solo performance and what can be *prospectively* achieved as a result of collaborative, scaffolded interaction between experts and novices. The authors then focus on three areas where, from an SCT perspective, interaction and intra-action are said to meet in L2 classrooms. These areas include: 1) the use of gestures as semiotic resources for (instructed) SLA; 2) the transition from social to private speech, and how this transition becomes pedagogically relevant for the purpose of dynamic assessment; and 3) the use of conceptual categories as psychological tools that may be transformed by L2 learners under the expert guidance of teachers. Throughout the chapter, the authors illustrate their points by using extracts of talk from Spanish S/FL classrooms. In addition, their use of video frame grabs in the transcript reproduced in Excerpt 1 demonstrates how the inclusion of such multimodal data contributes to the richness of analyses of classroom interaction.

The chapter by Mahn (this volume) provides an in-depth discussion of the ZPD. Mahn claims that while this notion is frequently cited, it is also often deeply misunderstood. He therefore sets out to develop a new reading of this construct that is faithful to Vygotsky's ideas and which brings out the full complexity of this tantalizingly incomplete construct.[1] He does this by situating the ZPD within three key themes in Vygotsky's work – more specifically, Vygotsky's critique of IQ tests, his analysis of child development, and his analysis of concept development, focusing in particular on the relationships between everyday and academic concepts – and by reviewing exemplary SCT-inspired studies in both education and applied linguistics. These theoretical ideas are then practically illuminated in the final part of the chapter though a description of a research project located in American high school classrooms, in which Vygotsky's theory of concept development is used as a theoretically motivated tool for analyzing teachers' evolving understandings of ZPD-based teaching.

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The chapter by van Compernolle (this volume) investigates how sociolinguistic competence may be conceived as a form of mediated action. He illustrates this idea by showing how learners' evolving sociolinguistic competence regarding the use of *tu/vous* in French and *du/Sie* in German emerged *microgenetically* during a series of telecollaborative interactions between learners of French and German as a foreign language, respectively. He then discusses how learners' sociolinguistic competence emerged *ontogenetically* during concept-based instruction that focused on self-presentation, social distance and power as factors that contribute to the correct use of *tu/vous*, *nous/on* and +/– *ne* negation forms in French conversation. Note incidentally that, in his discussion of sociolinguistic competence as mediated action, van Compernolle extends the meaning of the terms *classroom* and *interaction* – which in most of the chapters in this Handbook essentially means face-to-face oral communication – to include tutoring sessions and (asynchronous) online communication, respectively. Furthermore, he also calls for analyses of classroom interaction to incorporate nonverbal behaviors (such as eye gaze, gestures, and other embodied behaviors) and cultural artifacts (such as materials, tasks) within their purview, thus contributing to the larger emerging multimodal turn in classroom discourse analysis.

The chapter by Thorne and Hellerman (this volume) provides a brief historical and theoretical overview of sociocultural theorie*s* – note the plural –*s*, which makes the important point that SCT is far from being monolithic – and shows how this school of psychology emerged in the Soviet Union as a collective alternative to the individualist orientations of Western (specifically Piagetian) psychology in the 1920s. In the course of this review, the authors discuss the by now familiar themes of learning and development starting out as first *inter*mental, only later becoming *intra*mental, processes (see Vygotsky 1978); and they critically review the fundamental importance of the ZPD. They then review in some detail some exemplary studies on expert–novice instructional interaction in socioculturally informed L2 research, and go on to identify and refute some revisionist interpretations of the ZPD in the SLA literature. Following this general review, they first identify various methodologies that have been used to analyze expert–novice interactions and then focus on EM/CA as the methodology of choice for doing SCT. Finally, they review some emerging current developments in sociocultural approaches to expert–novice interaction, including dynamic assessment. Note how this chapter closely complements all the other chapters in this Tradition in its identification of key themes in SCT (see for example, the importance these authors attach to clearly understanding what the ZPD is, the emphasis on SCT's signature focus on development, and the praxeological stress on integrating teaching and assessment into a unified whole). In addition, this chapter is a particularly clear example of the hybridized SCT/CA approach to doing classroom research that van Compernolle calls for in his chapter.

NOTE

1 Vygotsky died before he could fully develop his ideas on the ZPD.

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14 From Interaction to Intra-action: The Internalization of Talk, Gesture, and Concepts in the Second Language Classroom

EDUARDO NEGUERUELA-AZAROLA, PRÓSPERO N. GARCÍA, AND KIMBERLY BUESCHER

1. Introduction: Social Interaction and Personal Intra-action

This chapter explores the connection between social interaction in second language (L2) communication and personal intra-action in a classroom setting from a Sociocultural Theory (SCT) perspective. For SCT, communication in social interactions is the origin of conceptualizations in personal intra-action. Conceptualization is defined here as the internalization of meanings with functional significance in communicative activity. Conceptualizations are constructed through verbal thinking. Learners engage in verbal thinking (Vygotsky 1986) while – and through – speaking and interacting with others. Thinking and communicating are two sides of the same process: a dialectic. A dialectic is a contradictory yet necessary relationship where both processes influence, negate, and promote each other, creating new contradictory processes. The dialectical connection between social interaction and personal intra-action is fluid and reciprocal. Interaction leads to intra-action and vice-versa. Furthermore, any social interaction is personal and personal intra-action is social. The interaction/intra-action dialectic is based on mediated thinking that leads to conceptualization: internalizing meanings as tools of the mind when engaging in verbal thinking.

Conceptualizations are the basis to understanding an SCT-inspired pedagogy based on conceptual development and personal transformation in the L2 classroom. A transformative pedagogy centers on learners mindfully engaging with psychological tools in conceptually meaningful activities (Negueruela-Azarola 2013a). The goal of a conceptually-based pedagogy is promoting internalization. Internalization is the process of appropriating and transforming psychological tools in communicative activity (Negueruela-Azarola 2013b). From the present perspective, mindful conceptual manipulation (constructing, explaining, and using verbal conceptual representations to think through problems) in communicative activity mediated by language is the key to conceptual transformation. Language is both the key mediator in mental functioning and the central cultural tool to foster communicative development.

In this chapter, we first review Vygotsky's proposal on social interaction and development as the basis to understand a sociocultural take on L2 classroom interaction. We explain the

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learning and development dialectic, the zone of proximal development in Vygotskyan theory, and the notion of internalization. Then, we focus on three areas where interaction and intra-action meet in the L2 classroom from an SCT perspective: gestures as semiotic resources in the SLA and L2 classroom, interaction in social speech as the basis for dynamic assessment, and conceptual categories as psychological tools to be transformed by L2 learners when properly guided by teachers (Negueruela-Azarola 2003; Yañez-Prieto 2008; García 2012; Polizzi 2013; García-Frazier 2013). The chapter concludes by outlining how sociocultural insights allow researchers and teachers to make sense of interaction and intra-action. In its dialectical/contradictory and fluid/bidirectional relationship, mindful conceptual interaction is transformed into significant communicative intra-action and vice versa.

2. Interaction, Learning and Development: a Vygotskyan Approach

From an SCT perspective, interaction is the source of human development. However, not all interaction leads to mindful conceptual development. Some interaction leads to conceptual transformation through mindful engagement (the focus of this chapter), some to learning of skills or noticing of forms, and some interaction is merely transactional and no new knowledge, ideas, or skills are gained from the exchange. This distinction between different types of interaction reveals a significant difference between two processes: learning and development. From an SCT perspective, learning is about noticing and mastering skills, content knowledge, and procedures. Development is about conceptual transformations, the internalization of tools of the mind or thinking frames, that is, content knowledge or ideas which become powerful organizing and thinking devices (Vygotsky 1986; Kozulin 1998; Salomon 1991; Negueruela-Azarola 2008). In this conceptual sense, development is about transformation and personal growing: the appropriation and internalization of new points of view, new ways of seeing the world, others, and oneself.

The distinction between learning and development is not a dichotomy. The two processes are different but still connected. In SCT terms, learning and development form a dialectic. The learning and development dialectic is the basis for Vygotsky's (1978) Zone of Proximal Development (ZPD) construct. The ZPD (see also Mahn; Thorne and Hellerman; van Compernolle, this volume) was thought of by Vygotsky as an alternative to IQ testing (van der Veer and Valsiner 1991). Originally, the ZPD was conceptualized as a diagnosis tool for mental development in children. The core idea behind this construct is that collaboration and interaction shape the mental capabilities in children and even adults, and that solo performance is different than appropriately guided collaborative performance. Indeed collaborative performance allows prognosis: predicting future performance in children, that is, their zone of proximal or potential development. It is in this sense that Vygotsky (1978) argues that appropriately assisted performance is a prospective diagnosis.

The ZPD gives researchers a window into the future. Consequently, instruction (formal learning) needs to be organized to maximize a very specific type of interaction and collaboration. This is why Vygotsky (1978) argues that only properly organized learning activity creates development (the notion of ZPD is explored further later in the present chapter). From a pedagogical perspective, the obvious issue is determining what constitutes properly organized learning. The work of Gal'perin (1992) is precisely aimed to concretize a pedagogy whose aim is to promote the internalization of external actions in a systematic fashion.

In instructed L2 acquisition, and from the present perspective, promoting interaction that is transformative, (i.e. that promotes conceptual transformation, or what we call here intra-action)

is the main goal of teaching/learning activity. The key from our perspective is identifying the conditions that promote meaningful significant interaction (communication) and intra-action (transformative significant conceptual development in learners). Properly organized L2 instruction creates a zone of potential development (Negueruela-Azarola 2008), where learners appropriate and internalize new ways of seeing the world through a new language. This transformation requires conscious awareness from the learner, or mindful conceptual engagement, that is, conscious focus on categories of meaning (concepts) to explain, understand, and orient performance.

3. Documenting Interaction that Leads to L2 Development: Internalization is not Linear

Classroom interaction is a social activity emerging in open public communication. A careful researcher documenting classroom dynamics will probably observe and document the following behaviors: (1) teachers and students looking, talking, and gesturing to each other (students listening to a teacher and vice versa, students talking to each other during group work, students asking questions and answering the teacher, or students and the teacher interrupting each other); (2) teachers and students reading/writing (teacher writing on the board, students writing/typing notes, teacher taking attendance, students reading aloud, or students reading to themselves). From an SCT learning and development perspective, classroom behavior that is dynamic and directed to others (interactive) integrates a rich dance of talking, gazing, listening, gesturing, reading, and writing. The assumed main goal for all these different types of interactions is to maximize learning opportunities.

From a teaching perspective, one of the overt, and probably most important and obvious goals of social interaction in classroom settings is the sharing of ideas with others in order to understand them. Additionally, in the L2 classroom, there is the important goal of promoting L2 communicative abilities in learners through meaningful interactions. However, both sharing ideas and developing communicative resources through interactions is not a simple, direct process. Significant interactions that actually help students learn and develop new thinking tools and new communicative resources require considerable pedagogical investment from the teaching perspective.

For SCT, only significant interaction, and not just any type of interaction, leads to intra-action or new conceptualizations. Intra-action is a dynamic process where learners represent ideas to the self and others through verbalizing. In this sense, interaction only leads to development if and when the sharing of ideas promotes new understandings through mindful conceptual engagement. Mindful conceptual engagement is the critical step in internalization (Negueruela-Azarola 2013a). It is in this respect where we find that certain types of interaction in the classroom promote intra-action: the development of new concepts, and the internalization of ideas as concrete tools for orientation in practical activities (Vygotsky 1986; Gal'perin 1992). Instructed L2 learning sometimes implies L2 development, which is in itself a transformative process in a conceptual sense (Negueruela-Azarola 2003).

In the case of interaction/intra-action in the L2 classroom, instructors need to foster communicative interactions and conceptual manipulation, that is, engage learners in conceptually reflexive communicative activities. These types of activities are critical for communicative development (i.e., learners develop the abilities to express and understand new ideas from others), but also for conceptual internalization (i.e., learners develop new tools for thinking and communicating with the self). There is also a third dimension to interaction from a sociocultural perspective. Not only are learning to communicate in a new language or thinking

through new thinking frames important, but so is becoming someone else through a new language. Seeing oneself as someone different through a new language and discovering who we are in the classroom setting is how personality is enacted. It is not only about who we are, it is also about beginning to become who we want to be. This is the being and becoming of genuine classroom interaction in the L2 classroom.

4. Gesture: From Interaction to Intra-action

In the context of classroom interaction, and in fact in any interaction, language entails both verbal and bodily contributions. These bodily contributions include eye gaze, gesture, and body positioning. In this section, we focus specifically on gesture, and importantly, do not treat it as a paralinguistic contribution to verbal elements (Gullberg 2010). McNeill (2005) uses the term 'imagery–language dialectic' to represent the interfunctional relationship between verbal and gestural contributions. Speech and gesticulation, a specific type of gesture that co-occurs with speech, are two different forms of thinking that are not redundant, but complementary.

Gesticulation 'is non-conventionalized, is global and synthetic in mode of expression and lacks language-like properties of its own' whereas speech 'is conventionalized, segmented, and analytic, and is fully possessed of linguistic properties' (McNeill 2005, p. 12). Verbal contributions and gesticulations not only happen synchronously, but they also concomitantly shape speaking and thinking (McNeill 2005).

McNeill (2005) builds on Vygotsky's (1987) focus on the intersection of thinking and language by specifically including gesture. Thinking can be depicted on one's hands and portrayed in one's speech (McNeill 2005; Vygotsky 2012). Both speech and gesticulation complete semiosis (the making of meaning) and reflect the speaker's ontological state in the social world (McNeill 2005). McNeill considers the growth point to be the minimal unit of analysis to investigate the thought–gesture–speech relationship. The growth point is the smallest unit of the imagery–language dialectic, and is found when the verbal element co-occurs with the stroke, or principal movement of the gesture.

The growth point of the imagery–language dialectic shapes speaking and thinking because 'it is meant to be the initial form of thinking for (and while) speaking, out of which a dynamic process of organization emerges' (McNeill 2005, p. 105). The growth point is also 'considered to be the psychological predicate of the speaker's utterance – that is, the information that the speaker considers to be most salient' (van Compernolle and Williams 2011, p. 205). Therefore, the meaning of the utterance is found in the complementary synthesis of both verbal and gestural components; they reveal on the inter-mental plane a person's conceptual understanding on the intra-mental plane. The imagery–language dialectic, or material carrier (Vygotsky 1986), 'is the embodiment of meaning' (McNeill 2005, p. 98). McNeill and Duncan (1998) point out that 'each modality, because of its unique semiotic properties, can go beyond the meaning possibilities of the other.' Investigating each modality separately or solely would not allow the whole meaning of utterances to be revealed.

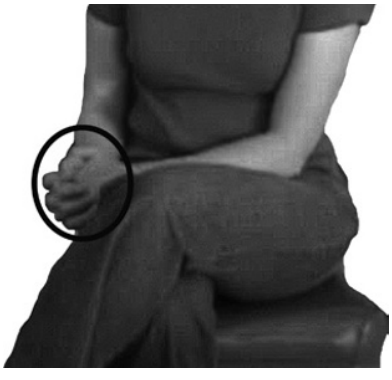
Gestures, like speech, can serve 'both a cognitive and communicative function' (Lantolf and Thorne 2006, p. 97). In other words, they can be directed to others and/or to oneself (Gullberg, de Bot and Volterra 2010). From the present perspective, gesture is simultaneously a form of interaction and intra-action. The four categories of gesticulations proposed by McNeill (1992): iconic, metaphoric, deictic, and beats, may each play a different role in L2 learning. For example, the metaphoric gesture of rotating index fingers pointed towards each other may denote a sequence of events (McCafferty 2002) while an iconic gesture generally depicts a particular object or action. Beats can be used to highlight part of an

utterance, associated with the rhythm of the utterance, or to concentrate on the form of an utterance (McNeill 2005). Gestures can also reveal L1 conceptual understandings that may be different than those present in verbal utterances, even for highly proficient L2 speakers (Brown and Gullberg 2010; Choi and Lantolf 2008; Negueruela, Lantolf, Rehn, Jordan and Gelabert 2004; Stam 2006; see also Slobin's 1996 'thinking for speaking').

To illustrate how gestures can reveal an L1 conceptual understanding that is not present in the verbal component, and would not be revealed if attention was only paid to the verbal utterance, a brief example will be provided from a larger body of research focused on Slobin's (1996) 'thinking for speaking' (TFS), motion events, and advanced speakers of English and Spanish (Meizoso, Buescher, and Negueruela-Azarola in preparation)[1]. The participant, whose L1 is English, was retelling in Spanish the story *Frog goes to dinner* (Mayer 1974). Her Spanish proficiency is considered advanced by the researchers as she had a PhD in Spanish literature, was married to an L1 Spanish speaker and Spanish was the language she used on a daily basis for more than a decade. The participant's verbal utterance alone could be considered mostly appropriate in Spanish for the description of the scene; her use of the preposition *en* instead of *dentro* however, may require clarification from an interlocutor. However, her gesticulation and verbal utterance together reveal her L1 conceptual understanding about boundary crossings and the nature of how spatial relations are represented by prepositions in each language (for the transcription conventions used in Excerpt (1), see the transcription Appendix at the end of the book):

Excerpt (1)

1 P en:cierto momento
at one ponit



lines 1 and 2

2 el:sapo brincó + y cayó +
the frog jumped and landed



en:: uh: el sax

3	[**en**:: uh: el sax[**ofón**? on/in/at the saxophone (RH fingers pursed together, facing downward, Partially enclosed by LH) (RH moves upward)	 **ofón**

From the verbal utterance alone, because of the use of *en*, it would not be clear where the frog landed in relation to the saxophone. *En* can carry some meanings similar to English 'on', 'in', or 'at' for example, but it is less specific than any of these three. To clearly indicate that the frog landed inside the bell of the saxophone, an L1 Spanish speaker may use the preposition *dentro*. From the gesticulation coordinated with the verbal element *en*, we can see that the participant is unable to convey her L1 TFS in the Spanish utterance but is able to mark a boundary crossing and clarify the location by portraying 'into' with her hands. In addition, the coordination of her gesticulation with the preposition instead of the verb is typical for L1 English speakers (e.g. McNeill and Duncan 2000). Her L1 thinking for speaking is still present despite her advanced level in the L2, as she tries to express something in Spanish that is only available to her in her L1.

In an L2 classroom context, the gesture–speech interface can serve as a mediational tool for learning, self-regulation, and even development (Lantolf and Thorne 2006). To document learning, self-regulation, and development, it is necessary to determine 'how mediational means are appropriated by the individual as a result of dialogic interaction with other individuals' (Aljaafreh and Lantolf 1994, p. 467). Both teachers and students can use gesture as mediational tools either for themselves or for others. For example, teachers can use gesture to help students learn vocabulary (Sime 2008), sequence events in a narrative (Smotrova in preparation), and to elicit co-constructions of an utterance with learners adding the appropriate verbal component (ibid). Learners can imitate and appropriate a teacher's gestures to learn vocabulary (Smotrova and Lantolf 2013) or to become more Italian by inhabiting an L2 (Peltier Nardotto and McCafferty 2010). Gestures can also be used for self-regulation. For example, a student may use gesture, by pointing to an imagined timeline, in order to try to resolve a grammatical issue (Lantolf 2010).

Mismatches in the gesture–speech interface are particularly rich areas for documenting development because they provide insight into learners' growth. Mismatches occur when the learner possesses two different conceptual understandings; one of which is manifested in gesture while the other is manifested in speech (Buescher and Infante in preparation; Church 1999). For Church (1999), a mismatch shows that learners are ripe for development; in other words, they are 'in the midst of transition and highly likely to learn' (314). Once a mismatch has been identified, addressing it, through mediation, can help learners to develop a more complete conceptual understanding of the difficulty in question (Buescher and Infante in preparation; Lantolf 2010).

Gestures can be used to help learners on all linguistic levels, including lexical, morphological, syntactical, or discursive levels (Gullberg 2010). During interaction, gestures can reveal agency, hold the floor, coordinate the sharing of information, direct attention to or highlight, and importantly, mediate learning as well as act as catalysts for mediation. During interaction, gestures can be shared, transformed, and imitated by both teachers and students.

By investigating the meaning and significance provided in the gesture–speech interface, researchers and teachers can better understand learners' precise difficulties in L2 meaning-making. Once a difficulty is documented, teachers may be able to attune their mediation to address the particular issue in order to promote L2 development. When teachers are attuned to speech alone, students' conceptual understanding may not be fully revealed (Buescher and Infante in preparation; Meizoso, Buescher and Negueruela-Azarola in preparation). Uncovering learners' conceptual understanding through the gesture–speech interface is a first step that can be used to attune mediation in order to promote L2 development. Gesticulation is evidence of communicative interaction and conceptual intra-action. It is in this sociocultural sense that gesticulation is a valuable source of evidence to understand L2 learning and development.

5. From Social to Private Speech: Interaction, Conceptualization and the ZPD

Speech is social and becomes 'private' in classroom settings, if and when learners are actively engaged in understanding and appropriating new ideas, skills, and frames for thinking. From an SCT perspective, the privileged zone for the transformation of social into private speech is the ZPD. The ZPD is perhaps one of the better-known and most explored concepts in SCT (Chaiklin 2003, p. 40). Even though the word 'zone' may evoke a physical realm, the ZPD may be better thought of as a metaphor used in SCT to understand the potential influence of mediation in the appropriation and internalization of mediational means (Lantolf 2004, p. 24; see also Mahn this volume).[2]

Vygotsky (1978) defines the ZPD as 'the distance between the actual developmental level as determined by independent problem-solving and the level of potential development as determined through problem-solving under adult guidance or in collaboration with more capable peers' (1978, p. 86). The ZPD is grounded on Vygotsky's understanding of human agency as non-individualistic and collaborative. However, collaborative solving of tasks does not necessary lead to L2 development. When mediation is used to complete a task and it is not oriented to promote new understandings, there is no development of theoretical concepts. From an SCT perspective, L2 development is the result of a process of appropriating and internalizing concepts mediated by social and interpersonal activities. L2 development implies conscious awareness: mindfully using verbal thinking.

L2 development is not the product of a causal relationship. It is transformative and it is based on the potential of learners participating in significant activities. The idea of potentiality within ZPD implies that there is a potential for the internalization of a given concept; however, this potential may not necessarily lead to L2 development. This is what Negueruela-Azarola (2008) calls the Zone of Potential Development. Thus, our general understanding of L2 development in the ZPD shifts necessarily from what is about to happen to what has the potential of happening, but may never actually happen (García 2012).

In order to address the issue of potential development in the L2 classroom, there needs to be a shift from identifying the learners' individual abilities towards creating

pedagogically-significant and socially-constructed activities. These activities are aimed at the development of the learner's higher social/psychological functions (intentional memory, planning, voluntary attention, rational thinking) because they focus on mediation, and not on results. Along these lines, Kozulin (1998, p. 83) proposes the use of Cognitive Developmental Activities (CDA) in the classroom. In these types of activities, instead of solving problems, learners create their own. Kozulin (1998) argues that in traditional problem-solving tasks learners may disregard different levels of analysis and problem formulation, and only focus on finding a quick solution. However, to complete a CDA learners need to plan, formulate questions, and check them against the answers. It is argued that the use of CDA could promote cognitive development and even foster a qualitative change in the students' level of abstraction. García (2011) reports on the feasibility of implementing CDA using maps and menus to assess and promote L2 learning during a session of dynamic assessment.

Understanding social interaction in the ZPD as a potentially meaningful pedagogical experience for L2 learners is based on promoting collaboration, conceptual transformation, and dynamic teaching and assessment. First, learning should be a collaborative process in order to foster the shift from interaction to intra-action. Second, and consequently, teaching/learning becomes a conceptually transformative process when conceptual mediation is promoted (Negueruela-Azarola 2008). Third, there is a need for teachers to use assessment procedures that take into account the learner's ZPD as collaborative and conceptually transformative in nature. Dynamic Assessment (DA), one of the main applications of Vygotsky's work on the ZPD, places the learners' ZPD at the center of teaching/learning activity. In the framework of DA, learning and assessment are seen as two sides of the same coin, where mediation during the assessment process is aimed at the learner's ZPD in order to ascertain and promote learners' future L2 development. From the perspective of DA, helping students to learn is at the same time an assessment task.

5.1 Dynamic assessment

Even though Vygotsky (1998) never uses the term DA, he criticizes static individualized psychometric methods of assessment for not having a predictive value. Static assessment tools only establish learners' actual level of development (i.e. IQ tests) and not their future path of development. Vygotsky (1998) advocates for a method of evaluation that, through appropriate mediation, could provide an accurate prognosis of the learner's potential future development. A dynamic method of evaluation (see also Antón in this volume) asks practitioners and instructors to supply learners with the appropriate mediational tools and strategies to promote development:

> What the learner can do today in cooperation and with guidance, tomorrow he will be able to do independently. This means that by ascertaining the learner's potential when he works in cooperation, we ascertain in this way the area of maturing intellectual functions that in the near stage of development must bear fruit and, consequently, be transferred to the level of actual mental development of the learner. (Vygotsky 1998, p. 202)

Luria, one of Vygotsky's collaborators, was the first to introduce the concept of DA to the Western world. Luria (1961) points out that assessment has to be dynamic, and not static or psychometric in order to uncover learners' true potential. Assessment tasks in this approach are designed so that learners are mediated at first with the help of a more capable individual. The objective is for the mediation to be sequentially reduced to the point where the individual is able to execute a task with little or no mediation.[3] DA in the L2 classroom focuses on

promoting significant interactions that lead to transformative intra-action, or development. L2 development through mediation in the ZPD is the basis of dynamic assessment, a process that reflects the inseparability of assessment and instruction. DA implemented in the L2 classroom allows the instructor to foster interaction and offer mediation tuned to the learners' ZPD, making independent problem solving be the goal rather than the means of the evaluative process.

In what follows, we provide a sample of data reported in García (2014). In this study, learners were expected to make coherent connections between their own linguistic performance using *preterite* and *imperfect* and the meaning of their utterance through the notion of verbal aspect. Participants were asked to write a narrative based on a comic strip, and to narrate it out loud during the DA session. In this session, they were also allowed to take notes and make corrections. At different points of the DA session, the instructor requested the learners to provide additional explanations and make changes to their original narrations when necessary. Participants were also asked to describe the rationale behind their use of *preterite* and *imperfect* and were provided with mediation whenever it was required. The excerpt below helps illustrating the significance of learner (L) / mediator (M) interaction during a DA session aimed to foster the conceptualization of the grammatical concept of verbal aspect:

Excerpt (2)

M: *Ahm, vale. Una pregunta, por qué, en la última línea de la primera, de la primera página pones 'quedaba', por qué, ¿por qué imperfecto?*
'Uhm, ok. One question, why, in the last line of the first, the first page you wrote 'stayed' [imperfect],why, why imperfect?

L: *Ahm, [pauses], Ahm no, es, ah, quedó.*
'Uhm, [pauses], Uhm no, it's, uh, stayed [preterite].

M: *Aha…*
'Uhu…'

L: *… Ah, porque es una acción completa, tiene un fin o… y, no es cíclico… pero no es 'ongoing'.*
'…Uh, because it is a completed action, it has an ending or… and, it's non cyclic… but it's not ongoing.'

During the initial non-dynamic part of the assessment (i.e. the written narrative), this learner had incorrectly chosen the imperfect '*quedaba*' to describe the situation of the main character of the comic strip given. Excerpt (2) above illustrates how even minimal mediation offered during DA sessions is able to provide learners with the opportunity to self-correct. Also, the learner is able to provide a conceptual reason for her new choice. In this way, she makes a coherent connection between an accurate use of the *preterite* and *imperfect* verb tenses and the conceptualization of the notion of verbal aspect.

From a Vygotskyan perspective, the key to understanding L2 conceptual development is studying the quality of the learners' concepts from the earliest stages of their formation as mediational tools for development (understood here as awareness and control over the features of the grammatical concept of aspect). Connecting L2 conceptual development with the emergence of concepts implies that learners' L2 conceptual development is a process of conscious creation and transformation through activity. Verbalizing during DA helps learners develop a better understanding (awareness) and performance (control) in creating new

meanings (conceptualizing) related to the notion of verbal aspect. This type of learner–mediator interaction provides researchers with the opportunity to ascertain learners' L2 conceptual development from a socioculturally mediated standpoint.

6. Interaction and Conceptual Categories: Ideas Becoming Functional Concepts in the L2 Classroom

Negueruela-Azarola (2003) was the first to propose that L2 development is a conceptual process in a Vygotskyan sense. Since then, there have been a variety of studies that explore how conceptual categories are presented to learners in classroom settings (see, for example, Yañez-Prieto 2008; Swain 2006; García 2012). The internalization of new L2 concepts through interaction is a developmental process that requires a very precise interactional teaching sequence. The challenge for internalizing conceptual categories in the L2 classroom is the following: conceptual categories cannot be explained or practiced; they need to be manipulated as tools for thinking, and they need to be internalized as tools for thinking. This is the basis for a concept-based teaching (CBT) approach to L2 learning, development, and interaction.

Inspired by the work of Vygotsky (1986) on verbal thinking as the essence of human consciousness, a CBT approach to L2 teaching proposes that meaning constructed through conceptual categories is part of L2 development (Negueruela-Azarola 2003). Conceptualization is central in L2 development, and language is the main tool for communication, cultural representation, and conceptual mediation through meaning-making activities.

A CBT approach for the L2 classroom organizes instruction to promote conscious conceptual mediation, which creates L2 conceptual development. Conceptual development is the result of engaging in meaning-making activities that promote verbal consciousness through communicating with the self. In this sense, human verbal consciousness through verbal thinking is both the process and the result of symbolically mediated activity. Symbolically mediated activity is fundamentally about conceptual mediation. Conceptual mediation in thinking emerges in communicative activity, through speaking and writing, both of which are central to L2 classrooms.

From a sociocultural perspective, L2 development is a transformative process. This transformation is based on the internalization of new categories of meaning, i.e. concepts. Learning a new language is not only about acquiring an inert linguistic object. It is about cultural, social, and psychological mediation (Lantolf and Thorne 2006). The focus of instructed L2 development and CBT is not on the learning of endings (morphology) or word order sequences (syntax) or vocabulary (lexicon) but internalizing new concepts in order to understand how to deploy sophisticated meanings (semantics) in concrete communicative contexts to enact intentionality (pragmatics). Although CBT highlights the importance of promoting and documenting communicative interactions (Negueruela-Azarola 2003; Swain 2006; García 2012), the focus is specifically on internalizing complex semantic and pragmatic notions which are needed to achieve higher levels of proficiency. This conscious focus cannot be achieved through explanations or communicative interactions, but through conceptual manipulation.

The internalization of conceptual categories shapes thinking, creates new understandings, allows for the emergence of new communicative resources, and produces different representations that are in turn both thinking tools and new ideas that can be communicated to others. Conceptual meanings in a first language are not evident to learners because they are appropriated while the first language is being developed. Different conceptual meanings present in new languages are quite challenging to appreciate, identify, understand, and even harder to internalize.

For SCT, communication and conceptualization merge and emerge in the process of first language (L1) acquisition. However, and this is critical, the internalization of functional concepts is not a mechanical process. It requires the use of concepts as tools for understanding (Vygotsky 1986). CBT applied to instructed SLA argues that the quality of explanations provided to L2 learners, in both textbooks and classroom instruction, have a central impact on L2 development as a conceptual process. To be sure, and again, L2 development is understood to be a conceptual process, where meaning is constructed around conceptual categories. L2 internalization is also a conceptual process based on the development of functional meanings (Negueruela-Azarola 2003).

Based on Vygotsky's (1986) work on verbal thinking and concepts and Gal'perin's (1992) six-stage instructional sequence, which includes motivation, orientation, materialization, external verbalization, internal verbalization, abbreviation and automatization, Negueruela-Azarola (2003) proposes four pedagogical processes for promoting the internalization of conceptual categories in L2 classrooms: (1) minimal unit of instruction, (2) representation or materialization of concept to be taught, (3) conceptual manipulation or verbalization task, and (4) articulation of conceptual categories.

In the L2 classroom, the internalization of sophisticated categories of meaning such as text, genre, coherence, and cohesion in discourse, or grammatical meanings such as tense, modality, aspect, and motion require providing learners explanations, which are not based on simplistic shortcuts but on conceptual meanings. In the L2 classroom, not everything is conceptual in the same sense, but conceptual meanings (grammatical categories such as aspect, tense, modality, or motion) that are connected to thinking when speaking in a language (see Slobin 1996 on thinking-for-speaking) are challenging to internalize.

The internalization of sophisticated categories of meaning underlying textual and grammatical meanings in an L2 is not a matter of finding a perfect explanation for learners. Long and elaborate explanations are not functional conceptualizations in communicative activity. From a functional point of view, they are psychologically useless and pedagogically irrelevant.

Better explanations – coherent, complete, brief, and applicable – are the first key step for CBT. Often times, explanations provided to learners through textbooks or teachers are either too simplistic (basic courses) or too long and cumbersome (advanced linguistic courses). These simplistic or overtly complex explanations are well-intentioned, but are not adequate to build coherent understandings through conceptual categories. Better explanations of complicated communicative and linguistic issues need to be introduced to L2 learners through concrete graphic representations, which help learners in constructing a functional understanding. These graphic representations may be presented to learners in the form of diagrams, flow charts, drawings, or schemas. Indeed this is a research task for applied linguists. The actual form of these material graphic representations is not as critical as the principle behind materializing a complex meaning: to capture at a glance the essence of an idea, which generally requires a long linguistic elaboration. Examples of these types of pedagogical and graphic tools for learners can be found in Negueruela-Azarola and Lantolf (2006), Negueruela-Azarola (2008), Yañez-Prieto (2008), or Lantolf (2010).

To instantiate a CBT approach in the L2 classroom, teachers need a complete and pedagogically adequate explanation of a conceptual category of meaning, a concise visual representation of the targeted concept, and finally — and most importantly — the learner needs to engage in social interaction with the self that leads to intra-action, where language is used as a tool for making sense of a challenging communicative issue. Using language as a tool for internalizing complex L2 categories of meaning, such as grammatical (tense, aspect, and modality) rhetorical (text, metaphor) and pragmatic (intentionality, voice) categories, is the third critical component of CBT.

Learners need to engage in conceptual tasks where they are pushed to reflect on issues in conceptual ways. This is not easy or can be at the very least quite challenging for most students. Generally, when learners are not pushed to conceptualize communicative issues through concepts, they tend to provide simplistic explanations of linguistic and conceptual challenges based on rules of thumb (Negueruela-Azarola 2003) or quick and superficial reasons.

The two samples of data below, reported in Negueruela-Azarola (2013a), are from a learner in the sixth semester of study of L2 Spanish at the university level in a North American institution. These two samples illustrate the significance of conceptualization tasks. This particular learner was able to make coherent connections between accurate performance using *preterite* and *imperfect* and conceptualization of the meaning of *preterite* and *imperfect* through the notion of verbal aspect. The concept of verbal aspect was presented to learners through conceptual explanations, diagrams, and group work (see Negueruela-Azarola 2003 for a full account of the study).

Excerpts (3) and (4) below illustrate how learner A reflected on aspectual meaning, points in time, and completion. The student constructed an understanding of the notion of aspect that is quite complete, and not based exclusively on simplistic textbook grammatical rules.

Excerpt (3)

'*Cuando ellos volvieron a la casa, nosotros tomamos el postre*'.
[When they came back (preterite) home, we had (preterite) dessert]
I chose the preterite '*volvieron*' because it is something in the foreground. It's an action that was completed; it basically signifies the end of an action I would say. '*Tomamos*' I believe would signify the beginning of an action and because it's not an ongoing thing that is why I chose the preterite.

Excerpt (4)

'La primera noche que estábamos allí comimos en un restaurante en el centro comercial que estaba muy cerca de nuestro hotel'.
[The first night that we were (imperfect) there we ate (preterite) in a restaurant in the the shopping center that was (imperfect) very close to our hotel].[4]
'*Estábamos*', again signifies the middle of an action, in the middle of our being there. '*Comimos*', that is the preterite because in a sense signifies the end of an action, because I'm talking about in the story what happened after we eat. So, that emphasizes the completion of the action. '*Estaba*' was used because that represents something ongoing in the action that is going on in the middle of action.

These two samples of data illustrate how learner A is using the notion of aspect to make sense of preterite and imperfect, instead of using textbook rules of thumb.

Learners who participated in conceptualization tasks in Negueruela-Azarola (2003) also report that explaining complex grammatical points to themselves using conceptual categories improves both their understanding of grammar and their performance in communicative tasks. Reflecting on her experience with the conceptualization tasks, learner A commented:

> 'I found that listening to my own recordings helped me notice many errors and made me less likely to repeat them in the re-recordings. […] With newer concepts, in cases where I wasn't sure of a construction in the first place, […] I used the step of explaining things to myself more than when I recognized a mistake I had already made. Explaining things to myself helps me a lot.'

To conclude, mindful engagement through conceptual categories which allows learners to reflect on relevant conceptual L2 issues is necessary for internalizing L2 meanings connected to thinking for speaking. This is the key to transforming inert concepts as declarative knowledge into conceptual categories, which are functional for communication and conceptualization. Conceptual manipulation is the pedagogical bridge between interaction and intra-action. This type of conceptual reasoning is already partially present in pedagogical activities that L2 practitioners use in the classroom, especially in reflective writing activities. What CBT hopes to accomplish is to illustrate the types of reflective activities that promote a transformative awareness in learners. That is, the types of activities that promote the internalization of ideas with functional relevance in communicative performance.

7. Final Implications for Teachers and Researchers

From an SCT perspective on learning and development, classroom interaction is both social and private at the same time. This taxonomic paradox makes sense because human communication is at the same time social and private. We communicate with others while we make sense of ourselves, and our ideas. It is in this sense that communication becomes conceptualization. Communication and conceptualization merge in social interaction, which requires conceptual intra-action to be developmentally significant interaction. Gesticulation is a privileged research site for understanding interaction/intra-action in L2 development. In formal learning/teaching contexts, communication and conceptualization should merge in learning activities that aim to promote development.

A CBT approach to interaction in the L2 classroom is about promoting conceptual mediation and internalization. A conceptual approach to L2 classrooms needs to articulate a curriculum and a research program based on categories of meaning. Conceptual categories such as aspect do not function in isolation from other concepts such as text, genre, tense, or modality. From the point of view of teaching, language programs need to integrate concept-based materials, tasks, and assessments. A CBT approach to interaction in the L2 classroom also highlights the importance of the pedagogical tasks that promote conceptual understandings. L2 learners are not used to engaging in mindful conceptual reflection, which in itself is quite challenging. It requires an intense engagement and intellectual effort on the part of learners.

For researchers focusing on interaction and intra-action, the critical evidence to document development as a conceptual process is conceptualization data (Negueruela-Azarola 2003; García 2012). The data that researchers collect, how it is analyzed, and its significance depend on the theory that is used to make sense of it. A final implication we wish to underscore here is the importance of understanding how a particular ontological stance, a sociocultural understanding of mind, communication, and personality leads to selecting a particular research protocol: conceptualization data as the critical evidence for interaction becoming intra-action (see also, Swain 2006 on verbalization data from a sociocultural perspective).

A sociocultural take on interaction leading to intra-action or conceptualization, is not about learning a language per se. It is about development as conscious awareness through conceptual categories. From our perspective, if the goal is to develop conscious awareness through conceptual categories, an SCT approach to inter/intra-action should be considered. Introducing complex conceptual categories, looking at the gesture–speech interface, and connecting teaching and assessment is critical for practitioners who want to understand the L2 classroom.

To conclude, teacher's cognition is also a conceptual process (Negueruela-Azarola 2011). Pedagogical ideas that shape teaching practices need to become functional. The challenge in

teaching preparation courses and seminars is to promote the internalization of new ideas with functional relevance to actual teaching contexts. If the profession wishes to explore how interaction becomes intra-action in the L2 classroom, teacher educators and teachers themselves also need to change how they see learning, development, interaction, and the socially mediated mind.

8. Acknowledgement

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NOTES

1 For a broader discussion of this notion, refer to Dunn & Lantolf (1998), Lantolf (2000), Lantolf and Poehner (2008a), or Lantolf and Thorne (2006).
2 Given the scope of the present work, this chapter does not review in depth Luria's contribution to the field of sociocultural psychology and assessment. For a more extensive review on Luria's proposals see: Luria (1961, 1981); Lantolf and Poehner (2004, 2007, 2008b); Poehner and Lantolf (2005); or Poehner (2005, 2007, 2008).
3 Translations of Spanish utterances to English are by Eduardo Negueruela-Azarola and Próspero N. García.

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See Chapter 5: Shifting Trends in the Assessment of Classroom Interaction.
See Chapter 15: Classroom Discourse and Interaction in the Zone of Proximal Development.
See Chapter 16: The Emergence of Sociolinguistic Competence in Second Language Classroom Interaction.
See Chapter 17: Expert-novice Relationships in Second Language Classroom Interaction.

15 Classroom Discourse and Interaction in the Zone of Proximal Development

HOLBROOK MAHN

1. Introduction

Lev S. Vygotsky (1896–1934), a psychologist who practiced in the former Soviet Union from the 1920s to his death in 1934, is best known amongst English speakers for his concept of the Zone of Proximal Development (ZPD). This concept's popularity flows from the insights it offers into the relationship between children's learning and development and what that means for their future learning. Vygotsky's most extensive writings on the ZPD describe his use of it as an analytic tool in three investigations: (1) His critique of intelligence and diagnostic tests because they measured what children could accomplish in independent problem solving, but not what they could accomplish through cooperation with an adult or more advanced peer. A summary of this critique and his description of the concept of the ZPD as a central part of this critique appears in *Mind in Society* (Vygotsky 1978); (2) his analysis of child development in 'The Problem of Age,' (Vygotsky 1998) where he analyzes the 'internal logic of the process of [children's] development' (p. 192), focusing on times of qualitative transformation in the interrelationship of these processes – times he uses to divide development into age levels or periods (Chaiklin 2003; Mahn 2003); and (3) his analysis of concept development and particularly the relationships between everyday concepts and academic concepts, described in 'The Development of Scientific Concepts in Childhood,' Chapter six in Vygotsky's most important work, *Thinking and Speech* (1987). The concept of the ZPD plays a significant role in Vygotsky's analysis of the character and development of spontaneous/everyday concepts and of scientific/academic concepts.[1] While these three investigations are distinct in that they have different foci for analysis, they are united by Vygotsky's use of his general concept of ZPD in all of them.

A complete understanding of Vygotsky's concept of the ZPD requires not only examining its use in these three investigations, but also situating it in his theoretical framework and methodological approach. This chapter gives brief overviews of the first two investigations, with examples of studies that draw on them and then gives a more detailed overview of Vygotsky's theory of concept development as a foundation for describing his third investigation, which uses the ZPD to analyze the relationship between everyday concepts and

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academic concepts. The chapter concludes with a description of a project that used Vygotsky's theory of concept development as a theoretical foundation. The description of this project centers on ways in which classroom discourse and interaction can be enhanced if classroom teaching/learning[2] is guided by lessons drawn from Vygotsky's investigation of everyday concepts and academic concepts.

2. Zone of Proximal Development

Knowledge of the ZPD gained traction in the English-speaking world with the 1978 publication of a compilation of Vygotsky's writings in *Mind in Society*, a chapter of which presents extracts from a lecture Vygotsky gave late in his life. In this lecture he argued against the prevalent use of intelligence and other types of diagnostic tests as central guides for teaching, claiming they conceal what should be an important consideration in assessment and teaching, namely how to determine the nature of teaching that facilitates students reaching their potentials in future learning. Vygotsky's claim was that intelligence and diagnostic tests measure what children can do in *independent* problem solving, revealing their actual level of achievement/development at the time of testing, but not their potential for future learning. To examine children's potential for future development, Vygotsky used the concept of the ZPD.

To explain the ZPD, he gives an example of two 10-year-old children who, in independent problem solving, are able to do tasks at an eight-year-old level of mental development. Rather than assuming that both students have the same capacity for future learning, Vygotsky poses the question: 'Suppose that I show them various ways of dealing with the problem?' and then describes different ways experimenters can offer assistance:

> Some might run through an entire demonstration and ask the children to repeat it, others might initiate the solution and ask the child to finish it, or ask leading questions. … Under these circumstances [with assistance] it turns out that the first child can deal with problems up to a twelve-year-old's level, the second up to a nine-year-old's. Now, are these children mentally the same? (1978, p. 86)

Vygotsky argues that these two children would have different paths of learning in the classroom and would need guidance differentiated for each child's different ZPD, which he defines as:

> The distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers. (1978, p. 86)

This paragraph is almost universally quoted whenever the ZPD is referenced, including in some of the older, more widely-cited interpretations of his work (John-Steiner and Mahn 1996; Kozulin 1990; Tharp and Gallimore 1988; van der Veer and Valsiner 1991; Wertsch 1985). When writing about the ZPD in relation to intelligence and diagnostic tests, Vygotsky underscored the importance of collaboration and guidance, but he died before he was able to describe how teachers could use collaboration and guidance in their classrooms guided by the concept of ZPD. He did stress that teachers should recognize that different students have different potentials for learning based on different zones of proximal development. Because Vygotsky was not able to elaborate on how he would recommend that the concept of ZPD be applied to practical teaching, there is a wide variation in the way that this concept has

been used in pedagogical applications, ranging from approaches that emphasize skill-drill as a central piece of the curriculum to approaches that value the whole child in all of his or her complexity and consider the broader social forces.

In one of the most comprehensive overviews of the ZPD, Chaiklin (2003) describes examples in an expanding number of fields where the *term* ZPD is used and attributed to Vygotsky, but do not reflect an understanding of his use of the concept. Some of these fields include moral education, nursing, computer-mediated communications, violin teaching, and psychoanalysis, among others; however, the concept of the ZPD is often extrapolated from the sociocultural framework Vygotsky used to develop and situate it. Consequently, they lose the explanatory power and interpretive perspective the concept provides. Even within education, the field in which the most sociocultural research has been done, the ZPD has been used 'to justify forms of teaching that seem quite incompatible with this theory as a whole' (Wells 1999, p. 313).

Those studies that do situate the ZPD in Vygotsky's general sociocultural theoretical framework often operate with an incomplete understanding of the concept if they do not account for all three of the investigations in which it played a central role. Because many studies present an incomplete understanding of Vygotsky's concept, it has been referred to as the most over-used, least-understood concept in educational studies. Among the studies that have consistently drawn on Vygotsky's theoretical framework are language studies, particularly in second language acquisition (SLA). While Vygotsky's focus was on concept development in young children and adolescents, sociocultural approaches to second language acquisition (SLA) research have shown its utility in analyzing the centrality of talk and social interaction in adult language learning, teaching, and acquisition. Playing the leading role in this effort, James Lantolf and his colleagues have shown how sociocultural theory can illuminate the processes taking place in second and foreign language classrooms (Lantolf 2000; Lantolf and Appel 1994; Lantolf and Poehner 2008; Lantolf and Thorne 2006). (See Lantolf and Beckett (2009) for a detailed bibliography of this work, as well as for the references to the Lantolf volumes above and the references in the paragraph below.)

Studies in SLA which have focused on the ZPD include: (a) a longitudinal study with university students on feedback provided by an expert in learners' ZPDs that found that language development is a process that varies across learners, across proficiency levels, and across concepts or skills to be learned (Aljaafreh and Lantolf 1994); (b) a study that examined peer dialogue and scaffolding within students' ZPDs as they collaborated to complete a difficult task (Donato 1994); (c) a study on the role of repetition in collaborative writing sessions among adult L2 learners which found that repetition within their ZPDs helped scaffold the completion of their writing tasks (DiCamilla and Antón 1997); (d) a study on social interaction in peer revision during an L2 writing class with adults that found that the interaction helped to scaffold peer revision (de Guerrero and Villamil 2000); and (e) three case studies of college-level L2 learners, in which Thorne (2003) documented the influence of the ZPD on students' web-based dialogue and the use of different web-based discussion formats that helped students succeed in communicating meaning for different purposes through different media.

3. Zone of Proximal Development and Periods in Child Development

A more complete understanding of Vygotsky's concept of the ZPD needs to incorporate his use of it to investigate the 'internal causal–dynamic and genetic connections that determine the process itself of mental development' (1998, p. 203). In examining the internal logic of

development, Vygotsky focused on times of transition between one age level and the next, using the concept of ZPD to help him achieve his goal of studying 'the whole sequence of the course of child development, of all the features of each age, stage, and phase, of all the basic types of normal and anomalous development, of the whole structure and dynamics of child development in its many forms' (p. 200). In asserting that each age level has its own ZPD, he argued, 'there is for the child a specific zone of intellectual imitation connected with the actual level of development' (p. 202). He differentiates his use of the term *imitation* from that which can be applied to animals. In using this term, he is not referring to

> mechanical, automatic, thoughtless imitation, but rather sensible imitation based on understanding the imitative carrying out of some intellectual operation. …Everything that the child cannot do independently, but which he can be taught or which he can do with direction or cooperation or with the help of leading questions, we will include in the sphere of imitation. (1998, p. 202)

Seth Chaiklin (2003), in his comprehensive chapter on Vygotsky's use of ZPD to analyze the movement and transitions from one age level to another, describes the role of imitation in these transitions. He also uses the concepts of *subjective* and *objective* zones of proximal development to clarify the nature of the movement and transitions. In describing the transition from one age to the next, he designates a 'tripartite constellation of present age, maturing functions, and next age as the *objective* ZPD' (p. 49) – *objective* because 'it does not refer to an individual child but reflects the psychological functions that need to be formed during a given age period in order for the next age period to be formed' (p. 49). He uses the term *subjective* ZPD to refer to the degree which the individual 'child's currently maturing functions are realizing the structure of the next age period' (p. 50).

Mariane Hedegaard, who was a pioneer in the study of the ZPD, has collaborated with Seth Chaiklin in conducting research projects using a concept of the ZPD that incorporates Vygotsky's analysis of its role in determining movement and transition in child development (Chaiklin and Hedegaard 2013; Hedegaard and Chaiklin 2005). They used a teaching strategy they call a 'double move,' in which 'the teacher's planning of the instruction must advance from the abstract characteristics and general laws of a subject-matter area to the concrete reality, in all its complexity' (Hedegaard and Chaiklin 2005, p. 70). Attention was paid to the inquiry process as students formulated questions to investigate the content of their community, using the scientific methods they had learned in the project. This gave them opportunities 'to use intellectual tools to explore content related to their everyday life in new ways, and to elaborate their everyday understandings through academic concepts' (Chaiklin and Hedegaard 2013, p. 42). Hedegaard (1990) reports on ways that the concept of the ZPD was used in a research project that followed the same class from 3rd to 5th grade in social sciences in a Danish elementary school. Using the concept of the ZPD as a background, her work connects a 'general psychological perspective on child development with a pedagogical perspective on the instruction' (Hedegaard 1990, p. 349).

Hedegaard (2003) summarizes how the discourse, inquiry, and interaction between students and teachers created zones of proximal development, helping to motivate and engage students and helping teachers and researchers to 'understand how the dialectic relationship between abstract and concrete aspects of a conceptual system can be combined with personal experience to become part of a person's conceptual understanding' (p. 148). This was also a guiding principle of the Academic Literacy for All (ALA) project (Mahn, Bruce, and Adams 2010), which relied on all three of Vygotsky's investigations, but focused in particular on his the concept of ZPD as an analytic tool to describe the relationship between everyday concepts and academic concepts. As a foundation for describing this work, I present an overview of Vygotsky's theory of concept development in some detail as laid out

most fully in his last major work, *Thinking and Speech* (1987). This provides a theoretical framework for developing the guiding principles for the collaboration and the classroom discourse and interaction used by the ALA project based on the ZPD.

4. Vygotsky's Theory of Concept Development

Vygotsky (1987) uses the concept of the ZPD as an important component in his examination of the relationships between the *everyday concepts* that young children acquire as they make meaning of their worlds through language in social interaction with others, and the *academic concepts*, which they encounter in school as they learn reading, writing, mathematics, and the natural and social sciences. He argues that these two types of concepts have distinct lines of development because they are based on different modes of thinking. These lines of development have their origins in two different domains, the academic in the domain of conscious awareness and volition, which Vygotsky describes using the metaphor of growing downward to the concrete. On the other hand, everyday concepts have their origin in the domain of the concrete, the domain of personal experience. While the line of academic concepts moves toward the concrete, the line of development of everyday concepts 'moves toward the higher characteristics of concepts, toward conscious awareness and volition. The link between these two lines of development reflects their true nature. This is *the link of the zone of proximal and actual development*' (p. 220, emphasis in original). Exploring Vygotsky's analysis of this relationship reveals ways in which teachers and students, through interaction and discourse in the classroom, can be engaged in effective teaching/learning. Before describing how that was accomplished in the Academic Literacy for All project, I briefly describe Vygotsky's theoretical framework focusing on his theory of concept development.

While his overarching aim was to analyze the relationship between thinking and speaking as a way to understand human development and as a key component in human consciousness, Vygotsky (1997) focused on the role that social interaction and cultural practice – 'the processes of mastering external materials of cultural development and thinking: language, writing, arithmetic, drawing' (p. 14) – played in the development of individual psychological functioning and development. He was particularly interested in the role of language in this development as it mediated human interaction in social worlds and was instrumental in the internalization of this social activity.

> Every function in the child's cultural development appears twice: first, between people (interpsychological) and then inside the child (intrapsychological). This applies equally to voluntary attention, to logical memory, and to the formation of ideas. All the higher functions originate as actual relationships between individuals. (Vygotsky 1978, p. 57)

Vygotsky saw the unification of the language processes and thinking processes as key to this internalization and to concept development.

While Vygotsky investigated children from birth, looking at the development of their means of perception in relationship with the developing psychological functions, such as memory, attention, thinking, emotions, imagination, and will, his main focus was on the unification of speaking/language processes and thinking processes at the time of language acquisition (Vygotsky 1987). These two processes previously had independent paths of development with children using language without thought – babbling and playing with sounds – and thinking without language – the elementary thinking processes similar to those that exist in the animal kingdom – but thinking and speaking become unified with the acquisition of language. To study this unification and its relationship to concept formation in

systems, Vygotsky and his colleagues conducted experiments, from which he derived three main stages in the formation of concepts – *syncretic thinking, thinking in complexes, and thinking in concepts* – each stage having a qualitatively different mode of thinking than the others. Clarifying the differences in these modes of thinking and the transitions between them is crucial for understanding Vygotsky's use of the concept of the ZPD, because he uses the concept of ZPD to explain the transition from the mode of thinking behind everyday concepts to the mode of thinking necessary to acquire academic concepts.

The first two stages of concept development – syncretic and thinking in complexes – provide the foundation for and constitute everyday concepts, while the third stage – thinking in concepts – builds on that foundation and is instrumental in the acquisition of academic concepts. A central aspect of each of these different modes of thinking is *generalization*, because changes in the child's use of generalization help define the differences between the three stages of concept development. Generalization is central to the unification of the thinking and speaking/language processes, since 'The basic and central feature of any word is generalization. All words generalize' (1987, p. 249) and generalization is an act of thought.

In the first stage, when the child is early in the process of acquiring language, the unification of thinking and speaking is accomplished through generalization, as children, in interaction with adults, apply language to amalgamated visual images. In this act of generalization, children bring together 'a series of elements that are externally connected in the impression they have had on a child but not unified internally among themselves' (1987, p. 134). A defining characteristic of the mode of thinking at this stage is that relationships children make based on their experiences, particularly those involving visual perception, do not correspond to relationships in the real world or to the common use of language. As children acquire and develop their language in interaction with adults, there is a qualitative transformation in their mode of thinking from the syncretic stage to thinking in complexes.

This mode of thinking 'leads to the formation of connections, the establishment of relationships among different concrete impressions, the unification and generalization of separate objects, and the ordering and the systematization of the whole of the child's experience' (Vygotsky 1987, p. 135). Children, who are beginning to think in complexes, use language to unite 'complexes of distinct concrete objects or things…on the basis of objective connections, connections that actually exist among the objects involved' (p. 136). This stage of thinking is tied firmly to the empirical world and children's experience in it. In this stage, while the child and the adult both use the same word to focus on an object, and in their shared contact they are able to communicate, they use different forms of thinking to arrive at using the word. The 'child thinks the same content differently, in another mode, and through different intellectual operations' (1987, p. 152). Vygotsky asserts that just because children can use a word does not mean they have the concept, which he claims is 'the central point, the main thought, of our entire work' (1987, p. 241) (see also Bloome, this volume). 'The development of the corresponding concept is not completed but only beginning at the moment a new word is learned. The new word is not the culmination but the beginning of a concept' (p. 241). Through discourse and interaction the concept behind the word grows, especially when it is situated in systems. The internal meaning that the child is constructing becomes divorced from the word that represents the concept. 'Meaning becomes increasingly independent of the form in which it is expressed' (Vygotsky 1987, p. 228).

In this process the child is developing the psychological functions necessary to think in concepts. 'The development of concepts…presupposes the development of a whole series of [psychological] functions…voluntary attention, logical memory, abstraction, comparison, and differentiation' (1987, p. 170). The development of these functions is accomplished through the unification of thinking and language/speaking processes. Although the foundation for concepts is laid when children begin to acquire language, they do not think

in concepts until they reach adolescence (Vygotsky 1998). As the child begins to isolate and abstract separate elements, and 'to view these isolated, abstracted elements independently of the concrete and empirical connections in which they are given' (1987, p. 156), they are laying the foundation for the transition to thinking in concepts, being able to think abstractly. (For a more in-depth description of Vygotsky's theory of concept development, see Mahn 2012).

Vygotsky felt that there was a final piece missing in his analysis of the transition from thinking in complexes to thinking in concepts – a piece he would find in his analysis of the relationship between everyday concepts and scientific/academic concepts and the ZPD as a link between the two. Vygotsky defines what he means by everyday concepts – 'spontaneous, situationally meaningful…in the sphere of experience and the empirical' (p. 220) – and academic concepts, which have their strength in 'conscious awareness and volition' along with being organized into systems. Vygotsky's analysis of these components in Chapter six of *Thinking and Speech*, 'An Experimental Study of Concept Development,' lays the foundation for his explanation of the ZPD as the link between everyday concepts and academic concepts.

Based on findings from the experiments he and his colleagues conducted on the relationship between everyday and academic concepts, Vygotsky concluded:

> These findings seem to allow us to clarify the most important aspects of a question of great interest to us, namely, the question of the relationship between scientific [academic] and everyday [spontaneous] concepts in the first moments of a given system of knowledge. …These findings lead to the conclusion that *the development of scientific and spontaneous concepts take opposite paths* (emphasis in the original). (p. 217)

It was through his studies on *actual* concepts in Chapter 6 (as opposed to his work on *experimental* concepts in Chapter 5) that Vygotsky (1987) reached the conclusion that '*the development of [academic] and everyday concepts take opposite paths*' (p. 217, emphasis in the original), which he says is 'a key point of our hypothesis' (p. 217). Following an analysis of the character and movement of these two lines of development, Vygotsky uses the metaphor of a link to describe how the concept of the ZPD reveals the true nature of both everyday concepts and academic concepts.

5. Everyday Concepts and Academic Concepts

When he moved to examining *actual* concepts instead of those created in an experimental context, Vygotsky found that there were several significant problems in the experimental work.

> The fundamental weakness of our previous research lies in the absence of any real self-development, in the absence of any real connection between the stages of development. This shortcoming was a function of the very nature of the experiment. …As a consequence, we inherently saw these stages as moving along on a single plane rather than as forming a spiral based on a series of connected and ascending circles. (Vygotsky 1987, p. 229)

The final piece in constructing this spiral was explaining the transformation from thinking in complexes to thinking in concepts using the concept of the ZPD to help analyze 'the self-movement inherent in the development of concepts or the *internal connections* among the various stages of development' (p. 229). Vygotsky states that his research on actual academic concepts and everyday concepts 'led to the final link in the chain of transitions from one

stage to another' (p. 231). He used the concept of ZPD to describe the transition from school child to adolescent, from thinking in complexes to thinking in concepts. In discussing this transition, he adds 'our research on [academic] concepts and everyday concepts casts light on a middle link that we have been unable to make up to this point' (p. 231). Through this illumination, Vygotsky writes, 'the issue of the links and transitions between the various stages of concept development is completely resolved. We have resolved the question of the self-movement of developing concepts' (p. 231).

Vygotsky used the metaphor of everyday concepts growing up to the more abstract academic concepts, while academic concepts, which rely on conscious awareness and volition for acquisition and represent organized human knowledge and understanding, grow downward into the concrete, personal experience of everyday concepts. 'Scientific [academic] concepts restructure and raise spontaneous [everyday] concepts to a higher level, forming their ZPD. What the child is able to do in collaboration today, he will be able to do independently tomorrow' (Vygotsky 1987, p. 220).

While Vygotsky died before he was able to fulfill his plan of describing what collaboration based on the ZPD would look like in the classroom, his explanation of the ZPD as the link between everyday concepts and academic concepts implicitly helps provide a framework for the nature of the collaboration he envisaged taking place between teachers and students. His vision of collaboration relies on teachers recognizing the centrality of the interaction between students' everyday concepts, which they bring to school and the academic concepts they encounter there.

To help differentiate between everyday concepts and academic concepts, Vygotsky looked at three central aspects of academic concepts: 1) *conscious awareness* of the concept being learned; 2) *volition,* the ability to voluntarily control the use of the concept; and 3) *systematicity,* the organization of all concepts into systems in which there are subordinate and superordinate concepts. Teachers wanting to use the concept of the ZPD to organize classroom discourse and interaction to facilitate the development of students' academic concepts need to keep these three central aspects in mind.

Vygotsky points out that a key difference between everyday concepts and academic concepts is that there is conscious awareness and voluntary control with academic concepts while everyday concepts are governed more by spontaneity and actions tied to an immediate context. To illustrate what he means by conscious awareness, Vygotsky (1987) draws analogies to students learning to write and learning a second or foreign language. When children are learning to write, they are conscious of the fact that they are learning a new skill/function, just as when they are learning a foreign language in school, they are aware of the learning process, an awareness absent in the initial years of the acquisition of their native language. Vygotsky makes connections between conscious awareness and volition because children's awareness of a concept helps lead to control of it, such as them becoming aware of and controlling their attention. Likewise, through the learning activities in which they are engaged, students become aware of the fact that they need to use their memory, and with that awareness begin to control their use of it. Conscious awareness plays a significant role in the transformation of thinking as students, around adolescence, become aware of their own thinking processes and learn how to control their learning and to think in concepts, which is key to attaining academic concepts.

In addition to conscious awareness and voluntary control, recognition of systematicity can help guide language use and interaction in a classroom. All concepts exist in systems and if students can learn concepts by exploring them in systems, they will understand them more deeply. Vygotsky's understanding of the ZPD as the link between children's everyday concepts and academic concepts is rarely considered in analyses of students' ability to use abstract thinking by thinking in concepts. As a consequence, ways to use this understanding

of the ZPD to create effective teaching/learning opportunities in classrooms have not been widely explored.

Teaching/learning is maximized by addressing the following questions: What is the nature of the cooperative interaction among students and between students and teacher? What is the discourse students use to convey their everyday concepts and what discourse do the teacher and the texts use to convey academic concepts? How does children's use of language reflect cultural, community, and family influences? How can interaction and opportunities for language be organized to help students gain understanding of the concept being presented? These questions helped guide the work of the Academic Literacy for All Project.

6. The Academic Literacy for All Project

The Academic Literacy for All (ALA) professional development project, which was based on Vygotsky's theoretical framework, had two main goals: first, helping secondary school teachers understand how they could facilitate the language and literacy development of their English learners[3] (ELs) at the same time they were teaching the content in their subject area; and second, helping teachers understand how they could facilitate students' conceptual understanding and provide opportunities for them to display such understanding by using concepts to problem solve in different circumstances than those in which they were learned. The emphasis in the ALA project on using oral and written language in the classroom helped students gain conceptual understanding by giving them access to the concepts – the *subject matter* to be learned – through the use of language and interaction; and by providing an important source of *linguistic input* for acquiring English (Wong Fillmore 1982). Classroom discourse and interactive opportunities to use language thus become essential aspects to facilitate linguistically diverse students' learning and thinking in school.

The six-year Academic Literacy for All project, which spanned two school districts and involved the staffs of 15 middle and high schools, was based on Vygotsky's notion of the ZPD in all three of the investigations as described above. Teachers were selected from the participating schools and attended a semester-long seminar in which they were introduced to Vygotsky's concept of the ZPD and how to teach for conceptual understanding. The project helped teachers see the role they could play in changing the nature of classroom discourse and student interaction so that it would facilitate the transformation students make in adolescence from thinking in complexes (everyday concepts) to thinking in concepts (academic concepts). To help teachers accomplish this we developed a protocol designed to create opportunities for students to use written and spoken language which would help them stretch their everyday concepts up toward the academic concept being presented in a unit and to stretch the academic concept down, transforming both in the process (Mahn, Bruce and Adams 2010). The key to creating teaching/learning opportunities that rely on the concept of the ZPD is to encourage students to draw on their own experiences and use their own understanding of a particular concept as a starting point.

The protocol, so called because it is a sequence of strategies, is used at the beginning of a unit; thus, the first step for teachers in introducing a new concept is to look at how the concept fits into systems with other concepts. Often teachers are so immersed in their own content that they don't stop to consider the subordinate and superordinate concepts that help to form the system of which a particular concept is a part. After examining the central concept in a system of concepts, teachers conceive of ways to connect the academic concepts with the everyday concepts students have developed through their social interactions and language use in the world around them. This entails finding where students are in their

development regarding a particular concept, especially how their everyday concepts relate to it. Since students at the secondary level have been in school for a number of years, they will have acquired a good number of academic concepts, so there is not a firm line of demarcation between everyday concepts and academic concepts. Hedegaard and Chaiklin (2005) emphasize that

> Vygotsky's distinction is sometimes misinterpreted as describing a hierarchical organization with concrete everyday concepts on the bottom and abstract, scientific concepts on the top, or a replacement of everyday concepts with scientific concepts. In fact Vygotsky viewed everyday and scientific concepts as being parts of a single psychological system, where the development of scientific concepts results in changes in the everyday concepts. (p. 35)

There is usually a wide range in students' experiences and the concepts they have developed, which makes it difficult to determine where each student is in relationship to the concept being introduced, especially in the larger classes at the secondary level. However, doing so can help guide the creation of opportunities for interaction and language use, which are important aspects of the kind of effective collaboration that creates the ZPD. For example, a teacher in the ALA project introduced the concept of *genre* by having students first write individually about how music is organized and then in pairs and groups further write and discuss the organization of music. Then they generated rules about the organization of music. By starting with a question that related to their everyday experiences, students could draw on their experiences and then through discussions develop the concept of organization of music, setting the foundation for learning about the concept of *genre*.

In the ALA protocol, which can be used across the content areas and grade levels, students are put in groups of four and then asked to respond to a prompt that is designed to allow them to tap into their own experiences. The central criterion for the prompt is that every student be able to write two sentences about it. The prompt needs to focus more on students' experiences and their everyday concepts and not as much on the central academic concept. When students write their two sentences on an index card, they become more aware of the concept they are writing about and, as they put their thoughts into written language, begin to make connections between their everyday concepts and the academic concept. In the process of writing about the organization of music in the example above, students had to think more deeply about the concept of organization, and then when they had to come up with rules, they stretched their everyday concepts upward to the general concept of genre.

Students whose native language is other than English can write their sentences in their native language to access the concept in their strongest language. After students have written two sentences, they talk with a partner in their group and create two new sentences on another color index card. In this interaction they help one another get additional perspectives on the concept, thereby expanding their everyday concepts upward. For example, for the prompt 'Time' an English learner wrote a sentence in Spanish and then wrote 'clocks and hour of day' in English. Her partner's sentence was, 'Time helps us keep track of the day.' After discussion, they came up with the sentence, 'A system in which days are divided into seconds, minutes, and hours past noon and midnight.' Kristin[4] describes the effect of first writing and then discussing: 'My students have to think about the concept and their personal experiences with those concepts before sharing their ideas with others. Once students begin to share information with one another, their ZPDs are being expanded.'

When they have two new sentences, the two pairs in the group of four create two additional sentences on another color index card taking ideas from both pairs. 'Students began feeding off of one another's ideas and building off each other's language and vocabulary. The student with low vocabulary skills would borrow the language and

vocabulary being used by their peers to express their ideas. This borrowing increased the quantity and quality of academic language in my classroom' (LeAnn). Responding to the prompt 'Knowledge' three students, one of whom was an EL, used words like 'key,' 'opportunities,' and 'value' and in their combined sentences used words and concepts that they had not used in their initial sentences like 'appreciate' and 'ignorance closes doors.'

Creating an opportunity for dialogic interaction helped these students expand their understanding of the concept of knowledge. 'Just listening to their discussions as they collaborate lets me know that there is learning occurring, but most exciting is when they are actually 'teaching' each other' (Ruth). The two sentences that each group creates are copied onto poster paper and displayed for the whole class. After the teacher has read each of the groups' contributions, each member of the class votes for which response, other than their own group's, best captures the essence of the prompt. This process helps students develop the academic thinking skills – analysis, comparison, contrasting, synthesis, evaluation – needed to access academic concepts. 'The engagement in the discourse in the protocol creates internal motivation to possess and use strong language skills. Students want to clearly express their ideas, both in writing and discussion, without any prompting from me, the teacher. It is empowering, in both terms of intellectual and emotional development' (Natalie). (The element of emotion that Natalie raises is an important one in consideration of interaction within the ZPD, one that we discussed in *The Gift of Confidence: A Vygotskian View of Emotions* (Mahn and John-Steiner 2002)). Once students have voted individually on a response, they try to reach consensus as a group, providing another opportunity for stretching their own concepts through dialogue.

The groups are then asked to discuss themes that run across the different responses, again helping to expand their understanding of the concept and seeing it in relationship to other concepts. This process is continued as students look at common vocabulary across the groups' responses. In this step the teacher discusses words that are central for conveying meaning, both the academic content words and also words like 'because,' 'if,' 'then' which are central to conveying concepts, but which are rarely discussed. Highlighting these logical connectors is especially helpful for English learners. Science and mathematics teachers reported that focusing on these words helped ELs understand cause and effect as well as word problems that often have the construction, 'If…..then….'

Pauline Gibbons, whose work helped guide the ALA project, has compared classroom language to a *window* through which content is viewed. This window is transparent for most students, but for second language learners it is like frosted glass, which makes it important for teachers to be 'aware of the language we use' and to 'deliberately create opportunities for children to hear and use it,' which means looking *at* language and not just *through* it (Gibbons 1993, p. 12). She is underscoring a central tenet in sociocultural theory, the role that semiotic mediation plays in the internalization of social interaction (Vygotsky 1987). Because language mediates our experiences in and understanding of the external world, if teachers are not aware of language use in the classroom, second language learners' academic achievement will suffer.

The final step in the ALA protocol is for the teacher to display two sentences of academic text related to the central concept of the unit. This text, which presents the academic concept, can be drawn from any number of sources: from the textbook for the course or other texts, from the Internet, or from the teacher. After reading it, the teacher asks the groups to find ideas in the students' sentences that appear in the academic text. This activity helps create dialogue that takes place between the students' everyday concepts and the academic concept, i.e. in the ZPD. It is also a source of pride for students as they see that they have raised similar ideas to the 'expert'. The academic text for the protocol initiated with the prompt 'Time' included the units for measuring time that also appeared in the students' sentences

along with the concepts of *past*, *present*, and *future*. It also introduced the concepts of *dimension*, *duration*, and *interval*, which did not explicitly appear in the students' sentences, but which were explained using the students' language as a jumping-off point.

Vygotsky (1987) argues that an important task for effective teaching based on the concept of the ZPD is for teachers to model the thinking and discourse necessary for students to access the academic concepts. At the end of the ALA protocol, teachers can model how to analyze academic text by revealing the thinking necessary to access the academic concept, by situating it in a system and relating it to subordinate and superordinate concepts. An effective way to make transparent one's thinking is by posing questions, the answers to which will help students more fully understand the academic concept in relation to their everyday concepts. In the unit initiated by the prompt 'Knowledge' the teacher posed the question to the class, 'What is the difference between *knowledge* and *understanding*?' In differentiating these two concepts, the students gained a deeper understanding of both. Making inquiry central to teaching/learning based on the ZPD also helps students pose questions that extend their everyday concepts toward academic concepts, because the questions often push them to go beyond what they already know. 'Because the ALA approach increases and supports students' inquiry and conceptual thinking, I have been able to successfully present students with learning challenges. The ALA protocol provides students a sense of 'intellectual autonomy' and self-esteem which are highly relevant to the English learners' achievement' (Natalie). Making the central concept accessible to students helps give them confidence and motivation throughout the unit, because 'students are less likely to give up or feel frustration when reading a text because the ALA approach lays the foundation for concepts presented in the text' (Natalie).

After doing the protocol, teachers are able to quickly get insights into students' understandings of a concept individually and as a class, and can gauge their everyday concepts by reviewing the sentences on the index cards on which students individually, in pairs, and in groups have put their initials. As Ruth describes, this helps to provide a foundation for the unit as a whole. 'This gives me much needed feedback in order to plan and implement my unit.'

While the ALA protocol is used to introduce a unit, aspects of it can and should be used throughout the unit to create opportunities for meaningful, engaging dialogic interaction between students and teachers. For example, there are a number of ways that writing can be used as a regular classroom routine across the curriculum. Instead of a teacher posing a question to the class as whole, and often having the same volunteers respond while the rest of the class sits in varied degrees of disengagement, the teacher can ask every student to write a one- or two-sentence response and then discuss it with a partner. In posing the question on the difference between *knowledge* and *understanding*, the teacher first had students individually write a couple of sentences and then share them with a partner as a foundation for the whole class discussion.

Often students are more effective in explaining a concept to their peers because they may have had similar experiences and are using the same mode of thinking, i.e., thinking in complexes. Having students write and talk regularly engages all of the students and sets the foundation for a more meaningful whole-class discussion. The teacher now has an opportunity to discuss the concept based on the students' responses using their language, but also introducing the academic words and phrases that will help students understand the concept and extend their zones of proximal development. This can help to bring about a shift in a teacher's attitude toward classroom discourse. 'The shift in discourse with students took place when I began to analyze 'incorrect' answers. Instead of moving on when an answer was incorrect, I used this as a learning opportunity and found myself genuinely interested in why the student answered incorrectly. I want to understand where their answer came from; therefore, I would follow their incorrect answer with another question'

(LeAnn). The concept of a shift ran through the reflections of many teachers in the ALA project as they raised questions about themselves as teachers, about their students, about the content, about the mandated curriculum. In describing her transformation in teaching focused on the students and their conceptual understanding rather than just the acquisition of knowledge, Paula captured what many teachers expressed: 'It has been eye-opening and very encouraging to see students use their background knowledge to express themselves and participate in conversations and activities all leading to conceptual understanding.'

7. Conclusion

This chapter has given a brief overview of Vygotsky's work as a whole by focusing on one concept, the ZPD, and through an analysis of it, revealing fundamental concepts in Vygotsky's theoretical framework. It has made the argument that a key aspect of Vygotsky's use of the concept of the ZPD is to analyze the relationship between everyday concepts and academic concepts and, that by analyzing this relationship, one gains an understanding of the transformation of thinking in complexes to thinking in concepts. This transformation is not automatic but is facilitated if teachers understand how the ZPD illuminates the nature of the transformation. With this understanding teachers can plan teaching/learning activities that are appropriate to where students are in their conceptual development. Students and teachers can then use classroom interaction and discourse to expand learning so that students gain conceptual understandings and are able to use these understandings to problem-solve in contexts different from the ones in which the concept was learned. Teachers experience a concomitant sense of efficacy as they see their revised approaches yielding growth in the conceptual understanding of their students.

8. Acknowledgment

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NOTES

1 Vygotsky uses both 'spontaneous' and 'everyday' to describe concepts children acquire at a very early age based on their interactions with the physical and social environment. I use 'everyday' because 'spontaneous' loses the element of social interaction in forming these concepts. The Russian term *nauchnoe ponjatie* has been most widely translated as 'scientific concept' even though it does not clearly describe the concept behind the term. Vygotsky used it to refer to the concepts organized into systems that students encounter in school, so following van der Veer and Valsiner (1994, p. 369) I use 'academic' in this chapter.

2 The Russian word *obuchenie*, which means both teaching and learning, has been translated in English as 'instruction,' but since it does not convey its real meaning and connotes a teacher-dominated approach, I use 'teaching/learning' instead.

3 'English learner' means any student whose native language is other than English.

4 The quotes in this section come from the reflections of teachers who went through the ALA project and used the ALA protocol as a regular feature of their teaching.

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See Chapter 2: The Role of Talk in Group-Based Activity in Language Classrooms.
See Chapter 14: From Inter-Action to Intra-Action: The Internalization of Talk, Gesture, and Concepts in The Second Language Classroom.
See Chapter 16: The Emergence of Sociolinguistic Competence in Second Language Classroom Interaction.
See Chapter 17: Expert-Novice Relationships in Second Language Classroom Interaction.

16 The Emergence of Sociolinguistic Competence in L2 Classroom Interaction

RÉMI A. VAN COMPERNOLLE

1. Introduction

The goal of this chapter is to offer a review of recent research that examines the emergence of second language (L2) sociolinguistic competence in L2 classroom interaction. I will emphasize work carried out in the tradition of Vygotskian cultural–historical psychology, more commonly referred to as sociocultural theory (SCT) in the applied linguistics and L2 literature (Lantolf and Thorne 2006). My review is selective. I have opted to showcase only a limited number of representative exemplar studies in order to allow for greater depth of discussion than would be possible if a comprehensive or bibliographic review were attempted. The reader is encouraged to follow up on the studies included here for further details and additional references.

Three concepts in the title of this chapter warrant some preliminary commentary before continuing. These are 'emergence,' 'sociolinguistic competence,' and 'classroom interaction.' The terms are used in L2 and applied linguistics research with reference to various phenomena. In some cases, differences are only slight nuances, while in others the differences are great. I only want to clarify here how I intend to use the terms as a way of orienting the reader to the direction and scope of the review that follows.

The first concept, emergence, has a long history in the L2 acquisition (SLA) literature to denote the first systematic occurrence of some L2 structure, thus implying that the structure has been acquired by the learner (Pallotti 2007). On a more general level, however, emergence can refer to the process of something coming into being. This may include, of course, control over linguistic forms in spoken or written production but also conscious, or declarative, knowledge. In this chapter, emergence should be understood in this more expanded sense. Thus, what emerges may entail both performance abilities (i.e., linguistic forms) and knowledge of the language and its meaning potential, but also agencies, identities, and so on.

The second concept, sociolinguistic competence, typically refers to a learner's ability to use the L2 in socially appropriate ways. This definition owes to Canale and Swain's (1980)

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now classic extension of Hymes's (1972) concept of communicative competence to the field of L2 teaching and testing (see Celce-Murcia 2007). Research in this area is fragmented, however. Much of the work carried out under the label of sociolinguistic competence is restricted to learners' acquisition of sociostylistic variation from a Labovian variationist linguistics perspective (e.g., Mougeon *et al.* 2010; Regan *et al.* 2009). Though originally included in Canale and Swain's model under sociolinguistic competence, research on terms of address, deixis, speech acts, conversational routines, implicature, and so on is often separated into the domain of L2 (or interlanguage) pragmatics (e.g., Kasper and Rose 2002). More recently, interactional competence research (e.g., Hall, Hellermann and Pekarek Doehler 2011) has expanded our understanding of socially appropriate language use to include not only the competencies underlying appropriate interaction but those competencies that become available in interaction (Young 2011). For the purposes of this chapter, sociolinguistic competence will be used in an inclusive sense to refer to the intersection of linguistic practices and the sociocultural contexts of their use.

The third concept, classroom interaction, deserves some attention as well because what may count as the classroom and as interaction is subject to some variability. (See, for example, Walsh's (2010) editorial in the inaugural issue of the journal *Classroom Discourse*.) A restricted use of the term may refer only to the spoken discourse occurring within a traditional classroom in a school setting. However, in this chapter, I prefer a rather more expanded understanding of classroom interaction, which to be sure includes teachers and students speaking to each other within the traditional classroom setting, but may also incorporate extensions of the classroom through computer-mediated technologies with intra and extra muros participants (e.g., telecollaboration) as well as tutoring sessions and other less traditional informal learning environments. In addition to spoken discourse, nonverbal behaviors (e.g., eye gaze, gestures, body position) are fundamental interactional resources as well. It is also relevant, as we will see later in this chapter, to include learners' interactions with pedagogical artifacts (e.g., materials, tasks), even in the absence of a co-present human interlocutor.

The scope of this chapter, therefore, includes research that examines how L2 sociolinguistic competence comes into being through various forms of classroom interaction from a Vygotskian cultural–historical perspective. The first main section centers around a discussion of the emergence of sociolinguistic competence in classroom interaction from the vantage of mediated action (van Compernolle 2014; van Compernolle and Williams 2012b). This concept derives from Vygotsky's (1978) claim that culturally constructed physical and symbolic artifacts mediate higher forms of psychological functioning. Sociolinguistic phenomena (e.g., variable linguistic forms) mediate social actions, and the choice to deploy one sociolinguistic form over another is in turn mediated by a speaker's knowledge of its meaning potential in a particular context of use. The second main section addresses recent pedagogical research grounded in Vygotskian educational praxis (Davydov 2004; Galperin 1989, 1992) – namely, concept-based instruction (van Compernolle 2012, 2014). The approach focuses on the teaching of sociolinguistic concepts (e.g., self-presentation, social distance) and how such concepts play out in concrete communicative activity (e.g., relevant forms). In concluding, I offer a few final remarks as well as a number of recommendations for future research in this domain.

2. Sociolinguistic Competence as Mediated Action

From the perspective of SCT, L2 sociolinguistic competence is conceived of as mediated action (van Compernolle and Williams 2012b). This implies two things. First, sociolinguistic competence is something a learner does, an action, rather than a static property of the learner.

To be sure, this view does not deny the existence of individual knowledge; it only resituates sociolinguistic competence into the domain of communicative activity – what one does with one's knowledge in specific contexts. Second, cultural tools mediate sociolinguistic competence. Cultural tools include the variable sociolinguistic (or pragmalinguistic) forms available in the language as well as schematizing frameworks (e.g., concepts, routines) for assigning meaning and significance to sociolinguistic practices in context (van Compernolle 2014). Another consideration is that other people in the learner's environment mediate the development of L2 sociolinguistic competence. In other words, learners receive support from others (e.g., teachers, more competent peers) in acting on their sociolinguistic knowledge as well as in further developing their knowledge of variable forms and the schematizing frameworks for meaning making. In what follows, I present the principal findings of two studies that exemplify the mediated action perspective in a classroom context.

2.1 Exemplar study 1: Belz and Kinginger (2002)

Belz and Kinginger (2002) investigated the development of L2 French and German address form use (i.e., *tu/vous* in French, *du/Sie* in German, or T/V) in telecollaborative language learning, specifically the development of the use of the *tu/du* of solidarity among (near) peers. US university-level learners of French and German were paired with learners of English in France and Germany and interacted online via email and synchronous text-based chat as part of their normal coursework. In an effort to particularize the experiences of individual learner developmental trajectories, Belz and Kinginger selected two case studies for microgenetic analysis (one learner of French, and one learner of German). Following Wertsch (1985), Belz and Kinginger characterize their microgenetic analysis as 'trac[ing] the history of development during specific learning events' (2002, p. 195) – in other words, the development of *tu/du* use over the course of the telecollaboration collaborative exchanges.

The first case study presented by Belz and Kinginger (2002) focused on a learner of French, Jennifer, who exchanged 10 emails with her French partner, Victor, over a 60-day period. During the early part of the telecollaborative partnership, Jennifer addressed Victor with *vous* 12 times in variation with *tu*. Specifically, she used *tu* as a subject pronoun but switched to the *vous* form for object, possessive, and disjunctive pronouns within the same email. In his response to Jennifer's first message, Victor provided the following comment:

> PS: take care, if you use 'tu' in your mail, use 'ta' or 'ton' or 'tes' instead of 'votre' or 'vos' . . . It's not a big mistake, but any French person may see it.
>
> (Belz and Kinginger 2002, p. 198)

Although Jennifer's use of *tu* and *vous* remained variable in her second email to Victor, she eventually began to be more systematic, not only using *tu* as a subject pronoun but 'to extend this use through the entire pronominal paradigm' (Belz and Kinginger 2002, p. 201). Accordingly, Jennifer began to act in a more sociolinguistically appropriate way in her email exchanges with Victor. This suggests that Jennifer's participation in the telecollaborative partnership mediated, at least to some degree, her sociolinguistic competence with regard to address term use.

Belz and Kinginger's (2002) second case study featured a learner of German, Joe, who exchanged 14 emails and participated in four synchronous chat interactions with two young German women, Gabi and Suzanne. Like Jennifer, Joe happened to use the inappropriate *Sie* address form at the beginning of the partnership, but eventually began to use the more appropriate *du* (and related forms) as the semester progressed. Belz and Kinginger's

microgenetic analysis traced Joe's development to one synchronous chat exchange in particular, where Gabi explicitly requested that Joe call her *du*. The exchange is partially excerpted here.

1. **Gabi:** Did you get my e-mail that I've sent you in our partner folders?
2. **Joe:** Iher Idee ueber 'First Love and how it affect prejudice.'… '*Your [V] idea about …*'
3. **Gabi:** Joe BITTE nenne mich DU '*Joe PLEASE call me DU.*'

(Belz and Kinginger 2002, p. 205)

Following Gabi's comments, Joe apologized for using *Sie*, commenting that he had had a 'mental lapse.' He then wrote 'DEINE Idee ueber 'First Love and how it affects prejudice…' hat mir gefallen.' ('I liked YOUR [T] idea about…') (p. 205) in a subsequent turn, where he used the more appropriate *du* form *deine* 'your', emphasizing it with all capital letters. Belz and Kinginger argue that 'Joe experiences first-hand the social consequences of inappropriate V use in a way that is highly meaningful to him. . . and may come to realize that inappropriate V use can present a threat to his positive face' (pp. 205–206). In other words, this exchange mediated Joe's performance abilities and potentially his understanding of at least one of the social consequences that the choice of an inappropriate address term entails.

Belz and Kinginger's (2002) study exemplifies the concept of sociolinguistic competence as mediated action in two ways. First, Jennifer's and Joe's control over the address terms of solidarity, *tu* (French) and *du* (German), emerged in their interactions with their telecollaborative partners: their competencies were situated in the act of communication. Second, the emergence of their sociolinguistic competence was mediated by their telecollaborative partners in the very *inter*-actions they were participating in. That is, Jennifer and Joe both received explicit support with regard to appropriate address term use, after which their performance progressively aligned with the expectations of their interlocutors.

2.2 Exemplar study 2: van Compernolle and Williams (2012b)

Building on a series of studies investigating the explicit teaching and learning of sociolinguistic and pragmatic variation in the language classroom (see van Compernolle and Williams 2011, 2012a), van Compernolle and Williams (2012b) focused on the concept of sociolinguistic agency.

> Sociolinguistic agency can . . . be defined as the socioculturally mediated act of recognizing, interpreting, and using the social and symbolic meaning-making possibilities of language. It consists of an understanding of how the use of one linguistic variant or another simultaneously reflects and creates the context in which it is used, is a performance of one's social identity at the time of utterance, and affects one's environment and interlocutor(s). Sociolinguistic agency is neither a trait characteristic nor a property of an individual; instead, it is enacted from moment to moment, from utterance to utterance, between people at the local, contextualized level. (pp. 237–238)

The crux of their argument is that explicit metasociolinguistic knowledge affords learners the ability to use variable L2 forms to create the meanings they want to create, including the various identities, or subject positions, and social relationship qualities indexed by sociolinguistic features of discourse.

The study centered on two case studies of intermediate-level US university learners of French, Casey and Melanie, who were enrolled in a course in which the explicit teaching of

sociolinguistic variation had been integrated into the curriculum, with specific focus on three well known and salient sociolinguistic features: the second-person pronouns *tu* and *vous*, the first-person plural pronouns *on* and *nous*, and the variable presence versus absence of the preverbal negative particle *ne* in negation. The course included explicit teaching of variation, analysis of naturalistic French discourse in a variety of sociocultural contexts (e.g., informal conversation, standard writing), instructional conversations focused on variational practices (van Compernolle and Williams 2012a), and dyadic/small-group communicative tasks (e.g., role play scenarios). The researchers also included field notes from classroom observation and interviews with learners. Casey and Melanie were selected for case studies because, while both young women demonstrated a good understanding of the meaning potential of variation and ability to use variable L2 features by the end, they also had very different orientations to sociolinguistic practices, which resulted in different developmental trajectories for the two learners.

Casey was a relatively conservative student who, for a number of reasons, oriented to the learning of French as an individual academic pursuit. She was principally interested in reading French literature, and her reported use of French with other people was typically in contexts where she focused on opportunities to learn new vocabulary and grammatical structures. Van Compernolle and Williams (2012b) report that Casey achieved a rather deep understanding of variation as it was presented in her class, but she demonstrated a preference for maintaining a rather formal stance by using more formal, 'standard' sociolinguistic forms (especially first-person plural *nous* and *ne*-present negation), even in presumably informal contexts such as small-group online chat tasks with peers where such forms would often be considered inappropriate (i.e., too formal).

Melanie, however, was much more interested in learning French as a means of affording herself access to new French-language-mediated social relationships. As a Spanish-English bilingual, and as the daughter of a US Army officer, she had already had many experiences in multilingual environments, and oriented to language learning as a social pursuit. During the course, she embraced the 'new' more informal or everyday French sociolinguistic forms that were integrated into the curriculum alongside the more traditional standard variety of French presented in the textbook because for her, learning to communicate in a 'more informal, relaxed style will grant her greater access to the communities she wishes to engage with in the future' (van Compernolle and Williams 2012b, p. 246). According to the authors, Melanie was so intent on automatizing the more informal style that she even used it when speaking with her teacher, a context in which a more formal or standard level of discourse is often expected: in an end-of-semester oral interview with her teacher, she used the informal first-person plural pronoun *on* 'we' in 41.7% of variable contexts (i.e., where the more formal *nous* could have been used), and she omitted *ne* from negation 72.7% of the time (p. 245).

On the basis of the two case studies, van Compernolle and Williams (2012b) conclude that:

> the ability to use social and stylistic variation, and to assign meaning and relevance to it, is as much about learning formal aspects of language (e.g., which features of discourse can vary and what such variation means) as it is about learners' (re)negotiating and performing their identities in relation to the place of the L2 in their lives, past, present, and future. (p. 246)

In other words, sociolinguistic competence is mediated by both knowledge of language and the meaning potentials of variable L2 forms in concrete communicative activity, while at the same time a learner's disposition to the possibilities for meaning-making is mediated by his or her history as a language learner, as a language user, and as an historically situated, yet

future-oriented, person. Sociolinguistic competence emerges when L2 learners are given access to appropriate metasociolinguistic information (e.g., variable forms and meaning potentials) as well as opportunities to engage in communicative action wherein their emerging knowledge can be put to use to create the meanings they want to create. Importantly, sociolinguistic competence in this sense does not co-equate to approximating idealized native speaker conventions. Instead, as with other domains of L2 development, it entails 'gaining the freedom to create' (Dunn and Lantolf 1998, p. 427).

2.3 Interim discussion

The exemplar studies presented above have provided an introductory account of the concept of sociolinguistic competence as mediated action. Sociolinguistic competence is mediated by a constellation of factors, including language learners' histories, their knowledge of variable L2 forms and their meaning potential, and the forms of support made available to them in interaction. Sociolinguistic competence is action in the sense that it emerges in concrete communicative activity—it is something learners *do* rather than a property of an individual learner. In the section that follows, these ideas will be further explored within the context of concept-based instruction.

3. The Emergence of Sociolinguistic Competence Through Concept-based Instruction

Concept-based instruction derives from Vygotsky's (1986) analysis of concept formation in everyday and schooled contexts. In the everyday world, people build up rich empirical experience to form everyday concepts. Understanding that flowers bloom when they get enough water and sunlight is a simple example. By contrast, scientific concepts emerge through formal education. In school, students learn about photosynthesis and respiration, which explains plants' ability to generate energy from ultraviolet rays and so on. This concept requires no experience with flowers to understand, and it is abstract and generalizable to all plants (e.g., it explains how plants can grow in the absence of sunlight if there is another source of ultraviolet light, such as a UV lamp).

A full treatment of everyday and scientific concepts is beyond the scope of this chapter (but see e.g., Karpov 2003; Kozulin 1995; Stetsenko and Arievitch 2010); it suffices to say that scientific thinking provides students with a systematic way of thinking about an object of study, which has important educational implications. Following Vygotsky, Galperin (1989, 1992) posited that all mental functions are comprised of three processes: orientation, execution, and control. The orientation is particularly important because it is the process involved in planning one's actions (execution) in light of present circumstances, and it is also involved in the evaluation and modification of one's actions (control). In a number of studies, Galperin demonstrated that the qualities of what he called the *orienting basis for action*, which serves an orienting or planning function, determined the qualities of one's actions: the more systematic the orientation, the more control one has over one's actions (see Stetsenko and Arievitch 2010). Galperin argued that because scientific concepts were abstract and systematic, they could afford learners the greatest control over the executive process without having to rely necessarily on everyday empirical experience. Accordingly, Galperin developed a model of systemic-theoretical instruction in which scientific concepts formed the minimal unit of pedagogy. The basic idea is to promote the internalization of holistic, systematic conceptualizations of the object of study in order to provide learners with a complete orienting basis for action.

Several recent studies have explored L2 concept-based instruction (e.g., Ferreira 2005; Negueruela 2003; Swain *et al*. 2009; Yáñez-Prieto 2008), including one focused on sociolinguistic and pragmatic features of discourse (van Compernolle 2012, 2014). These studies have demonstrated that the internalization of scientific concepts relevant to L2 use can mediate learners' communicative development, conceived of as the ability to put categories of meaning into action (i.e., during L2 use). With regard to sociolinguistic competence, this entails internalizing concepts (categories of meaning) such as self-presentation, social distance, and power as they relate to sociolinguistic practices. The following review focuses on the research program outlined in van Compernolle (2012, 2014) as well as related publications generated from the project. Data are presented to show the emergence of sociolinguistic competence in pedagogical interaction (one-on-one tutoring sessions), including concept development and performance abilities.

3.1 Research design

The study reported in van Compernolle (2012) centered on the teaching of sociolinguistic concepts, or categories of meaning, in relation to several variable L2 French forms (for an expanded book-length account, see van Compernolle 2014). The central focus of the pedagogical program was on promoting the internalization of the concepts of self-presentation, social distance, and power.

Following Galperin's (1989, 1992) model of systemic-theoretical instruction, the concepts were explained verbally (through a short pedagogical text) and materialized in the form of pedagogical diagrams. The idea was to provide learners with detailed, analytic concept explanations (including new metalanguage for talking about variable L2 forms) as well as holistic, synthetic depictions of the essence of the concept in imagistic form at the same time. The concepts were linked to three well known and salient variable features of French: the address pronouns *tu* and *vous* 'you'; the first-person plural pronouns *on* and *nous* 'we'; and the presence versus absence of the proclitic negative particle *ne* in verbal negation. Thus, while the concepts were the central focus of instruction, the selected forms helped to illustrate how the categories of meaning play out in concrete communicative activity. Table 16.1 provides brief descriptions of the concepts, and the pedagogical diagrams are given in Figures 16.1–16.3.

Eight intermediate-level US university learners of French participated in the study. Over a period of six weeks, the learners met with a tutor for one-on-one concept-based enrichment sessions (each session lasted from about 30 minutes to 1 hour). Pedagogical tasks included *verbalized reflections* (i.e., explaining the concepts privately to oneself and then in collaboration with the tutor), *appropriateness judgment tasks* (i.e., using the concepts to select appropriate forms for different situations in collaboration with the tutor), and *strategic interaction scenarios* (i.e., planning, performing, and evaluating scenarios with the tutor in order to put L2 knowledge to use). Below, I present sample data to illustrate the emergence of different aspects of sociolinguistic competence within this approach to pedagogy.

3.2 Verbalized reflections

The study employed two forms of verbalized reflection tasks. Monologic verbalized reflections were used to prompt learners to engage with the concept-based materials privately in order to push them to get in touch with what they knew, did not know, and/or could or could not figure out independently. Dialogic verbalized reflections were designed to provide support to the learners: the learners explained to the tutor their understandings of the concepts and diagrams, and the tutor in turn provided support in further pushing their understandings and/or in correcting misinterpretations of the concepts. Verbalization

Table 16.1. Description of concepts and pedagogical diagrams (van Compernolle 2014)

Concept	*Explanation*	*Diagram description*
Self-presentation	Language choices index aspects of a speaker's social identity at the time of utterance.	Self-presentation depicted as the choice between being more 'tee-shirt-and-jeans' or more 'suit-and-tie' at the time of utterance. (Figure 16.1)
Social distance	Language choices index the degree to which a relationship is, can be, or is desired to be close/ intimate or distant.	Social distance depicted as two people standing close together versus two people standing far apart. (Figure 16.2)
Power	Language choices index the status of speakers relative to one another. Relationships can have no status difference (equality), downplayed status differences (+ power, – saliency), or salient status differences.	Power depicted as two people standing at an equal level versus two people standing at different levels (i.e., one higher than the other). (Figure 16.3)

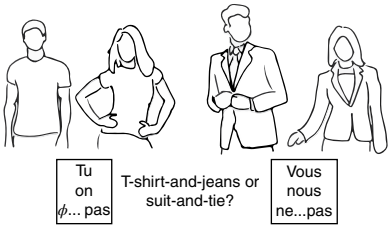


Figure 16.1. Diagram for self-presentation (van Compernolle 2014)

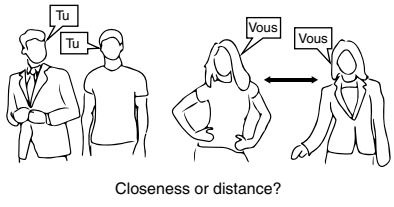


Figure 16.2. Diagram for social distance (van Compernolle 2014)

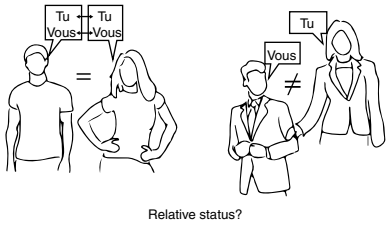


Figure 16.3. Diagram for power (van Compernolle 2014)

(Negueruela 2003), or languaging (Swain *et al.* 2009), is a key learning activity for the internalization process because it renders learners' internal mental activity visible and open to consciousness and possible modification.

The excerpt below is taken from one learner, Susan's, first monologic verbalized reflection about the concept of social distance (conventions are provided as an appendix). Susan was prompted by the materials (i.e., think aloud questions) to reflect on the ways the pronouns *tu* and *vous* relate to close and distant relationships.

1. so using *tu* would be for a close relationship, and *vous* for a uh distant
2. relationship. ++ so *tu* you would use with your family and friends, +
3. and *vous* would be + (with) a professor. or, + an employer, (7.0) um
4. I would say it might be + difficult ++ if the person is + close to your age,
5. but you know that you + that they have authority over you? so it might
6. be uh tricky. to determine. *tu* or *vous*. like with + an RA ((‘resident
7. assistant’ in the dormitories)) I don't know what I would use. probably
8. *vous*. +++ um, +++ or like. + I guess if you have a maid or something?
9. like they're obviously- like you have authority over them, + but to show
10. respect, I would still use *vous*.

(van Compernolle 2012, p. 152)

The analysis presented in van Compernolle (2012) centered on the way that Susan's functional knowledge of 'rules of thumb' (e.g., use *tu* with friends) was being remediated by the concept of social distance. In other words, the category 'friend' became a prototypical example of closeness while the categories 'professor' and 'employer' became examples of distant relationships (lines 1–3). It is also clear that Susan demonstrated some difficulty talking herself through more ambiguous contexts, such as a peer or near peer who is in a position of power (lines 4–5). Nonetheless, Susan's sociolinguistic competence was being talked into being here as she reorganized her knowledge of the 'rules' within the more systematic concepts: 'the concept of social distance provides Susan with an overarching meaning potential through which she is able to explain and understand the probabilistic conventions she earlier depicted as rules' (van Compernolle 2012, p. 152).

A segment of a dialogic verbalized reflection between Mary and the tutor is provided below. Here, Mary was having difficulty understanding that language choices can have different interpretations, depending on the context and one's interlocutor. In other words, while a speaker's intention is important, so too is the interlocutor's interpretation, which may or may not always align.

78. Tutor: so think about this. you can have one your intention.
79. right,
80. Mary: mhm.
81. Tutor: but what else do you have to consider. (2.5)
82. ((Mary makes 'I don't follow' face)) if you haven't-
83. you might intend + to do. one thing or another. right,
84. Mary: mhm
85. Tutor: but what's the other thing that you have to consider.
86. Mary: oh how the other person is gonna +++ interpret that.

(van Compernolle 2012, p. 163)

After a lengthy discussion about one of Mary's former professors who, according to Mary, always spoke in a very formal register, the tutor prompted Mary to consider not only the

speaker's intention (Mary had thought that the professor wanted to sound 'snobby') but also an interlocutor's interpretation of the speech style. The tutor's leading prompt (lines 83, 85) was effective in bringing this to Mary's attention, as evidenced by her response in line 86. Importantly, her response was prefaced by the change of state particle *oh*, which suggests that she had just realized this piece of the concept. In other words, it is evidence of the emergence of a new piece of sociolinguistic knowledge. In a subsequent part of the dialogic verbalized reflection (reported in van Compernolle 2012, pp. 164–165), Mary and the tutor worked together to promote the further growth of her conceptual knowledge – namely, that there may be multiple interpretations of any use of language.

Verbalized reflection tasks are important contexts for the emergence of sociolinguistic competence within a concept-based approach to instruction. Monologic verbalized reflections push learners to get in touch with what they do and do not know by externalizing their inner knowing for themselves, while dialogic verbalized reflections create the conditions for further growth through expert mediation in interaction. Accordingly, 'learners may benefit, first, from independent verbalizations as a means of trying to confront and resolve L2 conceptual problems, but . . . subsequent cooperative tasks with an expert may be necessary to expedite the process of the formation of mature concepts' (van Compernolle 2012, p. 166).

3.3 Appropriateness judgment tasks

A second component of the concept-based approach to developing sociolinguistic competence involved cooperative appropriateness judgment tasks in which learners used the concepts to choose appropriate sociolinguistic forms in a variety of social-interactive situations. Learners were prompted to verbalize their response processes for the tutor, who in turn intervened to support them in using the concepts appropriately following dynamic assessment principles (Poehner 2008; see also Antón, this volume). The point was to create a zone of proximal development (ZPD) in which learners' emerging concept-based sociolinguistic competence could be fostered. The approach aligns in part with research into the assessment of L2 pragmatic competence utilizing verbal protocols (Woodfield 2010). It differs, however, in that the tutor's role was not simply observational but cooperative (van Compernolle 2013c).

The following excerpt is taken from a study by van Compernolle and Kinginger (2013) that drew from the larger project reported in van Compernolle (2012). The learner, Nikki, was attempting to decide whether to use *tu* or *vous* with a near-peer grocery store clerk. She had initially selected *tu* because the store clerk was about the same age. However, the tutor pushed Nikki to consider the concepts of social distance and power, namely that *tu* might be interpreted as either an inappropriate degree of closeness or an extension of power, since the clerk would most likely call Nikki *vous* in return, thereby creating a non-reciprocal *tu/vous* relationship.

50. Nikki: yeah. so I would use + *tu*?
51. Tutor: you would use *tu*? ++ to show, (2.0)
52. Nikki: uhh, ((laughs)) (4.0) uh
53. Tutor: think about this specifically. ((pointing to power diagram))
54. (2.0) the pow<u>er</u> thing.
55. (3.5)
56. Nikki: I would use ++ wait. + ugh. + like I <u>don</u>'t necessarily
57. want to show that I have <u>pow</u>er over her. but like +++
58. I w- + I'd use *<u>vous</u>*.
59. Tutor: okay

60. Nikki: cuz +++ I don't ++ want to +++ cuz
61. Tutor: mhm
62. Nikki: cuz I don't want a close relationship with this person.
63. so I'm like distancing myself from her.
64. Tutor: okay
65. Nikki: but + and I don't want to show that I have power
66. over the person, but ++ so I wanna (3.5) use ++
67. I think we should use vous with each other. + like
68. to show that like ++ it's an equal relationship. but
69. distance equal? distant equal.=
70. Tutor: =ah.

(van Compernolle and Kinginger 2013, p. 297)

After the tutor's prompt to consider the power diagram (lines 53–54), Nikki changed her mind, opting to use *vous* to avoid showing power over the store clerk (lines 56–58). Importantly, the tutor did not simply accept Nikki's response as appropriate, but instead pushed her to continue verbalizing her rationale for the switch. Starting at line 62, Nikki began to have a breakthrough. She noted that she wanted to distance herself from the store clerk (lines 62–63), but in order to avoid an imbalance in power she preferred a reciprocal *vous* relationship (line 67). This led to the emergence of a new, synthetic concept: a 'distant equal' relationship (line 69). That is, the synthesis of the concept of social distance and the concept of power.

The cooperative dialogue around appropriateness judgment tasks supports the emergence of new forms of sociolinguistic knowledge. It is essentially about mediating a learner's ability to apply the concepts he/she is appropriating as psychological tools. Appropriateness judgment tasks also represent a way stage between concept development as such and ability for use, because the concepts are used to solve communicative problems without the demands of online language production. The following section delves into L2 production, and the emergence of sociolinguistic competence in performances of interactive scenarios.

3.4 Strategic interaction scenarios

Strategic interaction scenarios are 'a strategic interplay of roles functioning to fulfill personal agendas within a shared context' (Di Pietro 1982, p. 41). In the context of concept-based pedagogy, scenarios align with Galperin's (1989, 1992) three-stage formation of mental actions (i.e., orientation, execution, control) because they involve a rehearsal, or planning, stage, a performance, and a debriefing, or evaluation, stage (Di Pietro 1987).

In the van Compernolle (2012) study, scenarios began with a collaborative discussion of appropriate language forms to use in relation to the concepts (orientation). Then, during the performance (execution), the tutor had the dual roles of performing his scenario-defined role as well as intervening to mediate the learner's performance if his/her language use began to falter. In this way, the control function was distributed between the learner and the tutor. At the completion of the performance, the tutor and the learner then discussed the scenarios and practiced any language forms that the learner had encountered difficulty with. Here, I will focus only on the distribution of the control function in performance.

The interaction below, taken from van Compernolle (2013a), illustrates the emergence of control over sociolinguistic performance that aligns with the learner's, Mary, orientation. The tutor and Mary were performing a scenario in which two roommates were discussing apartments to rent. Mary had planned to use more informal language, including verbal negation without the proclitic negative particle *ne*. However, in the first instance of negation,

her performance faltered (line 2). (Instances of verbal negation in Mary's performance are set in bold.)

01	Tutor:	donc euh + on peut pas marcher?
		so uh we can't walk
02	Mary:	um ah non. **on ne peut pas** marcher.
		um ah no we cannot walk
03	Tutor:	wait- do you want to say on ne peut pas,
		we cannot
04		+ what do you want to say.
05	Mary:	oh. + um
06		(5.5)
07		I guess I wan-
08		just I'm saying like we can't walk.=
09	Tutor:	=okay,=
10	Mary:	=there?
11	Tutor:	so what d- so think about that, + a little bit,
12		+ what did you just say,
13	Mary:	OH. **on ne pouvons pas**.
		oh we cannot
14	Tutor:	mmm,
15	Mary:	+++ oh. + **ON** + **peut pas**.=
		oh we can't
16	Tutor:	=ah. there you go. + right, + **on peut pas**
		we can't.

(van Compernolle 2013a, pp. 355–356)

At line 3, the tutor intervened to support Mary's performance. As the data show, Mary first oriented to the content of her response (lines 5–10), and then to verbal morphology (line 13), where she produced an ungrammatical form, *on ne *pouvons pas* (i.e., conjugating the verb *pouvoir* 'to be able to' as it would be with the pronoun *nous* 'we'). The tutor's *mmm,* prompt was then successful in drawing Mary's attention to *ne*. This is evidenced by her self-correction at line 15, where she produced the contextually appropriate form *on peut pas*, which aligned with her stated plan for the scenario.

This example is important for understanding the emergence of Mary's sociolinguistic competence. Although she knew that *ne* could be omitted as an index of informality (cf. the concept of self-presentation, or 't-shirt-and-jeans', presented above), she was not independently capable of putting this knowledge to use in performance. By distributing the control function between the Mary and the tutor, however, Mary was eventually able to bridge the gap between her conscious knowledge and performance abilities. In fact, the next time she produced a negation, her performance faltered, but she was able to self-correct when the tutor simply raised his eyebrow. She then produced another seven *ne*-absent negations in the remainder of the scenario.

As reported in van Compernolle (2014), all of the learners developed the ability to control their sociolinguistic performances in line with their orientations to scenarios over the course of the enrichment program. It is important to note that emergence of this ability was not the result of sufficient input or nonconscious acquisition, but rather the mediated ability to consciously control the use of sociolinguistic features of discourse as an index of the categories of meanings (concepts) the learners were internalizing. In other words, the emergence of sociolinguistic competence from the perspective of SCT entails both the development of

conceptual knowledge and the ability to put that knowledge to use in concrete communicative activity. Interaction with the tutor, where support was provided in controlling performance, was a crucial, if not determining, factor in the learners' development.

3.5 *Interim discussion*

The overview of the concept-based approach to developing L2 sociolinguistic competence has focused on the emergence of conceptual knowledge of sociolinguistic categories of meaning (i.e., self-presentation, social distance, power) and of the ability to consciously control language use to index such categories of meaning. Sociolinguistic competence emerges in interaction where knowledge and performance abilities are put to use. It is in this sense that the concept of mediated action (van Compernolle and Williams 2012b) is relevant. Conceptual knowledge mediates variable L2 form choice, and the use of variable L2 forms mediates social actions (e.g., creating of meaning). In addition, the development of L2 sociolinguistic competence is mediated as learners interact with concept-based materials and with the tutor, who supports their emerging conceptual knowledge and performance abilities.

4. Discussion and Conclusion

The selective review presented above has focused on the emergence of L2 sociolinguistic competence in classroom interaction from the perspective of Vygotskian SCT. The studies included in the review were relevant to the concept of mediated action.

Belz and Kinginger's (2002) two case studies exemplified the way in which L2 sociolinguistic competence is mediated as learners participate in authentic communicative exchanges (i.e., telecollaboration) with expert language users. Jennifer's and Joe's sociolinguistic competencies emerged (i.e., were made visible) in their telecollaborative interactions, and their competencies further developed with the explicit assistance from their telecollaborative partners. Although it was not clear what Jennifer and Joe actually understood about address term use and its meaning, Belz and Kinginger did demonstrate that the learners began to align their pronoun use with that of their telecollaborative partners over time.

In van Compernolle and Williams' (2012b) study, Casey and Melanie developed their sociolinguistic competencies under explicit pedagogical conditions. Various consciousness-raising tasks and communicative tasks helped the learners to understand the choices available to them (i.e., variable L2 forms) and some of the meaning potential of variation. The emergence of Casey's and Melanie's sociolinguistic competencies – that is, how they appropriated sociolinguistic variation for their own purposes – was mediated by their histories as language learners, their present circumstances, and their desired futures. The young women demonstrated very different orientations to the sociolinguistic practices they were learning, which resulted in very different developmental trajectories: Casey's academic orientation to French led her to prefer a more formal stance, while Melanie appropriated the more informal level of discourse because it aligned with her desire to construct and maintain close personal social relationships.

Concept-based instruction (van Compernolle 2012, 2014) represented a more systematic way of fostering the growth of sociolinguistic competencies within a pedagogical setting. Verbalized reflections pushed learners to interact with concept explanations and pedagogical diagrams (monologic reflections) and to explain their emerging conceptual knowledge to a tutor who supported their further growth (dialogic reflections). Learners' conceptual knowledge was further developed through cooperative appropriateness judgment questionnaires where the tutor assisted them in using the concepts to solve communicative problems

(i.e., choice of forms to reflect desired identities and social relationships). Assistance provided during strategic interaction scenarios then helped learners to bridge the gap between their conscious knowledge of language (concept formation) and performance abilities by distributing the control function of L2 use between the tutor and learner. This led to the emergence of controlled sociolinguistic performances that aligned with learners' orientations to scenarios.

Genetic analysis – that is, tracing the emergence of a particular competency – is a central theme running throughout the work summarized above. Belz and Kinginger's (2002) study is an example of *micro*genetic work, wherein the object is to identify and explicate how a particular competency emerges within a given learning event. The study by van Compernolle and Williams (2012b) is more *onto*genetic in nature: they were concerned with tracing development over a longer timeframe (i.e., a 15-week academic term). Accordingly, they did not look at how sociolinguistic competence emerged in particular interactions, but rather reconstructed the learners' development in relation to their histories, present circumstances, and futures. The study reported in van Compernolle (2012, 2014) included a mix of microgenetic and ontogenetic analyses. For instance, microgenetic analysis was employed to trace the formation of concepts in verbalized reflection tasks, the emergence of new knowledge as concepts were used in problem-solving tasks (van Compernolle and Kinginger 2013), and the emergence of controlled performance abilities in strategic interaction scenarios (van Compernolle 2013a). Ontogenetic analysis was then used to track changes in sociolinguistic competencies across tasks and over time, which included both qualitative and quantitative data analytic methods.

A fruitful area for future SCT research on the emergence of sociolinguistic competence in L2 classroom interaction entails the extension of discourse analysis methods for the purpose of conducting microgenetic and ontogenetic analysis. Strong sociointeractionist approaches to L2 learning drawing on SCT (e.g., Mondada and Pekarek Doehler 2004; van Compernolle 2010) have advocated conversation analytic methods for tracing microgenetic development (see also papers in Hall *et al.* 2011). This line of thinking has also been extended to assessing sociolinguistic competencies, with particular focus on the notion of 'mediation sequences' and how interactional competencies are both the source and driver of further sociolinguistic development (van Compernolle, 2013b). To be sure, this is not to suggest that conversation analytic methods are the only approach to better understanding the emergence of sociolinguistic competence in classroom interaction. Work informed by other theories of language and discourse (e.g., systemic functional linguistics (Halliday and Hasan 1985), relevance theory (Sperber and Wilson 1995)) may also prove insightful.

Another area for future work is the extension of concept-based instruction focused on sociolinguistic development in regular classrooms. Some work has been initiated in this respect (van Compernolle and Henery 2014). An interesting issue to address is how sociolinguistic competencies emerge in whole-classroom talk-in-interaction as compared to one-on-one tutoring sessions. Focus on how students' conceptual development is mediated by a teacher in multiparty interactions should provide interesting insights into the emergence of L2 sociolinguistic competence in the language classroom.

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See Chapter 5: Shifting Trends in The Assessment of Classroom Interaction.
See Chapter 14: From Inter-Action to Intra-Action: The Internalization of Talk, Gesture, and Concepts in the Second Language Classroom.
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17 Sociocultural Approaches to Expert–novice Relationships in Second Language Interaction

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1. Introduction

This chapter examines 'expert–novice' relationships in second language (L2) learning contexts. This topic includes a multidimensional set of phenomena that has been addressed from numerous theoretical and methodological vantage points. In what follows, we specifically focus on research inspired by, and in some cases research that is broadly congruent with, the Vygotskian sociocultural approach to human development. In particular, we focus on Vygotskian pedagogical interventions and research that address interactional dynamics between teachers and tutors ('experts') and students/learners ('novices'). Additionally, we include a small number of studies that examine language learning-related episodes occurring outside of classroom contexts.

We begin this chapter by describing the ways in which we operationalize, and in some ways contest, the theme of 'expert–novice relationships' in L2 classroom learning interaction. It would seem a truism that paired and multi-party interactions involve engagements that show differing levels of ability and knowledge among participants. Indeed, all relationships, within and outside of instructional L2 settings, involve interaction among participants who manifest diverse, and sometimes shifting, abilities and limitations.

A first observation is that expert–novice relationships obtain as a function of many factors, such as differing institutional roles (e.g. teachers and students, involving hierarchical and institutionally structured subject positions), differing abilities among students, the language background of the participants (e.g., native versus non-native speakers; 'true' foreign language learners versus heritage learners of the language of study), contextually structured positions of expert–novice in classroom activities (e.g., uneven prior experience with formal education and/or literacy, uneven topical expertise and/or preparation for specific tasks), age differences among participants (e.g., adults in interaction with children and adolescents), and potentially relevant sociological categories such as gender, ethnicity, level of preparation for and socialization into academic cultures, and social class background, among others. A single review article cannot fully address each of these areas; the point is to underscore that 'expert–novice' relationships do not rest upon linguistic competence (or any other single

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factor) alone, but rather manifest in actual interaction in complex and multidimensional ways. Thus, whether inside the physical space of a classroom or in spaces outside of classrooms, expert–novice relationships arise and shift for myriad reasons. As the next sections explain, given the fluid nature of language, social interaction, and cognition, heterogeneity of expertise is a commonplace dimension of the human experience.

2. Theory, Constructs and Pedagogical Approaches

As a preface to a critically framed review and exegesis of various socioculturally informed research literatures related to expert–novice classroom interaction, we begin with a description of theoretical foundations. The intellectual roots of sociocultural theories of human development extend back to the sociological and economic writings of Marx and Engels (specifically *Theses on Feuerbach* and *The German Ideology*) and most directly to the research of L. S. Vygotsky and his colleagues, Luria and Leont'ev (Valsiner and van der Veer 2000). The use of the plural in the term sociocultural 'theories' has to do with the different labels applied to developmental research directly associated with, or significantly influenced by, differing camps within the Vygotskian tradition (e.g., sociocultural theory (SCT) and cultural–historical activity theory (CHAT)). In practice, the terms SCT and CHAT have been used interchangeably and even in collocated form ('sociocultural/cultural historical'), since they refer to a common intellectual tradition and core set of principles (Thorne 2005).

In part as a function of his historical context, Vygotsky sought to formulate 'a psychology grounded in Marxism' (Wertsch 1995, p. 7), which emphasized locating individual development within material, social, and historical conditions. Wertsch (1985, p. 199) has suggested that Vygotsky's developmental approach was inspired by three principles of Marxist theory: 1) the notion that human consciousness is fundamentally social in origin; 2) that human activity is mediated by material artifacts (e.g., computers, physical tools) and psychological and symbolic signs (e.g., language, literacy, numeracy, concepts); and 3) that units of analysis for understanding human activity and development should be situated and holistic in nature. These influences, coupled with Vygotsky's prodigious contributions to method and theory, created a new ontology of human development, one that contests dualisms of individual–social and biology–culture and alternatively proposes a dialectical understanding of biology and culture as mutually influencing processes that together form the conditions of ontogenetic (individual) and societal development.

In relation to psychological theory in the early 20th century, Vygotsky (1981, p. 165) stated that the challenge to psychology was to 'show how the individual response emerges from the forms of collective life [and] in contrast to Piaget, we hypothesize that development does not proceed toward socialization, but toward the conversion of social relations into mental functions.' In essence, Vygotsky described development as a process of internalization that was fundamentally mediated by social interaction:

> Any function in the child's cultural development appears twice, or on two planes. First it appears on the social plane, and then on the psychological plane. First it appears between people as an interpsychological category, and then within the child as an intrapsychological category. (Vygotsky 1981, p. 163)

As Nardi has succinctly argued, 'you are what you do' and 'what you do is firmly and inextricably embedded in the social matrix of which every person is an organic part' (Nardi 1996, p. 7). This process of individual development occurs via participation in social interaction and more generally through mediation by semiotic systems such as languages, textual

(and now digital) literacies, numeracy and mathematics, among others, which together, constitute 'culture.' As a point of clarification, the term culture in the sense intended by sociocultural theorists includes, but extends far beyond, 'high culture' phenomena such as literature, architecture, works of art, and culinary traditions. In a more significant way, culture refers to the historical accretion of all facets of human life (Tomasello 2003), including objective social-material practices such as the everyday dynamics and rituals of interpersonal communication, kinship and family structures, institutional and group identities and affiliations, the use and creation of material artifacts and technologies (Thorne 2003), forms of logic and rationality, and most fundamentally, to the lexicalization and grammaticalization patterns and practices specific to the language (or languages) of particular communities. Although this historical accretion allows for the objectification of examplars of a culture, a sociocultural stance is most interested in examining the processes that members of the culture engage in during cultural (re)production.

This process-oriented perspective is seen in one of Vygotsky's many contributions to applied linguistics research and pedagogy, the zone of proximal development (ZPD) (see also Antón; Mahn; Negueruela-Azarola, García and Bueschlerand; and van Compernolle this volume). This construct has had arguably the greatest impact in the field (Chaiklin 2003; related to L2 research, see Lantolf and Thorne 2006; Thorne and Tasker 2011) and is a construct most relevant to discussions of expert–novice participation structures. The most frequently referenced definition of the ZPD is 'the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers' (Vygotsky 1978, p. 86). With greater specificity, Vygotsky described the ZPD as follows:

> The [ZPD] defines those functions that have not yet matured but are in the process of maturation, functions that will mature tomorrow but are currently in an embryonic state. These functions could be termed 'buds' or 'flowers' of development rather than the 'fruits' of development. The actual developmental level characterizes mental development retrospectively, while the [ZPD] characterizes mental development prospectively. … the [ZPD] permits us to delineate the child's immediate future and his dynamic developmental state, allowing not only for what already has been achieved developmentally but also for what is in the course of maturing. (1978, p. 86–7)

In contrast to traditional assessment measures that indicate the level of development that has already been attained, the ZPD is forward looking through its assertion that mediated performance (often in expert–novice interactions), and importantly the discovery of the qualities of assistance necessary for an individual to perform particular behaviors or competencies, are indicative of the readiness for independent functioning in the future (see also the discussion of Dynamic Assessment, below, and Antón, this volume). Within applied linguistics and language educational research, the diverse adoptions and adaptations of the ZPD concept may not always align with doctrinal interpretations of Vygotskian theory (Chaiklin 2003). Broadening conceptualizations of Vygotsky's ZPD now encompass research and pedagogical innovation that includes parent–child interaction, teacher–student interaction, and peer–peer interaction dynamics. The ZPD has been applied primarily in regard to individual development, but it has also been proposed as a model of whole class teaching (Guk and Kellogg 2007).

In the section below, we begin by summarizing two feedback-oriented ZPD studies. This is followed by a review of additional ZPD and scaffolding-related L2 research. To structure discussion of the latter group of studies, we draw upon Kinginger (2002), whose identification of three uses of the ZPD in published research on language learning helps to critically interpret a diverse array of expert–novice interaction investigations.

3. Expert–novice Instructional Interaction in Socioculturally Informed L2 Research

Vygotskian sociocultural theory has at its core the welding together of research and practice, often taking the form of intervention studies, where the goal is to improve or enhance the situation under study. In a seminal study of this sort, the ZPD was used by Aljaafreh and Lantolf (1994) to analyze the relationship between various types of corrective feedback and language learning within learner–tutor interactions in an ESL course. They identified a number of 'mechanisms of effective help,' for example that assistance should be contingent on actual need, provided following a continuum that begins with implicit hints and moves toward explicit correction as necessary, and that assistance should be removed when the student demonstrates the capacity to function independently. A principal challenge to research based on educational interventions involves how to operationalize the quantity and quality of assistance. To address this, Aljaafreh and Lantolf (1994) developed a thirteen point 'regulatory scale' that models tutor behaviors ranging from broad and implicit leading questions to explicitly phrased corrections. The use of the regulatory scale involves continuous assessment of the learner's ZPD and subsequent tailoring of help by the expert in order to effectively facilitate progression from other-regulation to self-regulation. In this research, changes in the quality and quantity of feedback were tracked over time for each of the three participants as they engaged in tutorial sessions. The three learners demonstrated similar proficiency on a placement exam, but Aljaafreh and Lantolf (1994) show that the same error made by different learners represents different problems. For example, none of the learners appropriately used the definite article with 'US' (for example, 'travel to *the* US'). However, one learner required increasingly explicit mediation that concluded with the tutor eventually providing the correct form, while a second learner immediately produced the definite article after being asked to read aloud and think about what might be missing from a particular sentence in her essay. While in this instance these two learners had omitted the same obligatory linguistic feature, their divergent responses to mediation indicated that they were at different developmental levels. Over time, both within and across sessions, each of the participants demonstrated that they had internalized aspects of the mediation that was provided and gained a greater ability to function autonomously. Importantly, 'for this to happen … the expert must relinquish control (itself dialogically negotiated) to the novice at the appropriate time. There can be no real development otherwise' (Aljaafreh and Lantolf 1994, p. 480).

In a follow-up study to Aljaafreh and Lantolf (1994), Nassaji and Swain (2000) investigate the efficacy of two forms of feedback in a small-scale study of two ESL learners in interaction with a tutor. The 'ZPD student' was given corrective feedback using the developmentally-sensitive regulatory scale developed by Aljaafreh and Lantolf (discussed above) while the 'non-ZPD student' was given corrective feedback based on a random selection from among the regulatory scale's 13 implicit to explicit strategies. This research attempts to quasi-experimentally test the hypothesis that developmentally sensitive feedback arrayed along an implicit to explicit continuum is more beneficial in comparison to formulaic or arbitrary feedback. The findings showed that intra- and inter-session progress was demonstrated by the ZPD-student where progress was measured as a function of the quality of assistance necessary for the student to perceive and correct problems (i.e., omission of an obligatory article). For the non-ZPD student, however, 'random help was much less capable of eliciting an appropriate response on the part of the student as compared with the ZPD help' (Nassaji and Swain 2000, p. 43). Extensions of this work will be discussed below in the section focused on Dynamic Assessment.

Kinginger (2002) produced a thorough and incisive literature review of divergent explications of the ZPD, a number of which she assessed to differ from, or significantly extend, Vygotsky's core emphasis on the learner and his or her emerging capacities. The three-part taxonomy that emerged from this investigation included: 1) a 'skills' interpretation, 2) a 'scaffolding' interpretation, and 3) a 'metalinguistic' interpretation. Within what she considers to be the most problematic category, the 'skills' interpretation, Kinginger identifies uses of the ZPD concept that illustrate a reduction and simplification of the ZPD in order to 'justify extant institutionalized practices and reinforce traditional views of the language classroom as a locus of skill acquisition in the service of standardized education. Stripped of its original meanings, the ZPD is inserted into a conventional descriptive scheme and provides no new object for reflection on theory or practice' (2002, p. 253). Though there are numerous examples of infelicitous uses of the ZPD (outlined in Chaiklin 2003), Kinginger specifically references problematic parallels between the ZPD to Krashen's $i+1$ construct. Indeed, the ZPD has been unconvincingly equated with Krashen's metaphor of comprehensible input ($i+1$) in a number of instances. The incommensurability between these two concepts has been discussed at length elsewhere (Dunn and Lantolf 1998; Kinginger 2001; Thorne 2000).[1]

The widely used 'scaffolding interpretation' involves an interesting reciprocal formulation of the ZPD in that there is a shift in focus toward the teacher or expert who is providing the 'scaffold' or assistance. In most descriptions of scaffolding, the teacher (or adult) 'controls' the elements that are beyond the learner's capacity, allowing the learner to participate as their current competence allows (Wood, Bruner and Ross 1976). It is this element of scaffolding that has been explicitly linked to the ZPD and in some cases, seems to have become synonymous with it (Stone, 1993). In Kinginger's (2002) discussion of scaffolding in SLA research, she describes cases in the language acquisition literature in which typical IRF/IRE (initiation–response–feedback/initiation–response–evaluation) sequences between teacher and students are problematically equated with the ZPD. Providing a linkage to critical pedagogy, Kinginger paraphrases the work of Gee, Hull and Lankshear (1996), who suggest that IRE-oriented approaches to scaffolding situate students in interactionally restrictive discursive positions 'as a pretext for grammar practice. In parallel with and anticipating the distribution of communication within fast capitalist corporations, students are invited to participate and even share the floor; but they are not authorized to question what they are accomplishing or why' (Kinginger 2002, p. 255; see also van Lier 1996).

Within the scaffolding intepretation, especially as it has been used for grammar instruction, 'the ZPD serves to represent the diffusion of participant roles within canonical classroom discourse' (Kinginger 2002, p. 257). As Stetsenko (1999, p. 237) has argued, when the ZPD is taken as an abstraction and separated from social interaction and cultural tools, the assistance of an expert or more capable peer can be seen as simply 'added' to a cooperative problem-solving situation. This said, Stetsenko supports the use of scaffolding as a pedagogically useful approach that 'implies graduated assistance from the adult/expert' and also 'ascribes an active role to the child in interactions with adults' (1999, p. 243). She continues, however, to note that 'the concept of scaffolding is related only loosely, if at all, to the concept of cultural tools and implies too strongly that the quantity rather than quality (i.e. content) of the adult's help is the decisive influence on a child's development' (1999, p. 243). In her analysis, Stetsenko argues that attention to qualitative variation in forms of expert scaffolding is typically not adequately addressed within the scaffolding framework. Further, Stetsenko suggests that while close analysis of the qualities of expert–novice interactions have helped to illuminate the effects of modeling, feedback, questioning, and other discourse dynamics in ZPD and scaffolding contexts, this otherwise useful research continues to overlook the 'the quality of cultural tools involved as integral parts in such interactions'

(1999, p. 244).[2] In summarizing different uses of the ZPD, Kinginger (2002) notes that in the skills case, the ZPD concept is uncritically appropriated and used to describe what are essentially transmission models of teaching (Moll 1989). For its part, the scaffolding-related uses of the ZPD productively acknowledge contingently provided assistance, but as the term 'scaffolding' would suggest, there is an explicit shift in focus from a learner's development enabled by mediation to teacher-centered instructional strategies.

Though considerable discussion by sociocultural researchers suggests that scaffolding and the ZPD are not particularly compatible concepts, there exists an important set of research that employs (and redefines) scaffolding as a form of mediation that is provided to learners by instructors. Some of this research has established the pedagogical value of uses of the scaffolding approach. Building upon a well-reasoned synthesis of Hallidayan systemic-functional linguistics and Vygotskian developmental theory, Gibbons (2003, p. 249) describes the efficacy of specific discourse choices made by teachers in order to 'mediate between the students' current linguistic levels (in English) and their commonsense understandings of science, on the one hand, and the educational discourse and specialist understandings of the subject, on the other.' Using the construct of mode continuum, participating teachers were able to help students to bridge between the everyday language they used to describe direct experience and the specific and scientific register that is required in written academic discourse. Through the use of mode shifting and recasts, teachers modeled scientific discourse in contingent engagement with students. In this way, they were able to discursively recontextualize the students' developing understanding of a scientific concept (in this case, magnetism). The result was an increase in students' abilities to present personal experiential knowledge in academic registers (see also van Lier 1996).

Wertsch (1979) describes scaffolding as a dialogically produced interpsychological process through which learners internalize knowledge they co-construct with more capable peers. Building on this Vygotskian characterization of scaffolding, Donato (1994) applied the scaffolding approach to examine L2 peer interaction. This research demonstrated that learners can successfully scaffold one another, or 'mutually construct' assistance, in much the same way experts scaffold the performance of novices. Especially at the time it was published, Donato's 1994 study challenged what were at the time mainstream approaches to second language acquisition that presumed a model whereby interlanguage development was stimulated by comprehensible input and negotiation of meaning. Donato's primary critique was that the framework of input and output in modified interaction implicitly presumed the truth-value of the message model of communication, in essence that the process of communicative language use is the 'successful sending and receiving of linguistic tokens' (1994, p. 34). The theoretical assumptions of the message model of communication are based on what Reddy (1979) terms the 'conduit metaphor,' that *ideas are objects*, *language is a container*, and *communication is sending*. This account of language and communication has been shown to be an anemic model at best and as an account of actual communicative engagement, largely erroneous (Lakoff and Johnson 1980; Linell 2009).

Donato (1994) argued that dialogic interaction among learners has the potential to foster appropriation of linguistic knowledge by individuals who together form something of a collective expert, and who subsequently are able to accomplish tasks collaboratively that they might not have the ability to carry out individually. The study involved L2 learners of French working on a familiar open-ended task and the objective was to ascertain if and how students co-construct language knowledge and communicative performance in classroom settings. The question posed was: Can learners exert developmental influence on each other's interlanguage systems in observable ways? (Donato 1994, p. 39). The learners participated in an audio-taped one-hour class session and 32 instances of scaffolded help were documented (e.g., collaborative production of the past tense formation of reflexive verbs).[3]

Of these, the students later used 24 of the co-constructed units of linguistic knowledge in independent performance when help was no longer available. Additionally, various decomposition strategies were visible, such as breaking down lexical items into morphologically distinctive units and spelling out words. These findings argue for extending dyad and group work from 'simple opportunities to exchange linguistic artifacts to that of the collective acquisition of the second language' (1994, p. 53). Donato's research provided evidence that classroom peers at presumably similar proficiency levels can work together in ways similar to those visible in expert–novice relationships.

In related research, Ohta describes joint language production by peers in L2 settings (sometimes referred to as 'collaborative completions', e.g., Lerner 1991) and notes that 'previously sharp edges defining who is "speaker" and who is "hearer" become blurred; speaker/hearers collaboratively produce utterances which they jointly own' (Ohta 2000, p. 51). Before describing her useful and detailed research, we note that Ohta views the constructs of scaffolding, the ZPD, legitimate peripheral participation (Lave and Wenger 1991), and assisted performance (Tharp and Gallimore 1988) as compatible frameworks. In a number of germane studies focused on peer work in L2 settings, Ohta (1995, 2000, 2001) provides detailed analyses that document peer-assistance and 'the interaction cues to which peers orient in order to provide developmentally appropriate assistance' to one another (Ohta 2000, p. 52). A key finding is that differences in learner abilities are not fixed (Wells 1999). While some dyads show one participant consistently providing assistance to another, there are often expert–novice reversals over the course of one and multiple sessions. Reiterating Donato's (1994) notion of a collective expert, Ohta observes that 'when learners work together … strengths and weaknesses may be pooled, creating a greater expertise for the group than of any of the individuals involved' (Ohta 2001, p. 76; for related research, see Storch 2002; van Compernolle and Williams 2013).

4. Expanding Investigations of Expert–novice Interactions to Include Socially Oriented Interactional Frameworks

In socioculturally oriented second and foreign language research, a number of explicit methodological choices for microgenetic level analyses are used, including textual and discourse analysis (Kramsch 2000; Pavlenko and Lantolf 2000), mediated discourse analysis (Scollon 2001), microinteractional/conversation analysis (Coughlin and Duff 1994; Ohta 2001; Hellermann 2006), and ethno-methodological conversation analysis (Mondada and Pekarek Doehler 2000, 2004; see also Kasper 2008; Kasper and Wagner 2011).

Of these, we will only discuss the last.[4] Although the analytic focus of ethnomethodological conversation analysis (CA) is not on language learning or expert–novice interactions,[5] the methodological and epistemological foci of CA direct investigations to similar sites: understanding how it is that participants in interactions formulate actions in talk that are understandable by others. As part of that work, CA investigations of language focus on the co-constructed nature of language use rather than an individual's language production. This analytic stance allows the examination of learner–learner or expert–novice interaction with fresh eyes (Firth and Wagner 1997). The micro-level, turn-by-turn examination of interaction that CA emphasizes has also suggested to some CA researchers that this methodological approach lends itself to understanding developmental processes that play out in expert–novice interactions.

Mondada and Pekarek Doehler (2000, 2004) were among the first in the field of SLA to develop the position that learning and cognition are processes distributed in, and emergent

of, mundane practices of language use. In this view, as mentioned previously, social order in language use and epistemological norms are not *a priori* entities, but rather are seen as achievements that are jointly established, maintained, and transformed in ongoing processes of interaction (see also Coughlan and Duff, 1994). Mondada and Pekarek Doehler forge a complementary union between conversation analysis (CA), which they use as the method for analyzing talk-in-interaction and for reconceptualizing the constructs of task and competence, and Vygotskian sociocultural theory, with its orientation toward the cultural mediation of higher order cognitive functioning and its development. Based on data from L2 learners of French,[6] they argue for a concept of competence in which 'capacities . . . . are embedded and expressed in collective action' (Mondada and Pekarek Doehler 2004, p. 515). Further, they contend that the Vygotskian concept of mediation is more than a means for solving problems and creating learning possibilities. Rather, 'the process of mediation-in-interaction can be understood as part of the methods by which members construct learning environments, tasks, identities, and contexts' (Mondada and Pekarek Doehler 2004, p. 515).

A sizable body of CA research on understanding the interactions of learners (all, arguably, expert–novice interactions to some degree) in classroom settings has become prevalent in the applied linguistics research literature (Lee 2006; Markee 2000; Mori 2002; Olsher 2004; Steinbach-Koehler and Thorne 2011; Waring 2008, among others) including longitudinal work attempting to trace development over longer periods of time (Hellermann 2008; Markee 2008). Although CA methods dictate that the analyst's categories such as 'expert' or 'novice' should not be imposed on participants as identity markers, a number of researchers have investigated expert–novice interactions using CA methods (Hosoda 2000; Kasper 2004; Kurhila 2006; Nguyen 2011; Theodórsdóttir 2011). However, following CA methods, these studies are careful to ground any use of such labels ('expert' or 'novice') in the interpretations of the participants themselves.

Although orthodox practitioners of CA methods may object, we agree with Mondada and Pekarek Doehler (2004) that CA methods offer effective tools for the examination of interactional contexts that have been selected as learning contexts or zones of proximal development, an approach that forms a branch of *applied conversation analysis* (Richards and Seedhouse 2005). As the interactionist paradigm of SLA (Tradition 4 in this Handbook) research developed to unpack a theoretical construct of the monitor model (Krashen's *comprehensible input*), so can CA methods be employed to discover sequential practices for microgenetic development of language learners in expert–novice interactions. In longitudinal investigations of the sequential structure of classroom task interactions, we have seen how students who are novices at a particular language-learning task develop the linguistic and interactional skills to show expertise in the same task nine months later (Hellermann and Harris forthcoming).

In this study, Hellermann and Harris (forthcoming) examine small-group and full-class interaction involving a woman who had not previously attended school ('Li'). The micro-level analysis of the sequences of talk between Li and her peers and between Li and the teacher show how repeated sequences of talk during instruction-giving and task performance provide sites for the development of language practices. By examining these recurring sequences of talk at different points in time, we can see the shifting mediational means through which Li is able to: 1) understand the nature of classroom discourse; and 2) accomplish the tasks in progressively less mediated ways. One striking example of this is her re-saying language used by others during task instructions and gradually appropriating that language for use in appropriate sequential positions in later interactions with peers. In this case, the analysis of the sequential structure of the talk highlights what can be seen as the construct of imitation in sociocultural theory (Lantolf and Thorne 2006). The following excerpt provides an illustration.

The excerpt occurs during the instruction-giving phase just before a peer–peer language-learning task interaction. The class is for beginning level English language learners. The task is for one student to give a directive to a peer and to have that person respond non-verbally by pointing to the answer on a biographical card that each student has with their names, country of birth, and their language. So, one student is to say, for example, 'show me your last name' and the peer is to point to that information on their biographical card.

In the excerpt, the teacher (T) is practicing the task with students in front of the entire class. In this practice run of the task, as she had with three other students just previously, the teacher instructs Li to take on the role of 'teacher' (that is, the person who gives the directive) while assigning herself the role of 'student' (the person who answers the directive by pointing). We see how Li re-says the words of the teacher and her peer in a particular sequence, the result being the performance of one task sequence (lines 64–67).

(1)[7]

```
50     T:  let's try one more. ((points to L)) teacher.
51     R:  ((looks toward L))
52     L:  teacher.
53     T:  ((points to self)) student
54     L:  ((laughs and puts head down))
55         ((holds up her bio card))
56     T:  show me:,
57     L:  show me: |show ┌ me
58                  |((T points to L))
59     T:                └ teacher. ┌ student
60     L:                           └ teacher teacher.
61         he heh hah hah hah
62     R:  show me your country ((softly, directed to Li))
63     T:  ┌ show me:
64     L:  └ show me your country.
65     T:  country?
66     L:  my|eah hh °sh-° eh hih ┌ ( )
67           |((T points to name of country on bio card))
68     T:                         └ okay
69         sho:w me: ((points to self))
```

After repeating the teacher's directives for role assignment for this practice run (lines 52, 57, 60) Li's peer (Reinaldo, R in the excerpt above) produces (for Li) a candidate first pair part for the practice run of the task, which Li also repeats. The teacher orients to this repeat as Li produces a first pair part for the practice run of the task and initiates a repair on that (line 65). After the repair is made, the teacher points to the appropriate place on her biographical card closing the first task sequence. After these practice runs, students perform the task in pairs and by the end of the task, Li has begun to appropriate the task language for directives ('show me your country,' 'show me your first name' etc.) without repeating the teacher or peer. The data suggest that it is other repetition by Li that leads her to use the task language in the appropriate sequential slot. The mediation that follows, provided by a more expert peer (Reinaldo), allows Li to continue and eventually to use the task language without other mediation. This excerpt and related above-mentioned studies show how within and outside the classroom walls, applied CA studies examine the sequence of talk-in-interaction without

foregrounding the expert–novice roles in interactions. Nevertheless, the choice of the context for these data is deliberate, selected by the analyst to better understand learning that may occur there. The syncretism of applied CA and sociocultural theory illustrates an evolving hybrid framework that will potentially increase the explanatory power of both mediated cognition and talk-in-interaction that can continue to be applied to analyzing expert–novice interactions in language learning situations.

5. Current Developments in Sociocultural Approaches to Expert–novice Interaction

Recently, there have been a number of elaborations and proposals for the broadening of the ZPD concept, all of which directly address expert–novice interaction to some degree. Wells (1999) has suggested that the ZPD need not be characterized as a fixed or stable attribute of an individual or environment, but rather as an unpredictable nexus of people and tools in joint activity, which together create conditions for transformation and development. In a number of publications, Mercer (2000, 2002) describes what he terms the Intermental Development Zone (IDZ), which draws elements from both the ZPD and scaffolding. The IDZ is defined as a 'contextualizing framework for joint activity, whose effectiveness is likely to depend on how well a teacher can create and maintain connections between the curriculum-based goals of activity and a learner's existing knowledge, capabilities, and motivations' (Mercer 2002, p. 143). In an insightful revision of the ZPD, Negueruela (2008) has proposed the Zone of Potential Development (ZOPD) as a ZPD-informed approach that is more attuned to second language acquisition and adult L2 learning. Negueruela argues that development follows diverse trajectories. Thus, by replacing 'proximal' with 'potential,' he removes the telos of a 'proximal' next stage of development and acknowledges situational contingency and the necessity of a learner's agency in realizing her or his developmental path. In particular, Negueruela stresses the importance of concepts as 'psychological mediators' and the importance of 'devising pedagogical sequences that allow learners to create their own conceptualizations through guided imitation' (2008, p. 201).

A highly productive extension of the ZPD emphasizes metalinguistic functions of language use and learner–learner discussion about their own language production. In this line of research and pedagogical exploration, Swain and colleagues (Swain 2000, 2006; Swain *et al.* 2009) develop the notions of 'collaborative dialogue' and 'languaging' to describe uses of language that help learners to solve problems, to share and build knowledge together, and to complete thoughts. Swain *et al.* (2009, p. 5) define languaging as 'a form of verbalization used to mediate the solution(s) to complex problems and tasks' and the use of language to shape knowledge and experience. In a study examining L2 learners of French grappling with the grammatical concept of voice, Swain and colleagues (2009) demonstrate a correlation between the quality and quantity of languaging produced by students and their subsequent ability to correctly write appropriate verb forms, articulate why they made these choices, and correctly label examples of active, middle, and passive voice verb forms (see also Brooks *et al.* 2010). In this work, Swain extends her earlier formulation about communicative output 'to include its operation as a socially constructed cognitive tool. As a tool, it serves second-language learning by mediating its own construction, and the construction of knowledge about itself' (Swain 2000, p. 112). Utilizing Swain's (2000) notion of cooperative dialogue in tandem with verbal protocols, van Compernolle (2013) describes a Vygotskian L2 instructional intervention that both improved assessment in the area of pragmatic competence while also promoting pragmatic awareness of concepts such as social closeness and appropriate uses of

second-person address forms. Research and pedagogical interventions informed by collaborative dialogue and languaging strongly support the notion that the metalinguistic function of language helps learners to externalize current thinking and ideas, which in turn become opportunities for individual and collaborative reflection and the co-construction of knowledge.

One of Vygotsky's most important findings is that learning collaboratively with others, particularly in instructional settings, precedes and shapes more substantive forms of development. The relationship between learning and development is not directly causal, but intentionally designed learning environments (e.g., instructed L2 settings) can stimulate qualitative developmental changes (Lantolf and Poehner 2008, 2014; Thorne in press). In this sense, the ZPD is not only a model of the developmental process, but also a conceptual tool that educators can use to understand aspects of students' emerging capacities that are in early stages of maturation. For this reason, the ZPD has catalyzed recent efforts to create a dialectical union of assessment and learning called Dynamic Assessment (DA) (see also Antón, this volume).

DA is a procedure that unifies the goals of assessing a learner's developmental potential through structured sets of interactions that also are meant to foster learning. DA methods of assessment involve mediating an examinee's performance by providing a scaled continuum of learner-contingent prompts, leading questions, and more direct assistance during the assessment intervention itself. Its primary goal is to fuse assessment procedures with interactive opportunities for learning, and in so doing, to produce a more nuanced understanding of an examinee's current level of development and future potential. Lantolf and Poehner (2004) provide an in-depth description of DA use in education broadly, and also suggest guidelines for its use in second and foreign language contexts. In later work, Poehner (2007) describes DA as a form of collaboration between a student and mediator that results in the accomplishment of increasingly complex tasks within and across interactions (i.e., advanced learners of French composing oral narratives). The theme of DA as a transformative activity occurring between a mediator (expert) and a student is discussed in relation to L2 reading comprehension by Poehner and van Compernolle (2011). This study describes two interactional frames and their usefulness in DA sessions. The collaborative frame emphasizes the mediator's responsibility to contingently target and track the kinds of support the learner needs to make progress on the pre-specified task at hand. A cooperative frame, by contrast, evolves as an emergent quality of the interaction and involves re-specifying or co-constructing a new goal as a function of the learner's needs (Poehner and van Compernolle 2011, p. 193). The authors suggest that attention to such interactional frames has the potential to fine-tune DA encounters and importantly, to increase opportunities for learners to jointly control the focus and process of their own language development.

A consistent challenge to DA is the question of its scalability from one-to-one expert-learner interaction to a teacher's engagement in whole class settings. Addressing this issue, Poehner (2009) reports on the use of DA in teacher-fronted classroom practice. The teacher in this study developed a continuum of DA-informed feedback that began with implicit prompts and progressively moved toward explicit explanations. The teacher kept careful records of individual student responses to varying levels of feedback and also encouraged students not being directly addressed to pay careful attention in preparation for their turns at the task, creating what Poehner describes as a group-relevant form of DA. In a later study, Davin and Donato (2013) explored the use of classroom DA in a Spanish language course of younger learners (5th grade students of 10–11 years of age). Following a five-day period of teacher led group DA, the learners were placed in small peer groups. While students' use of specific DA prompts were not visible in the small group interactions, the authors note that other forms of what they describe as 'peer scaffolding', such as the use of repetition and the

first language, were frequent, with the implication that teacher-led whole class DA can be usefully supplemented with group work to create multiple contexts for a variety of both teacher- and peer-provided assistance. In a continuation of this research, Davin (2013) reports on the same teacher's continued use of pre-scripted prompts to address predictable lexical and grammatical errors, but with the addition of more flexible and emergent 'instructional conversations' that helped to construct a class-wide ZPD in order to address unpredicted student language problems and inquiries.

6. Discussion

As the above discussion of published research has made clear, Vygotskian sociocultural theory places great emphasis on not only understanding human developmental processes, but also on praxis[8] (Lantolf and Poehner 2014; Thorne 2005). That is, Vygotskian approaches encourage engaged critical inquiry through which an investigation would lead to the development of material and symbolic-conceptual tools necessary to enact positive change (Cole 1996; Engeström and Sannino 2010). Evidence of this trend toward praxis-based research is visible in the above described studies focusing on collective scaffolding in peer–peer interaction (e.g., Donato 1994), the contingent provision of mediation/assistance to learners (e.g., Aljaafreh and Lantolf 1994), Dynamic Assessment (e.g., Poehner 2009), and applications of collaborative dialogue and languaging (e.g., Swain *et al.* 2009).

It is also important to underscore that sociocultural approaches deemphasize the stability of systems and the presumption of consistency across contexts, time periods, individuals, and communities, including predefined characteristics such as 'expert' and 'novice'. This includes an expectation of instability and possibilities for transformation within sociocultural theory itself, which involves the search for new or reinvigorated methodologies, one example of which is the aforementioned union of conversation analysis with Vygotskian developmental theory (e.g., Mondada and Pekarek Doehler 2004; Pekarek Doehler 2002).

Our view is that a number of constructs that SLA researchers and language educators seem to treat as nearly synonymous with the ZPD, such as assisted performance (Tharp and Gallimore 1988), legitimate peripheral participation (Lave and Wenger 1991), and scaffolding (Wood, Bruner, and Ross 1976), may be more profitably kept distinct from the ZPD. This said, sociocultural approaches represent a 'big tent' and each of the aforementioned frameworks has resulted in insightful and pedagogically effective interventions.

In closing, we reiterate that the relationship of learning to development hinges on dialogic mediation, on the ways in which collaborative engagement, mediated by expert–novice and peer–peer interaction, provides opportunities for the construction of psychological tools through which developing individuals are able to increasingly participate in culturally organized activity.

NOTES

1 As Thorne (2000, pp. 226–227) describes it, 'Krashen's $i + 1$ and Vygotsky's ZPD … are unrelated in their conceptualization (a passive body listening versus collaborative activity), philosophical underpinnings (learner as autonomous versus personal ability co-constructed through activity with other people and artifacts in the environment), focus processes (child-like learning versus the collaborative accomplishment of a specific task), and generally, their results.' Put more bluntly by Dunn and Lantolf, 'any attempt to integrate the ZPD and the input hypothesis is misguided and ultimately unproductive' (1998, p. 423).

2 Presenting a more conceptual critique of scaffolding, Packer states that scaffolding is too mechanical a metaphor in that it represents 'a framework that holds a passive structure in place until external efforts to construct it have been completed … both mechanical and biological metaphors miss the semantic character of human action' (Packer 1993, p. 257).
3 The data were analyzed using the six-stage Wood, Bruner, and Ross (1976) guidelines, which Donato (1994, p. 41) summarizes as follows: 1) recruiting interest in the task, 2) simplifying the task, 3) maintaining pursuit of the goal, 4) marking critical features and discrepancies between what has been produced and the idea solution, 5) controlling frustration during problem solving, 6) demonstrating an idealized version of the act to be performed.
4 Overviews of development of and tension between ethnomethodology and conversation analysis can be found in Maynard & Clayman (2003).
5 A number of ethno-methodological and CA studies have investigated the phenomenon of classroom interaction and learning more generally (Heap 1985; Macbeth 1992; McDermott 1976; Mehan 1979; among others).
6 The data consist of a corpus of instructed and out-of-school language use among 10–12 year old immigrants to French-speaking Switzerland and a French L2 classroom in a German-speaking region of Switzerland.
7 Data identifier: [March 31, 2003, 206, 37:28].
8 The Oxford English Dictionary defines this word as follows: 'conscious, willed action, *esp.* (in Marxist and neo-Marxist thought) that through which theory or philosophy is transformed into practical social activity; the synthesis of theory and practice seen as a basis for or condition of political and economic change. Also: an instance of this; the application of a theory or philosophy to a practical political, social, etc., activity or programme.'

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See Chapter 14: From Inter-Action to Intra-Action: The Internalization of Talk, Gesture, and Concepts in the Second Language Classroom.
See Chapter 15: Classroom Discourse and Interaction in the Zone of Proximal Development.
See Chapter 16: The Emergence of Sociolinguistic Competence in Second Language Classroom Interaction.

Part VI The Language Socialization Tradition

Overview of the Language Socialization Tradition

NUMA MARKEE

The chapter by He (this volume) first discusses various definitions of heritage learners and then focuses on the characteristics of language classrooms that are specifically designed for heritage learners. He further argues that Language Socialization (LS) constitutes a particularly useful approach to understanding the complex symbiotic processes that are involved in learning and maintaining heritage languages and cultures, which are viewed as indivisible sides of the same coin. In addition, LS allows us to understand how students' emergent and creative language use and choices in the heritage classroom provide the communicative foundations for continuity and change in participant identities and communities. He illustrates these ideas with data that are drawn from community-based Chinese heritage language schools for children and university-level Chinese language classes specifically designed for students with Chinese heritage backgrounds. Finally, note that He's framing of heritage language and culture learning as communicative activity that involves ongoing collaboration between experts and novices is a very Vygotskyan way of understanding learning and development. This chapter therefore illustrates rather well the cross-fertilization of ideas between SCT and LS that I mentioned earlier on in Markee (Chapter 1, this volume).

The chapter by Lee and Bucholtz (this volume) is broader in scope than He's chapter, although it also overlaps with this latter chapter in a number of important respects. More specifically, Lee and Bucholtz make six points concerning LS theory. First, they emphasize that learning is grounded in social interaction between experts and novices and use the ZPD as a key concept in understanding the situated nature of learning (see also Thorne & Hellerman, this volume). Second, they stress the fact that language and culture are inseparable, and must be seen as two sides of the same coin (see He, this volume). Third, they underline the importance of seeing the cultural norms and practices of a community as being dynamic and fluid (see He, this volume). Fourth, they identify issues of power and inequality as key issues in LS. Consequently, they view LS as an inherently critical enterprise (see also Duff & Anderson, and Talmy, this volume, as well as Ross & Apple, this volume, and the four chapters in the Critical Theory Tradition in this Handbook). Fifth, at the same time, they also argue that LS is fundamentally concerned with the agency of individuals (see also Talmy, this volume). And finally, they emphasize that individuals construct their own and others'

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identities through talk and, through such work, learn to become fully participating members of the communities to which they belong (again, see Talmy, this volume, who shows what happens during *unsuccessful* episodes of LS). Speaking next to methodological issues, they note the anthropological roots of LS and observe that the kinds of methodologies used in LS research include participant-observation, interviews, and audio or video recordings of interactions. Furthermore, LS studies tend to be longitudinal and attempt to develop emic understandings of participants' evolving language and culture(s) through field-based data collection and analysis of linguistic and embodied socializing interactions. In addition, LS pays equal attention to both micro- and macro-levels of analysis, and attempts to show how these different levels of analysis are interconnected. Finally, in the last section of the chapter, Lee and Bucholtz discuss a university–high school educational partnership based in Santa Barbara, California called the SKILLS (School Kids Investigating Language in Life and Society) program. This program enables students to develop new skills as ethnographers of language and culture in their own speech communities. As they develop these skills, students are able to develop novel connections between their community and classroom cultures (see also Kasper & Kim, this volume). Moreover, learners are empowered to explore important themes in LS, such as: 1) the fluidity of learning spaces; 2) participant agency as they acquire, negotiate, resist, change, and/or create hybrid language practices; and 3) the potential for individual transformation and broader societal change that such LS-inspired research naturally offers. Again, note how this chapter crosses disciplinary boundaries in interesting ways. The use of Vygotskyan ideas again figures prominently in this chapter. In addition, the SKILLS project dissolves the boundaries between classroom-based and community-based learning. And finally, we should also notice the decidedly critical perspective that characterizes this chapter, which thematically connects this chapter to many of the issues discussed in the chapters that make up the Critical Theory Tradition section of the book.

The chapter by Duff and Anderson (this volume) begins by providing an overview of the language and literacy theoretical frameworks that are relevant to these authors' work. Thus, they briefly situate themselves at the interface of neo-Vygotskyan ideas of learning as a form of apprenticeship, Bourdieusian notions of *habitus*, and the Bakhtinian constructs of voice and dialogism. While they accept the fundamental importance of the neo-Vygotskyan learning-as-apprenticeship metaphor that we have already encountered in the two previous chapters on LS, they also point out that there is no guarantee of success implied by this metaphor. In fact, many outcomes are possible, and these include partial learning, resistance, and hybrid practices that diverge significantly from intended results. In order to flesh out these ideas, Duff and Anderson go on to review how L1 versus L2 LS processes play out. They then review the kinds of research methods that are often used in LS research (the account provided in this chapter is similar to that provided by Lee and Bucholtz; note, however, that they add the category of autobiographical narrative by researchers as a means of trying to understand classroom and other academic discourses). Next, they briefly discuss the range of classroom academic contexts and communication events that have been studied in LS research. Oral events include recitation activities, oral presentations or mini-lectures, and current events discussions, while written events (which subsume oral-written blended/multimodal interaction) include term paper writing and course-related asynchronous threaded bulletin board discussions about course readings and topics. Finally, in the main part of the chapter, they focus on language and literacy socialization in and across secondary and post-secondary educational contexts. Worth noting here is that the scope of this chapter is quite international, synthesizing as it does work from Hungary, Canada, the United States and New Zealand. In addition, the chapter compellingly shows that the boundaries between in- and out-of-class work are quite porous (see also the previous chapter by Lee & Bucholtz,

this volume), as are the distinctions between oral and written discourse in computer-mediated interactions.

The chapter by Talmy provides a virtuoso demonstration of how useful LS can be as a theoretical framework for developing a critical, grounded understanding of how superdiverse youth who have been labeled as ESL learners by the administration of a Hawaiian high school vigorously contest this official identity by constructing their own oppositional counter-identities. More specifically, Talmy begins by briefly situating this chapter within the familiar neo-Vygotskyan apprenticeship metaphor for learning. He then highlights recent L2 LS work that emphasizes the themes of power, agency, the multidirectionality of socialization, and above all its contingent, often conflictual character. Next, he reviews the notion of superdiversity, which goes far beyond categories such as country of origin, race/ethnicity and L1 that traditionally define the notion of diversity. By adopting this perspective, Talmy is able to develop a compelling empirical analysis of language socialization that is ultimately spectacularly unsuccessful, incongruous, not to say deeply disturbing. The chapter is also notable for the way in which it cuts across the theoretical boundaries of several Traditions. Of course, Talmy borrows the learning as apprenticeship metaphor from SCT. But he also goes much further. This chapter is the most radically critical of the four chapters in this section. At the same time, it is also remarkably nuanced in its analysis of resistance as a potentially self-destructive process, thus demonstrating that resistance is not a priori a progressive practice. And finally, the chapter is also distinctive in its masterful use of CA techniques to show how language socialization practices are achieved in and through talk on a moment-by-moment basis.

18 Literacy, Creativity, and Continuity: A Language Socialization Perspective on Heritage Language Classroom Interaction

AGNES WEIYUN HE

1. Heritage Language Classrooms

While current scholarship has problematized the notion of 'heritage language' both on the basis of 'heritage' learners' own orientations toward such a notion (Blackledge and Creese 2008) and in terms of lifespan development of the 'heritage' speaker (He 2014), the term 'heritage language' (hereafter HL) has conventionally referred to an immigrant, indigenous, or ancestral language that a speaker has a personal relevance and desire to (re)connect with (Cummins 2005; Fishman 1991; Valdés 2001; Wiley 2001). In the United States, Canada, and the UK, the term 'heritage language' has often been used synonymously with 'community language,' 'home language,' 'native language,' and 'mother tongue' to refer to a language other than English used by immigrants and their children. Accordingly, a heritage speaker is someone who is raised in a home where a non-mainstream language is spoken and who is to some degree bilingual in the home language and in the mainstream language (Valdés 2001, p. 38), but whose home language does not typically reach native-like attainment in adulthood (Benmamoun, Montrul and Polinsky 2010). HL speakers have most likely been exposed to the HL since birth and may have used the HL during the initial years in their life and on and off subsequently, but have never developed the full range of phonological, morphological, syntactic, pragmatic, and discourse patterns which will enable them to use the HL in its scope and sophistication characteristic of and comparable to the native speaker.

While some have highlighted the level of language proficiency, others such as Fishman (2001, p. 69), have emphasized the 'particular family relevance' and the affiliation with and allegiance to an ethnolinguistic group. Valdes (2001, p. 38) defines the heritage language learner broadly as a language student who is raised in a home where a non-English target language is spoken and who speaks or at least understands the language and is to some degree bilingual in HL and in English. Van Deusen-Scholl (2003, p. 221) characterizes heritage language learners as 'a heterogeneous group ranging from fluent native speakers to

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non-native speakers who may be generations removed, but who may feel culturally connected to a language.' She distinguishes heritage learners from learners with a heritage motivation. The former are those who have achieved some degree of proficiency in the home language and/or have been raised with strong cultural connections, while the latter are 'those that seek to reconnect with their family's heritage through language, even though the linguistic evidence of that connection may have been lost for generations' (Van Deusen-Scholl, 2003, p. 222).

In this chapter, I follow the definitions proposed by Valdés (2001) and Van Deusen-Scholl (2003) and consider heritage language learners as those who have an ethnolinguistic affiliation to the heritage, but may have a broad range of proficiency in oral or literacy skills. I focus on language classrooms specifically designed for heritage learners. I highlight two distinct characteristics in these classrooms: (a) the tight integration of the learning of language forms and the socialization of cultural norms, values and morality, and (b) language mix and language shift in classroom discourse. I propose that the process of how these learners acquire and maintain their heritage languages and the symbiotic social and cultural processes that accompany heritage language learning can be fruitfully enlightened by the analytic framework of Language Socialization.

My overall objective is to examine what Language Socialization (LS) as an analytical perspective, may reveal about the nature of HL classroom interactions and how language socialization, as an everyday practice, shapes the ends and means of these interactions. Specifically, I explore (1) how the teaching and learning of heritage literacy itself affords a semiotic space for the participants to negotiate the appropriation, adaptation or abandonment of heritage culture in the classroom and (2) how emergent and creative language use and language choice in the classroom provide the communicative foundations for continuity and change in participant identities and communities. Illustrative data are drawn from community-based weekend Chinese heritage language schools for children and university-level Chinese language classes specifically designed for students with a Chinese heritage background. In what follows, after a brief overview of the language socialization perspective, I will examine and discuss (1) and (2) respectively.

2. Insights from Language Socialization

Grounded in ethnography, language socialization, as a branch of linguistic anthropology, focuses on the process of becoming a culturally competent member through language use in social activities. As formulated by Ochs and Schieffelin (Ochs 1990, 1993, 1996; Ochs and Schieffelin 1995; Schieffelin and Ochs 1986, 1996), Language Socialization (hereafter LS) is concerned with: (1) how novices are socialized to use language, and (2) how novices are socialized to be competent members in the target culture through language use. It tells us that language and culture are reflexively and systematically bound together and mutually constitutive of each other. This approach focuses on the language used by and to novices (e.g., children, language learners) and the relations between this language use and the larger cultural contexts of communication – local theories and epistemologies concerning social order, local ideologies and practices concerning socializing the novices, relationships between the novice and the expert, the specific activities and tasks at hand, and so forth. Work using Language Socialization as theoretical guidance has focused on analyzing the organization of communicative practices through which novices acquire socio-cultural knowledge and interactional competence and on the open-ended, negotiated, contested character of the interactional routine as a resource for growth and change (Garrett and Baquedano-López 2002). In this line of work, both the forms of language (e.g., word order,

morphological structure, prosody, orthography, turn-taking patterns) and the sociocultural contexts of language use become important research objects and sites.

Language Socialization has made a significant impact on how we conceptualize a wide range of social and cultural issues. For the purposes of this chapter, I detail two areas most relevant to heritage language classrooms, areas where language socialization has illuminated how processes of cultural transmission and re-construction take place in and through the processes of social interaction: socialization of cultural and moral values and socialization of identities and communities.

Cultural and moral values refer to norms of behavior shared, upheld and actively promoted by expert members of the community (adults, native members, etc.). In the contemporary context of immigration and globalization, these norms undergo constant challenge and change. Hence existing language socialization research has examined social reproduction as well as social change. For example, in my earlier work (He 2000), I detailed the discourse processes by which learners are socialized to values of respect for authority and group conformity through teachers' directives in weekend Chinese language schools, where teachers do not merely impart knowledge/facts but also function as moral guides to the students. Baquedano-Lopez (2001) highlights the socio-historical dynamics between ethnic, religious, and racial difference in moral education for children in catechism classes called 'doctrina' in a church in Los Angeles. Lo (2004) demonstrates how expressions of epistemic stance relate to moral evaluations by looking at cases in which teachers at a Korean heritage language school claim to read their students' mind with a high degree of certainty. Lo argues that Korean heritage language learners are socialized to portray their access to the thoughts and sensations of other individuals differently depending upon who these individuals are. If the individuals are perceived as morally worthy, then the access is portrayed as distant; if they are perceived as morally suspect, then the access is presented as self-evident. Fader (2011) shows that socialization into Hasidic morality does not preclude children and young adults from making conscious moral choices. She posits that language socialization into morality, authority, praising, and shaming must be considered in the context of historical and political change of these notions over time and space.

Language socialization has also made significant contribution to our understanding of language choice, language shift and the associated intercultural and transcultural adjustments in identities and communities. From a LS perspective, the simultaneous existence of two or more languages within a given community invariably entails discursive and social contestation. As new members are socialized to use language, they are socialized into explicit and implicit knowledge of these connotations and nuances as well as the situated preferences in coping with them. For example, they may designate one language to a particular domain or a particular interlocutor, or develop proficiency in a particular language as a means of expanding their identity options (or refusing to do so to maintain allegiance to a particular group, community, country or culture). As heritage language speakers are characteristically engaged in varying degrees of hybrid, syncretic language practices drawing upon their 'multi-competence' (Cook 1995, 2006), there is sufficient reason to problematize implicit assumptions about the discreteness and boundedness of language systems. In a separate study (He 2013), I argued that pushing and breaking perceptible linguistic boundaries, Chinese heritage language (CHL) speakers celebrate their multi-competence, traverse invisible cultural and identity boundaries, and employ and enjoy both languages at all ages and proficiency levels in transient and transcendent *multi-performances*, which in turn can become a rich resource for heritage language socialization across the lifespan.

To sum up, from the LS perspective, heritage language classrooms constitute one of the social domains where the participants (learners and teachers) relate to the multilingual, multicultural world in dialectical ways mediated by various semiotic resources, both written

(e.g., forms of literacy) and oral (e.g., modes and codes of speech). Learners do not merely unquestioningly acquire and absorb heritage language and literacy skills and heritage cultural knowledge presented as input by teachers. Instead, it is the interaction between the learners, teachers and the situational- and discursive-contexts of the classroom that creates and crystallizes that what counts as possible, permissible and preferable knowledge and skills and what is to be inherited or inhibited.

3. Socializing Heritage Literacy in Chinese Heritage Language Classes

I now focus on the issue of the teaching and learning of literacy in heritage language classrooms, which, given the HL learner characteristics mentioned above, constitute the bulk of HL classroom activities. I will show that an LS perspective enables us to view literacy as a discursive practice located in and shaped by a range of social and cultural factors and forces rather than merely a set of skills in reading and writing.

3.1 Literacy development as a primary goal for CHL learners

It is widely acknowledged that Chinese is the most widely spoken language in the world, by measure of the size of its native speaking population. It is less recognized, however, that Chinese is also the most common 'heritage language' used by speakers who have a cultural and ethnic connection to it in the context of immigration and migration worldwide. In the US, for example, Chinese is now the third most commonly used language (next to English and Spanish), with about 2.5 million speakers (US Census Bureau 2010). As early as the nineteenth century, Cantonese classes were offered to children of early immigrants residing in Chinatowns in a number of large US cities such as San Francisco and New York (Chang 2003). Today a rapidly increasing number of students of Chinese descent are taking Chinese within the US educational system from Kindergarten to colleges and universities, in K-8 Chinese/English bi-lingual education as well as K-16 Chinese flagship programs, which aim to create superior-level-Chinese-proficiency professionals in business, sciences, law, and other fields. Needless to say, there is also the little documented, informal, everyday learning of Chinese at home.

Chinese heritage language speakers are typically either born in the US or immigrated to the US at a young age (often before puberty). Chinese is used in the household, but these speakers either use English exclusively or mix English and Chinese frequently. They often either never have an opportunity to fully develop the ability to read and write in Chinese or their reading and writing ability in Chinese tends to deteriorate rapidly as their socialization into the mainstream culture and society unfolds (Wong Fillmore 1991; Li 1994; He, 2010; He and Xiao 2008). When asked what their main goal is in learning Chinese, an overwhelming majority of CHL learners state that they want to be able to read and write in Chinese. Part of the reason lies in the nature of the Chinese writing system.

3.2 Logographic nature of the Chinese writing system

The unit of Chinese writing, a set of strokes arranged in the shape of a square, is known as the Chinese 'character.' Some researchers have called it a 'sinogram' (William Wang). Whereas the alphabet system is based on the size of phonemes, the logographic system presents semantic and phonetic information simultaneously (Packard 2000; Wang, Tsai and Wang 2009). Based on their internal complexity, characters are divided into simple characters with

a single, un-divisible component (such as 木, 水, 人) and composite characters which are comprised of two or more analyzable components (such as 沐, 睡, 仁). Furthermore, the majority of the composite characters are formed by two elements of distinctive features: the semantic radical and the phonetic component. For example, the character 沐 *mu*, to shower, has two components, a semantic radical on the left that indicates the meaning of water, and a sound component on the right that suggests the pronunciation. The Chinese writing system contains about 200 semantic radicals and over 1000 phonetic components, the various configurations of which lead to thousands of Chinese characters. It is generally agreed that one needs to have an active knowledge of about 2500 characters to be able to read a newspaper or a simple novel.

The task of learning Chinese characters can be daunting, even to mother-tongue, monolingual speakers of Chinese. When one learns a phonetic-based language, once one masters the alphabet, one can begin to read and write more or less from Lesson One. With Chinese, characters start at Lesson One and need to be learned, one by one, lesson by lesson, until one accumulates enough of them to begin seeing patterns, which will in turn help one remember and internalize characters. Acquiring and accumulating characters requires sustained, substantive effort on the part of the learner. Maintaining the knowledge of and the ability to use these characters is equally challenging and requires constant practice. As the Chinese saying goes, it is like 'rowing a boat against the tide'逆水行舟if one eases off the efforts, one goes backwards. That is why both acquisition and attrition of characters become formidable challenges for CHL speakers.

It is claimed that morphology, particularly inflectional morphology, is an area in which HL speakers in general often have the most trouble. It is further suggested that HL speakers appear to struggle more with nominal morphology than verbal morphology; agreement, aspect, and mood are much weaker areas in heritage speakers than is tense (Benmamoun, Montrul and Polinsky 2010). In Chinese, the distinction between roots and affixes is often blurred and the concept of the Chinese 'word' remains rather elusive. Chinese morphemes mostly correspond to characters (single syllables) and are graphically encoded by semantic radicals. Lexical and literacy development thus relies crucially on the knowledge of radicals as they provide the visual and functional bases for character segmentation and meaning identification. Consequently, weaknesses in morphological derivation or inflection documented in other HLs manifest themselves in the challenges CHL speakers face in the command of characters. Due to infrequent and incomplete exposure to print input, CHL speakers typically have difficulties with recognition and retention of characters, especially complex characters with copious strokes (Koda, Lu and Zhang 2008). School-age CHL speakers often lack metalinguistic knowledge of the morphological structure in a Chinese word and are unable to dissect, identify and manipulate morphemes in printed words. Adult CHL speakers often lack the ability to access or retrieve from earlier memory either phonological or semantic information on radicals, which makes it difficult for them to infer the meanings of unfamiliar characters or to access stored character information.

3.3 Character-decoding as pedagogical objective

Such incomplete or underdeveloped morpheme-character awareness accounts for, to a large extent, the widely observed phenomenon that CHL speakers tend to have rather low literacy skills. They may use Chinese at home, receive primary literacy instruction in English at school, and pursue ancillary literacy in Chinese in a weekend school. As such, their primary literacy tends to build on underdeveloped oral proficiency, and secondary literacy reflects heavily restricted print input and literacy experience. While some young CHL speakers may be able to offset the limited linguistic support with additional meta-linguistic and cognitive

resources and succeed in heritage language literacy (Koda, Zhang and Yang 2008), adult CHL speakers find it extremely challenging to develop or maintain their level of literacy (Xiao 2006). As a result, CHL classes devote much of the class time to the teaching and learning of characters, as illustrated below in data segment (1), from Chen and He (2001).

(1) Collaborative identification of characters

021	T:	这什么字?
		What is this character?
022	Ss:	学
		study
023	→	T: 学对不对?
		It's the character for study, right?
024	T:	这个字呢?
		What is this character?
025	S:	校
		It's xiao.
026	T:	校我们学过了
		We have learned xiao.
027	→	T: 上课老师教过了对不对?
		I have taught it in class, right?
028	T:	学校的校学过了
		We have learned the xiao in xuexiao (school).

In this segment, the teacher goes over a list of characters, one-by-one, poses identification questions (lines 21, 24), and reinforces the students' response (lines 23, 26–28). The students cooperate and collaborate with the teacher in producing 'xue' (line 22) and 'xiao' (line 25) as the characters to be learned, recognized and reviewed. The exchange concerning these two characters 'xue' and 'xiao', however, does not end here. It continues on to a delineation of the cultural meaning embodied in the orthographical composition of the characters, as seen in the section below.

3.4 Characters as semiotic resources for socialization

Due to their logographic nature, Chinese characters are not only the ends of learning literacy in Chinese, but also become powerful means of socializing culture, morality, and values. The semantic structural potential in the formation of Chinese characters makes it possible to encode rich cultural and historical information. It allows us to glimpse into the far recesses of Chinese culture. The composition and components of characters give us clues about the material culture and cultural beliefs, biases and ways of thinking from a long time ago. Therefore, as CHL teachers are engaged in the teaching of characters, they often inevitably also seize the moment to inculcate Chinese cultural values.

Continuing from data segment (1), the same teacher and students carried out the following discussion regarding the character 'xue' (to study, to learn):

(2) Contestation of cultural meaning of characters: 学: *'xue'(to study, to learn):*

老师: 你看这个字的上边,上边是古代小孩梳的那种那种发型那种头啊,把头发都扎在头顶。下边呢,下边谁认得?认得吧,是'子',就是孩子。所以这个'学'字说得就是小孩子呢,他的主要任务就是要学习。要学习,对不对?我们小朋友啊都要好好学习。

TEACHER: *Look at the top part of this character. The top part looks like kids' hairstyle in ancient times,when they put hair on top of their head in a bun. And the bottom part (of the character), who knows the bottom part? You know that part, right? It's 'zi'(child), meaning child. So this character 'xue' says that for a child, his main responsibility is to study. (Kids) should study, right? My little friends, we should all study well.*
学生: 那是古代,是很久了,现在我们不梳那种样子了,谁都不那样了。
STUDENT: *That's ancient times. That's old times. Now we don't comb like that. No one (does his hair) like that anymore.*
老师: 啊,对。现在当然不梳成那样了。那就是那个意思呵,说小朋友啊- 啊,什么时候都应该好好学习。
TEACHER: *Oh, yes. Now of course (we) don't comb our hair like that. That is that means eh, it says little friends should, in any circumstances, study well.*

The teacher uses the shape of the orthography of the character 'xue' (to study, to learn) as an iconic reference to the paramount value that the Chinese have, for thousands of years, placed on education and learning. Unlike in (1), where the students readily accept and cooperate with the teacher, a student in (2) actually casts doubt on what the teacher says by stating that the old kids' hairstyle is long out of date and thus implying that perhaps the importance for kids to concentrate on learning is also running out of date. The teacher subsequently affirms the student's explicit comment on the hairstyle, but rejects the student's implicit suggestion about the value of learning for children.

Not only do the participants in the classroom engage in an examination of the cultural values through the literacy lesson, they also investigate the larger social and historical forces that shape literacy. They ask questions such as what counts as literacy? What kinds of literacy practices are expected, valued, promoted, in what contexts and for what purposes? For complicated social and political reasons, modern Mandarin Chinese is written in two scripts, the traditional (known as *fantizi*), which is typically used in Taiwan and Hong Kong, and the simplified (*jiantizi*), which is the official script used in mainland China (see Chen (1999) for a detailed discussion). The script used to write the Chinese language is often seen as an integral part of the language and the identity of its speakers. A specific script can act as a political and/or cultural identity marker. While the heritage language classrooms where I collected data used textbooks published in *jiantizi*, they also either presented the materials in *fantizi* side-by-side or provided their students with supplementary reading materials in *fantizi*. Given the wide range of political, regional, linguistic, and socioeconomic divisions within the student populations, bi-script writing has also been part of an attempt to forge a collective identity within an all-encompassing Chinese American cultural framework. In (3), college-level CHL students and their instructor collectively work out a shared understanding of what script choice is acceptable or desirable.

(3) What kinds of literacy?

TEACHER: 你写哪种都可以
you may write whichever form,
只要写对就行
as long as you write it correctly
STUDENT: 那好那好那个traditional的

Then OK then OK that traditional one
还比较nice一点,
(It is) relatively nicer.

In this case, a college CHL student with a Hong Kong background and the instructor who is a native of mainland China are discussing which Chinese character form, the traditional or the simplified, should be used for class work. While the teacher normally uses the simplified form, she gives the student the option of using either form, making clear that either form is acceptable for class purposes. The student takes the matter one step further by stating his own aesthetic preference for the traditional form, going from what is acceptable to what is preferable to him as someone who is not just a Chinese, but a Hong Kong Chinese.

It is important to note that shared understanding of meanings and dispositions may not be achieved all at once. In (4), the teacher explains the composition of the character 'ren' (benevolence) as well as its cultural connotations to a group of 5-9 year olds in a weekend Chinese Language School. Five minutes later, one student uses the word 'ren' inappropriately. The teacher corrects the student's usage of the word and further clarifies the cultural entailment of the character.

(4)Over-extension of lexical and cultural meaning

老师:	'仁'啊,仁爱的仁,仁慈的仁。记不记得,那个东郭先生,他太仁慈了,不该仁慈的时候他也- 也也-啊-不应该,结果呢,被蛇给咬了, 是不是? 仁,好, 看一看,是上下分还是左右分呐? 左右分, 是不是?左边呢, 什么偏旁? 什么偏旁? '人字旁', 对了,'人字旁'。右边呢?右边是个数字,对不对? 是几啊?'二'.'二'就是除了我自己还有别人,不能只想着自己,要想想别人,看别人需要什么,想想我能为别人做点什么。这就是'仁',想着别人,给别人做好事。
Teacher:	*OK, 'ren', 'ren' as in 'ren-ai' (benevolent love), 'ren' as in 'ren-ci' (benevolent charity). Remember, that Mr. Dongguo (a figure in a Chinese fable), he was too benevolent. He even, even acted benevolently when he was not supposed to. He really shouldn't have. So as a result, he was bitten by the snake, right? OK, 'ren', look carefully. Does this character have a top-bottom composition or left-right composition? Left-right, right? On the left, what radical is this? What radical? The 'person' radical, right, 'person' radical. What about the right side (of the character 'ren')? The right side is a number, right? What number is it? The number 'two'. 'Two' means besides myself there is somebody else. (It means you) cannot just think about yourself. You must think about other people, see what their needs are, see what you can do for other people. This is the meaning of 'ren' (benevolence), keeping other people in mind, doing good deeds for other people.*
	((About 5 minutes later, two students were fighting for a color pencil.))
老师:	不抢!互相谦让着点儿。
Teacher:	*Don't fight! Try to yield to each other.*
学生1:	他没有'仁'!Not nice!
Student:	*He does not have 'benevolence'! Not nice!*
老师:	啊?!哈哈 没有仁,呃,这太过分了,没那么严重啊。'仁'说的是大方面的事。
Teacher:	*What?! Haha. No 'benevolence', uh, that's too much. (what you are talking is) Not that serious. 'Benevolence' refers to something big.*

Taken together, in these CHL literacy classes, students and teacher may cooperate and align themselves with each other (as in (1)), or they may challenge and disagree with each other (as in (2)), or they may enrich and complement each other (as in (3)), or they may carry out an extended and repeated teaching and learning process (as in (4)). In all cases, the supposed object of learning – the characters – becomes the basis and the resource for the participants to draw on to engage each other in collaborative efforts of delineation, articulation and socialization of cultural meanings and values.

As mentioned previously, CHL classrooms are characterized by mixed language use. In data segments (3) and (4) above, we have already seen examples of such a language practice. I will next to turn to this prevalent phenomenon and explore how it functions as a communicative foundation for language and cultural continuity as well as change.

4. Multi-performances: Creativity and Continuity

Language use based on multiple linguistic sources, or multi-performance (He 2013), or more commonly known as code-switching, is a very common practice in language classrooms (Lin 2008). It is a particularly salient feature in HL classrooms, since, as mentioned before, HL learners typically possess varying levels of oral proficiency even though they need considerable instruction in literacy. As detailed in He (2013), much of the multi-performance in CHL classrooms takes place at multiple and nested levels of phonemes, morphemes, syllable structures, tones, noun and verb phrases, and clauses. Rather than being governed by fixed, a priori linguistic constraints, socio-pragmatic meaning, or conversation-sequential contingency, this type of ad hoc, intra-TCU (turn constructional unit) (Ford and Thompson 1996) code-switching is accomplished with a full range of verbal resources from both languages that are simultaneously accessible to the speaker. In the space below, I will explore the kinds and degrees of communication made possible by multi-performance and the range of identity and group-membership options rendered imaginable by multi-performance.

4.1 Multi-performance and communicative efficacy

Let us examine (5) below, where two college CHL students are discussing ways to turn a traditional Chinese character (*fantizi*) into its simplified version (*jiantizi*). The first student questions 'how to simplify' by using the Chinese question marker 'zenme' ('how') and the English root verb 'simplify.' What is noteworthy is not merely that an English root verb is employed the same way the equivalent Chinese verb would have been (without inflections) but also that the delivery of 'simplify' by the first student is such that it actually sounds like a Chinese word: The original initial stress in the English word is erased. The word is produced as four separate monosyllabic parts each with a tonal quality (sim 55), (pe 55) (a schwa is inserted after the (p) sound to satisfy the Chinese consonant + vowel syllable structure), (li 51) and (fy 51), where 55 indicates High tone and 51 indicates High Falling tone.

In response, the second student also embeds an English lexical item in his utterance, this time an adjective 'simple.' Similar to what the first student did, the second student also maximally integrates 'simple' in the Chinese environment both syntactically, by preserving the Chinese intensifier 'hen' ('very') before 'simple' and change of state particle 'le' after it, and phonetically, by delivering 'simple' as two adjacent but independent units (sim 55) and (ple 214), where 214 indicates Falling Rise tone. (S2 is a heritage speaker of Cantonese and his rendering of 'simple' is reminiscent of the prosodic contours in Cantonese.)

Up to this point, both students have successfully incorporated an English verb and an English adjective in a Chinese utterance at morpho-phonemic as well as syntactic levels. What happens next is that the second student takes it one step further and draws the conclusion that the character cannot be simplified any more. He does so by truncating the English verb 'simplify' into four monosyllabic, tonal units (as the first student did in the first turn) and inserting the Chinese negator 不 bu ('not') in the middle, thereby imitating a

Chinese-sounding morphological construction: verb + negative potential marker infix + potential complement. It is evident that this creative blending is accomplished spontaneously as the student seems to be surprised and amused by his own utterance and starts laughing before the syllable (fy 51) is completed.

(5) Multi-performance and collaborative creative communication

Student 1:	怎么sim-p(e)-li-fy? *How to simplify?*
	((pause))
Student 2:	这已经很sim-ple了. *This is already very simple*
	sim-p(e)-li-不-f(hh)y了hhehahahehh!! *Cannot simplify anymore.*

These two college students are rather fluent in both spoken Chinese and English. They freely mix and mingle these two languages and turn them into one seamless, creative speech production, which at once most earnestly, humorously and dramatically captures the nature of the classroom task at this moment—the task to simplify the traditional characters appears to them as comically surprising as the very multi-sourced-language form that they extemporaneously created to describe the implementation of the task. Similar to what is observed by Li and Wu (2009), these two college students here have created a new stance through a creative new morphological configuration. Such a spontaneous, original expression of the highly emergent and yet clearly mixed sentiment would not be possibly or adequately expressed in either Chinese or English alone. This moment of creativity, in turn, (over-) extends the participants' existing oral proficiency in both Chinese and English, while displaying their meta-literacy awareness as well as acknowledging the formidable challenges they face in acquiring literacy.

Whereas the college students who are relatively more balanced in both languages in (5) collaborated and coordinated in the use of mixed languages, in (6), a young, English-language-dominant student in a weekend Chinese heritage language school and his teacher are engaged in some quick exchanges regarding an urgent matter, each holding on to his/her own language choice.

(6) Multi-performance, urgency and transiency

Yangyang:	我要- 我特别渴,I'm on FIRE! *I want- I'm terribly thirsty.*
Teacher:	啊呦: 这么严重啊 *Wow: it's THAT bad huh*
Yangyang:	no- I'm not on fire I'm DYING
Teacher:	那你快去快回。 *Then you go fast and return fast.*

In this case, the young boy switched from Chinese to English midway in his first formulation of the request to leave the classroom, despite the class policy of speaking Chinese only

in the classroom. The teacher did not penalize the student for speaking in English, nor did she reciprocate his code-switch but rather insisted on using Chinese all the way through. Through mixed language use, the boy was able to convey and escalate the sense of urgency that he might not have been able to otherwise. The teacher, even though functional in English, refused to join in the switch to English, thereby preserving her presumed role of the language teacher and honoring the Chinese-only classroom policy while permitting her student to slip out of the classroom discursive mode for the moment and resume his everyday English-speaking self.

Hence mixed language use has not only enabled participants to construct complex meanings with and for each other in creative ways, but also functioned to give learners the interactional architecture to present themselves as varying kinds of heritage language learners – the baffled and the amused as in (5), and the transient and the momentary as in (6) The issue of participant identity construction will be further explored below.

4.2 Multi-performance and range of identity imaginations

In the last data segment, (7), below, advanced-level college CHL students are discussing the concepts of 'history' and 'tradition', following an in-class reading of a short essay in Chinese about China's long history and deeply-rooted customs and traditions.

(7) Mixed codes, shifting identities

Student 1:	那历史不一定要跟传统在一起.
	Then history not necessarily has to stick with tradition.
	你像美国
	For example the US,
	美国没有什么历史
	the US doesn't have much history
	但是它有很多传统很好的传统.
	But it has many traditions nice traditions
Student 1:	y' know it's not the same thing=
Student 2:	=I'm not saying they're the same 但是 但是 没有历史
	But, but, without history
	你- you can't understa::nd传统.
	You-you can't understand tradition
	(.2)
Student 2:	你连传统都不能understand
	You can't even understand history
	所以你不能分开can't separate them
	So you can't separate *can't separate them*
	你像我们Thanksgiving
	You see for example our Thanksgiving
	你知道了历史你才appreciate Thanksgiving
	Only when you know the history can you appreciate Thanksgiving.

In this segment, the participants mix Chinese and English aptly and abundantly at multiple levels – between speaking turns, within the same speaking turn, and within the same TCU. They also reduplicate the same content in different languages; a close hearing of the utterance '所以你不能分开 (suoyi ni bu neng fen kai, *so you cannot separate*) can't separate

them' shows that it is produced in one single breath and one single pitch contour. Student 1 begins with an assessment of the US situation in Chinese, referring to the US as 'ta' (it), positioning himself as an outsider to the US, before switching to English. Student 2 latches on to Student 1's speaking turn in English, switches back to Chinese in the second TCU of his multi-TCU turn, interweaves Chinese and English as he continues, and finally claims 'Thanksgiving' as 'women(de)' (ours).

Various scholars (e.g., Gafaranga 2005) have argued that there is not a one-on-one correspondence between the speaker's identity and his/her choice of language (for example, the choice of Chinese cannot be equated with a choice of Chinese cultural identity); instead, it is the very act of switching, mixing, and blending itself that points to patterns of identity construction. In the case of (7), none of the switched constituents can be explained in terms of linguistic inadequacy in either one of the two languages, or change of addressee, topic, communicative setting or purpose, or conversation-sequential contingencies. It is the participants' simultaneous and equal access to both languages that gives rise to their multi-performance, which, together with their pronominal choices, portrays themselves as simultaneously both Chinese and American, both the other and the self, both recognizable and transformed from either perspective.

To summarize this section, multi-performance makes possible original, creative utterances with structural transformations and transpositions that are impossible in mono-language. CHL speakers can celebrate new forms, new possibilities and new energies created therein (Li 2011). Multi-performance also extends to speakers a wider range of transcultural, translingual identities options. As codeswitching invokes situation, identities, backgrounds (Gafaranga 2001; Li and Zhu 2010; Li 2011), multi-performance is a common, and often preferred, form of communication among CHL speakers. The absence of a discernible matrix language, base language, or dominant language in the Chinese–English data reconstructs the fluidity and heterogeneity in the identity and community of CHL speakers. Finally, multi-performance provides linguistic and discursive space for CHL speakers to use the optimal elements and aspects of each language from their entire linguistic repertoire and to work to the exclusion of elements and aspects with which they may be less familiar and in which they may be less proficient. As such, CHL speakers at all ages and proficiency levels can employ and enjoy both languages with eclectically optimal resources.

These advantages afforded by multi-performance can have considerable potentials for the maintenance and development of heritage languages across the lifespan (He 2006, 2014. In addition to the rejection of Chinese by CHL speakers themselves, due to social and pragmatic assimilative pressures, an important factor in CHL attrition is, ironically, discouragement or even derision by family and friends over the speaker's imperfect command of the heritage language (Dai and Zhang 2008; He 2011). Less than proficient CHL speakers often avoid speaking Chinese for fear of being ridiculed. An active affirmation of multi-performance in the classrooms can, in this context, provide an efficacious, meta-pragmatic frame for CHL speakers to remain in touch with Chinese to the greatest extent possible even as their linguistic abilities, identity options, and socio-cultural affinities and investments shift and evolve over time.

5. Conclusion and Discussions

A language socialization perspective on classroom discourse does not aim to evaluate teaching or learning by focusing on the teacher's or the students' verbal behavior in separation from each other. Rather, it conceptualizes the classroom as a meeting place of the expert and the novice who come to negotiate and create multiple, dynamic, and sometimes contradictory knowledge and skills, values and norms, senses and sensibilities. It considers

the classroom as one of the spaces and stages for that negotiation and co-creation in a lifespan process. While the teacher often acts as the expert and the students as novices, the reverse is also possible and is perhaps pervasive, especially in the contexts of immigration and language shift, where the students in the HL classroom, for example, may well be more of an expert in the English language than their HL teachers or even possess higher levels of oral proficiency in the HL than their teachers.

A language socialization perspective considers that the classroom experience has the potential to bring about transformative practices and preferences in its participants. We have seen from the data segments that language socialization experiences may shift and change. Certain language forms and certain cultural values may yield to other forms and alternative values. The two versions of the Chinese characters (traditional/fantizi and simplified/jiantizi) are coincidentally symbolic of the heritage language socialization process – they are continuous but changed.

Perhaps most importantly, language socialization compels us to focus on interaction in the classroom. This emphasis on interaction suggests that all participants in the classroom can be agents in the formation of language and cultural competence as well as identities and speech communities. We have seen that once we focus on the moment-by-moment give-and-take between the students and their teachers and between the students themselves, we begin to realize that socialization is a vivid, lived classroom experience. In the heritage language classroom, socialization takes place both *toward* and *through* constantly and locally re-enacted, re-defined and re-constructed meanings of 'heritage language and culture'.

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See chapter 19: Language Socialization Across Learning Spaces.
See chapter 20: Academic Language and Literacy Socialization for Second Language Students.
See chapter 21: A Language Socialization Perspective on Identity Work of ESL youth in a Superdiverse High School Classroom.

19 Language Socialization Across Learning Spaces

JIN SOOK LEE AND MARY BUCHOLTZ

1. Introduction

Learning to think, act, and speak like an expert in specific physical, temporal, cultural, and ideological spaces is a necessity to function successfully in any community. A primary way that humans become socialized to act and interact in culturally appropriate ways is through the use of language. *Language socialization* (LS) refers to the process by which individuals acquire, reproduce, and transform the knowledge and competence that enable them to participate appropriately within specific communities of language users. Thus, LS is fundamental to social life, given that all community members engage in practices of LS at numerous points in their lives, whether as relative experts or as relative novices.

Within LS research, language is regarded as a 'dynamic social practice' that is constantly 'contested' and 'in flux' among its users (Duff and Talmy 2011, p. 96). LS thus offers a theoretical and methodological framework for understanding how linguistic and cultural competence are developed through everyday interactions within communities of practice. Based in the traditions of human development and linguistic anthropology, LS is concerned with both 'socialization through the use of language and socialization to use language' (Schieffelin and Ochs 1986, p. 163). LS researchers take a cross-cultural perspective to make visible the intersections between language and culture in the processes of learning and teaching. Such a perspective not only recognizes the existence of biological and psychological attributes in these processes but also importantly acknowledges considerable variations due to cultural factors and sociohistorical conditions (Garrett and Baquedano-López 2002, p. 341). In addition, because of its concern with cultural specificity, scholarship on LS pays close attention to how socialization occurs in culturally meaningful learning spaces, and how these practices may be linked or kept apart across different kinds of spaces.

This chapter first presents a brief overview of the theoretical principles and methodological approaches employed in LS research (see also Duff and Anderson, this volume). To illustrate this framework and particularly the pivotal role of learning spaces within LS, the chapter then discusses how a university–high school educational partnership offers students opportunities to gain a new perspective on LS as ethnographers of language and culture in

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their own speech communities. In guiding students to make creative and meaningful connections between community and classroom cultures, the program, SKILLS (School Kids Investigating Language in Life and Society), which is based in Santa Barbara, California, demonstrates that social interaction that bridges learning spaces – including classrooms, peer groups, families, and local communities – affords more and richer opportunities for LS than interaction restricted to a single context (González, Moll, and Amanti 2005; Lee 2010; Orellana, Lee, and Martínez 2010; Paris 2012). More generally, the program offers an example of the fluidity of the spatiotemporal boundaries of learning spaces as well as the agency of participants as they acquire, negotiate, resist, change, and/or create hybrid language practices. LS occurs through multidirectional processes with great potential for individual transformation and broader societal change.

2. Language Socialization as a Theory

The field of LS has had a relatively short history, yet it is deeply rooted in theories of learning and development that intersect various disciplinary perspectives from anthropology, linguistics, psychology, and sociology. LS research has made a significant impact on scholarship by demonstrating that linguistic and cultural learning and development are best understood as fundamentally contextualized and interactionally emergent processes. Because it views the development of communicative and interactional competence through the lens of language in context (Gumperz 1968; Hymes 1972), LS research focuses on language use within interaction as the main symbolic tool for developing linguistic and cultural competence. Moreover, linguistic and cultural competence are conceptualized as being co-constructed, highlighting the individual agency of the participants involved (Duff 2010). LS originated as a response to the narrowness of child language acquisition models that focused strictly on structural forms and psychological processes of language development without consideration of the sociocultural contexts of learning (Watson-Gegeo 1992). Going beyond such models, LS sheds light on the close interconnection between the structures of language on the one hand and the social world on the other by demonstrating how such structures are reflective of and emergent from cultural, social, and ideological forms of knowledge that are 'learned in and through language' (Duff and Talmy 2011, p. 95).

Because of the anthropological origins of the field, LS studies have centered on home and community practices, examining how young children gradually learn to speak and act like competent cultural members; however, there is increasing interest in investigating 'life-long and life-wide' socialization across learning spaces (Duff 2008, p. 257). Numerous in-depth reviews survey the theories, methods, and findings of LS, such as Schieffelin and Ochs's (1986) seminal introduction to language socialization as a field, Garrett and Baquedano-López's (2002) discussion of the cross-generational reproduction and transformation of language use, and Bayley and Schecter's (2003) edited volume of school-based LS studies. More recently, Duff and Hornberger's (2008) edited volume on LS presents not only a 30-year historical overview of LS (Ochs and Schieffelin 2008), but also theoretical discussions that extend LS into other domains such as higher education and professional spaces (Duff 2008; Morita and Kobayashi 2008). Finally, the state-of-the-art reference volume edited by Duranti, Ochs, and Schieffelin (2011) provides a comprehensive survey of international scholarship primarily from a linguistic-anthropological perspective, including the social and cultural implications of heritage language and second language socialization, literacy and media socialization, and socialization across the lifespan and various institutional settings. Given the wealth of information already available on LS, the purpose of this section is not to exhaustively review current trends in LS research but to summarize the field's basic

theoretical principles. The following seven principles hold constant in LS work across the lifespan, across different learning spaces ranging from traditional home practices to academic and workplace contexts, and across various modalities, from face-to-face interaction to online communication.

First, LS research views cognition as a social rather than individual psychological phenomenon. Within the LS framework, learning is conceptualized as occurring through social interaction with more expert persons within the more novice individual's Zone of Proximal Development (Vygotsky 1978). Through social interaction, learners are able to perform shared and expected practices specific to a social activity and cultural setting. Lave and Wenger (1991) further argue that the sources of socialization go beyond individual interactions to participation in broader communities of practice; they emphasize the importance of learners' access to participatory roles in communities of practice, ranging from peripheral to full participation. Hence, LS perspectives incorporate the notion of apprenticeship to understand the complex sociocultural and cognitive processes of socialization within and across learning spaces. In LS research, the enactment of apprenticeship roles is examined in relation to the social, cultural, and pragmatic meanings associated with language in specific interactional routines (Rogoff 1990). This approach enables LS as a theory to account for how an individual becomes a full participant in a particular culture and language. According to Ochs (1986, p. 2), socialization is 'an interactional display (covert or overt) to a novice of expected ways of thinking, feeling, and acting.... [T]hrough their participation in social interactions, children come to internalize and gain performance competence in these sociocultural[ly] defined contexts.' LS research emphasizes how novices are socialized into using language as well as socialized through language into local cultural routines, practices, and expectations (Schieffelin and Ochs 1986). Further, such scholarship examines how and why social identities and competencies, including learning trajectories, shape and are shaped by unstable and changing systems of cultural meaning and practices (Baquedano-López and Hernandez 2011; Kulick and Schieffelin 2004).

Second, researchers of LS see language and culture as inseparable. The influential works of Bambi Schieffelin, Elinor Ochs, and Shirley Brice Heath exemplify the interconnectedness of language use and cultural norms. For example, Schieffelin and Ochs's (1986) research in Papua New Guinea and Western Samoa, respectively, shows that talking to babies in a simplified register, a practice among middle-class white Americans, is not necessarily the norm in other cultures. In fact, the researchers found that the ways in which children are taught the social and communicative roles, expectations, and repertoires involved in their communities' linguistic practices are culturally specific. They discovered that through participation in everyday social life, children master the practices of their particular community and over time become more expert in the social and language skills needed to develop the worldview specific to their cultural context. This work set the foundation for future studies that examined how LS across various learning spaces in the home and community could differentially affect the experiences and academic outcomes of children in schools. Although most LS studies are more concerned with processes than outcomes (Duff and Talmy 2011), Shirley Brice Heath's (1983) highly influential ethnographic study powerfully illustrates the relationship between the two, comparing language socialization practices in three different communities to show how differences in communicative repertoires and expectations between home and schools can negatively affect a child's academic performance and trajectory. Thus, scholars of LS understand development as culturally situated in and mediated through social and political meanings and ideologies that are reflected and reproduced in language structure and use (Duff 2010).

Third, LS research recognizes the cultural norms and practices of a community as dynamic and fluid, with the potential to be reproduced or transformed by their users. It views

socialization as a complex process influenced by both broad macro-level sociohistorical processes and ideologies and micro-level cultural norms and interactions. This perspective enables researchers to localize their findings to specific spatial, temporal, and cultural contexts and to account for variations across and within their research sites. For example, Schecter and Bayley (2002) provide a clear illustration of the different ways that Mexican families in California and Texas practice and understand culture as well as how the use of Spanish, English, or both reflects dynamic and fluid cultural practices in these historically situated sociocultural contexts. This study demonstrates the shifting nature of LS by showing that the process extends throughout the lifetime in an interactive, multidirectional process rather than a linear trajectory. In other words, it calls for a 'dynamic model' of language socialization (Bayley and Schecter 2003) that considers issues of power, agency, contingency, and the multidirectionality of influences (Talmy 2008).

Fourth, by its very nature, LS involves power and inequality. Hence a perspective that focuses on a depoliticized notion of culture will miss a fundamental aspect of socialization. To begin with, LS positions some social actors as experts, or holders of knowledge, and others as novices or learners, an arrangement that profoundly shapes interactional and broader cultural rights and obligations. And more generally, all LS processes emerge from and reproduce language ideologies dictated by cultural assumptions and sociopolitical ideas about language forms and their use (Kroskrity 2004; Riley 2011; Silverstein 1979; Woolard 1998). Ideologies of language serve as 'the mediating link between social structures and forms of talk' (Woolard and Schieffelin 1994, p. 55), which influence attitudes and beliefs about both in-group and out-group members and the kinds of language that they are expected to use.

Because ideologies about how language is acquired, or should be used, in specific sociocultural contexts influence and recirculate within LS routines adopted by caregivers and educators, it is important to examine such ideologies when assessing educational processes and outcomes. For example, one pervasive language ideology is that younger children are less competent and must be socialized over time by more able older siblings or adults in order to learn the communicative repertoire that is acceptable and expected in their local community. However, research has shown that in different communities, assumptions and opinions vary as to how and to what degree children need to be explicitly taught grammatically and pragmatically appropriate linguistic forms (Paugh 2011). For instance, among the Kaluli of Papua New Guinea, for whom age is the primary basis of social asymmetry, parents and older siblings overtly model appropriate ways of speaking and use prompting routines to socialize children to cultural norms (Schieffelin 1990). In contrast, adults in an African American community in the rural South studied by Heath (1983) believe that children's natural processes of formulating speech should not be interrupted and that they will eventually acquire the normative forms by imitating the speech of expert elders. However, because these language ideologies and processes of LS do not mirror those practiced in white middle-class European American families and reflected in mainstream schooling, such students are placed at a disadvantage in academic contexts. This example also illustrates the final aspect of power in LS: language ideologies draw from and perpetuate larger systems of social inequality, including racism, classism and economic disparity, xenophobia, sexism, and homophobia, as well as other forms of sociopolitical subordination. Thus, LS is not a neutral process; socializing practices within and across communities are rooted in participants' ideological dispositions, which have significant cultural, social, educational, political, and economic implications.

Fifth, and as an important counterpoint to the previous principle, LS scholars consider the agency of individuals as central in reproducing and resisting community-specific and wider practices. That is, LS enables the study of how socially, historically, culturally, and politically

positioned individuals with multiple subjectivities and identities engage in socialization activities to reproduce and transform the social order (Baquedano-López and Hernandez 2011; Duff and Talmy 2011). LS studies document how and when language practices are acquired, or acquired in different ways than intended; although researchers acknowledge the specificity of linguistic codes, exact reproduction is not assumed to be either the goal or the outcome of LS processes, and consequently the role of individual agency is emphasized (Garrett 2005; Kulick and Schieffelin 2004). In other words, because socialization is a multidirectional process in which both expert and novice are in the position of socializing each other and social actors are constantly influenced by and influencing the local contexts in which they participate (Duff 1995; Talmy 2008), those experiencing socialization have the agency to create new ways of acting, being, and thinking that do not simply reproduce the repertoire of cultural, linguistic, and ideological practices to which they are exposed (Kulick and Schieffelin 2004). This view is interlinked with the understanding of LS as a fluid and dynamic process, because the goals and practices of participants both advance and respond to changing cultural and societal circumstances. Additionally, although the grounding of LS within social interaction has led to a focus on the expert–novice dyad as the primary unit of analysis for socializing processes, self-socialization, or individual agentive action to enter a community of practice, is also an important aspect of LS. The original conceptualization of self-socialization has theoretical limitations, developing as it did from a traditional psychological perspective that lacks close attention to language and culture (Arnett 2007). However, the concept can be usefully adapted by LS researchers to enlarge the field's view of individual agency as an inherent part of socialization.

Sixth, LS research is centrally concerned with identity as a key outcome of socializing processes. This idea is in line with a general theoretical shift in research on language and identity from a correlational view, which holds that identities are reflected through language, to a constructivist view, which holds that identities are constructed and performed through language (Bucholtz and Hall 2005). That is, identities do not precede social action but are a result of social action. However, LS scholars recognize that language does not produce identity in a direct way; instead, through indexicality, or the semiotic process of creating contextualized meaning, speakers use language to take interactional stances, which in turn come to be ideologically associated with particular social categories (Ochs 1993; see also Eckert 2008). Hence, the indexical choices that speakers learn to make are not limited to the immediate interactional moment but have links to larger language-ideological systems. By conceptualizing identities as social accomplishments rather than a priori categories, LS research is able to investigate the processes by which individuals learn to become members of particular groups throughout their lives by mastering the linguistic and sociocultural practices needed to enact specific social roles and identities.

Finally, LS scholars understand the relational roles of 'expert' and 'novice' that underlie all such research as contextual, relative, and negotiable positionalities rather than fixed culturally assigned categories. Although these roles are widely used in analyzing LS processes, they are not conceptualized as wholly predetermined by cultural factors such as age or institutional status, as important as these may be in particular socialization contexts (Ochs and Schieffelin 2011). A participant may be an expert in one situation and a novice in another, and in some situations a relative novice may hold expertise that the culturally recognized expert lacks (Hsu and Roth 2009; Jacoby and Gonzales 1991). Moreover, expertise and novicehood themselves are gradient phenomena. This fact is especially evident in practices of peer socialization, whereby some individuals interactionally take on or have conferred upon them a relatively more expert status in a particular domain vis-à-vis those who are culturally positioned as their sociocultural equals (Goodwin and Kyratzis 2011; Lee, Hill-Bonnet, and Raley 2011). Peer socialization is especially well studied among those who

are otherwise culturally understood as relative novices, such as children or students, and it is an important means by which novices may claim agency and stake out identities. Peer socialization also illuminates another characteristic of expert and novice roles: they are negotiated within interaction (Carr 2010; O'Connor 2003). That is, it is not enough for a social actor simply to inhabit or adopt an expert (or novice) position; to be successful, a claim to expertise must be ratified by others, and not only once but in an ongoing way. This flexible expert/novice relationship lies at the very heart of LS.

In sum, LS enables cultural newcomers to understand, recreate, and rethink language expectations and norms as well as to engage in new practices. Most recently, new cultural and linguistic practices have emerged as a result of ongoing migration, processes of globalization, and advancements in technological means of communication, which in turn create new LS spaces and new forms of socialization. Duff (2010) notes that people and communities in the 21st century co-exist in multiple communities and use multiple linguistic varieties, thus blurring the boundaries of learning spaces. The resulting cross-fertilization in socializing practices, whether face-to-face or mediated by innovative technologies, leads to novel linguistic and cultural practices that reflect hybrid or complex identities. This situation is particularly evident in the lives of transnational, immigrant, and post-immigrant students. The multiple memberships of such youth may bring about discontinuities as well as continuities in linguistic and cultural practices and may produce greater variation in the range of experiences encountered by all participants in the LS dynamic (Duff 2010).

In response to young people's movements within and across geographic, linguistic, cultural, and educational boundaries, it has been argued that socialization studies need to take into account 'how cumulative LS experiences affect subsequent performances and subsequent socialization in other settings,' particularly in higher education and beyond (Duff 2008, p. 266). Theoretical and methodological perspectives are therefore needed to illuminate how LS affects social actors' short-term and long-term trajectories in culturally defined and valued roles and activities, the agency of individuals to change or resist dominant practices, and the formation and consequences of hybrid practices. Hence, LS theories must pay more explicit attention to the interconnection of language, culture, and learning in relation to processes of power and inequity, as it is through language that inequitable ideologies and educational practices are constructed and enacted in ways that positively or negatively affect students and teachers, as well as families and communities (Baquedano-López and Hernandez 2011).

3. Language Socialization as a Methodology

To examine the development of linguistic and cultural competence and practices across settings, LS has employed a variety of methodologies, ranging from participant-observation to interviews to audio and video recordings of interactions. Most LS studies have in common an ethnographic perspective to gain insider understandings of cultural meaning, a longitudinal design to document detailed descriptions and interpretations over time and across settings, field-based data collection and analysis of linguistic and embodied socializing interactions, and attention to both micro- and macro-levels of analysis and their connections (Garrett 2008; Garrett and Baquedano-López 2002; Kulick and Schieffelin 2004). LS processes have traditionally been examined by researchers through some form of participant-observation in order to gain insight into the cultural workings of specific learning spaces; however, the potential of participants themselves to collect naturalistic data across varied times and settings presents a powerful alternative (as discussed further in the next section).

Because LS involves gaining competence in new ways of using language and representing sociocultural meanings throughout the lifespan, what constitutes authentic or legitimate competencies and identities may change, as these are directly tied to social, cultural, and life changes. Furthermore, the processes of socializing and being socialized via language entail an understanding of how language functions in participants' daily lives and what it accomplishes, for whom, and by whom. And although language, as the most complex communicative resource, is central to socialization, within the richly contextualized approach taken in LS research, language is understood as deeply intertwined with embodied and material communication. In order to understand the multiple pathways through which socialization can happen, LS researchers have examined spoken, written, and signed language use as well as other semiotic systems, including embodied (e.g., gestural, kinesic, haptic), technologically mediated, and other forms of communication. Researchers investigate how these systems work together to convey cultural meanings, particularly the stances and practices that help constitute identities and memberships in specific cultural groups. This focus on socialization through linguistic and other semiotic systems is compatible with various forms of discourse analysis, including conversation analysis, interactional sociolinguistics, and positioning analysis, among others (Duff 2007; Garrett and Baquedano-López 2002).

Regardless of the analytic approach, social interactions are scrutinized for culturally embedded social practices in which experienced and novice participants construct, coordinate, and negotiate communication and knowledge, using not only language but also other symbolic tools such as their bodies, material objects, and the surrounding environment (Matsumura 2001; Morita 2000; Vickers 2007). Thus, the focus of LS analysis goes well beyond single isolated utterances to examine discourse practices during cultural activities within particular contexts; this methodology requires a holistic approach that considers socializing interactions in light of the immediate context, the history of relationships among participants, and relevant sociocultural, historical, political, and other institutional processes (Duff 2007). Whether through audio or video recordings of interactions, through observational field notes, through the analysis of landscapes and artifacts that help form ideologies and practices, or through interviews – which may variously involve one-on-one interaction or focus groups; structured, semi-structured, or open-ended questions; and other tools such as elicited recall protocols or concept maps – researchers use multiple methods and data sources to triangulate information in order to build a historical and contextual understanding of specific learning spaces (Duff and Talmy 2011).

One of the most challenging aspects of LS research is the need to define and delimit what constitutes a learning space for analytic purposes, while at the same time recognizing that socialization processes are influenced by both immediate and distant factors. Researchers are well aware, for example, that LS processes inside classrooms may be influenced by LS processes in homes, peer groups, and community spaces, and vice versa. These learning spaces must be understood as 'intersecting layers of experience' rather than as separate and distinct contexts (Duff 2008, p. iii). For example, in her ethnography of the linguistic practices of New York Puerto Rican children and their families, Zentella (1997) highlights the necessity for research to examine the connections between practices used in the home and those used at school. Her research revealed a gap between the fertile multilingual competencies enacted among language users in the local community and the linguistic spaces in schools, which did not acknowledge these linguistic skills. These findings reveal lost opportunities for educators to build upon the linguistic resources that bilingual children possess and demonstrate the importance of investigating LS not only within but also across culturally defined learning spaces.

As LS continues to expand its examination of settings, new methodologies are needed in order to capture how socialization experiences vary or maintain continuity across contexts.

This contextual and methodological range is illustrated by Lo's (2009) study of how Korean language students in the United States are socialized to acquire culturally appropriate moral dispositions via the values and practices encoded in the Korean language. Lo's analysis of interactions across multiple learning spaces considers a community-based Korean heritage language classroom as well as various extracurricular programs, and draws on teachers' interpretations of students' embodied movements and expressions, stance-taking toward others, and use of language as indicators of their moral dispositions. This study highlights the rich possibilities of incorporating multiple contexts and types of data analysis into LS research. Furthermore, it demonstrates how classroom language use can directly influence the construction of young people's identities by youth themselves, their peers, and adults (see also Fader's 2008 study of LS and gender in a New York Hasidic community). Such research illustrates the importance of examining LS across learning spaces – in particular, how the interconnection of language and culture shapes participation and produces identities within and across contexts. Moreover, given the growing population of linguistically, racially, and economically minoritized children in the United States, such studies show how these individuals may deal with conflicting discourses about identity in their private versus public spheres and how they may become linguistically and culturally socialized to manage their identities in each context. Thus, blurred boundaries across times and settings also lead to 'innovation and syncretism within any particular stratum or locus of socialization' (Duff 2008, p. xv). Building on such work, innovative methods that can make connections across different settings are needed. These new methodologies will contribute to a dynamic model of language socialization that can capture the complexities involved in the process of individual and cultural change.

Along with new methods, it is necessary to investigate new research contexts. Duff and Talmy (2011) call for LS researchers to pay greater attention to the socialization of older youth and adults across the lifespan, socialization in more diverse, multilingual, multicultural, and transnational contexts, and socialization through multiple modalities such as face-to-face and computer-mediated communication. The first step may be to engage in comparative and contrastive studies across different life stages or different socialization settings that enable comparisons between previously expected and shifting norms. Such studies are likely to provide an understanding of how language socialization unfolds within 'sites of struggle' and contact (Heller 2002, p. 48). Thus, broadening the range of tools for LS research may be one way to increase consideration of the 'essential unpredictability, contestedness, and fluidity of socialization' (Duff and Talmy 2011, p. 111).

Methodological advances in the field of LS, then, must account for differences and variations within and across groups and individuals, both over time and across settings. Given researchers' continued focus on language use and its interaction with sociocultural and cognitive factors, diary studies at the individual level as well as in-depth case studies of demographically similar and different individuals are needed to account for variations within and across settings and groups. In addition to longitudinal ethnographic accounts, interview-based data collection on a shorter time frame from more participants may yield significant and robust insights into LS processes. Furthermore, quantitative studies and experimental designs in a variety of learning spaces are needed to identify and test LS patterns across time and settings (Matsumura 2001). Such methods are less common given the ethnographic roots of LS as a field, but they can enhance and complement current methodologies by addressing new questions as well as offering new ways of investigating long-standing issues.

Perhaps even more importantly, however, in addition to reconsidering who and what can be studied through LS frameworks, as well as how these studies may be conducted, it is necessary to reexamine who can investigate LS processes. In particular, participants

themselves have deep insight into LS processes as well as a level of insider access and understanding unavailable to most researchers, yet they are only occasionally included in research teams. Enlisting participants as contributors in LS research most often involves data collection (e.g., training participants to operate recording devices in order to minimize the effects of an outside researcher), data processing (e.g., working with bilingual participants to transcribe and translate data), and data analysis (e.g., using playback interviews (Gumperz 1982) or other methodologies that allow participants to offer their own interpretations of data recordings). While such activities are driven by both practical and analytic considerations, collaborative and partnership-based research transforms the research relationship in a more fundamental, theoretical, and political way, enabling participants to define the research agenda from the outset and thus partially shifting the balance of power from academics to those whose practices we seek to understand.

Such collaborations remain all too rare, especially in research focused on children and youth. Few studies have fully recognized the potential of young people as producers of knowledge about their own lives (but see, e.g., Alim 2007; Egan-Robertson and Bloome 1998), yet youth have unique access to the LS practices in which they participate, as well as unique insights into the cultural meanings of such practices. Moreover, by bridging the artificial divides between the learning spaces of school, home, peer group, and community, youth-driven research can further LS theory and methods while supporting young people's academic development and identity formation.

The remainder of this chapter illustrates this claim, using the example of the SKILLS university–community partnership, through which students are socialized as ethnographers of their own linguistic and cultural communities. The results of this partnership suggest that by creating opportunities for young people, especially those from sociopolitically subordinated groups, to participate in LS as both novices and experts, schools and other educational learning spaces can foster greater academic and social equity.

4. Language Socialization Across Learning Spaces: The SKILLS Program

The primary goal of SKILLS is to promote sociolinguistic and educational justice (Bucholtz *et al*. 2014; see also Martín Rojo, this volume; Miller, this volume). The SKILLS program is founded on the principle that effective learning, including LS, recognizes and builds on young people's already considerable linguistic and cultural expertise. The program thus provides a learning space that positions youth as experts as well as novices within the socialization process, by integrating their existing linguistic and cultural knowledge with new ways of examining and using language. In addition, SKILLS links the different forms of LS that students participate in across the learning spaces and communities of practice in which they spend most of their time: the school, the peer group, the home, and the local community. At the same time, the program creates opportunities for young people to explore unfamiliar territories and to position themselves as experts in these contexts, including the university and the wider society.

SKILLS combines original research on language and culture, hands-on training in research and teaching for graduate and undergraduate students, and professional development for teachers, as well as academic preparation for public school students. From its first full implementation in 2011 to the present (2014), the program has served over 250 high school students, primarily from linguistically, racially, and/or economically marginalized groups, at multiple sites and in diverse settings and formats in Santa Barbara

County, including as an after-school enrichment program, as a component of a weekend and summer college-preparation program, as part of an existing academic skills class, and as a stand-alone high school social science elective class. In some settings, students receive college credit for completing the program as part of an arrangement with a local community college.

All versions of SKILLS are implemented by teaching teams that include graduate students, undergraduates, and public school teachers as collaborators. The teams guide student-researchers to conduct empirical research on language use in their peer groups, their families, and their local communities, as well as to examine the politics of language in their lives. The student-researchers collect and analyze audio and video data of their own and others' interactions in culturally relevant spaces and critically reflect on and challenge language ideologies in the world around them. In addition, SKILLS creates explicit links between student-researchers' linguistic and cultural expertise across learning spaces. For example, student-researchers investigate slang in their peer groups and report the results of their analysis in an online multimedia dictionary, they incorporate their bilingual skills into academic presentations for their parents and classmates, they carry out public language awareness campaigns in their schools and communities, and they examine their family's language practices and share their findings with scholars and students at the University of California, Santa Barbara. Through these various activities, language is placed at the center of student-researchers' learning both as the object of study and as the means through which they become socialized into the academic community.

LS is central to all aspects of the SKILLS program. Student-researchers are socialized to think and talk analytically about language as a human activity with substantial sociocultural, political, academic, and personal consequences. They learn to look at language as the basis of culture and identity, and to view their own and others' LS experiences in specific learning spaces as ways of gaining expertise in different cultural contexts. As we illustrate below, rather than leaving their knowledge of family, peer, and community linguistic practices at the classroom door, student-researchers integrate their full linguistic repertoires into their knowledge production within the program, and they further expand their repertoires through mastery of new academic communication skills in a variety of genres. Finally, although we do not have time to develop this point further here, participants in SKILLS do not simply gain new abilities but also use their newfound expertise to take action to produce social change by socializing others into a deeper understanding of highly charged issues of language, power, and inequality (e.g., Bucholtz forthcoming).

Given the scholarly conceptualization of LS as multidirectional and the roles of expert and novice as fluid, however, an exclusive focus on how the SKILLS program serves students in a classroom setting would miss the program's much wider aims. SKILLS seeks to foster LS processes not only for the student participants, but also for those with whom they interact, both in school and in other learning spaces. The program also works to dismantle the borders between learning spaces, so that expertise in one domain can support socialization in another domain (see also Kasper and Kim, this volume; and Lindwall, Greifenhagen, and Lymer, this volume, on the boundaries between classroom and non-classroom interaction). Figure 19.1 presents a model of LS across learning spaces within the SKILLS program.

As the model indicates, the student-researchers stand at the center of the SKILLS program, where they enact roles both as experts and as novices. In their social interactions with friends and other peers, family members, and members of the local community, young people are sometimes experts, sometimes novices, as they participate in LS processes in a wide variety of domains. And although in traditional schooling all students are positioned as novices instructed by a teacher-expert, in the SKILLS program youth are encouraged to bring their

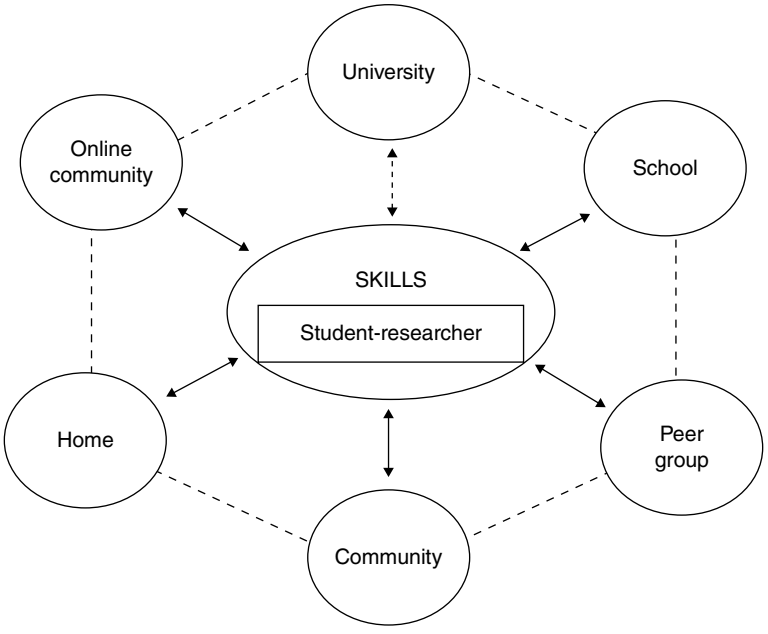


Figure 19.1. A model of multidirectional LS across learning spaces in the SKILLS program

diverse forms of expertise into the classroom and to share their knowledge with classmates as well as teachers. SKILLS also gives student-researchers direct access to the university as a multidirectional learning space: not only do students experience for themselves the role of college student as they participate in various aspects of college life with their undergraduate hosts, but they also enter the university setting as experts in their own right, authoritatively presenting the results of their research and political action projects to an audience of university faculty and students as well as family and community members. Finally, the student-researchers' role as knowledge producers has a life well beyond the SKILLS program: their data are archived at UCSB and used in further research by faculty and students, and their projects are made available to the public at large through the SKILLS website (www.skills.ucsb.edu). Thus, SKILLS helps foster and connect students' expertise across domains in their everyday lives and facilitates the flow of knowledge across learning spaces, as represented by the dotted lines in Figure 19.1.

To be sure, LS is a multidirectional process in any setting, and all participants in LS are always simultaneously experts and novices. The contribution of the SKILLS program to LS research, then, is not that it turns students into experts. Rather, SKILLS recognizes that students already are experts within many different spaces, and it uses this insight as the basis for further learning. By valorizing and supporting rather than devaluing or ignoring the knowledge and abilities that young people already have, the program helps youth to envision themselves as college students with highly prized abilities and knowledge, and to gain the additional skills needed to succeed in college and beyond. Finally, for researchers, programs like SKILLS create rare opportunities to learn directly from youth about LS processes in their lives, based on research that they themselves have conceived and carried out. The following section illustrates the multidirectionality of LS within the SKILLS program as well as the value of linking LS practices and processes across the learning spaces that young people inhabit.

5. Multidirectional LS Across Domains: SKILLS Student-researcher Nancy Áviles

To illustrate LS in action, this section highlights some of the accomplishments of one student-researcher in the SKILLS program, Nancy Áviles.[1] Nancy participated in the SKILLS program in Spring 2011 as a high school senior and after graduation went on to attend a four-year university. Already a strong and highly motivated student, Nancy was able to leverage her bilingual expertise to conduct insightful and valuable original research within the program while also expanding her own and others' linguistic and cultural competencies.

Example 1 is taken from data that Nancy audio-recorded as part of a SKILLS research project on slang use in her friendship group. In the example, she is chatting with her friend Ramón at lunchtime. As Ramón explains to Nancy how recessive genes work, he uses a Spanish term with which she is unfamiliar, *cuates*, 'fraternal twins'.

Example 1: 'Cuates,' January 12, 2011 00:36.92-01:25.26

Ramón:	Porque esta, Alma, 'Because that girl Alma'
	if you see her entire family, um,
	todos tienen como, pelo, negro, y, ojos cafes? 'everyone has like black hair and brown eyes'
	but her two brothers traen como, blue eyes, y son cuates. 'but her two brothers have like blue eyes and are fraternal twins'.
Nancy:	Cuates? What does that mean? Twins?
Ramón:	Twins, that, I don't know, they were born in the same, like,
	but they don't look the same.
Nancy:	Oh.
Ramón:	Like, I don't – I guess that's still considered twins,
	porque [no son] gemelos, 'because they aren't identical twins'
Nancy:	[Mhm.]
Ramón:	(ellos) son cuates. 'they're fraternal twins'
	Nacieron de la misma vez, pero no se parecen. 'They were born at the same time, but they don't look alike.'

Although here Ramón teaches Nancy a new word, it is important to recognize Nancy's own linguistic expertise as well. Not only was she able to successfully interact with Ramón according to the norms of their bilingual friendship group, but as a student-researcher she recognized and accepted the new term *cuate* as a marker of their bilingual speech community. Through the learning opportunities in the SKILLS program, she gained the ability to identify and analyze her friends' slang use in the recordings she collected and presented the results of her analysis to her classmates and the program instructors as well as on the SKILLS website as part of the site's multimedia slang dictionary, thereby sharing her knowledge with a much broader audience (http://www.skills.ucsb.edu/projects/slang). This example demonstrates how language practices within peer groups can illuminate the everyday lives of bilingual youth, who are both expert participants and novice learners in their own speech communities. But whereas Ramón's bilingual expertise is valued in the peer group but not

necessarily in the classroom, as a participant in SKILLS Nancy engaged daily in creating and recreating cultural and linguistic practices both within and across learning spaces.

This point is demonstrated in the next example, in which Nancy again relies on her bilingual abilities to interview her grandmother for a linguistic oral history project for the SKILLS program. The example opens with her grandmother stating that unlike in Spanish, in English 'no hay acentos' ('there are no accents').

Example 2: 'Acentos,' February 21, 2011

Grandma:	Lo que me doy cuenta que en el inglés, no hay acentos así, ¿verdad? 'What I realize is that, in English, there are no accents like that, right?'
Nancy:	Mm.
Grandma:	Te vas. 'You go with it'.
Nancy:	Como, 'Like',
Grandma:	[(unintelligible)]
Nancy:	[Sí, sí, hay a]centos. Como, 'Yes, yes, there are accents. Like',
	el:, el inglés que se habla aquí en California es muy diferente al inglés que se habla, 'the, the English that's spoken here in California is very different from the English that's spoken',
	como, en Nueva Yo:rk, en la Florida. Es muy diferente. 'like, in New York, in Florida. It's very different'.
Grandma:	Sí, [(laughs)] 'Yes'
Nancy:	[Como] si ellos vienen aquí, ellos, se quedan como, '¿Qué estás hablando?' 'Like if they come here, they're like, "What are you saying?" '
	Y si tú vas para allá:, así como es:, bien diferente el idioma. 'And if you go over there, it's just like, the language is really different'.
	Así como es el mismo idioma, 'Since it's the same language',
	se habla igual, (0.8) se:, se habla, pero se pronuncia igual. 'it's spoken the same, it's, it's spoken, but it's pronounced the same'.
	I mean, diferente, se pronuncia diferente. 'I mean, different, it's pronounced different'.
	Como:, que no ves que muchos dicen, 'Oh, está Colorado <[kolora:o]>,' 'Like, you know how a lot of people say, "Oh, it's Colorado <[kolora:o]>" ',
	Y nosotros, es 'Color[ado] <[koloraðo]>.' 'And (for) us, it's "Colorado <[koloraðo]>" '.
Grandma:	[(laughs)]

Throughout the interview, Nancy positions herself as both novice and expert. As the interviewer, she is seeking information from a knowledgeable elder and is thus in a learner role. At the same time, however, the interview genre is unfamiliar to (and uncomfortable for) Nancy's grandmother but is somewhat familiar to Nancy, who has received training in interview methods within the SKILLS program. In this particular example, moreover, Nancy shifts from the role of interviewer to challenge her grandmother's assertion about the lack of accents in English. Nancy skillfully draws on her own observations as well as what she has

learned in SKILLS to counter this claim; in addition, she spontaneously draws an analogy for her grandmother based on variation in the Spanish pronunciation of *Colorado*; her grandmother's appreciation of this example is reflected in her laughter.

In Example 2, Nancy brings the expertise she has gained in SKILLS into her home setting and demonstrates her socialization into the academic community of linguistics students and scholars, who are attentive to the details of linguistic variation. Conversely, in Example 3, she brings home-based knowledge into the domain of the school. In this example, Nancy has just completed her bilingual presentation about her grandmother and is answering questions from her classmates. As the example begins, a student has just asked when Nancy's grandmother was born and Nancy has replied, 'Nineteen fifty'; she goes on to describe a funny incident that occurred during the interview.

Example 3: Nancy's classroom presentation, March 2, 2011

Nancy: And when she was telling] me her birthday, she was like,
'Nací el, uh, dos mil- mil novecient:o:s,'
' "I was born on, uh, two thousand- thousand nine hundred" '
'Cause she couldn't remember how (laughs) to say it 'cause she was nervous at first.
She said, 'Two thousand nine hu:ndre:d,'
(Laughter from class)
She's like, 'Oh no, nineteen fifty.' Yeah. She's sixty now.

As one of the most highly proficient bilingual students in the class, Nancy voices her grandmother in Spanish, the language spoken in the interview, but quickly switches to English to make sure her classmates appreciate the humor of the anecdote. Nancy's ability to move smoothly between her grandmother's original speech in Spanish and an English translation for her classmates is a striking example of youth expertise (see also Bucholtz *et al*. 2014). By integrating her knowledge of the language norms and practices of the classroom learning space with a linguistically accurate representation of her interaction with her grandmother through the act of codeswitching, Nancy demonstrates her successful socialization into the language practices of her multiple domains, thereby reaffirming her bilingual and bicultural identity. As all three examples illustrate, as youth socialize others and are themselves socialized to and through the use of language, young people's bilingual abilities create a strong foundation for linking the learning spaces of home and school, the peer group and the wider world.

6. Conclusion

This chapter has provided an overview of LS as a general framework for understanding how newcomers learn to become full-fledged members of a community of practice, and has offered as an illustration the accomplishments of a bilingual student-researcher who embodied the multidirectionality of LS within a particular university–school partnership, the SKILLS program.

The chapter has enumerated seven theoretical principles that underlie all LS research and continue to drive new developments in the field:

1. Cognition, including learning, is social and interactional.
2. Language is inseparable from culture.

3. Culture is dynamic and constantly changing.
4. Power and inequality are central to LS processes.
5. Individual agency of all participants is central to LS processes.
6. Identities are produced through LS processes.
7. Roles of expert and novice are flexible.

This theoretical framework is supported by a wealth of methodological tools and techniques for richly contextualized investigations of LS within and across cultural spaces as well as over time. These methods have traditionally been based in ethnography, including participant-observation, audio and video recordings of social interaction, interviews, documentation of the built and natural environment, and various forms of discourse analysis to interpret all of these data sources. Recently, LS methods have expanded to incorporate complementary quantitative and experimental techniques as well.

The preceding discussion has emphasized that LS processes are situated within specific learning spaces, which offer particular affordances for socialization into cultural membership(s). Yet, this chapter has also argued that the often rigid divisions between learning spaces such as school, home, peer group, and community are more ideological than real, and that LS practices that transcend these boundaries can promote greater educational and sociolinguistic justice. Although LS has traditionally been investigated from the perspective of adults' socialization of children, the SKILLS program starts from the premise that students have the agency and expertise to socialize adults as well as other young people into the linguistic and cultural practices that are relevant and meaningful to their lives. SKILLS demonstrates the benefits of providing opportunities for youth, especially those who have been linguistically, racially, and/or economically marginalized, to build on their linguistic and cultural expertise in ways that break down the traditional boundaries between learning spaces. As a result of the inherently dynamic and shifting nature of LS, programs like SKILLS can take advantage of socializing processes not only to foster individual opportunity and transformation but also to advance social change on a much wider scale.

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NOTE

1 In recognition of the valuable contributions of the SKILLS student-researchers, we use their real names, with their permission. Other participants' names have been changed.

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See Chapter 18: The Role of Language Socialization in Heritage Language Classroom Interaction.

See Chapter 20: Academic Language and Literacy Socialization for Second-Language Students.

See Chapter 21: A Language Socialization Perspective on Identity Work of ESL Youth in a Superdiverse High School Classroom.

See Chapter 27: Power, Resistance and Second Language Learning.

See Chapter 29: The Social Construction of Inequality in and Through Interaction in bilingual classrooms.

20 Academic Language and Literacy Socialization for Second Language Students

PATRICIA A. DUFF AND TIM ANDERSON

1. Introduction

The unprecedented demographic growth in foreign post-secondary students studying abroad, from just over 2.1 million in 2000 to over 4.3 million in 2011 (OECD 2013), has predictably impacted educational institutions, their communities and countries, and students and teachers in significant ways. Their presence, and that of increasing numbers of international, new immigrant, and Generation 1.5 immigrant students at the secondary and post-secondary school levels, presents new opportunities for applied linguistic research, theorizing, and intervention. The social, cultural, linguistic, and educational differences between students' prior and current learning contexts, including the classroom discourse and interaction they engage in, can result in challenges and struggles for students and instructors as well as academic success.

As a burgeoning area of research in linguistic anthropology, applied linguistics, and education, language socialization (LS) offers insights into the processes by which newcomers or other less established members of a culture or community attempt to gain the communicative competence and knowledge needed to participate fully and appropriately, according to local norms, in their communities. It also takes into account adjustments and accommodations on the part of the experts socializing them. LS research has examined home, classroom, and community settings in which children learn their first language (L1) and become enculturated into the prevailing communication norms, practices, and dispositions that come bundled up with language in a particular setting (Duff 2010, 2012; Duff and Hornberger 2008; Duff and Talmy 2011; Heath 1983; Ochs and Schieffelin 2008; Duranti, Ochs and Schieffelin 2012; Schieffelin and Ochs 1986). Since the early 1990s, researchers have also investigated the learning and use of *additional* languages by students, and the valued oral and written practices, cultures, and ideologies newcomers encounter and are generally expected to emulate and reproduce both in and out of classrooms in what is for them a second or foreign language.

This chapter captures the multiple means and modes by which LS takes place and the interconnectedness between in-class and out-of-class discourse and interaction and oral and

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written modes in secondary and post-secondary education contexts. In particular, we examine the language and literacy challenges for English-L2 students in terms of classroom-related discourse and interaction, and issues related to vernacular versus academic discourse registers. We review major themes, focal areas, and types of analyses found in current research, note gaps and promising directions in the work being carried out, and consider implications of this approach for future studies on academic classroom-oriented discourse and interaction. In doing so, we use the following terms more or less interchangeably: (*academic*) *discourse socialization*, *language/literacy socialization*, and (*L2*) *socialization* with the abbreviation *LS* as a cover term (see Duff 2010).

2. Language and Literacy Socialization as Theoretical and Methodological Frameworks

2.1 Theory

Language and literacy socialization typically takes place by means of social interactions and participation structures involving two types of participants: (1) mentors (more experienced, 'oldtimer' peers, teachers, tutors, or caregivers, for example), or other authoritative sources as a proxy for 'live,' co-present mentors (e.g., textbooks, online resources, or other media) representing input from non-present experts; and (2) newcomers or novices who seek or need some degree of proficiency in the practices of their mentors. The theory draws on neo-Vygotskyan principles and constructs such as communities of practice, Bourdieusian notions such as *habitus* (the practices and dispositions to be acquired Bourdieu 1977), and Bakhtinian notions of voice and dialogism (Bourdieu 1977; see reviews in Duff 2007, 2010, 2012; Ochs and Schieffelin 2008, 2012). Importantly, as noted above, LS theory asserts that mentors play a major role in facilitating novices' learning. However, the theory also recognizes that (1) mentors are not always effective (i.e., truly 'expert'), successful, or available to provide timely mentoring, (2) mentors themselves also gain new insights, skills, and practices from those they mentor and from the LS process itself, and (3) peers may play an equally important, but perhaps complementary, role in each other's socialization. In other words, socialization is (potentially) bidirectional, reciprocal, or multidirectional (vertical, horizontal, and oblique in terms of conventional social status and hierarchy) and always temporally, socially, and spatially situated and contingent. Furthermore, LS theory also allows for the ingenuity, resourcefulness, and agency of the novices themselves to seek out additional resources independently to facilitate and mediate their own socialization into academic and other communities according to their own means and ends. Nevertheless, the provision of assistance or scaffolding by those possessing more knowledge and experience germane to the new community and its activities is key. The usual desired result is novices' internalization and mastery of the knowledge and practices of their mentors and actual or desired peers, and the ability to participate actively in the new community and its practices. In fact, however, many outcomes are possible, such as partial learning, resistance to normative practices and ideologies, and hybrid, syncretic ones (Garrett and Baquedano-López 2002).

2.2 L1 versus L2 socialization

Interactional routines, *participation structures*, and *activity settings* were emphasized in much early L1 socialization research (e.g., Peters and Boggs 1986; Schieffelin and Ochs 1986) examining how young children learn to speak appropriately with family members and peers. L2 research carries on this research tradition. However, the children or adults learning a *second*

(or additional) language, often in multilingual societal contexts, already possess cultural and linguistic/discursive repertoires and experience with norms governing interaction and participation from their first or previous languages and cultures. How people's (multiple) languages, literacy traditions, and cultures interact with each other is of great interest to L2 socialization scholars because it allows for a broader understanding of the potential discordances, similarities, tensions, interactions, and synergies across different contexts and how these can impact language learning/use as well as identities and membership in various target communities of practice (Duff 2002, 2007, 2012; Duff and Talmy 2011). Furthermore, L2 learners are typically more cognitively, socially, and emotionally mature than the young children featured in L1 socialization studies, and normally have – or are at liberty to express and enact – a greater sense of agency over their socialization preferences, choices, goals, and desires. They may also be more mobile, transnational, and possibly conflicted about being – or remaining – in the target language and culture and its institutions and communities over the long term. Other exigencies or possibilities connected to their primary or additional languages, cultures, and social networks may exist. Thus, although a lifespan perspective in L1 socialization has always been emphasized, in L2 studies the lifespan trajectories in terms of either L1 or L2 (or other language) proficiency and use and sustained community engagement may be much less predictable or attainable (Duff 2012).

LS processes in elementary school classrooms, normally children's earliest experiences with formal language and literacy education and a crucial foundation for subsequent learning, have received more research attention than have higher levels of education (e.g., Barnard and Torres-Guzman 2009; Baquedano-López and Kattan 2008). However, a growing body of research, reviewed below, examines secondary and post-secondary education, where students must gain access to and learn particular oral and written classroom discourse(s) in order to do well (in terms of social integration, grades, class standing, and upward trajectories) in their new academic communities. This research extends well beyond the focus on young children's oral L1 pragmatic socialization by their caregivers that characterized some of the earliest LS research (e.g., 'Say *please* and *thank you*') into much more complex and often highly intertextual and multilingual oral and written genres and registers associated with academia.

Consider the following short excerpt of in-class interaction between a Hungarian high school history teacher, Kati, and a student, Gabi, from Duff's (1995) study of L2 socialization in an English-immersion history course in Hungary.[1]

Kati: and I need somebody for Monday ((one week later)), who could talk about the:: Stalinist:: - what they call - call it purges - [the Stalinist
Gabi: [*Mia az.* ((What's that?))
Kati: Purges means: - persecution of people - so how (x) how Stalin arrested people - sent them to labor camps and so on.

(pp. 518–519)

Various texts are being referred to in relation to students' choice of possible mini-lecture topics. Gabi's code-switching, using the Hungarian vernacular (her L1), indicates she does not understand what is meant by *Stalinist purges.* Kati responds in English to explain the concept and then continues her scheduling of presentations in English. In this bilingual context, therefore, students are simultaneously being socialized into classroom code choice (English), an understanding of 20th century history (the Russian Revolution), discipline-special English terminology (*purges*), discourse practices involving the choice and use of different texts for presentations (i.e., extra readings were available for particular topics), freedom to choose topics (i.e., students are not assigned topics but can choose topics and days to present, observed when the teacher declares 'I need somebody for Monday'), and the

right to question the teacher for clarification, even in Hungarian, which does not result in a correction.

However, not all classroom-oriented discourse socialization takes place within the walls of classrooms or through traditional face-to-face real-time interaction. We therefore consider studies of interaction that serves to socialize learners – and teachers – into privileged discourse practices (or even counter-discourses) that are classroom-relevant, even if they occur outside of classrooms – that is, socialization *in* classrooms and socialization *for* classroom learning.

2.3 Research methodology

Studies of classroom-oriented LS in applied linguistics tend to be of three general methodological types, although many draw on a combination of these:

1. Direct, sustained observation by researchers of oral, interactive learning processes in classrooms drawing (typically) on the ethnography of communication, often with micro-analysis of (e.g., indexical) aspects of language use, turn-taking, membership categories and a consideration of the relationship of oral discourse to learning, identity formation and expression, and community alignment.
2. Indirect access to actual classroom interaction data (sometimes with direct but unrecorded/untranscribed observations), through an examination of learners' artifacts, such as compositions, personal narratives of their experiences, and learning materials; interview data reflecting on their experiences; and additional sources of data (ethnographic and non-ethnographic) from the learners and their interlocutors about their socialization and trajectories.
3. Autobiographical narratives by *researchers* of their own experiences navigating classroom and other academic discourses.

Linguistic anthropologists and (other) ethnographers of communication have strongly favored the first approach (e.g., Bronson and Watson-Gegeo 2008; Garrett and Baquedano-López 2002; Kulick and Schieffelin 2004; Watson-Gegeo 2004), whereas researchers in education and applied linguistics sometimes choose the second approach for practical, logistical, and ethical reasons (e.g., challenges obtaining permissions to record oral discourse), but with the understanding that these approaches – and others – can shed light from both etic and emic perspectives on important aspects of language/literacy socialization and development (Duff and Talmy 2011).

With new research (reviewed below) examining *academic literacy* development through discourse socialization (i.e., the ability to produce and comprehend complex written or multimodal texts for academic purposes), other forms of analysis not traditionally part of linguistic anthropological studies become relevant as well. One such example is teacher or peer (written) feedback on student writing, which constitutes another form – and mode – of both interaction and socialization, though it may be asynchronous and written, unlike oral interaction or text-based messaging in real time.

3. Classroom-oriented Academic LS Contexts and Communication Events

In classroom-oriented LS research, often a core speech event or activity is chosen as the unit of analysis, instead of open-ended teacher-fronted lecture discourse, initiation-response-evaluation (IRE) sequences, or other interactional routines not tied to a specific activity

within a lesson (Duff 1995, 2002). However, in some studies, the ongoing interactions between and among teachers and students outside of a particular focal activity setting are examined (e.g., Talmy 2008). Examples of oral sociolinguistic events commonly researched are recitation activities (Duff 1996; Moore 2008), oral presentations or mini-lectures (Duff 1995, 2009; Kobayashi 2003; Morita 2000; Zappa-Hollman 2007a), and current events discussions (Duff 2004, 2009).

Written or oral-written blended/multimodal interaction and events or activities that have been researched include term paper writing (Séror 2009, 2011) and course-related asynchronous threaded bulletin board discussions about course readings and topics (Yim 2011). These forms of interaction that take place *outside* of class in many contexts are nevertheless designed in relation to classroom content and discourse and often draw on and reproduce (or, alternatively, disrupt) in-class discourses and interaction patterns and are therefore highly relevant. Indeed, as the number of non-native speakers (NNSs) of English in educational programs at all academic levels reaches historic proportions in anglophone countries, particularly Canada, the US, Australia, New Zealand, the UK, as well as in regions where English is not the societally dominant language (e.g., France, Germany), and as these new blended and intercultural modes of communication become more pervasive, classroom discourse and interaction become potentially more complex and consequential.

4. Language and Literacy Socialization in and across Secondary and Post-secondary Educational Contexts

Elementary school constitutes a crucial site for socialization into school language, literacy, and other kinds of knowledge and social practice. However, LS in mainstream secondary and post-secondary classroom contexts is often more linguistically technical (e.g., *Stalinist purges*), involving more and denser written texts and graphics, and requires mastery of content in greater depth than is usually possible in earlier grades. (In L2 *language* courses, it may be equally complex from interactional, discursive, positionality, and identity perspectives.) The greater sophistication of genres, registers, and subject matter can pose numerous challenges for L2 learners and users who may not yet have a strong base in either L1 academic language and literacy, or in L2 vernacular or academic discourse.

4.1 Oral presentations and discussions: socializing voice, stance, discursive and academic competence, and identities

Unlike much teacher-fronted instruction in which students can usually volunteer (self-nominate) to participate in discussions or IRE interactions, some oral discourse is not optional, as in the case of graded oral presentations, whether by individuals, pairs, or groups. Socialization into – and through – presentation practices often begins in early school grades in North America, through show-and-tell talk, daily calendar activities where one student takes the lead, story-telling, and project presentations, but becomes more demanding in the higher school grades and continuing into tertiary education. Students need to learn and perform according to expected or preferred ways of presenting information to their teachers and peers from the perspective of the instructor, program, or discipline. Research has examined the kinds of instructions, modeling, rehearsals, questioning, and assessments that teachers may provide or engage with, and presenters' preparation and enactment of presentations, and how and why they change over time (Kobayashi 2003, 2006; Morita 2000; Zappa-Hollman 2007a).

As in Kobayashi's (2003, 2006) examination of group oral presentations given by Japanese undergraduate students in Canada, Yang's (2010) study of five Chinese undergraduate students at a large Canadian university outlined several stages of their oral academic discourse socialization, including their joint preparation for the presentation, the presentation itself, observation of the instructor's reaction to their presentation, other groups' approaches and communication strategies, and self-reflection on their own presentation style and implementation of the aforementioned steps. Through observation, guidance, and self-reflection, the students realized that their approach to the presentation (transmission-based, involving little interaction with the audience) was at odds with the expectations of the instructor and the performances of the other groups in the class (i.e., transactional and participatory with group discussion and interaction throughout the presentation). The five students' unfamiliarity with the 'participatory style of Western classroom culture' (p. 156) resulted in a presentation that failed to engage the audience and fully meet the assignment criteria. However, by receiving feedback from their professor and observing other groups' presentations and discussing them, the Chinese students reported an improved understanding of the interactional routines expected of them during a group presentation, including increased interaction and audience engagement with less recitation and lecture. Although oral discourse socialization (especially feedback) in classrooms is often more immediate, public, and spontaneous than written discourse socialization, Yang's (2010) study shows how interactional patterns and participation structures can unfold over time and involve different factors, such as receiving immediate feedback from the facial expressions and body language of the audience or from more structured or formal feedback (both written and oral) from the professor or peers.

A number of studies have examined the complex discursive negotiation of student presenters' positionality and epistemic and affective stance – in relation to their classmates, instructors, and the material being presented on (sometimes authored by the instructor or another close colleague; see Morita 2000). Student presenters are usually expected to take an authoritative stance regarding the content they are presenting and their understanding of it, yet must also defer to co-presenters, to the instructor, and sometimes classmates, each of whom may claim a different kind of positionality, authority, or understanding. Yet the student presenters themselves, whether native or non-native speakers, are typically not fully 'expert' in terms of their mastery of academic discourse or content, but must provide compelling evidence of their preparation and competence through their talk and interaction in question or discussion periods, thereby performing as experts.

Vernacular and academic intertextuality and the development of *voice* in class presentations and discussions is a fertile area for exploration in LS (e.g., Duff 2004). Intertextuality here refers to the incorporation, re-entextualization, juxtapositioning, or indexing of texts (and thus traces of different voices, Bakhtin 1992), some of which originally appeared elsewhere, not only in textbooks, school lectures, canonical literary texts, or in others' speech, but in pop culture and news media or in other conversations and contexts.

In the following excerpt,[2] we see the shift in register and voice in comments by Jack, a native English speaker, in his high school social studies presentation on the war in Kosovo in the late 1990s (in a class with a number of non-native speakers of English who often struggled to engage in or perform presentations; see Duff 2004, 2010). When expressing his personal opinion, Jack switches from a more formal to vernacular register mid-utterance, offering 'I think that's *pretty messed up*' – accompanied by a short laugh, presumably to index the dramatic shift in tone and 'footing' (Goffman 1981). He then returns to a more formal register. A more consistent voice and tone might normally be expected throughout an academic presentation but the teacher does not comment on this, praising Jack for his strong stance instead.

Jack: If this war turns nasty heavy Russian support - could start a continental war - Um - Russia in a sense is condoning the actions by Yugoslavia - by supporting their military efforts. And I think that's pretty messed up - Um ((laughs)) - Russia some- somewhat has backed off from - (xx) statements uh Yeltsin primarily from his statements last Thursday about not - really getting involved - and uh - but the (xx)'s still up there - and the (xx) (getting?) involved then - it can be pretty messy.
Class: ((Applause))
Teacher: Okay uh a strongly stated opinion which we always like to have a - strong position taken. It's good right or - um - clearly enunciated… ((continues))

When a student presenter (Matt) and others in the same study engage in an extended discussion of the Columbine high school shooting in Colorado dominating the news that week, and address issues of gun control, the teacher intervenes and tries to recontextualize Matt's reference to the NRA (US National Rifle Association), which he assumes is unfamiliar to some of the students.

Matt: […] on the Rosie O'Donnell show they had Charlton Heston on and he was he's like a big spokespeople for the NRA. He was saying how like - [(xx)
Teacher: [You might sorry you might explain- not everyone might know what the NRA is.
Matt: Oh National Rifle Association. Basically- basically it's [not a not a bunch of gun
Male: [People who supply guns.
Matt: Yeah not a bunch of cra- like they're- not gun nuts but they - they're more gun nutty than in like - the average person and he was saying that um - that none of this [school massacre] would have happened if had they had an armored guard an armed guard there? Meaning - I don't think that's really true. Um - I'm sure it would have happened still.

In this manner, the teacher socializes his students into the appropriate use of external sources (i.e., explaining acronyms and other unfamiliar references), while at the same time apparently legitimizing the incorporation of information from TV talk shows (e.g., the Rosie O'Donnell Show) in the discussion. As in the earlier presentation about Kosovo, Matt uses vernacular forms as well, such as *gun nuts* or *gun nutty* [sic] while expressing his stance about NRA members and the possible effect of increased gun control or school security to curtail gun violence in schools. (He disputes Charlton Heston's reported claims that having armed guards at schools would prevent school violence.)

In addition to socializing the native speakers (NSs) and non-native speakers (NNSs) into local classroom discourse practices, this intertextuality and interdiscursivity (Duff 2004) gives students opportunities to draw on their own background knowledge and interests albeit ones that may not be shared by all students, particularly newcomers. For novices (NSs *and* NNSs), discussions involving quick turn-taking, repartee, multiple registers, and references to texts that are not confined to the course constitute socialization into oral and written knowledge, discourse, and interaction valued by the most active participants (the teacher and some NS students) that may be both exciting and intimidating (Duff 2002, 2004). In addition, through various grammatical, referential, and turn-taking devices, classroom talk and interaction itself can index class members' identities as experts (or knowers) and novices (or unknowers), as insiders and outsiders, or as members aligned with a particular (privileged) national or ethnolinguistic identity or with a less privileged one (Duff 2002; Friedman 2010; Talmy 2008).

Typically, presentations in academia are expected to lead to active follow-up questions or discussions with instructors and peers. Students must therefore learn to (1) moderate the discussion and respond to questions or issues as presenters, and (2) participate appropriately as audience members in whole-class or small-group discussions. Students' and instructors' performance and participation in such discussions often have weighty academic and social consequences with respect to their perceived academic, discursive, social, and interactional competence, and students' performance and participation in classroom presentations and discussions or in more formal situations (e.g., thesis defenses) are often graded.

Zappa-Hollman's (2007a) study revealed that even when NNS graduate students were able to deliver effective presentations, the discussion phase might reveal their challenges with academic vocabulary or listening comprehension and thus undermine some of the expertise or authority displayed during the presentation. An example from the post-presentation discussion of one of Zappa-Hollman's participants, a Chinese graduate student in history, follows:

Instructor:	I'd like to throw in a comparison. Were the Chinese recruited in Siberia as indentured workers?
Chao:	As what?
NS peer:	In-den-tured.
((Chao shakes his head, apparently unsure of question))	
Instructor:	Indentured, contracted.
Chao:	Oh, contract, okay

(adapted from pp. 473–474)

By 'throwing in a comparison' *and* an unfamiliar word (*indentured*), the instructor (inadvertently, we assume) forced Chao to concede his lack of comprehension until the instructor supplied the partial synonym, *contracted*. In situations like this, it was often apparent to perceptive peers and instructors that greater accommodation for linguistic difficulties might be needed. As Mike, a native-English-speaking classmate subsequently mentioned, in an interview: 'I think we'll treat [Chao's] presentation with a lot more respect, next week. […] I speculate, we'll be very considerate. I think if we ask him questions, they will be very simple ones that he can elaborate on. Not easy ones, but linguistically simple' (p. 474). Mike's perspective conveys his recognition that classroom performance is co-constructed identity work, and that audience questions can have a powerful effect on how speakers (and questioners) perform and are positioned. He also acknowledged that 'we' (NSs?) should treat Chao with more 'respect' the following week by using simpler language. Witnessing and empathizing with Chao's situation, therefore, helped socialize at least Mike into different strategies for engaging with Chao and perhaps with other classmates as well.

Explicit public assessments of oral presentation discourse are powerful forms of socialization. In Duff (2009), a Grade 10 social studies teacher provides oral comments following presentations about the appropriateness of topics a student had chosen; the speed and manner with which presentations were delivered; the depth of analysis by presenters; students' considerations of broader social issues; and the extent to which presentations were read aloud instead of spoken without reading. (The same teacher commended Jack's strong stance on the Kosovo war above.) In the following example, a (NS) student's conversational manner of delivery was praised:

Teacher:	Okay. Great. That was a nice uh conversational manner you have when you- it's not like you're reading. That's excellent 'cause you're not reading. Nice job there

(p. 169)

The teacher thus signals to both the student and other, future presenters, what he considers to be an acceptable register and mode of presenting. Elsewhere, he contrasts this 'conversational' speech style with more formal oral registers (actually preferred by him) or with the reading of prepared written presentation texts (dispreferred in most cases, and signaled in the preceding example and in other presentations).

Studies have examined oral presentations in secondary and post-secondary contexts not just in terms of register, textuality, and stance-marking, but other aspects of identity and positionality as well. Ho (2011) examined the small-group discussions of six English L2 and four English L1 postgraduate students at an American state university. The research context was a methods course in TESOL. The focal event typically consisted of a 10–15 minute lecture followed by 15–25 minutes of guided small group discussions which provided opportunity to examine interactions between English L1 and L2 students and the role that these focused academic discussions had in socializing students into discipline-specific discourses. As reported in other studies, Ho found that students used small group discussions as tools for identity construction to position themselves as relative experts or novices through the use of various linguistic devices such as the epistemic marker, *I think*. Since the course was a TESOL methods class, those students who were currently teaching or had taught previously assumed or were granted the status of relative 'experts' regarding issues related to pedagogy and certain classroom practices (e.g., how to deal with unmotivated learners). However, when these 'experts' were faced with unfamiliar content, they sought assistance from others with no teaching experience, thus positioning these 'novices' as legitimate speakers and valuable group members (see Morita 2000).

In a similar disciplinary context – a graduate TESOL program – Cho (2013) reported on the disciplinary enculturation experiences of three Korean master's degree students in the US. The three students, ranging widely in age, prior educational and professional experience, and English proficiency, told quite different stories about the challenges, frustrations, and variable successes as nonnative TESOL graduate students during their programs. Taking a broader view of academic enculturation to encapsulate many aspects of oral and written discourse practices and socialization, Cho noted the strong association between oral language proficiency and the ability to successfully integrate into and participate in their MATESOL classrooms and communities. For example, one student, the youngest and yet most confident English speaker of the group called Sumi, stated, 'I get brave when speaking in English' (p. 141) and had no (self-reported) problems speaking, interacting, and expressing her opinions in class, during presentations, or within small groups. Another, the oldest at 41 years, named Jae, a former English teacher in Korea, stated, 'I don't speak English very well. I just come back home with miserable feelings…. I don't participate in the class discussions at all' (p. 139). As a result, his academic performance (partly due to his unwillingness to speak in class) and social interaction with peers and professors were impacted negatively, which in turn influenced his confidence, his self-worth, and his willingness to participate, perform, and ultimately succeed during his program. This 'silence' was socially co-constructed by participants and the enacted curriculum, however, and was not just an inherent trait related to student ethnicity, language ability, shyness, knowledge, or apathy, as is sometimes assumed by members of a class or school community (Cho 2013; Duff 2002; Morita 2004).

4.2 Written and multimodal academic discourse socialization: instruction and feedback (in- and out-of-class) as socialization

The importance of producing fluid, intriguing, and well-researched written academic texts, often under time constraints and with tangible academic consequences, cannot be overstated in most post-secondary contexts (Hyland 2013). Yet, little research has examined classroom

socialization into such academic writing practices. Several important studies, however, have provided valuable insights into the written literacy socialization of L2 students across a variety of disciplines and contexts, including how students are mentored, prepared, or positioned as writers through classroom discourse. For example, explicit (either well-intentioned or dismissive) comments made by professors in class or via email presupposing that non-native English speakers would find assignments difficult due to their lack of appropriate linguistic and cultural knowledge (e.g., Zappa-Hollman 2007b) position them disadvantageously as outsiders, unknowers, and thus possibly problem writers in the absence of actual evidence to that effect.

The role of feedback on L2 academic writing is also a prominent means by which students learn to negotiate their way amidst new and challenging academic genres, formats, and styles (Bronson 2004). As Séror (2008, 2009, 2011) notes in a Canadian university context, the relationship between feedback-giver (typically an instructor or teaching assistant) and feedback-receiver (student) is primarily unidirectional, with instructors often giving incomplete, unclear, or demotivating feedback. This can result in confusion, frustration, and the marginalization and positioning of international students as 'error-makers,' 'deficient,' and 'ESL,' as opposed to alternative (and generally more positive) positionalities such as 'legitimate students' or 'emerging scholars.' Although the feedback-giving typically takes place outside of class on documents that are usually not publicly displayed in the way that oral interaction and in-class feedback would be, it constitutes another form of classroom-oriented interaction and socialization.

The intersecting modes of written and oral academic discourse can also contribute significantly to the ways students produce and understand different academic literacies. For example, talking to a classmate, tutor, or professor about an essay or presenting a paper during class or at a conference exemplify how oral and written discourse practices intersect, often iteratively, with one mode impacting the other during the broader socialization of students into their respective academic communities as well as within particular assignments and in-class activities. Yet the connections between oral and literate practices and other semiotic systems such as graphics used in PowerPoint presentations or gestures have not been examined sufficiently in L2 socialization (Duff 2010).

Nam and Beckett's (2011) case study of five Korean ESL students at an American university outlines some of the ways L2 post-secondary students are variably socialized into written discourse practices across different modes and contexts during their academic study. They examined access to and uptake of various academic writing resources and relationships with local classmates and professors – relationships that can be largely orally-mediated yet which have direct impacts on their academic writing and broader socialization into target academic communities. The students underutilized the university's academic resources, including the writing center and other ESL-focused programs, due to their inability or unwillingness to engage with these social resources – many of which required sufficient oral proficiency to be able to discuss with their interlocutors (i.e., writing center tutors) any issues or problems related to their writing. However, the students all reported the ability to enact various 'self-help' measures, including finding personal private tutors they felt more comfortable talking to and the use of different intertextual resources achieved through studying the rhetoric, genre, and register of published articles and books, online blog-postings, newspapers, magazines, and classmates' online postings. Thus they drew on multiple extracurricular resources to scaffold their own classroom-oriented performance.

Séror (2011), similarly, notes the agency expressed by five Japanese international undergraduate students in unpacking and deciphering the feedback they received on written assignments in content courses at a large Canadian university. Despite the challenges they encountered with many of their instructors' written feedback (e.g., illegible

handwritten comments), the students found different sources of extracurricular feedback by talking to their friends, roommates, and writing center tutors, who filled the gap left by their professors. These alternative sources of instruction and feedback, Séror notes, emphasize the importance of international students' 'invisible partners' in their literacy socialization during their post-secondary study. The use of such resources, as outlined in both Nam and Beckett (2011) and Séror (2011), enabled the students to learn about academic writing across different genres and registers through utilizing 'hidden sources' and intertextual resources to assist when official services (e.g., the writing center or professors' feedback) failed them (see also Zappa-Hollman 2007b; Zappa-Hollman and Duff 2014). The use of both textual and socially-mediated (oral) resources in these above-mentioned studies underscores the place that oral feedback and oral communication have in socializing L2 students into effective and appropriate academic discourses during their post-secondary study.

4.3 In-class versus out-of-class socialization and intersections

Socialization into academic discourse occurs across a variety of modes and physical spaces and unfolds across different timescales involving numerous actors and interlocutors. The intersections between in-class and out-of-class LS can inform a broader understanding of students' socialization into academic discourses through various kinds of social networks (Zappa-Hollman and Duff 2014).

Andrew (2011) investigated the reflective journal writing of 40 English L2 post-secondary students during the community placement portion (i.e., short-term work/volunteer positions) of their Bachelor of Arts English as an additional language program in New Zealand. With participants who included immigrants, international students, short-term study-abroad students, and refugees, Andrew tracked the students' integration into their respective work-place communities with a focus on the 'sociocultural learning' and (second) language socialization of the students during their placements, which would presumably transfer to their in-class performance as well. The study uncovered various linguistic, cultural, and communicative improvements reported in the students' journals, such as enhanced communication strategies and lexical repertoires as well as increased knowledge of New Zealand culture and customs. The impact of the community placements, Andrew notes, led to greater participation in the students' workplace environments and other New Zealand communities more broadly (including academic ones), particularly due to increased opportunities to learn about local culture and social practices and use 'real language' such as idioms, slang, and profanity. These opportunities are typically less available in regular formal classroom interaction contexts.

Increasingly, in our socially-mediated and technological world and knowledge economy where people are interconnected (instantaneously and freely, across vast distances) like at no time previously in history, technological tools become crucial mediating devices in LS within and beyond classroom walls. Reinhardt and Chen's (2013) discussion of Sue, an international Chinese PhD student at an American university, demonstrates the impact of these in- and out-of-class interactions on students' academic lives and trajectories. This two-year mixed-method study tracked Sue's use of the social networking sites (SNS) Facebook, the largest SNS in the world, and RenRen, a Chinese language SNS used widely in Mainland China. Sue's social networking use was split largely between her home (China) and university (Western) contexts, with Facebook acting to establish new relationships and connect with people (classmates and colleagues, primarily), whereas RenRen was used to maintain connections with friends and family back home in China. This latter practice, the authors note, was influenced in part by the Chinese government's censorship of Facebook and the

unavailability of the site for many mainland Chinese people. Sue's use of Facebook to connect and maintain bonds with her current (US-based) classmates and colleagues demonstrates the overlapping nature of in-class and out-of-class, and academic and personal discourse practices and mediating tools, for post-secondary international students. As Reinhardt and Chen note, Facebook helped Sue commiserate with others (particularly her current PhD classmates), which created entrenched social bonds with her SNS interlocutors and helped her become part of a discourse community focused on the academic and emotional rigors of her program and the appropriate roles and behaviors that were co-negotiated by her and her peers. Further, Sue's use of SNSs reflected her investment in her PhD studies and the important role that being a student and teacher (graduate teaching assistant) had on her identification with fellow graduate students, a closeness to her program, and the formation of an international doctoral student identity.

Salient also is Reinhardt and Zander's (2011) discussion of the impact of SNS instruction and use for eleven adult students in an Intensive English Program at a large American university. The students were guided to use Facebook to communicate with each other and, as the authors note, to facilitate development of their 'transcultural, plurilingual identities' (p. 336). Although various benefits arose from the project, including an increased understanding of the SNS itself, the use of SNS-mediated activities during class-time, such as different types of virtual games on Facebook, resulted in tension between the instructors and some students regarding the effective use of class time and the perceived disjunction between in-class use of social networking tools (and social-network-based games) and upcoming high-stakes language tests, namely the Test of English as a Foreign Language (TOEFL). An additional challenge regarding the in-class use of SNSs is the potentially inauthentic nature of class-based social networking use for the students and the 'socially and politically risky' (p. 338) nature of using a website that might be blocked by the students' home country (particularly in China, where five of the students were from) and which few or none of the students' peers back home accessed. As such, students were socialized into different types of class-based language and literacy practices (in a western context) in hopes of encouraging social interaction amongst classmates both inside and outside of the class, as well as more broadly into other online English communities. An unintended consequence, however, might also have been the socialization of students into classroom discourse practices that were at odds with their perceived expectations of what an ESL class at the post-secondary level should consist of, such as a transmission-based model of teaching and a more rigorous focus on test-based practices and genres. Despite such potential challenges, or even limitations, of using SNSs in post-secondary language classes, the intersecting nature (and associated study) of in- and out-of-class (digitally-mediated) language and literacy learning and use is a trend that will likely grow in the near future.

Finally, Seloni's (2012) microethnography of six first-year multilingual English L2 doctoral students at an American university outlines the hybrid and 'multimodal, intertextual and heteroglossic literacies' (Duff 2007, p. 4) that international students encounter during their graduate programs. Seloni (2012) reported her participants' active dialogic interactions both through formal class contexts and informal social contexts that allowed students to commiserate, empathize, and understand the roles and rules of their new academic and associated social communities through the co-construction of appropriate academic literacy practices amongst their classmates. As Seloni notes, 'the processes of academic literacy socialization for multilingual doctoral students is complex, ongoing, and situational, which unfolds in multiple academic and non-academic spaces' (p. 57). Such intersections occur across genre, modality, space, and time, and outline the

complexity of academic socialization and the rich availability of resources in students' lives and communities.

5. Conclusion

Classroom-oriented studies of L2 academic discourse socialization involving oral, written, multimodal, and technology-mediated discourse and interaction in- and out-of-class have greatly expanded the scope of oral L1 and L2 socialization research and also the methods used to conduct the research. In contemporary research in secondary schools and universities (from undergraduate to postdoctoral programs) in English-dominant societies, as reviewed above, different types of focal activities (e.g., oral presentations, discussions, essay-writing and feedback, SNS interactions) provide rich data regarding newcomers' socialization into the norms, preferences, and expectations established by instructors (and/or students) in different academic settings. Furthermore, the studies reveal how in-class and out-of-class oral and written interaction provides models and feedback concerning the kinds of *habitus* students are expected to acquire or internalize, although their actual uptake may be highly selective, incomplete, syncretic, and innovative. The research shows how interaction (either as observed by researchers or reported retrospectively by participants, in class and elsewhere) indexes aspects of participants' own expertise, identities, and positionality (e.g., perceived legitimacy, linguistic proficiency, content mastery, belonging) in their academic contexts, but also their relationships to others in the class and to the academic content and wider culture locally and internationally. Their stance toward the knowledge they engage with in presentations, other oral classroom discourse, writing, or SNS engagement, for example, and the expectations they encounter and negotiate are also made visible.

The phenomenon of multimodal communications and their role in socializing students and instructors into particular ideologies, practices, and social networks (sometimes along geopolitically and linguistically distinct lines and constrained by access issues with certain digital tools) also underscores the changing manner in which educational discourse is mediated, both socially and technologically, in- and out-of-class. The learners themselves in many of these L2 socialization studies, being transnational multilinguals for the most part, in addition to negotiating language and literacy practices, concurrently negotiate their own and their interlocutors' identities and status along expert-novice, insider-outsider, and other continua in their new communities of practice.

The stakes associated with the acquisition of authoritative genres and registers of discourse and successful completion of individual courses as well as secondary schooling and higher education more generally can be very high for students. For that reason, more macro- and micro-interactional and discursive research on academic language and literacy socialization of all types, at different levels and across a wider range of content areas and communicative events, is urgently needed.

NOTES

1 See the Appendix at the end of the handbook for details of the transcription conventions used in this chapter.

2 Previously unpublished data.

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See Chapter 18: The Role of Language Socialization in Heritage Language Classroom Interaction.
See Chapter 19: Language Socialization Across Learning Spaces.
See Chapter 21: A Language Socialization Perspective on Identity Work of ESL Youth in a Superdiverse High School Classroom.

21 A Language Socialization Perspective on Identity Work of ESL Youth in a Superdiverse High School Classroom

STEVEN TALMY

1. Introduction

In this chapter, I illustrate ways that language socialization can provide a useful theoretical and analytic lens for investigating the construction and negotiation of social identity among youth who have been identified as English-as-a-second-language (ESL) learners in a superdiverse (Vertovec 2007) school setting. I draw on data from a 2.5-year critical ethnography in the ESL program of Tradewinds High[1], a public high school in Hawai'i, to examine the polylanguaging (Jørgensen 2008) and other communicative resources that were mobilized by so-called generation 1.5 ESL – or 'Local ESL'[2] – students in socializing classroom interactions. Two of these resources are considered in some detail: use of Mock ESL, a parodic language style, and Pidgin, a creole widely spoken among inhabitants of Hawai'i. Use of both Mock ESL and Pidgin worked to produce *distinction* of Local ESL students from newcomer and lower-L2-English proficient ESL classmates, and in the case of Pidgin, to *authenticate* Local identities (Bucholtz and Hall 2004). Beyond these processes, use of Mock ESL and Pidgin illuminate: semiotic processes involved in the production of social stratification; how particular (poly)linguistic practices can be mobilized to subvert institutionalized norms of (student) conduct; ways that institutional language ideologies circulating extra-situationally can be instantiated and resisted in classroom discourse; Local ESL students' affiliations with and socialization into communities in the wider school and Hawai'i contexts; and the fundamental contingency of socializing processes, including those occurring in contexts marked by dramatic asymmetries in institutional status and power, such as schools.

I next introduce the theoretical framework of the study, language socialization. Afterward, I describe the Tradewinds study, then briefly engage four transcripts of audio-recorded classroom interaction: the first concerning Mock ESL, and the last three, Pidgin. The chapter continues with discussion of the role these polylingual resources served in public performances of Local ESL student social identity. I conclude with a short review of related studies that examine aspects of identity work, including student resistance, as they pertain to L2

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English learners in K-12 classroom contexts. These studies demonstrate that the provisional character of socialization is by no means unique to Tradewinds High.

2. Language Socialization, Superdiversity, and Social Identity

Language socialization (LS) provides a theoretical and methodological framework for investigating the processes through which novices and newcomers, in language-mediated interactions with experts and oldtimers, develop the social, cultural, and communicative competencies needed to participate in the everyday life of a cultural group or community of practice (Schieffelin and Ochs 2008). Second language (L2) LS investigates processes of apprenticeship into additional languages and cultures by those who have already experienced, or are concurrently experiencing socialization into the cultural, linguistic, and other social practices of a first language (L1) and culture (e.g., in the family). As a result, L2 LS commonly investigates socialization of older populations in institutional settings like schools and the workplace (Duff and Talmy 2011). Because of these foci, as well as historical and disciplinary developments in the social sciences, L2 LS has in recent years tended to foreground the workings of power, agency, and multidirectionality in socialization, and its contingent, at times conflictual character, in order to examine occasions both of cultural and social reproduction, and disjuncture and transformation, that is, examples of socialization that may be (ostensibly) 'unsuccessful' or result in outcomes that are incongruous or unforeseen (Duff 2002; Talmy 2008, 2009). The Tradewinds study can be viewed as a manifestation of such empirical emphases as it considers the production of an oppositional, 'institutionally disapproved, interstitial' (Lave 1991, p. 78) student identity – 'Local ESL' – rather than one that was school-sanctioned or expected.

Superdiversity offers a 'multidimensional perspective' on diversity, that is, a 'diversification of diversity' (Vertovec 2007, p. 1025), thereby expanding and complicating the range of attributes that are conventionally used to account for it: beyond country of origin, race/ethnicity, and L1 to include (the interplay between) 'differential immigration statuses and their concomitant entitlements and restrictions of rights, divergent labour market experiences, discrete gender and age profiles, patterns of spatial distribution, and mixed local area responses' (p. 1025). Polylanguaging is both manifestation and outcome of superdiversity (Ag and Jørgensen 2013), as language agents appropriate and deploy what in conventional linguistic terms might be seen as 'elements' from the range of communicative resources that circulate in particular superdiverse contexts. LS offers a lens to examine how such 'appropriative practices' (Blommaert and Rampton 2011, p. 8) develop, gain currency, are accommodated, resisted, and/or transformed in local conduct, and articulate with larger scalar processes that shape the conditions for their development.

LS provides a robust theoretical and methodological framework for examining the construction and negotiation of social identity (Ochs 1996). Indeed, social identity is fundamental to LS, concerned as it is with how humans become particular kinds of persons-in-social-groups. However, identity from an LS perspective is not something that someone *is*, a core set of internal traits that someone *has*. It is, rather, a performance, a *doing*, of socially-recognizable, locally-achieved acts, stances, and activities, which come to index identifiable social types. Of relevance for the current study, LS contributes unique insight into ways that institutions such as schools, where certain language and other social and cultural practices are disciplined and normalized, might serve as a generative interstice for the sorts of oppositional identity displays enacted in the ESL program at Tradewinds High.

3. The Tradewinds Study

The study from which the data below were drawn broadly concerned the production of ESL as a stigmatized (Goffman 1963) identity category at the high school. 'Mainstream' hints at that category's status in the hierarchy of social identifications at Tradewinds; conversely, 'ESL' was defined by how it diverged from the mainstream norm. These divergences manifested in a 'mainstream || ESL hierarchy' at the high school, which was constituted by and constitutive of language ideologies that iconized 'native speakers,' 'the mainstream,' and 'regular students' as ideals. The larger study examined how ESL was realized in two ways:

1. In the *school-sanctioned* cultural productions of the ESL student, produced through ESL policies, administrative structures, curriculum, and instructional practice. In these terms, ESL was institutionally articulated in undifferentiated terms at the high school, as a homogeneous collectivity of recently-arrived newcomers with little experience in or understanding of Hawai'i, the US, US schools, or L2 English. This was evident variously, including: the *ESL placement policy*, in which length of enrollment at the high school rather than L2 expertise or educational needs determined which classes students were to take; the ESL program's uniform *curriculum*, whereby all students received the same materials, assignments, and activities; the prevalence of popular *juvenile fiction* in this curriculum, which was several years below grade-level and had little evident relevance to academic content or L2 English learning; a preponderance of '*forever foreigner*' (see Tuan 1998) *coursework*, that is, assignments that were predicated on the assumption that students knew about and affiliated with the languages and cultures of 'their' countries; and other *reception and orientation assignments*, which introduced newcomers to values, customs, holidays, and cultural forms of the US (e.g., 'The Pledge of Allegiance,' Independence Day, etc.).
2. In the *oppositional* cultural productions of ESL that were generated by a community of practice (CoP) (Lave andWenger 1991) of Local ESL students. The joint enterprise of this CoP, produced as Local ESL students mutually engaged in a shared repertoire of social practices (Wenger 1998), was the contestation of the school-sanctioned productions of ESL. The shared repertoire of Local ESL community practices was varied, and included: withdrawal from official instructional and other classroom processes; overt disparagement of ESL as an institutional category; prominent displays of distinction from 'FOBs' (fresh off the boat), as Local ESL students called low-L2-expert and/or newcomer ESL classmates; racist conduct directed at them, in particular those who were Micronesian; and the focus of analysis below, use of Mock ESL and Pidgin. Central to these (and other) Local ESL community practices was the requisite expertise in L2 English/Pidgin needed to carry them out.

3.1 Mr. Day's ESL-A class

The Tradewinds study consisted of 625 hours of observation in 15 classrooms. The data-set I draw from here includes fieldnotes from 64 hours of observation and 29 hours of audio-recorded interaction over one academic year in Mr. Day's first-year 'ESL-A,' a multiethnic, multi-age class that averaged over 30 students of varying proficiencies in their L1s and L2 English. One third of the class participated in practices constitutive of the Local ESL CoP.

The class composition would pose significant challenges for even the most experienced educational professional; however, Mr. Day, a hardworking and thoughtful industrial arts teacher, was himself a new teacher at the high school and had no education or experience teaching ESL. He had been assigned the ESL-A class just days before the school year began

and was compelled to teach it with minimal instructional assistance: severe budget constraints in the state at the time had eliminated funding for ESL classroom aides.

3.2 Distinction from FOB

An important means through which Local ESL students produced distinction from lower-L2-proficient and newcomer classmates was use of Mock ESL. Mock languages can be characterized by features such as oral disfluency, marked syntax, styled phonology, and lexical borrowing, which together work to index a racialized outgroup or 'foreign' persona (see, e.g., Hill 1998). Mock ESL differs from other mock languages in that it does not index a particular racial or ethnolinguistic group (as do, e.g., Mock Asian or Mock Spanish) but an iconic, pan-ethnic, pan-racial Foreigner. However, the semiotics of Mock ESL are similar to those of other mock language styles, in that it too involves direct and indirect, or 'dual' indexicality (see Ochs 1990). In terms of *indirect indexicality*, Mock ESL represents a form of 'derisive crossing' (Rampton 1995, p. 45) that connotes negative attributes including pragmatic incompetence, cognitive impairment, and a general, all-encompassing lack of social desirability. These associations also attach to the archetypal 'figure' (Goffman 1981) animated by the Mock ESL style shift, which can be glossed, in Local ESL students' terminology, as a FOB. At the same time, derisive crossing into Mock ESL *directly indexes* the speaker's distinction from the real or imagined target of the style shift (i.e., the FOB figure), in terms of the ironic, metapragmatic comment the style shift accomplishes. Additionally, Mock ESL directly indexes the L2 expertise and interactional competence of the Mock ESL crosser, who in performing the style displays an often expert ability at manipulating (poly) linguistic resources, including a discerning understanding of which resources can be recruited for these performances. It is in these terms that Mock ESL style shifts featured as an important social practice in Local ESL students' performative displays of distinction from 'FOBs.'

The interaction in Extract 1 is illustrative. It took place approximately three months into the school year, during a noisy, whole-class vocabulary correction activity: students had been given a list of words to define and then instructed to use those words in sentences they were to compose. As the data suggest, such public, L2-focused correction activities provided rich opportunities for Mock ESL crossing, as they made available a range of candidate resources that were useful for its occasioning: L2 mistakes that could be singled out for ridicule.

Here, Bush, a lower-L2-English proficient student from Hong Kong, volunteers to read the sentence he has written for the word 'moment': *A cruel murderer have used a few moment to kill four little girl and buried her*. As becomes evident, Mr. Day has difficulty comprehending Bush's answer, a difficulty that is subsequently recruited for a Mock ESL style shift by Mack Daddy, a Local ESL student from Chuuk, Federated States of Micronesia (FSM).

(1) Moment

```
01  ?FSs:          [((overlapping talk))
02  T:             [moment! who's doing moment?
03  Bush:          ((raises hand))
04  T:             alright good bush, go. ((to talking students)) hey!=sh!
05  Mochenia:      (                )
06  Bush:          ((reading from paper)) a cru:el murderer have used (a few
07                 moment to kill four little girl and buried her).
```

```
08  T:              huh? used a what type of moment?
09                  (0.5)
10  Tony:           a few.=
                    (([ə fju:]))
11  Bush:           =a few moment.
                    (([ə fɛu mowmɛn]))
12                  (2.3) ((T goes to Bush's desk, looks at his paper))
13  Ioane:          ((singing)) (                    ) mo:me:nts.
14  Jonelle:        shut up.
15                  (0.2)
16  Mack Daddy:     ((low pitch, nasal monotone)) I don't speak no english.
                                                  (([aɪ don spik no i:ŋglɪʃ]))
17                  (0.5)
18  T:              uh excuse me mack?
19                  (1.7)
20  T:              ((to Bush)) a few moment. so that would be s=
21  Ioane:           [((singing)) (come o:n)
22  T:              =[a few moments.
```

The sentence Bush has read (lines 6–7) proves to be a source of communicative trouble for Mr. Day as he utters a next turn repair initiator ('huh?') (Schegloff, Jefferson and Sacks 1977), and indicates that whatever has preceded 'moment' in Bush's sentence is a repairable. By providing the candidate repair 'a few' ([ə fju:]) in line 10, Bush's friend, Tony, orients to the delay preceding it as evidence that Bush has either not understood Mr. Day's question and/or the difficulty that occasioned it. Bush does then provide a self-repair, but with identical pronunciation as his initial reading of the sentence, [ə fɛu]; Bush's repair thus itself becomes a repairable. It is at this point that the teacher abandons the oral mode to negotiate meaning with Bush and initiates what amounts to an embodied other-initiated repair: he moves to Bush's desk, looks over his shoulder, and reads Bush's sentence himself. If there had been any question that Bush's L2 expertise was the trouble-source, there is no longer. Bush's initial mispronunciation of 'few,' his lack of sequentially-projected uptake to Mr. Day's repair initiation (line 9), his lack of uptake to Tony's other-initiated repair (line 10), his failure to adequately self-repair the trouble-source (line 11), Mr. Day's subsequent embodied other-initiated repair (line 12), the extended time this latter action requires, and the sing-song correction of another 'mistake' by the Local ESL student Ioane (who supplies in line 13 the absent plural morpheme for 'moment'; see lines 20, 22): all of these actions form the context in which Mack Daddy's style shift occurs in line 16.

Mack Daddy's Mock ESL style is voiced in a lower pitch nasalized monotone. Although the utterance does not feature the sorts of extravagant syntactic error characteristic of other instances of Mock ESL that I recorded (Talmy 2010), the phonological styling is hyperbolic. Regardless of how the utterance has been animated or who animated it, Bush is clearly its author. The mock styling thus converges with propositional content in evoking a social other, a FOB, with Bush cast as its icon. In contrast, Mack Daddy's style shift directly indexes his wittiness and comedic adeptness, his awareness that such actions as Bush's are candidate *mockables*, and his L2 expertise and interactional competence to actually bring off the parody. Mack Daddy has, in other words, directly indexed his distinction from Bush and the FOB figure he represents.

In fact, Mr. Day appears to orient to Mack Daddy's display of distinction, and the hierarchical dualities it connotes: Low L2-English-expert ESL student in the subordinate position, and its relational L2 expert counterpart in the superior. Mr. Day's line 18 utterance 'uh excuse me mack?' is a repair initiation, but as the emphasis, vocative, and preceding delay suggest, it is contextualized as a condemnation. This, and the fact that Mack Daddy does not provide a sequentially-projected second-pair-part indicate both his and Mr. Day's orientations to the sanctionability of the Mock ESL performance, that is, to what it has *indirectly* indexed: disparaging beliefs, attitudes and (language) ideologies about ESL associated with racism, linguistic chauvinism, xenophobia, and assimilationism.

3.3 Authenticating Local

In the interaction above, Mack Daddy iconized the figure of a FOB and produced his distinction from it using Mock ESL. In doing so, he provided substantive evidence of L2 socialization: his evident awareness and understanding of – and his ability to recruit and render in performance – contemptuous values, beliefs, and attitudes about a social type reminiscent of whom he himself might have been at an earlier time in his L2 language and culture learning. In the interactions I consider next, Local ESL classmates of Mack Daddy's use Pidgin rather than Mock ESL, which produces *alignment* with 'Local' and 'mainstream,' social types that were ideologically linked to Pidgin at Tradewinds. This particular 'tactic of intersubjectivity' has been referred to as 'authentication' by Bucholtz and Hall (2004), an agentive process in which claims to a credible or genuine identity are asserted through use of a particular code.

Hawai'i Creole, popularly known as Pidgin, is the L1 of more than half of Hawai'i's population (Sakoda and Siegel 2003). Even though Pidgin serves as a crucial authenticating marker of Local identity, there remains considerable ambivalence about it in the islands. This is due to misconceptions about creole genesis, beliefs that Pidgin is a referentially- and expressively-attenuated means of communication, the status of English as the colonial language, as well as historically-rooted attitudes toward the race, ethnic, and class backgrounds of Pidgin speakers. The ambivalence toward Pidgin was also evident at Tradewinds: English may have been what was taught in classrooms, what appeared in textbooks and was tested, what was held up as a model of correctness, precision, and sophistication, but more often than not it was taught in or alongside Pidgin. Thus, although it was widely deprecated as 'bad English,' Pidgin was unquestionably the language of the mainstream, among both youth and teachers, and was heard throughout the classrooms, hallways, cafeteria, staffrooms, and playfields of the high school. However, because Pidgin was rarely (if ever) discussed in ESL classes – most students had no idea that the L2 they spoke was anything but English – the ability to use Pidgin depended on students' access to and participation in mainstream and Local communities where Pidgin was the code of choice.

The following interaction occurred approximately mid-year during a study hall class session, in which students were to be catching up on overdue work. The class was raucous, as it often was, including a group of Chinese boys who sat together in the middle of the room. These students had presented Mr. Day with a dilemma from the start of the year, as nearly all of their talk with each other was in L1 Cantonese. Mr. Day had been informed (including by me) about the efficaciousness of incorporating students' L1s in the L2 classroom, but had decided early on that L1 use in the class was too much of a disruption. He instituted an 'English-only' policy as well as a seating chart whereby students from the same L1 background were forbidden from sitting together. His English-only policy was often enforced by Local ESL students like Iwannafuckalot (IwannaFAL), Laidplayer, and CJ, who would report (erroneously, as data translation would subsequently indicate) that the boys used Cantonese to swear and bully others. The interaction starts just after the Chinese boys have become especially boisterous.

(2) No Chainatawn!

01	T:	ENGlish!
02		(0.9)
03	IwannaFAL:	INGLISH MAEN!=[NO CHAINAT↓AWN!=yeh mistir!
		(speak) English, man! this isn't Chinatown! right, Mister?
04	SkyBlue:	[but u::h, mi:ster talmy he said (we) can say
05		anything in any language.
06	T:	who said that?
07	SkyBlue:	mister talmy.
08		(0.5)
09	T:	yes, but that's his rules.=my rules are english.
10		(0.5)
11	?MS:	[hhuh
12	?FS:	[hhh
13	T:	especial[ly (when I)] hear that you guys are being rude.
14	Jennie:	[ha::]
15		(0.7)
16	SkyBlue:	we're not, alright! ask michelle!
17	?MS:	( )
18	SkyBlue:	ask he:r.
19		(0.4)
20	T:	you need to fix this because (.) there's lots of complaints
21		of yelling [and (if you guys're speaking a foreign) language=
22	Laidplayer:	[they're not supposed to sit together.
23	T:	=how do [I know what you're saying?
24	?MS:	[come on ( )!
25	IwannaFAL:	yeah, dawg!=
26	?MS:	=( )=
27	IwannaFAL:	=[michelle!
28	T:	[and that's why we speak english.
29	IwannaFAL:	michelle!
30	T:	cause that way if you're making [trouble I know it.
31	IwannaFAL:	[ai laik wan kandi, aim
32		hangri.[kam an jas wan.
		can I have a candy? I'm hungry. come on, just one.
33	T:	[([ )
34	Michelle:	[no.
35	T:	english only, please.
36		(0.3)
37	T:	otherwise we have [issues.
38	SkyBlue:	[( )
39	?Ss:	((unintelligible for 2.4))
40	T:	you guys can do it. english on[ly.
41	CJ:	[no spik chainiz laik hi sed!
		like he said: don't speak Chinese!

There is much of interest in this extract, but I restrict discussion primarily to the Local ESL students' turns, starting with the use of Pidgin in lines 3, 31–32, and 41. IwannaFAL's first turn is a revoicing (in Pidgin) and elaboration of Mr. Day's one-word metapragmatic censure (line 1) of the Chinese boys' rowdy L1 talk. The locational formulation 'Chinatown' is provocative: Chinatown is an important diasporic enclave, certainly, where many social, cultural, and linguistic traditions are fostered and maintained; it is also an 'imaginative geography' (Said 1978) consisting of a potent set of racist associations derived from a history of nativism, linguistic chauvinism, xenophobia, and segregation pertaining to (North American) Chinese in-migration. IwannaFAL's utterance keys such a racializing frame, implicating not just the boy's code preference but an inferential network of sharply-demarcated oppositions: between 'here' and 'there,' English and Chinese, Self and Other, between 'a familiar space which is 'ours' and an unfamiliar space…which is 'theirs'' (Said 1978, p. 54).

The actions that are accomplished in Pidgin in lines 3 and 41, and in English by Laidplayer in line 22 are also of interest, in that these students participate in practices that are normatively associated with teachers. Tholander and Aronsson (2003) have referred to such conduct as 'subteaching,' whereby a student, usually in peer-group participation structures, either self-selects or is appointed the role of instructing, evaluating, and disciplining classmates with whom s/he is otherwise engaged. A subteacher is 'a guardian of the situational order' (p. 218), who engages in regulative activity to enforce institutionally-authorized ideologies, morality, and comportment, for example, behavior characteristic of a 'good' student, engaged in official classroom affairs, in the institutionally-approved language. As such, participation in subteaching practices is clear evidence of students' socialization not just into institutionalized interactional/pedagogical routines but into the ethos of the school.

In undertaking subteaching, the Local ESL students publicly displayed their understanding of what actions and dispositions are valued in US schools to create a formidable socializing context for the Chinese boys (and others co-present), a collaboratively-constructed, collective endorsement of the teacher's inculcation of classroom code choice, and the monolingual ideology that informed it. Additionally, use of Pidgin as an emblem of Local authentication lends intensified force to the Local ESL students' censure: Chinese is not only unsuitable for school, but for life in *Hawai'i*, at least that which occurs outside 'Chinatown.' There is no small trace of irony here, given that Pidgin has itself long been the target of concerted attempts to banish it from the mouths of its users, with schools figuring prominently in these efforts (e.g., Sato 1985).

Such an endorsement of the ethos of the school might appear to run counter to the joint enterprise of the Local ESL CoP: destabilizing the school-sanctioned productions of ESL. However, as Copp Mökkönen (2012) notes, the role of the subteacher can be subverted in ways that counter institutional goals rather than realize them, and there are several indications that alternative ends are being pursued in the interaction above. There is the bald vulgarity of IwannaFAL's initial utterance, its occasioning and abusive tenor, the term of address 'dawg' for Sky Blue (line 25), and IwannaFAL's multi-turn pursuit of non-curricular business (lines 27, 29, 31–32; see Markee 2005). There is also these and other Local ESL students' histories of participation in similar types of subteaching practices, virtually always as a means to humble classmates who had made mistakes of some sort. Pidgin use, too, raises questions as to whether mischievous ends are being pursued. Regardless, despite notable differences in means, IwannaFAL's, Laidplayer's, and CJ's censure of the Chinese boys' L1 use recalls Mack Daddy's above: lower L2-English proficient students' language use – here, the L1 rather than L2 – is singled out and publicly faulted, an important consequence of which is the production of distinction of the evaluators from the target of

evaluation. Such distinction was additionally signaled through processes of authentication: use of the Local language of Hawai'i to censure 'foreign' language use, ironically, in an English-only classroom.

The final two fragments of data, which I represent in separate transcripts, but analyze together, occurred in a class taught by a substitute teacher not long after the previous interaction. The class was finishing a whole-class reading of a folktale about Maui, a demigod who created the Hawaiian islands by pulling them from the ocean with a magic fishhook. The legend was to serve as a model for a forthcoming project on 'folktales from your culture' (see Talmy 2009) that students would eventually narrate, sing, dance, or enact in front of an audience of (non-ESL) peers. Ioane, a Hawai'i-born Local ESL student of Tongan heritage, was sitting beside Marnie, from Samoa, and Laidplayer, a Local ESL student from Palau.

(3) It's a lie

```
01  T:              ((reading)) and that, >so the story says<, is the way our
02                  <hawaiian islands came [out of the ocean.>
03  Laidplayer:                            [came out of the ocean.
04  T:              so mau:i [(       off) the islands,
05  Ioane:                   [NAWT IH↓VEN!
                              no way!
06  T:              >I mean<, is that a true story?=
07  Ioane:          =↓N↑O!
08  CJ:             NO!
09  T:              no, it's a folk[tale!
10  Laidplayer:                    [it's a myth.
11  T:              it's what you're gonna [do! right?
12  Ioane:                                 [iz a buhshit.
                                            it's a bullshit.
13  T:              if you [were=
14  Laidplayer             [haheh
15  T:              =gonna do the [folktale on the (            )
16  ?MS:                          [(deep) shit.
17  Ioane:          heha[heh
18  Laidplayer:         [heHAAHAAHEH[HEH!
19  Marnie:                         [heh[heh
20  Ioane:                              [hahahhah
21  Laidplayer:     [hahuhh!
22  ?S:             [(          )
23  T:              you could do [this as a <pla:y>.
24  Laidplayer:                  [hah[hahheh
25  ?S:                             [(            )
26  Ioane:          it's a li::e, mister:!
```

The interaction in Extract 4 occurred 90 seconds later. Discussion about the legend of Maui had concluded and several students had gone to the front of the classroom to look at a selection of books the teacher had brought in concerning Pacific Island folktales. Ioane was thumbing through one with Marnie and Laidplayer nearby. The teacher was reminding the class about a sign-up sheet that was circulating, on which students were to write which folktales they had selected for the project. The class was noisy: background talk runs throughout the interaction.

(4) Tongan folktales

71	T:	((to the class)) SO ON YOUR PAPER, YOU'RE GONNA SAY WHAT
72		YOUR NAME IS AND WHAT YOU'RE GONNA [(BE DOING).=
73	Marnie:	[my name is marnie,
74	T:	=ARE YOU GONNA TELL A STO:RY, ARE YOU GONNA SING A [SO:NG,
75	Marnie:	[I'm
76		from nobody:,
77	T:	ARE YOU GONNA DO A DANCE,
78	?Ss:	((unintelligible for 2.0))
79	T:	>whatever you're gonna do.<
80	Ioane:	EI luk a DI(h)s(h)!
		hey, look at this!
81		(0.9)
82	Laidplayer:	wat, ↑tawn↓gen.=
		what, is it in Tongan?
83	Ioane:	=ah.
		yeah.
84		(0.3)
85	Ioane:	kam!
		come here!
86		(3.3) ((Laidplayer goes to Ioane, looks at book))
87	Laidplayer:	shit.
88		(6.5)((sounds of pages turning))
89	Ioane:	ho wach AL dis BUHSHIT TAWNGEN FOK↓teil!
		whoa, look at all of these bullshit Tongan folktales!
90		(0.5)
91	Ioane:	EI.
		hey!
92		(0.4)
93	Ioane:	wach al dis buhshit tawngen fokteilz, brah!
		look at all of these bullshit Tongan folktales, man!
94		(0.5)
95	Ioane:	fakahz, ((hitting the page)) gon bi al lai.
		fuckers, it's all going to be lies.
96		(2.0) ((pages turning))
97	Laidplayer:	wel, yu gat, iz- is this, is it english? [english, huh?
		well, you have, it's-
98	Ioane:	[ye:ah, I thi:nk,
99		ye:ah.

The folktales assignment in this and other ESL classes at Tradewinds was one of many well-intentioned attempts to incorporate the cultures of students' ostensible inheritance (Rampton 1990) in an effort to make classroom instruction more meaningful to them. Data from my study indicate instances where the aims that motivated such culturally-responsive pedagogy were realized, at least in part, particularly among those students who were familiar with the languages and cultures (conventionally) associated with their countries of origin. The data also illustrate instances where the ideological correspondences attributed to language, culture, and birthplace were disrupted.[3] Indeed, the public contestation of such

essentializing associations was frequent enough that I came to identify it as a constitutive social practice of the Local ESL CoP, evident not just in Mr. Day's class but throughout the Tradewinds ESL program.

Ioane's conduct in the above interactions is indicative of such practice. In Extract 3, as the teacher summarizes the Maui narrative and its relevance for what students are to do, Ioane overlaps with an assessment assailing the story's veracity (line 5). This is a line of reasoning she pursues in increasingly profane terms through both extracts, to the extent that the relative merit of folktales as a *genre* becomes the major point of contention organizing both interactions: Ioane derides them as 'lies' while the teacher indicates that their truthfulness is not relevant.

The resources student and teacher employ in these two extracts are illuminating. The teacher's participation is comparatively minimal, but in Extract 3, he draws on the affordances of the whole-class participation framework. He is standing at the front of the class, reading the folktale, leading discussion, evaluating students' answers, and giving instructions, activities normatively bound to the category of 'teacher.' These activities simultaneously invoke a relational counterpart, 'student' (Sacks 1972) – (ostensibly) sitting down, listening, answering questions, following instructions – and the attendant, institutionally-endowed differentials in rights, obligations, power, and authority that the relational teacher/student pair comprises. Ioane's line 5 turn is the first hint that these norms and differentials will be contested and the teacher's uptake to it is immediate. As the initiating turn of an IRF sequence (Sinclair and Coulthard 1975), the line 6 utterance works to restore interactional (and institutional) order in the classroom, topicalizes the substance of Ioane's line 5 complaint, and invites her (and others') participation via the sequentially-projected response-turn, but now in an interactional sequence that is *institutionally-authorized*. Ioane does indeed respond, latching the teacher's turn with an emphatic ↓N↑O!, which CJ echoes, and then the teacher himself elaborates: no, it's a folktale! The teacher has ratified Ioane's accountable utterance in line 5, aligned himself with it, and at the same time respecified it as a 'teachable moment': the truth-value of folktales is a non-issue, he indicates; their implausibility is intrinsic to the genre. Laidplayer overlaps the teacher's elaboration with 'it's a myth', his apparent academic upgrade suggesting that this teachable moment has been effective.

However, as the teacher returns to the assignment instructions, Ioane again overlaps, now with an evaluation of her own: iz a buhshit. The overlap and expletive, and the syntactic parallelism with the teacher's line 9 utterance (it-cleft/contracted is/indefinite article/complement) signal intensified contestation, perhaps even ridicule (see Laidplayer's line 14 laugh). Furthermore, the Pidgin here (and line 5) serves as an important index of authentication, which lends its own particular form of authority to Ioane's position. The teacher may have authority endowed by the school, but Ioane's comes from her membership in the Local, Pidgin-speaking community in Hawai'i: her evaluation of these stories as 'bullshit' derives from expertise bestowed by *authenticity*. Ioane's languaging in these two turns – and throughout Extract 4 – is underscored by the hyperbolic style shift in her line 26 summary assessment (also see Extract 4, lines 98–99): the dark /l/ at syllable onset of 'lie,' its elongated diphthong, and the heavy r-colored long vowel /ɜː/ in 'mister,' comprise a caricatured style indexical of a Southern California 'valley girl.'

Interestingly, the teacher continues to discuss the project with the class rather than directly engage Ioane. Perhaps as a result, Ioane's performance in Extract 4 becomes louder and more emphatic (lines 80, 89, 91, 94, 96), more profane, and propositionally challenging (lines 89, 94, 96), with notably heavier Pidgin. The participation framework has changed, certainly, from one centrally involving the teacher, but the teacher is nearby and the focus of Ioane's

performance remains the folktales assignment. An additional authenticating resource that she deploys is her own strategically-essentialized Tongan inheritance (lines 89, 94, 96), born and raised in Hawai'i as she may be, languaging the creole associated with Hawai'i's Local-born community, as well as English, and in lines 26 and 98–99, a stereotypical 'mainland' style.

4. Discussion

The forms of identity work discussed in this chapter involved semiotic processes of distinction and authentication. The polylingual resources that in part constituted these displays included a parodic style, Mock ESL, which indexed an archetypal out-group ('FOB'), as well as Pidgin, which served as a potent authenticating marker of in-group ('Local') membership. The relational pair of categories recruited by such polylanguaging within the ESL-A class – 'Local (ESL) || FOB' – pointed to similar relational dualities discernible elsewhere: of 'mainstream || ESL' in the wider Tradewinds context, and even 'US-American || Foreigner' in the national 'macro' context (Talmy 2009). In this respect, the identity work analysed above can be seen as the instantiation within Mr. Day's ESL-A class of language ideologies that circulated extra-situationally.

Mock ESL served as a means for Mack Daddy to ventriloquate a caricatured social type that a vocabulary-correcting activity in an ESL class might expectably be designed for (a 'FOB'). The performance of the style (in a whole-class participation framework, no less) also indexed Mack Daddy's distinction from that caricature. Additionally, Pidgin served as another means of producing distinction, as it indexed Pidgin users' participation in contexts outside the ESL program: the mainstream and in Local communities beyond the school. In other words, Pidgin produced distinction via the assertion of genuine or credible communal links that its use connoted, that is, through the activation of essentialist associations between person and place, or authentication. For IwannaFAL and CJ, languaging Pidgin lent their subteaching practice added intensity and legitimation: their Chinese classmates needed to speak English not just because this was school, but Hawai'i. Use of Pidgin also raised questions as to whether the interests of the school or the joint enterprise of the Local ESL CoP were being pursued through subteaching. For Ioane, Pidgin provided an important resource to resist the formidable socializing power of the school, principally, to accommodate an exoticizing curriculum and the romantic correspondences between language/nation/personhood that it relied on and validated. Such polylingual practices as the Local ESL students' worked in part to subvert institutionalized norms of student conduct (expected ways of using language; which languages were used; treatment of classmates; compliance with instructions; 'learning'). Polylanguaging abetted the disruption of institutionally-valorized ideologies about ESL (forever foreigner curricula; ESL as homogeneous; ESL students as recent-arrivals with automatic affiliations to and knowledge of 'their' languages/cultures/countries; even English as the L2 learning object). Finally, Local ESL students' Mock ESL and Pidgin polylanguaging in this (and other) ESL classrooms at Tradewinds demonstrated the contingency of socializing processes, including in institutions explicitly endowed to discipline and normalize certain dispositions, moral stances, and (language) behavior. These polylingual resources also provided evidence of Local ESL students' socialization into values, beliefs, and ideologies about ESL and ESL learning at the school, as well as these students' affiliations with and participation in communities in the wider school and Hawai'i contexts.

This is not to romanticize resistance, polylanguaging, or superdiversity. Local ESL students' conduct had important consequences that worked in part to reproduce rather than transform

inequity, at various levels of sociality. Ioane did not learn more about the Pacific Islands, a particular cultural form, or generic conventions; she refused to participate in the folktales assignment, failed it, and subsequently, earned a failing grade for the class, ensuring she would remain enrolled in ESL for at least another year. IwannaFAL, CJ, and Mack Daddy helped to create a classroom environment in which the L1 was denigrated and L2 oral production was closely surveilled and regulated by students themselves. L2 learning and maintenance of peer relations in such a context became a particularly fraught endeavor. The oppositional conduct of Local ESL students, such as that described above, also led to a gradual yet widespread curricular slowdown in the ESL-A classes, to the extent that ESL as a program increasingly became what Local ESL students claimed they disliked about it: an academic irrelevance that did little to meet their learning needs or interests. In this respect, the actions of Local ESL students also helped create an alternative 'unofficial' class curriculum that ESL students and their teachers were apprenticed into, if not explicitly taught (Talmy 2008). This was a curriculum in which (among much else): disparaging beliefs about ESL associated with racism and assimilationism were normalized; English-only chauvinism and linguistic discrimination were (re)produced; the same essentializing links between language, person, and place – the same institutionally-valorized nationalist language ideology that Ioane resisted – was reinscribed; in which a domesticating, assimilative ethos as it pertained to ESL students was subverted in important ways, but ultimately incorporated (Williams 1977) and reauthorized.

5. Related Studies

There are surprisingly few applied linguistics studies of K-12 ESL. Fewer still adopt a language socialization perspective – perplexing given the tradition of LS scholarship in schools more generally (Baquedano-López and Kattan 2008) – and even fewer foreground the identity work of culturally- and linguistically-diverse students in (superdiverse) school contexts. Although polylanguaging deployed in displays of distinction and authentication are not commonly analysed in these relatively scarce studies, other aspects of identity work, including student resistance, are. The studies are further united in that they variously take into account the contingency of socializing processes, including those occurring in schools.[4]

Harklau (1994) is among the first K-12 ESL LS studies. In describing important contrasts between ESL and mainstream classes in a US high school, Harklau noted that 'there was no truly appropriate educational environment' for ESL students at the school (p. 267) due to a lack of systematic integration of the program into existing school structures. Although identity was not a prominent feature of her analysis, its relevance was implied throughout, with students remaining comparatively taciturn in mainstream classes for fear of being teased about their English ability, and drawn to ESL despite the 'remedial stigma' associated with the program.

Willett (1995) examined the divergent school experiences and educational trajectories of four ESL students, three girls and one boy, in a first-grade classroom. Although all four children worked hard, the three girls became identified as successful as they worked to help each other in the classroom, while the lone boy, Xavier, resisted efforts to get him additional ESL instruction and was consequently constructed as needy and difficult. The study showed not only the complex interplay of race, class, and gender in the classroom but particular consequences (for Xavier) of opposing socializing processes in the school.

Duff (2002) also investigated the experiences of ESL students in a mainstream classroom, in her study, in a high school. She found that the ESL students in the class interacted

infrequently in whole-class discussion participation structures. Duff noted that many of these students also refused to take up the subject positions made available to them by their teacher and participated variably in socializing practices. Such conduct had serious consequences for ESL students' (lack of) standing among and relations with mainstream peers.

Several accounts of the Tradewinds High study (e.g., Talmy 2008, 2009, 2010) have considered Local ESL students' oppositional responses to an infantilizing curriculum in which ESL students were constructed as an undifferentiated group of newcomers to the US. In Talmy (2008), for instance, certain practices of the Local ESL CoP were elucidated, such as leaving materials 'at home' and refusing to complete classwork, which worked to socialize newcomer ESL *teachers* to the extent that by year's end, little official curricular business beyond grammar worksheets and vocabulary quizzes got done in class.

Finally, following on the foundational work of Duff (e.g., 1995) concerning K-12 L2 English learning in 'foreign language' contexts, Copp Mökkönen (2012) examined the subteaching practices among first-and second-graders enrolled in an English-medium school in Finland. She demonstrated how the monolingual English ideology of the school became an additional resource through which children could engage in teacher-like actions with peers, as they policed each other's L1 and L2 use in small-group interactions, and in so doing produced their identities as members of this particular classroom community.

The comparative dearth of K-12 ESL research in applied linguistics is unfortunate. As public school enrollments decline across North America, the ESL population continues its exponential growth, just as ESL drop-out, push-out, and 'disappearance' rates (Gunderson 2007) skyrocket as well. More and better investigations are needed that concern the growing complexities of ESL learning in superdiverse public school settings. As the discussion of the Tradewinds and related studies above indicates, language socialization offers one particularly productive theoretical and methodological means for undertaking this task.

NOTES

1 The name of the school, the students, and the teacher in this paper have been changed. Students selected their own pseudonyms.

2 "Local" is an identity category in wide circulation in Hawai'i and refers to someone born and raised in the islands. "Local ESL" is an etic category, which aims to signify these students' affiliations with and socialization into communities beyond ESL, including the L2 (English and Pidgin) expertise necessary to function within them. This population has elsewhere been referred to as "generation 1.5" ESL. As well, the locally-circulating preference was for "ESL" rather than "ELL," hence my use of "ESL" here.

3 As a researcher and classroom aide, I was implicated in such "cultural responsiveness" and witnessed its successes and failures: for instance, for the folktales project, I offered a book with Palauan folktales to Laidplayer, but he refused repeatedly to even look at it, stating, "I'm doing different. I'm doing Hawaiian" (he selected the Maui legend). On the other hand, for a group of Chuukese girls, the materials from the Pacific Area Languages Materials Development Center (1978) that I gave them—some of the very few school resources available in L1 Chuukese—were an undeniable success: the girls spent parts of several class sessions delightedly reading them in the most sustained print-literate activity I saw them undertake that year.

4 Unfortunately, space constraints prevent discussion of the important institutional L2 LS work done with adults (see Duff & Anderson, this volume), heritage language learners (see He, this volume), and languages besides English (see, e.g., Moore 2013, and the work of Asta Cekaite and colleagues in Sweden, e.g., Cekaite 2009, 2012; Cekaite & Evaldsson 2008). I have also not addressed studies of K-12 settings in which an LS perspective was not adopted (e.g., Rampton 2006).

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See Chapter 19: Language Socialization Across Learning Spaces.
See Chapter 20: Language and Literacy Socialization for Immigrant and International Students in Educational Contexts.
See Chapter 26: Multilingual Classroom Discourse as a Window on Wider Social, Political and Ideological Processes: Critical Ethnographic Approaches
See Chapter 27: Power, Resistance and Second Language Learning

Part VII The Conversation Analysis Tradition

Overview of the Conversation Analysis Tradition

NUMA MARKEE

The chapter by Seedhouse treats L2 classroom interaction as a complex adaptive system. Seedhouse begins with a brief review of what such systems are and how they work from a complexity/chaos theory perspective. He then blends this perspective with a technical CA account of the interactional architecture of language classrooms. Next, he considers how the ever more prevalent use of technology in second language classrooms not only affects the organization of classroom interaction but also makes it imperative for conversation analysts to change the ways in which they represent classroom talk in their transcripts and analyses. This chapter breaks new ground by proposing a novel synthesis between complexity theory and CA, thus exploring territory that is not covered by the six Traditions that are used to organize this Handbook. The chapter also wrestles in interesting ways with the emerging theme of multimodality. More specifically, Seedhouse makes some interesting proposals regarding how this theme might be tackled by conversation analysts but also suggests, correctly I think, that multimodality is a topic that presents an interesting set of challenges for *all* approaches to classroom interaction, not just CA.

The chapter by Kasper and Kim (this volume) focuses on the informal learning context of *conversations-for-learning*, also known as *conversation tables*, which the authors treat as forms of institutional talk. They show how participants achieve local order in conversations-for-learning, focusing in particular on the construction of participant identities, their relation to participation frameworks, and of language choice. They also illustrate how participants orient to the institutional character of the activity. Furthermore, they also show how learning opportunities are contingently generated in and through social activity, and how conversation table interactions provide analysts with excellent opportunities to adopt a longitudinal perspective on the development of language resources and interactional practices. The chapter is also notable for its expansion of the traditional boundaries of classrooms and classroom interaction.

The chapter by Pekarek Doehler and Fasel Lauzon (this volume) explores the theme of learning as an activity that takes place over extended periods of time. This is a comparatively recent development in CA work on classroom interaction, and this body of research has been crucial in developing a coherent response to the cognitive-interactionist critique

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that CA had nothing to say about learning (see Ortega 2009 for a review of this issue). Longitudinal and cross-sectional research also connects with the emergent CA-native interest in understanding how the concept of interactional competence works. The authors begin by reviewing studies that are concerned with microgenetic change, that is, with change that occurs in the (very) short term (i.e., minutes or seconds). They then discuss current work that focuses on ontogenetic change (i.e., with change that occurs over days, weeks, or months). This work uses both longitudinal and cross-sectional designs. The chapter is thus another example of a hybrid CA/SCT approach to L2 classroom interaction (see also Thorne & Hellerman, this volume). It also expands our horizons beyond what we know about ESL classroom interactions by studying excerpts of talk-in-interaction that are predominantly taken from French as a first and second language classrooms in Switzerland.

The chapter by Markee and Kunitz (this volume) is a state-of-the-art article on where CA is now and where it needs to go in the future. The authors define what CA-for-SLA is and then (sympathetically) review recent arguments that the label CA-*for-SLA* has outlived it utility. This discussion is followed by an overview of the relationship between EM and CA, which leads to a discussion of the organization of turn taking, repair and sequences in both ordinary conversation and classroom talk. This discussion, which provides a detailed example of how CA treats context as an *achieved*, *local*, and above all, as a *sequential* phenomenon, is illustrated by a fragment of classroom talk that shows what dispreferred classroom talk looks like. Finally, this initial section ends with a review and rebuttal of the most important criticism of CA, namely that it cannot *demonstrate* learning. More specifically, the review of what CA has to say about language learning also includes discussion of: 1) purist and developmental CA perspectives on how to conceptualize learning (behavior); 2) the role and scope of emic theory and theory construction; and 3) a brief summary of what longitudinal CA research has achieved so far.

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22 L2 Classroom Interaction as a Complex Adaptive System

PAUL SEEDHOUSE

1. Introduction

Atkinson (2011) introduces six alternative approaches to the dominant cognitive paradigm in the study of second language acquisition (SLA). Two of these approaches are conversation analysis (CA) and complexity theory. The aim of this chapter is to show how these two approaches can be applied in a complementary way to reveal how L2 classroom interaction operates as a system. CA aims to uncover the system underlying individual instances of interaction, while complexity theory can conceptualize the characteristics and functioning of holistic systems.

The chapter provides an overview of how L2 classroom interaction functions as a complex adaptive system, and starts by explaining the characteristics of such systems. An outline of the interactional architecture of the language classroom is then presented. Following Seedhouse's (2004) CA study, the main argument is that there is a reflexive relationship between pedagogy and interaction in the L2 classroom, and that this relationship is the foundation of its context-free architecture. This relationship means that, as the pedagogical focus varies, so the organization of the interaction varies. The overall organization of L2 classroom interaction is presented in relation to the concept of the rational design of institutional interaction. The basic sequence organization of L2 classroom interaction is identified as well as an emic methodology for its analysis.

The chapter then examines the extent to which classroom interaction has the characteristics of a complex adaptive system. The IRF (Teacher **I**nitiation, Learner **R**esponse and Teacher **F**ollow-Up or **F**eedback) pattern is selected for particular examination as it is the best-known pattern in this setting. The chapter provides an example of how the system of classroom interaction adapts to a technological setting; participants employ verbal and non-verbal resources to create a unique speech-exchange system in adaptation to their environment. Recent interest in multimodality throughout the social sciences means that any systematic portrayal of classroom interaction should portray how verbal and non-verbal resources are inextricably entwined into the functioning of speech exchange systems. The chapter, then, introduces three recent developments which present challenges for all approaches to classroom

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interaction: a) technology-mediated learning environments; b) multimodality and the difficulty of integrating non-verbal behavior into our analyses of interaction; c) the extent to which classroom interaction may be analyzed and understood as a complex adaptive system. Some indications are provided below as to how these challenges might be tackled. The chapter refers extensively to Seedhouse (2004, 2010) and to Seedhouse and Almutairi (2009).

2. What is Complexity Theory?

Complexity theory is becoming established as a conceptual framework which is relevant to many areas of applied linguistics as well as to many other academic disciplines. In the sections below I list the typical characteristics and behaviors of complex adaptive systems and then describe the organization of L2 classroom interaction.

Complexity theory is a science which aims to explain the nonlinear interactions of microscopic elements in complex systems (Mainzer 1997) or a science of the global nature of systems (Gleick 1993). It reveals the subtle relationships between simplicity and complexity and between orderliness and randomness (Hall 1991, p. 7). A defining characteristic of a complex system is that its behavior emerges from the interactions of its components (Larsen-Freeman and Cameron 2008, pp. 9–10) and so complexity theory always develops a holistic or ecological perspective rather than a reductionist or atomistic one (Gleick 1993, p. 7). Complex adaptive systems of many different kinds have been studied so far and include: movements on the stock market and in the global economy; weather systems; the emergence, evolution and extinction of species; the rise and fall of animal populations; the organization and functioning of the human heart and brain; language, learning and thinking in humans; cultural and social systems such as political parties or scientific communities; the rise and fall of civilizations. Larsen-Freeman and Cameron (2008) provide a detailed study of the relationship between complexity theory and applied linguistics and discussion of possible applications, as well as the suggestion that spoken interaction is a complex adaptive system. Seedhouse (2010) provided a study of L2 classroom interaction as a complex adaptive system.

3. What are Complex Adaptive Systems?

Complex adaptive systems share certain crucial properties, which are specified in the following section; see Seedhouse (2010) and Larsen-Freeman (1997) for further discussion. Complex systems self-organize and involve the adaptation of many interacting agents. Coherent, self-organizing clusters at one level combine to form new clusters at a higher level. They are adaptive, in that they do not just passively respond to events. For example, the human brain constantly organizes and reorganizes its billions of neural connections so as to make sense of experience. This also applies at the macro level of society: people trying to satisfy their material needs unconsciously organize themselves into an economy through numerous individual acts of buying and selling. This happens without anyone being in charge or consciously planning it (Mitchell Waldrop 1994).

Complex systems are non-linear, meaning that small changes in the external environment can produce large changes in the system (Gribbin 2004, p. 106). Nonlinear systems express relationships that are not strictly proportional (Gleick 1993, p. 23), in which the result is not proportionate to the cause. Surface complexity arises out of deep simplicity. Extremely simple systems can generate extremely complex and intricate patterns (Gribbin 2004). This occurs because systems interact with their environment, react to feedback from their environment and feed back on themselves. They are therefore able to self-organize and form new

organizations at more complex levels. Complex systems show sensitivity to initial conditions. In nonlinear systems small inputs can lead to dramatically large consequences and very slight differences in initial conditions can produce very different outcomes (Lewin 1993).

Complex systems adapt using feedback from the environment and from themselves. Systems receive feedback from their interactions with the environment and organize and adapt themselves accordingly. As the system evolves in time, minute changes amplify rapidly through feedback. This means that systems starting with only slightly differing conditions rapidly diverge in character at a later stage (Hall 1991). This explains non-linearity, or how it is that tiny differences in initial states can produce radically different outcomes. Systems also feed back on themselves, providing themselves with information on how they are organized in relation to their environment. A key feature of complex systems, then, is that they are 'open' and influenced by their environment (Johnson 2007; Prigogine and Stengers, 1984).

Complex adaptive systems arise from the interaction of their parts and function as a whole which is more than the sum of its parts. The organization of the whole system is created from the nonlinear interactions of numerous much smaller elements. This means that complex adaptive systems cannot, in general, be successfully analyzed by isolating properties or variables that are studied separately and then combining those partial approaches. Instead, it is necessary to adopt a holistic perspective and look at the whole system (Hawkins and Gell-Mann 1992).

Complex adaptive systems simultaneously display both homogeneity and heterogeneity. At the lowest level, no two complex adaptive systems are ever absolutely identical: each starts from slightly different starting conditions and interacts with a slightly different external environment. Yet complex adaptive systems of the same genus display certain similarities. To illustrate this point, Gleick (1993, p. 311) describes how feedback from the environment creates heterogeneity in snowflakes as they fall through the air. To the naked eye, snowflakes all look the same. However, under a microscope they display almost infinite variety.

Complex adaptive systems display self-similarity on various scales and levels. The patterns or shapes of complex adaptive systems look similar from different scales, perspectives and levels. For example, the edges of a clover leaf will be bristling with smaller clover shapes that will bristle with still smaller clover shapes, and so on indefinitely (Coveney and Highfield 1995). The word 'fractal' (coined by Mandelbrot) is used in this context to denote shapes which are irregular all over (fractional) and which have the same degree of irregularity on all scales. A fractal object looks the same when examined from far away or nearby – it is self-similar, which implies that any subsystem of a fractal system is equivalent to the whole system (Sardar and Abrams 1999).

There are universal properties of nonlinear systems: different systems behave in the same ways. The notion of universality (associated with Feigenbaum) means that different complex adaptive systems will behave in the same ways (Sardar and Abrams 1999). Complex adaptive systems are constantly revising and rearranging their building blocks as they gain experience. At some deep, fundamental level, all of these processes of learning, evolution and adaptation are the same (Mitchell Waldrop 1994, pp. 145–147).

4. The Characteristics of L2 Classroom Interaction

Before looking in detail at its characteristics, it is important to consider what kind of talk L2 classroom interaction is, and here I adopt a CA institutional discourse perspective. Studies of institutional interaction (e.g., of courtrooms, doctor–patient talk) have focussed on how

the organisation of the interaction is related to the institutional aim and on the ways in which this organisation differs from the benchmark of ordinary conversation. Drew and Heritage (1992, p. 28) propose five basic places to probe the institutionality of interaction, namely:

- lexical choice;
- turn design;
- turn-taking organization;
- sequence organization;
- overall structural organization of the interaction;
- social epistemology and social relations.

Perhaps the most important analytical consideration is that institutional discourse displays goal orientation and rational organisation. In contrast to ordinary conversation, participants in institutional interaction orient to some 'core goal, task or identity (or set of them) conventionally associated with the institution in question' (Drew and Heritage 1992, p. 22). CA institutional discourse methodology attempts to relate not only the overall organisation of the interaction but also individual interactional devices to the core institutional goal. CA attempts, then, to understand the organisation of the interaction as being *rationally* derived from the core institutional goal; this principle underlies the description of the organisation of L2 classroom interaction below.

What is the relationship between institutional talk and ordinary conversation? CA sees conversation as a benchmark against which institutional varieties can be described and recognised (Drew and Heritage 1992, p. 19). Conversation, then, is clearly differentiated from the numerous varieties of institutional discourse. Warren (1993, p. 8) develops a definition of conversation which distinguishes it from other discourse types:

> A speech event *outside of an institutionalised setting* involving at least two participants who share responsibility for the progress and outcome of an impromptu and unmarked verbal encounter consisting of more than a ritualised exchange (italics added).

In ordinary conversation, turn-taking and participation rights in conversation are unrestricted; responsibility for managing and monitoring the progress of the discourse is shared by all participants. Conversations are open-ended and participants jointly negotiate the topic and the language/dialect in which the conversation is conducted. Clearly, ordinary conversations do take place in the physical setting of an L2 classroom, with pupils chatting to each other on topics of their own choosing in L1, for example. However, this is not L2 classroom interaction, which is talk in orientation to a pedagogical goal.

The remainder of this section presents an extremely brief account of the interactional architecture of the L2 classroom, based on Seedhouse (1996, 2004), to which readers are referred for a full account. The study applies conversation analysis methodology to an extensive and varied database of language lessons from around the world and attempts to answer the question 'How is L2 classroom interaction organized?' The main finding is that there is a reflexive relationship between pedagogy and interaction in the L2 classroom, and that this relationship is the foundation of its context-free architecture. This relationship means that, as the pedagogical focus varies, so the organization of the interaction varies. However, this also means that the L2 classroom has its own interactional organization which transforms intended pedagogy into actual pedagogy.

The first step towards describing the interactional architecture of L2 classroom interaction is to identify the institutional core goal, which is that *the teacher will teach the learners the L2*.

This core institutional goal remains the same wherever the L2 lesson takes place and whatever pedagogical framework the teacher is working in. From this core goal a number of consequences issue both rationally and inevitably which affect the way in which L2 classroom interaction is accomplished. Drew and Heritage (1992, p. 26) suggest that each institutional form of interaction may have its own unique *fingerprint*, 'comprised of a set of interactional practices differentiating (it) both from other institutional forms and from the baseline of mundane conversational interaction itself.' There are three interactional properties which derive directly from the core goal, and these properties in turn necessarily shape the interaction. These follow in rational sequence from each other and constitute part of the unique fingerprint of L2 classroom interaction.

4.1 Property one

Language is 'Both the vehicle and object of instruction' (Long 1983, p. 9). This property springs rationally and inevitably from the core goal. The core goal dictates that the L2 is the object, goal and focus of instruction. It must be taught, and it can only be taught through the medium or vehicle of language. Therefore language has a unique dual role in the L2 classroom in that it is both the vehicle and object, both the process and product of the instruction. In other forms of classroom education (history, engineering) language is only the vehicle of the teaching. It should be pointed out that, in this model, L2 classroom interaction is interaction which is produced in the L2 by teachers and/or learners. Of course, many other varieties of interaction can occur in the physical setting of an L2 classroom, including talk in L1, but the above is the sole focus of this model.

4.2 Property two

There is therefore a reflexive relationship between pedagogy and interaction and interactants constantly display their analyses of the evolving relationship between pedagogy and interaction in their talk. This means that as the pedagogical focus varies, so the organization of the interaction varies. The omnipresent and unique feature of the L2 classroom is this reflexive relationship between pedagogy and interaction. So whoever is taking part in L2 classroom interaction and whatever the particular activity during which the interactants are speaking the L2, they are always displaying to one another their analyses of the current state of the evolving relationship between pedagogy and interaction and acting on the basis of these analyses. The extract below illustrates how this works even in the first exchange a Chinese L1 beginner makes in his first English class.

Extract 1

1. T: OK my name's,
2. LL: my name's,
3. T: OK, (.) er, hello, (addresses L1) my name's John Fry.
4. L1: (.) my name's John Fry,
5. T: oh!
6. LL: (laugh)
7. L1: my name's Ping. Ping.
8. T: Ping? yes hello, °you say° (whispers) hello.
9. L1: hello my name is my name's Ping.

(British Council 1985, volume 1, p. 15)

We can see in line 4 that L1 displays an analysis of the current relationship between pedagogy and interaction as being that he must repeat whatever the teacher says. It is easy to see how this occurs, since in lines 1 and 2 the required relationship between pedagogy and interaction was just that. T, however, displays in lines 5 and 8 that his analysis is that this is not the required relationship and that L1 should instead produce a specific string of forms including L1's own name. L1 then changes his analysis of the relationship between pedagogy and interaction so that in line 9 it finally conforms to that required by T. Interactants are always displaying to one another their analyses of the current state of the evolving relationship between pedagogy and interaction and acting on the basis of these analyses.

4.3 Property three

The linguistic forms and patterns of interaction which the learners produce in the L2 are potentially subject to evaluation by the teacher in some way. As van Lier (1988, p. 32) puts it, 'Everyone involved in language teaching and learning will readily agree that evaluation and feedback are central to the process and progress of language learning.' This property does *not* imply that all learner utterances in the L2 are followed by a direct and overt verbalized evaluation by the teacher, as the data show this clearly not to be the case. It means that all learner utterances are *potentially* subject to evaluation by the teacher. This third property derives rationally from the second property; since the linguistic forms and patterns of interaction which the learners produce in the L2 are normatively linked in some way to the pedagogical focus which is introduced, it follows that the teacher will need to be able to evaluate the learners' utterances in the L2 in order to match the reality to the expectation.

In L2 classroom interaction, language is the object as well as the vehicle of instruction. Participants are analyzing and commenting on the linguistics forms and patterns of interaction themselves and employing these as the basis for further interaction. This means that we have an opportunity to observe an interactional system continually examining itself and feeding back on itself in interactional terms. These characteristics are particularly conducive to revealing the characteristics of complex adaptive systems.

Seedhouse (2004) proposes that these three properties are universal, i.e., they apply to all L2 classroom interaction and they are inescapable in that they are a rational consequence of the core institutional goal and the nature of the activity. These properties, then, form the foundation of the rational architecture and of the unique institutional 'fingerprint' of the L2 classroom.

4.4 Sequence organization

Although L2 classroom interaction is extremely diverse and fluid, it is nonetheless possible to state a basic sequence organization which relates to the above properties and which applies to all L2 classroom interaction.

1. A pedagogical focus is introduced. Overwhelmingly in the data this is introduced by the teacher but it may be nominated by learners.
2. At least two persons speak in the L2 in normative orientation to the pedagogical focus.
3. In all instances, the interaction involves participants analyzing this pedagogical focus and performing turns in the L2 which display their analysis of and normative orientation to this focus in relation to the interaction. Other participants analyze these turns in relation to the pedagogical focus and produce further turns in the L2 which display this

analysis. Therefore, participants constantly display to each other their analyses of the evolving relationship between pedagogy and interaction.

4.5 An analytical methodology

The idea that an analytical procedure or methodology can emerge from the structure of interaction is a familiar one in CA. Our task as analysts is to explicate how L2 classroom interactants analyze each others' turns and make responsive moves in relation to the pedagogical focus. The description of the interactional architecture of the L2 classroom above, specifically the properties and basic sequence organization, provides the analyst with a ready-made emic analytical procedure. The participants display in their turns their analyses of the evolving relationship between pedagogy and interaction, i.e., how the pedagogical focus relates to the turns produced in L2. Therefore, the methodology can be stated in this way: *The analyst follows exactly the same procedure as the participants and traces the evolving relationship between pedagogy and interaction, using as evidence the analyses of this relationship which the participants display to each other in their own turns*.

So the methodology which is used for the analysis of L2 classroom interaction is the next-turn proof procedure in relation to the pedagogical focus. In the vast majority of cases in the database we can state the procedure more specifically as follows. The classroom teacher compares the linguistic forms and patterns of interaction which the learner produces with the pedagogical focus which she/he originally introduced and performs an analysis and evaluation on that basis. The analyst can do exactly the same thing, comparing the teacher's intended pedagogical focus with the linguistic forms and patterns of interaction which the learner produces, and then analyzing the interaction on the basis of the match or mismatch. This methodology is exemplified in numerous analyses in Seedhouse (2004) and in the next section.

5. The Characteristics of L2 Classroom Interaction Compared with Those of Complex Adaptive Systems

In this section I compare some of the characteristics of complex adaptive systems to those of L2 classroom interaction; for additional characteristics, see Seedhouse (2010). We saw above that complex adaptive systems display self-similarity on various scales and levels. If L2 classroom interaction does indeed function as a complex adaptive system, then we should expect to notice some evidence of self-similarity in the structure of the interaction at different levels. In other words, the macro description of the architecture of L2 classroom interaction provided above should be miniaturized in some way in the micro-interactional detail. The best-known interactional phenomenon in L2 classroom interaction is the three-part sequence generally known as IRF (Teacher Initiation, Learner Response and Teacher Follow-Up or Feedback) (Sinclair and Coulthard, 1975). This pattern has been identified in numerous research studies as ubiquitous throughout the world. As Larsen-Freeman and Cameron (2008, p. 235) say in their discussion of complexity theory in relation to discourse: 'The IRF pattern … can be seen as an attractor on the classroom discourse landscape that shows variability around a very stable form and that has arisen through adaptation in response to particular classroom contingencies. The discourse system will tend to return to the IRF attractor because it is a pattern that works; it is a preferred behavior of the system.' The importance of the IRF pattern demands explanation if we are to claim that L2 classroom interaction has a rational architecture. First of all we need to

recall the three properties of L2 classroom interaction as stated above and then compare a typical example of the IRF pattern:

1. Language is both the vehicle and object of instruction.
2. There is a reflexive relationship between pedagogy and interaction and interactants constantly display their analyses of the evolving relationship between pedagogy and interaction.
3. The linguistic forms and patterns of interaction which the learners produce are subject to evaluation by the teacher in some way.

Next we should examine an example of the IRF pattern:
Extract 2

1. T: number three:: (0.3) er Dilmo where is the cat?
2. L1: the cat is inside the box
3. T: *excellent* ok inside the box

(Carr 2006, dvd 14)

In the context of the overall description of the interactional architecture of the L2 classroom, the IRF pattern can be seen as a *replication in miniature of the three interactional properties* (Seedhouse 1996, p. 354). In line 1 the teacher introduces a pedagogical focus, expecting the learner to reflexively produce a precise pattern of interaction in response. In line 2 the learner produces an interactional pattern, which is matched against the pedagogical focus and positively evaluated by the teacher in line 3. Language is both the vehicle and goal of the interaction in that the point of the teacher's prompt is for the learner to produce a string of linguistic forms for evaluation. So the functional or rational explanation which we can offer for the importance of the IRF pattern is that it is the most compact vehicle imaginable for the accomplishment of what Drew and Heritage (1992, pp. 40–41) call the institutionalized activity. Because it is so closely identifiable with the interactional properties and with the institutional business, it is the *most economical method* of accomplishing a complete cycle of the institutional business. For a complete cycle of the institutional business to be carried out, the minimum requirement is that i) the teacher introduces a pedagogical focus, ii) the learner produces patterns of interaction in response and iii) the teacher evaluates the learner response (although this is not always verbalized) by matching i) to ii). In the case of the previous extract, this complete cycle of institutional business is accomplished in only 18 words.

This explains why the IRF pattern has a satisfying, complete feel to it, or is an *attractor* in the terms of complexity theory. This provides an illustration of what is meant in CA by the rational design of institutional interaction. Not only can it be shown that the overall interactional architecture of L2 classroom interaction derives from the core goal, but 'surface' features of the micro-interaction, such as the IRF pattern, can be allocated a functional place within that architecture and related directly to the macro levels. In other words, it can be shown *how* the surface feature is accomplishing the institutional business. This perspective also conforms to Larsen-Freeman and Cameron's (2008, p. 236) description of 'the language classroom as a complex system, not reducible to its component parts, but in which the parts contribute to the whole while also being formed by the whole.' From a complex systems perspective, L2 classroom interaction displays self-similarity at different levels, with the IRF pattern a fractal, replicating on a miniature scale the interactional properties of L2 classroom interaction.

5.1 Non-linearity

Classroom language teachers are very familiar with the concept of non-linearity, in which you intend one thing to happen in class and something very different happens instead! In this section we consider some of the consequences of non-linearity in relation to L2 classroom interaction. A recent development in the study of language pedagogy is that of how intended pedagogy becomes converted into actual pedagogy; the realization has been that learners actively interpret and transform the teacher's intended pedagogical focus. One cannot therefore assume a linear, proportionate relationship between what is intended and what transpires. There is now ample evidence in the literature (Coughlan and Duff 1994; Donato 2000; Ohta 2001; Mori 2002) of planned tasks resulting in different and unexpected actual activities by learners. So there is clear evidence that we cannot assume a linear relationship between intended pedagogy and actual pedagogy; it is essential to track how the actual implemented task evolves. This suggests, then, that the relationship between pedagogy and interaction is a nonlinear one. It is a complex relationship which may be affected by a number of factors on a number of levels. In nonlinear systems, small inputs can lead to dramatically large consequences and very slight differences in initial conditions produce very different outcomes. This property can help us understand to some extent the phenomenon whereby the same teacher, teaching the same lesson to two parallel groups of similar ability can find that radically different lessons result. Small differences in variables can have an enormous impact on lesson development. For example, Coughlan and Duff (1994) demonstrate that the same task-as-workplan does not yield comparable results in terms of task-in-process when performed by several individuals, or even when performed by the same individual on two different occasions.

5.2 Systems adapt using feedback from the environment and from themselves

Feedback is well known to be a very prominent feature of L2 classroom interaction (van Lier 1988, p. 32). How exactly does L2 classroom interaction as a complex system adapt itself to specific environments? When a specific pedagogical focus is introduced, the participants develop an interaction system in orientation to this. An interesting example of how interactants adapt interactional systems is the case of task-based interaction, in that we can see how specific features of task design result in specific interactional characteristics. In the extract below, 'Blocks' is a task based on the 'information gap' principle. The students were in pairs with a screen between them and in front of each student were five wooden building bricks of differing shapes and colors. The teacher arranged the bricks of one of the students into a certain pattern and it was then the task of that student to explain to his/her partner how to arrange the other set of bricks so that they were laid out according to the pattern. A time limit of sixty seconds was imposed after which the teacher arranged the other student's bricks into another pattern and the activity was carried out once more (Warren 1985, p. 57).

Extract 3

1. L1: ready?
2. L2: ready
3. L1: er (.) the blue oblong above the red oblong, eh? the yellow oblong.
4. L2: (.) alright. (.) >faster, faster.<=
5. L1: =the: red cylinder (.) beside the (.) blue oblong,
6. L2: (.) left or right?=
7. L1: =right.

8. L2: (.) right yeah ( ) OK.
9. L1: (1.0) the the red cube (.) was: (1.0)
10. L2: the red cube?
11. L1: (.) the red cube was (.) behind the (.) blue oblong.
12. L2: (.) blue oblong, (.) blue oblong. yeah.
13. L1: and the: (.) red cube was (.) er behind the (.) red oblong.

(Warren 1985, p. 275)

In this extract we can see the learners' orientation to the time limit set for completion of the task (1 minute), in that L2 says 'faster, faster' in line 4. In this extract we see L2 telling L1 when he has finished a particular stage (lines 4, 8 and 12) and this enables L1 to commence giving the next item of information as soon as L2 has finished noting the previous one. This procedure clearly minimizes gap; in lines 8, 10 and 12, L2 appears to repeat what L1 has said in order to confirm his understanding of L1's utterance, to display the stage that L2 is at in the process of noting the information, and to delay L1 in order that he should not begin the next item of information until prompted to do so. This is particularly evident in line 12, in which L2 repeats L1's utterance twice before giving confirmation of completion.

The types of turns are constrained by the nature of the task, as are turn order and even turn length, because of the time limit. The basic organization of turn-taking and sequence is that L1 makes statements to which L2 will provide feedback, clarification or repetition requests or repair initiation. On the one hand, the learners are engaged in developing turn-design features which are appropriate to the accomplishment of the task, e.g., confirmation to minimize gap. An interactional system evolves using external feedback from the environment, i.e., the nature of the task which has been given to the learners and the physical presence of the screen. On the other hand, we can also see the interactants providing internal feedback (in line 4) which then impacts on how the interaction is conducted.

In this section, I have compared the known characteristics of L2 classroom interaction with the known characteristics of complex adaptive systems in order to establish the degree of fit and conclude that L2 classroom interaction gives some indications of behaving like a complex adaptive system in that it displays similar characteristics. However, a claim of classification is not proven beyond reasonable doubt.

6. A Technological Approach to the Multimodal Analysis of Task-Based Interaction

Two recent developments in the study of L2 classroom interaction have been a proliferation of technology-driven learning environments and an interest in the multimodal portrayal of interaction using video technology. If this chapter is correct in its description of L2 classroom interaction as an adaptive system, then its basic characteristics should be evident in technology-driven settings and multimodal analysis of interaction should be possible, using the methodology described above. In this section, therefore, I show an example (Seedhouse and Almutairi 2009) of how learners in a technology-driven setting create a multimodal speech-exchange system which is adapted to both the pedagogical task and the technology. This setting has been chosen to show how the interactional system adapts itself to new pedagogies or technological developments, as well as to emphasize the importance of multimodality in analyzing classroom interaction. Seedhouse and Almutairi (2009) used a combination of technologies to relate non-verbal communication and performance of the task to the details of the talk. They combined task-tracking hardware and software (digital tabletop), video/

audio recording and transcription. Digital tabletops (see Figure 22.2) are multi-user, multi-touch interactive digital tables that combine face-to-face interaction with the full use of digital media. They also enable innovative task design.

This type of horizontal tabletop display can adapt well to the study of task-based learning and teaching in terms of having groups of students working on a task using an electronically enhanced shared space. This space can be manipulated, monitored, tracked, or even connected to other sources of information. Text, audio, video and physical materials can be used on these tabletop displays and can be implemented in an interactive way. The task in this study was a jumbled sentence text; a typical L2 classroom task which aimed to generate interaction between students. The story was taken from a textbook designed for advanced second language learners. The story was digitized and embedded in the table. The application mixes up the pieces randomly on the tabletop, where the learners can manipulate them. They can move, rotate, and maximize the pieces of text. The learners need to discuss among themselves how to rebuild the story and put the pieces in the correct order to rebuild the narrative. In terms of the distinction between convergent and divergent tasks (Duff 1986), this activity represents a convergent task as the learners seek to come to an agreement with regard to the appropriate order of the pieces. They try to rebuild the story into its original order. So, the assumption here is that there is only one solution, although in reality and as the task unfolds as a task-in-process (Breen 1989), this single goal orientation might change as the interactants negotiate.

In Figure 22.1, the digital recording shows which of the participants has moved the text where. Three people use three stylus pens, with different colors, and the table can sense

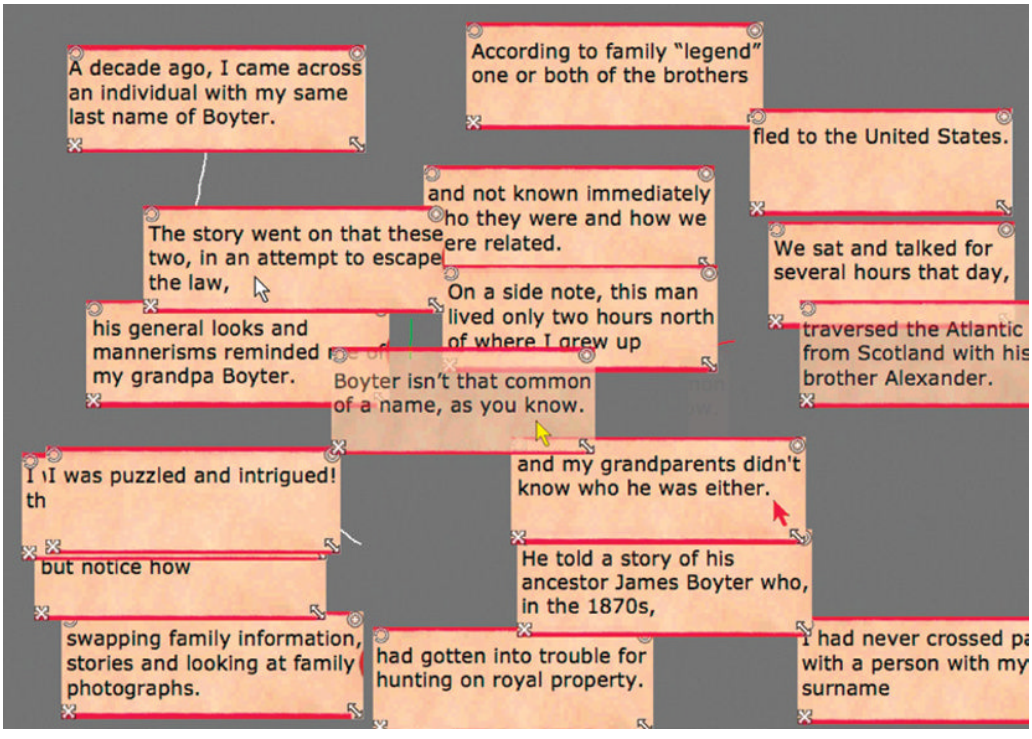


Figure 22.1. Screen capture of the jumbled text task used in this study (Seedhouse & Almutairi 2009). © Saad Almutairi

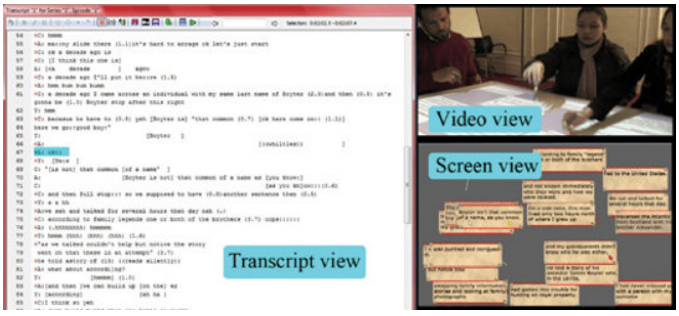


Figure 22.2. System layout: different modalities put together (Seedhouse & Almutairi 2009). © Saad Almutairi

which pen does what at any given point in time. For our purposes, what made this even more interesting was that we were able to link these data to data from the video/audio equipment around the tabletop, as shown below in Figure 22.2. The study was conducted in a university classroom. A digital tabletop was put in the middle of the room and two video cameras were also used during the task to capture video and audio data. Screen capture (Figure 22.2) was used to record the movement of the pieces of the story. The three learners had previously been introduced to the digital tabletop and the task using a dummy task. The participants in this study were postgraduate international students and their English proficiency as shown by IELTS scores was quite advanced, the average IELTS score for the participants being 6.5.

Using Transana software to align the video and tabletop with the transcripts of the interaction on a single screen, we are able to make three data sources available simultaneously for multimodal analysis. Of course, audio also plays simultaneously to make a fourth. The first source is the detailed transcript of the interaction (Transcript view). The audio recording was transcribed using CA conventions. The video view of the group around the tabletop is another source of data (Video view). The third source was the screen capture, which shows movement related to task completion on the table (screen view). So, movement of the pieces of text can be viewed simultaneously on the video view and the screen view. Speech can be heard at the same time as the transcript is highlighted on the transcript view (Figure 22.2). This presentation gives the analyst the convenience of examining all elements of task-based interaction as many times as needed. Moreover, the ability to review talk, non-verbal elements and task-completion actions simultaneously enables analysis of the interdependence of these three elements, as we demonstrate below. It is proposed that task-based talk can only be analyzed adequately in conjunction with these two other elements.

7. Understanding Task-Based Interaction using Multimodal Analysis: An Example

Seedhouse (2004) noted that task-based interaction can be heavily indexical and minimalized, particularly when involving convergent tasks. It is therefore difficult or even impossible to read and analyze transcripts of talk without knowing what the learners are physically doing. The following transcript (extract 4) shows a heavily indexical encounter.

Extract 4

11. C: and looking at family photographs
12. (1.0)
13. A: and not (0.7) oh that's full stop (0.6)
14. C: yeh (0.8)
15. A: no (0.6) ok (.) [photographs]
16. C: [what is this]
17. (2.8)
18. A: ok
19. (5.4)
20. →A: the story went
21. (1.3)
22. Y: the story went on yeh yeh yeh (.)
23. A: huh (.) do you [think]
24. C: [I think] so yeh why not
25. A: ok go ahead
26. Y: *((moves piece 5 to her left))*

If we only had the transcript, one might think that A and Y were telling a story (in lines 20 and 22) that would go on and some events would follow. This transcript becomes much more comprehensible when we show the video view and screen capture that accompany the transcript. The following multimodal analysis aims to understand the meaning conveyed by A in line 20 and how this meaning is understood by Y and C, i.e., to demonstrate the progress of their intersubjectivity.

The arrangement of the pieces in the screen capture shows the progress of the task. The four pieces (1–4) at the top left corner were picked as the first four pieces in the story. This frame was taken at line 20 from the extract above. Speaker A suggests that that piece (5) (that reads 'the story went…') is a potential candidate for the next move. He moves it slightly away from himself and finally at line 26, participant Y takes over the movement and puts it in place below pieces 1–4 on the top left. A's proposal is accepted by the other participants and jointly acted upon. The multimodal data presentation helps us to analyze line 20. By placing his pen on piece 5, gazing at it and reading the first 3 words of the text out, A is proposing that piece 5 should be the next piece of text in the story. In line 22, Y agrees with this proposal. In line 23, A checks this proposal with C, who agrees, and in line 25, A asks Y to physically move piece 5 into position as he cannot reach over that far (see Figure 22.3). So an adequate analysis of this extract of task-based interaction is only possible with multimodal information.

From a different angle, however, the analysis demonstrates that the three interactants have developed a multimodal speech exchange system appropriate to this task, in which verbal, non-verbal elements and task-completion actions are inextricably intertwined. Because of his gaze, pen position and because of the point they have reached in the task-completion sequence, all that is required for A to make a formal proposal that piece 5 should be the next piece of the story is for him to read out its first 3 words. Verbal indexicality and minimalization are therefore built into the multimodal speech exchange system which participants have constructed for this task. As Goodwin (2000, p. 1505) suggests, 'participants visibly attend to such graphic fields as crucial to the organization of the events and action that make up activity reflexively situated within a setting, and which contribute structure to that action.' The implication of this is that an emic perspective (i.e., an understanding of how participants organize their own talk) on task-based interaction is only possible if non-verbal communication and task-completion actions are available for analysis.

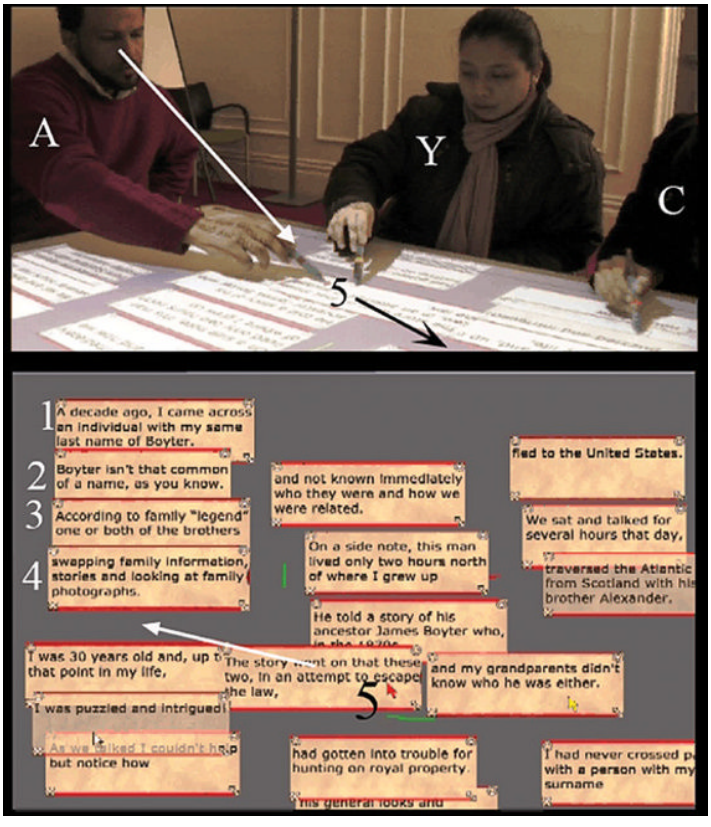


Figure 22.3. Juxtaposition of the visual elements (line 20) (Seedhouse & Almutairi 2009). © Saad Almutairi

The analysis of this extract illustrates a number of points regarding L2 classroom interaction as a complex adaptive system. From one perspective, the intricacy and precision coordination of the varied components of multimodal interaction are fantastically complex. A wide range of behavioral factors combine to make line 20 unique and heterogeneous. Only very detailed transcription and painstaking multimodal analysis is able to reveal all of the layers of the processes of learning in interaction. From a different perspective, however, line 20 can be seen as an example of what in complexity theory is known as s*urface complexity arising out of deep simplicity*. Seedhouse (2004) suggests that the entire architecture of L2 classroom interaction is based on one simple principle, which is unique to the L2 classroom, namely that there is a reflexive relationship between pedagogy and interaction. As the pedagogical focus varies, so the organization of the interaction varies. Since there is no limit in principle to the number of pedagogical foci which may be introduced, an innumerable variety of patterns of interaction may be produced. In line 20, we see a very clear link between the pedagogical aim of reconstructing the story and the organization of the interaction, which is focused on working as a group to rearrange the pieces of the story.

The extract also illustrates the point that complex adaptive systems display both homogeneity and heterogeneity. Seedhouse (2004) suggests that it is necessary to portray any instance of L2 classroom interaction as having a *complex personality*, as simultaneously displaying both homogeneity and heterogeneity and as functioning on a number of different

levels at the same time; this property is called *complementarity* (Gribbin 1991, p. 118). Seedhouse (2004) presents a model which provides a means of explicating and conceptualizing this, termed a *tri-dimensional view of context*, since it involves three perspectives on context represented in decreasing circles. There is always a tension between a description of an extract of L2 classroom interaction as a unique occurrence, locally produced by the participants, between a description of it as an example of interaction within a particular L2 classroom context, and between a description of it as an example of institutional L2 classroom discourse. In this case the extract clearly has unique features, particularly in the way that meaning is created using precision-timed verbal and non-verbal resources in line 20. However, the interaction has characteristics which are typical of task-based interaction, particularly indexicality and minimalization of linguistic forms. At a broader perspective this is also an example of L2 classroom interaction in that there is a reflexive relationship between pedagogy and interaction. In line 20, we see a very clear link between the pedagogical aim of reconstructing the story and the organization of the interaction, which is focused on working as a group to rearrange the pieces of the story.

8. Conclusions

In this chapter we have seen the importance of multimodality to the analysis and understanding of L2 classroom interaction in general, and to task-based interaction in particular. We have seen that the interactional architecture of L2 classroom interaction adapts itself to learning in technology-mediated settings. Seen from another angle, participants create adaptive speech exchange systems which enable them to complete tasks in such settings. Viewed from a complexity theory perspective, the process of instructed L2 learning involves the interaction of a number of related complex adaptive systems, each of which has been studied in its own right, e.g., the human brain, languages, human society and social processes, human behavior. To this we should add L2 classroom interaction as a system. This in turn means that advances in the study of complex adaptive systems in any field could potentially have implications for our understanding of spoken interaction.

In this chapter, CA and complexity theory have been employed in a complementary way; CA has been used to analyze the micro-detail of verbal and non-verbal behavior and complexity theory to elucidate how L2 classroom interaction functions as a complex adaptive system. The study has attempted to illustrate Larsen-Freeman and Cameron's (2008, p. 183) suggestion that 'CA, by offering careful description of the micro-level of face-to-face talk as a single coupled system, is compatible with the complex dynamics systems approach to discourse … and provides an important starting point for assembling a complexity toolkit for discourse.'

One disadvantage of the approach adopted in this chapter is that it reveals a fantastic level of complexity in interactional sequences, which is extremely time consuming and laborious to capture, analyze and portray to readers. Whereas we might have hoped that the use of technology in the study of classroom interaction might have made our work easier and shorter (as happens in some areas of life), in practice it tends to reveal ever-increasing levels of fine detail and synchronicity which should be included in analysis. However, the complexity theory perspective adopted in this chapter offers a counterweight. There is surface complexity arising out of deep simplicity. There is a core interactional architecture which molds itself like a 'rubber landscape' to different pedagogical contexts. All instances of interaction display simultaneous homogeneity and heterogeneity; they are simple and complex, the same and different. How we perceive and portray them depends on how we approach them in terms of methodology, technology and ideology, and the level of detail on which we choose to focus.

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CROSS REFERENCES

See Chapter 9: The Sequential Analysis of Instruction.
See Chapter 22: Institutional Talk-for-Learning Beyond the Classroom.
See Chapter 23: Documenting Change Across Time: Longitudinal and Cross-Sectional Ca Studies of Classroom Interaction.
See Chapter 24: Ca-For-Sla Studies of Classroom Interaction: Quo Vadis?

23 Conversation-for-Learning: Institutional Talk Beyond the Classroom

GABRIELE KASPER AND YOUNHEE KIM

1. Introduction

One persistent problem for language teaching is to provide students with sufficient opportunities to interact in the target language with their peers. To offset the limitations of teacher-fronted classroom interaction, teachers organize various kinds of in-class peer activities in pairs or small groups–task-structured activities, discussions based on a teacher-selected topic, text, or video, role plays and simulations, and the like. There is a large literature that investigates the organization and effectiveness of different types and formats of classroom peer interaction from a range of theoretical perspectives (e.g., Branden, Bygate and Norris 2009; Robinson 2011).

In addition to in-class lessons, some language programs also offer second or foreign language speakers opportunities for using the target language, typically in talk with L1 speakers, outside the classroom. Variably called conversations-for-learning, conversation tables, conversation clubs, conversation lounges, or conversation rooms, these activities are arranged to provide foreign language students with an environment for target language use that may be difficult to come by with other means, as in the case of Chinese (Hwang 2009, Estonian (Kivik 2012), or German (Kasper 2004; Kasper and Kim 2007) in the North American context or English in Japan (Carroll 2000, 2004, 2005; Nao 2011, 2013; Otsu and Krug 2013). Language programs in contexts where the L2 is a language of wider communication may offer conversation tables in order to give students access to L2 use that is typically different from the classroom and that students may not be exposed to or seek out by themselves. Multiparty conversations in particular afford the L2 participants opportunities for using the L2 in interaction not only with an L1 speaker or L1 speakers but with other L2 speakers whose first language they may not share. To date, published reports of such arrangements are limited to ESL settings in the US (Hauser 2005a, b, c, 2008, 2010; Jung 2004). Conversations-for-learning are also arranged on the initiatives of L2 speakers, students, or parents independently of language programs, for instance to practice English as a second language (Hauser 2013a, b; Kim 2012, submitted;

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Koshik and Seo 2012; Markee and Seo 2009; Seo 2011; Seo and Koshik 2010) or Japanese as a foreign language (Mori 2003; Mori and Hayashi 2006) in the US. In a prototypical conversation table arrangement, L2 speakers get together with one or more L1 speaker(s) in order to talk, without a set agenda, about a wide range of topics relating to their lives, experiences and interests, and culture-specific practices. The expected pedagogical benefit is that in the course of such topical talk, opportunities for learning language and culture will contingently arise. As the research literature shows, conversation tables indeed meet this expectation.

The chapter will be organized as follows. We will begin by describing conversations-for-learning, or conversation tables, as forms of institutional talk. Then we will examine some of the practices through which the participants achieve the local order of conversation table interaction. This section will include considerations of participant identities, their relation to participation frameworks, and of language choice. We will also illustrate some of the prevalent interactional practices through which the participants orient to the institutional character of the activity. Next, we will show how opportunities for L2 learning are contingently generated, how the participants engage in L2 learning as a social activity, and how conversation table interaction over an extended period allows us to observe the development of language resources and interactional practices. In closing, we will outline some directions for future research on conversations-for-learning.

2. Conversation-for-Learning as Institutional Talk

As activities arranged for language practice, learning, and development, conversations-for-learning are a form of institutional talk (Heritage and Clayman 2010), a general characteristic they share with language classrooms and language tutorials. Compared to the extensive literature on in-class peer activities, conversations-for-learning outside of classrooms are a fairly recent research interest, and the literature is small. Detailed descriptions of the activity type center on the particular format under study (Hauser 2008; Kasper 2004) and can mostly be found in dissertations (e.g., Hauser 2003; Hwang 2009; Kim 2009; Kivik 2012; Seo 2008). Formats among the described arrangements vary, and there is also considerable diversity between and within sessions of the same arrangement. There are no agreed-upon category names for the activity. Seo (2008) adopts the participants' emic category, 'ESL tutorial'. Further, although they occupy a social space outside of the classroom, conversations-for-learning share some of their interactional organization with in-class peer activities. In the absence of systematic comparisons of different conversation table settings, and of collection-based studies that examine a specific interactional phenomenon in a range of different conversation tables, generic claims about the organization of conversations-for-learning have to be taken with a grain of salt.

With these cautions in mind, we note that most documented conversations-for-learning have the following characteristics.

1. They are held on multiple occasions over an extended period of time.
2. The purpose is to talk in the target language, with the expectation that the talk will be beneficial for L2 learning and that repeated participation will result in L2 development.
3. There is no other agenda than to 'just talk'.
4. The L2 participants' performance is not assessed. The talk has no institutional consequences.
5. Turn-taking is locally managed by the participants. When asymmetrical participation frameworks emerge, they do so contingently.

Settings differ in their participant composition. Most arrangements include novice L2 speakers and expert L1 speakers of the target language, while in some others, all participants are novice L2 speakers (Carroll 2000, 2004, 2005; Otsu and Krug 2013).

Settings are also diverse regarding the L1 conversation partners' institutional status, for instance whether the L1 partner is also the L2 participants' teacher, or another teacher in the language program that arranges the conversation table, or whether they are hired by the language program or the L2 participants. None of these participants' relations is necessarily consequential for the interaction, but the participants do orient to them with more or less regularity, as we will show below. Lastly, regardless of participants' language and institutional identities, whether the activity is multiparty or dyadic is consequential for the distribution of speaking turns.

Institutional settings can be distinguished according to the extent to which they prestructure the organization of the talk, a dimension that Atkinson (1982) refers to as formality. Against ordinary conversation as the benchmark of nonformal talk, the teacher-fronted IRF structured classroom is a prototypical exponent of a formal setting, while conversation tables are located at the nonformal end of the spectrum. Following Hauser (2008), conversations-for-learning can be described as a type of nonformal institutional interaction. On the one hand, the flexible format enables participants to conduct their talk in a manner similar to ordinary conversation while also allowing them to contingently generate moments for teaching and learning language and culture. Shifts between different activity frames are therefore common. On the other hand, conversation table participants use interactional practices that specifically orient to their asymmetries in language competence and cultural knowledge, and to the particular institutional arrangement of the activity. For these reasons, we see considerable diversity in the endogenous organization of conversation table talk. Just how members at a conversation table achieve the local order of their activity, and what they get done through it beyond 'just talking', requires sustained analytical attention.

3. Achieving the Local Order of Conversations-for-Learning

3.1 Identities, participation framework, and language choice

Across the different formats of conversation tables that have been reported in the literature, one stable characteristic is that participants' identities as relative experts or relative novices in the target language and culture are omnirelevant in the setting. 'Omnirelevant' means that the participants can invoke their membership in these categories at any time (Sacks 1992). It does not mean that language status and cultural identities are constantly or even predominantly relevant in the talk. In fact, another robust finding is that participants invoke a host of other identities in their talk that are unrelated to their language status, such as being a sister, swimmer, expert in high-end cars, resident of a particular city, and so forth. Much like in ordinary conversation, such category incumbencies serve as a source for generating topical talk and for establishing and maintaining social affiliation (Kasper 2004; Kim 2009).

But especially in initial meetings, participants often draw on their membership in different cultural groups to supply conversational topics. Mori (2003) investigated how Japanese and American students initiate topical talk as they get acquainted with each other during the first meeting at a 'conversation table', a student-arranged activity for practicing Japanese. The participants categorize each other as 'Japanese' and 'American' by asking questions about Japanese and American cultural objects. These category questions generate a particular participation framework. For instance, in response to a Japanese student's question whether the American students have seen any Japanese movies, the American students respond as a

team and thereby categorize the participants into 'culturally same' and 'culturally different'. Each party also aligns as a team to repair problems in hearing or understanding in the question–answer sequences. Other methods by which the participants achieve the construction of in-group and across-group relations are speech style and language choice. The Japanese students use addressee-honorifics when talking to the American students while using plain forms to their Japanese peers, and all participants choose the language associated with their team for within-group talk and the language of the other team for talking across groups. In an ESL conversation club setting, Hauser (2005c) observes that an L2 speaker treats the L2 speakers together as a team by making requests on their behalf. The participants also accomplish team formation through the use of personal pronouns, such as when the conversation partner addresses the L2 speakers as 'you guys', while an L2 speaker acts as a spokesperson for the ESL participants by using 'we'.

The categorization practices observed by Mori and Hauser do not appear specific to conversation tables but can be readily observed in ordinary conversation and other institutional settings. In contrast, Nao (2011) reports a case where a language program's 'English Only' policy shapes participants' claims to language identity in a way that does not transfer beyond the boundaries of the program's 'conversation lounge'. Discussing the topic of overseas experience, the participating teacher ('Marie'), an L1 speaker of English who is fluent in Japanese, tells the L2 English speaking Japanese students that she has lived in Japan for 'almost ten years'. The exchange in Excerpt 1 ensues.

Excerpt 1 Monolingual policy (Nao 2011, p. 3773)

```
27. Sayaka: do you speak Japanese?
28. Marie:  uh: NO -! not in the [[conversation lounge]].
29.         ((laughter))
```

Sayaka's question is set off by Marie's revelation of her long-term residency in Japan. The grammatical format of the question indexes it as a question about Marie's ability, not about whether she speaks Japanese in particular circumstances. Yet Marie first emphatically denies speaking Japanese, then restricts the domain of her claim to the conversation lounge. Responding to a student's expression of surprise, Marie humorously adds 'yeah (..) I forget everything in this room' (p. 3774). Marie thus constructs the pretense identity of a monolingual English speaker within the socio-physical confines of the conversation lounge. In this way she programmatically disables the possibility that her knowledge of Japanese be used as a resource and implements the English Only policy. Yet some moments later, she abandons her pretense identity, showing her expertise in Japanese culture and language in an effort to maintain the ongoing topic. Nao's study shows two ways in which a monolingual policy becomes consequential for a conversation-for-learning activity. When participants seek to adhere to the policy, such orientation leads to very non-conversational interaction and thereby defeats the rationale of the conversation table. When the policy gets in the way of maintaining a productive line of talk, the participants disregard it. These observations call the usefulness of a monolingual language policy into question.

Even in the absence of a monolingual policy, participants orient to the institutional purpose of the conversation table as a setting for practicing the target language. When conversation partners are competent speakers of the L2 participants' first language (or other shared languages), they do not normally use that language productively (Hauser 2013b; Kasper 2004). L2 speakers, on the other hand, do use their first languages as an interactional resource, especially when their L2 repertoires are still quite limited. However, this does not

mean that they abandon the normative orientation to target language use. As in any setting, code-switching at the conversation table can accomplish many things. Kivik (2012) finds a range of codeswitching practices in multi-party Estonian coffee hours that show the participants' variable orientations to the dual framing of the activity as conversation and language pedagogy. We will illustrate two contrasting practices from German conversations-for-learning with novice L2 speakers who are L1 speakers of English and a German L1 speaker who is fluent in English. In one practice, the codeswitching serves as a device to elicit an L2 formulation of an action that the L2 speaker has difficulties producing, as in Excerpt 2.

Excerpt 2 Weekend (Kasper 2004)
Dagmar: conversation partner, L1 German speaker; Cindy: L2 German speaker

```
19        C: um war- um woch- wochenende um
                 was     week- weekend
20           °how was your weekend°
21    →   D: wie war dein wochenende=
           how was your weekend
22        C: =wie war dein [°wochenende°]
              how was your [°weekend°]
23        D:               [ich war auch] im kino
                           [I   was also  at the cinema
                           "I was at the cinema too"
```

Previously Dagmar had asked Cindy about her weekend and Cindy now attempts to reciprocate the question. After several unsuccessful tries, Cindy aborts the incomplete turn component and produces the question in English. By delivering the question in a low voice, Cindy could be heard to treat the switch to English as nonnormative. Dagmar does not respond with an answer (as she does later, in line 23), and neither does she request confirmation of her hearing (Wie war mein wochenende? [*How was my weekend?*]). Instead, she produces a German version of Cindy's question that retains the pronoun *dein [your]*, that is, without making the deictic shift to *mein [my]* that comes with speaker change. In this way, Dagmar animates the utterance from Cindy's perspective as author of the question. Cindy repeats the reformulated question in next turn, rehearsing it as in language classroom practice (line 22). Dagmar now answers the question as sequentially projected (line 23) and so returns to the topical talk. The codeswitching to English in this excerpt not only puts the ongoing sequence on hold but shifts the focus of the talk to language learning (see section 3.1).

A contrasting use of codeswitching occurs just a few moments later (Excerpt 3). Cindy and Dagmar have just found out that they saw the same film.

Excerpt 3 Funny film (Kasper 2004)
Dagmar: conversation partner, L1 German speaker; Cindy: L2 German speaker

```
27    D: der war sehr lustig=
         it  was very funny
28    C: =yeah=
29    D: =[ja:]↑ a
30    C:  [it] was funny um (.) yeah=
31    D: =ja:m
```

Cindy affiliates herself with Dagmar's positive assessment of the film, first with an agreement token (line 28) and then with an assessment and another agreement (line 30). Both actions are delivered in English. The codeswitched turns do not put the ongoing sequence on hold but are treated by the participants as unremarkable actions in the assessment sequence. Outside of the conversation table setting, language alternation that advances the progression of the talk is a normal practice among multilingual speakers, but the practice seems to be in conflict with the institutional purpose of the conversation-for-learning. In addition, elsewhere in her talk Cindy shows that she has enough German to produce simple turns such as the ones that she here delivers in English. Why then the codeswitching? When a speaker agrees with a previous speaker's assessment, they do so by upgrading the first assessment (Pomerantz 1984). Dagmar's assessment is already upgraded with the intensifying adverb *sehr [very]*, which is also given prosodic emphasis. In order to make an affiliative second assessment in German, Cindy would have to choose a stronger formulation than *sehr lustig [very funny]*, for instance an extreme case formulation like *zum Schießen/zum Totlachen [what a scream]*, or *wahnsinnig [insane]*. Such expressions, however, are not yet part of Cindy's German repertoire. By repeating, with some modification, Dagmar's assessment with the resources of the language that they both use in their daily lives, Cindy conveys authenticity and positive affect and so accomplishes an upgraded second assessment. In this way, Cindy shows her interactional competence–specifically, her sequential competence–in the normative organization of assessment sequences.

Excerpts 2 and 3 illustrate how with their codeswitching practices, participants orient to the constitutive tension of conversation tables as a setting for conversational talk and as a pedagogical activity.

3.2 Embodied action and writing as interactional resources

When participants are co-present and share visual access, they make use of a wider range of semiotic resources than the languages they have in common. To date only a few studies specifically examine how participants in conversations-for-learning employ their bodies to achieve mutual understanding. Mori and Hayashi (2006) investigated the practice of 'embodied completion' in conversation table talk among L1 and L2 speakers of Japanese. In this interactional practice, a Japanese L1 speaker completes a partial turn with a gesture. An L2 speaker demonstrates their understanding by verbalizing the meaning of the gestural part in Japanese, and the Japanese L1 speaker reformulates the L2 speaker's turn with a more sophisticated linguistic expression. In this way, the practice affords the L2 speakers with an opportunity for learning Japanese grammar or lexis. In a series of studies, Seo and colleagues examine the use of multimodal resources in dyadic ESL conversational tutoring sessions. Markee and Seo (2009) demonstrate that embodied action is critically implicated when tutor and tutee manage problematic activity shifts between conversational and pedagogical talk. Seo and Koshik (2010) find that both tutor and tutee use the same types of gesture to other-initiate repair in a way similar to vocal open class repair initiators such as 'huh?'. The gestures are made and understood without concurrent vocal productions, and they are sustained until the problem is resolved in the following talk. The nonvocal action provides the repair speaker with a resource to monitor the repair initiator's understanding of the ongoing repair turn. Seo (2011) further shows how the participants coordinate multimodal resources including bodily conduct and material objects to achieve mutual understanding and collaboratively construct new lexical knowledge.

Embodied conduct is a universal means to accomplish interaction and learning (Streeck, Goodwin and LeBaron 2011). Other types of semiotic systems require specific competencies

to be usable in conversations-for-learning. In her study of a Chinese conversation table, Hwang (2009) examined a practice used in interactions of speakers of East-Asian languages who do not share each other's language but who are literate in a writing system based on Chinese characters. In order to express a word for which they do not have the phonological form, or to see what word may be associated with an ambiguous phonological form in its present turn location, participants may write the Chinese character. This practice is sometimes referred to as brush talk, *bitan* (Chinese) or *hitsutan* (Japanese). There were many occasions in Hwang's study where the L1 Japanese and L1 Chinese participants resorted to brush talk, for instance to repair problems in production or understanding, identify names of persons and places, or produce the second pair part of an adjacency pair. For the most part, brush talk proved an effective resource for the participants to achieve mutual understanding. Although on occasion the brush talk became a trouble source in its own right, it provided opportunities for learning vocabulary and pronunciation.

3.3 Managing conversation table interaction

Regardless of specific language and literacy competencies, a common observation is that an L1 conversation partner takes on the charge of interaction manager. That capacity includes officially opening and closing the conversation table interaction (Kasper 2004) and keeping the talk afloat by acting as an interactional pivot (Hauser 2008). Although in the research literature, it is always an L1 speaker who manages the talk, this discourse identity is not directly tied to L1 speaker status but rather to a participant's institutional identity of conversation partner. Hauser (2008) describes two managerial practices in multi-party talk at an ESL conversation club, serial questioning and pivoting. Through serial questioning, the conversation partner aims to introduce and develop a topic that the L2 participants can talk about (Excerpt 4).

Excerpt 4 Serial questioning (Hauser 2008, p. 281)
M, K: conversation partners; E: student

```
1        M:  it's interesting  [though yeah?=
2        K:                    [yeah
3        M:  =(I think it's) fun
4            (1.5)
5        M:  .n yeah good
6            (0.6)
7    →   M:  .h so do you have any children?
8            (0.5)
9        E:  no:  [haha
10       M:       [no children
11       E:  ha ha ha
12       M:  °hm::°
13           (0.7)
14   →   M:  will you have in the future? or.
15           (1.3)
16       E:  mm::: be- (0.4) before: (0.4) uh:
17           (0.7) I don't want to: ha:ve
18           children, [ha ha (.) ha ha ha=
19       M:            [uhn
20       E:  =(but) now a little bit.
```

In line 1, M is producing an assessment regarding a prior sequence. M's first assessment gets an agreement from K. M produces two further assessments, each followed by a gap of silence (lines 4 and 6). At each of the gaps, the participants had the opportunity to either develop the prior topic or introduce a new topic. However, the opportunity is not taken up until M introduces a new topic by asking a question about student E's family status (line 7). The questions in line 7 and 14 are linked through ellipsis and in this way marked as parts of a series. When the first question does not generate substantive talk on the proposed topic, M produces a second, linked question in an effort to develop the topic. The second question successfully generates a substantive response from the student. Although the L2 participants do ask questions in the conversation club interactions, Hauser reports that they do not practice serial questioning.

In the nonformal institutional settings of conversation-for-learning, turn-taking is participant administered. It is therefore possible that some participants contribute more to the talk than others. Pivoting is a practice through which a conversation partner initiates a shift in the current participation framework and a more symmetrical distribution of turns (Hauser 2008). Excerpt 5 is an example.

Excerpt 5 Pivoting (Hauser 2008, p. 288)
T: conversation partner; F, B: students

```
1        T:  yeah (0.6) especially like in
2            Hawaii it's really easy to do that.
3        T:  [cuz there's a lot of Japanese=
4        F:  [right
5        T:  =[[people.
6        F:  [[°(yeah)°
7            (1.0)
8   →    T:  how 'bout you (.) Boram (0.7) you
9            speak Korean and stuff? outside?
10           (1.0)
11       B:  (yep) (2.0) uh (0.7) but (0.9)
12           (at scone) my classmate. (0.4)
13           (is). (.) Japanese (0.3) so I have
14           to (0.4) I have to speak English.
```

In the beginning of the excerpt, the conversation partner T is aligning himself to what student F has said about the importance of speaking English rather than Japanese in order to learn English. Up until line 06, T has directed his talk to F as the addressed recipient while B is listening silently. When no other participant takes a turn, T selects B as his addressee and directs a topically related question to her. The question also selects B because the topic, speaking Korean outside of the English program, is only relevant to her, the sole Korean speaker in the group. The nomination and question operate as pivoting devices that shift the participation framework to T and B as addressing and addressed participants.

Serial questioning and pivoting are two practices by which conversation partners allocate turns and generate topical talk. By distributing speaking opportunities more equally among the participants, these practices advance the institutional goal of the conversation-for-learning as a site for language practice. At the same time, by moderating the talk, the conversation partners remove the need for the L2 participants to self-select for taking turns and to initiate topics. In this way, the interaction manager transforms the organization of the conversation table away from ordinary conversation.

In the conversation lounge described by Nao (2011, 2013), the language program attempts to offset participation asymmetries between students and teacher by requiring that the students pre-select a topic and direct a sequence-initiating turn to the teacher. As Nao (2013) reports, the students variably transform the instruction into such openings as 'so what do you want to talk about' (p. 257), 'what shall we talk about' (p. 261) and 'today we we are going to talk about so sports' (p. 263). With the first and second formulation, the student solicits rather than nominates a topic, reminiscent of topic solicitations that advisers or counselors may address to clients in the opening of a consultation. The third utterance unilaterally announces the student's topic selection in the manner of teacher's classroom talk. All three formats initiate talk about a topic in a non-conversational manner. Instead of generating more conversation-like talk, the pre-allocation of topic nomination to the students further institutionalizes the interaction. Nao's study documents well the paradoxical consequences that the engineering of de-institutionalizing conversations-for-learning may engender.

4. Learning and Development

4.1 Orientations to L2 learning

One feature that conversations-for-learning have in common despite their diversity in many other regards is that they do not pre-organize objects and contexts for L2 learning. If learning opportunities do come up, they arise contingently from the participants' main activity, which is to conduct and advance mutually intelligible topical talk. The participants' concern with staying engaged in topical talk can be evident in the ways in which the conversation partner treats an L2 speaker's misaligned responses to the previous turn. Kasper and Kim (2007) found that rather than addressing such interactional problems through overt third position repair (such as saying 'no that's not what I meant, I meant such-and-such'), the L1 speaker used three methods that did not make the misunderstanding the main business of the interaction–repairing the problem *en passant*, initiating other-repair in next turn instead, or passing up the repair entirely. Through these practices, the topical talk was sustained without disruption and the L2 speakers' identity as a competent co-conversationalist remained unchallenged. At the same time, any learning opportunities that might have arisen from addressing the trouble were also prevented. Another, very common practice is for the recipient of a problematic turn to correct the problem, and neither the speaker of the correcting turn or the recipient orient to the correction but continue their line of topical talk (Hauser 2005a; Kim 2012; Kivik 2012). An example is Excerpt 6, from conversations-for-learning among novice L2 speakers of German and a German L1 speaker.

Excerpt 6 Ex-girlfriend
Dagmar: conversation partner, L1 German speaker; Bill: L2 German speaker

```
1      D:  ah::: hast du  nicht eine eine: uh- hattest
                 have you not   a    a         had
           du   nicht  eine freundin   in Japan? (°    °)
           you not     a    girlfriend in Japan
           "don't you have- didn't you have a girlfriend in Japan?"
2  →   B:  einen moment, nein.=
           a     moment  no
3  →   D:  =nein °im     moment.°
            no    at the moment
```

```
4  →   B:  nein
           no
5      D:  be[su-  aber deine ex-freundin?
           visi-   but  your  ex-girlfriend?
           "are you going to visi- but your ex-girlfriend?"
```

Before the start of the excerpt, Bill brought up his upcoming travel to Japan and Korea. Dagmar asks whether he did not have a girlfriend in Japan, something that she ostensibly remembers from an earlier meeting. Bill gives a relevant but grammatically incorrect answer (line 2). Dagmar acknowledges Bill's response by repeating the negation marker 'nein [no]' and then, in a low voice, confirms her understanding with a corrected version of Bill's utterance, 'im moment [at the moment]' (line 3). In his next turn, Bill confirms Dagmar's understanding, and Dagmar asks another question about Bill's travel plans. The interactional focus remains on the ongoing topic throughout the excerpt. Whether L2 participants notice embedded corrections (Jefferson 1987) such as the one in Excerpt 6 at all is an open question. There are very few documented cases of L2 speakers' correct production of an embeddedly corrected item later in the talk (but see Kim 2012, for some exceptions).

On many other occasions, the participants do put the topical talk on hold in order to address a problem in speaking, hearing, or understanding. The primary goal that they pursue with different forms of repair is to maintain or restore mutual understanding. But we also see with some regularity that they temporarily shift the interactional focus to a language item itself. At those moments, the participants transform the conversational talk into a language learning activity (see Excerpt 2 above). Such shifts frequently happen when a speaker makes reference to some object or event and the language resources used for making the reference are treated as problematic by either the speaker themselves or by a co-participant (Kim 2012; Koshik and Seo 2012). Our examples of such shifts in orientation (Excerpts 7–9) come from conversations among two Korean adolescents, Chungho and Jinho, and their conversation partner Tom, an American L1 speaker of English. The participants met in various settings, including an ice cream shop, an auto show, and someone's home. Although arranged for the purpose of language learning, the talk evolved like ordinary conversation around topics of shared interest and experience (Kim 2009, 2012). Excerpt 7 illustrates a type of sequence where an L2 participant formulates a target referent and that formulation is subsequently corrected by the conversation partner. Chungho describes something that recently caught his attention.

Excerpt 7 Triplets (Kim 2012)
C: Chungho; T: Tom

```
609          (8.3)
610      C:  I saw (0.4) three same chil°d° (0.4) children (0.5) last
611          week  [(      )
612  →   T:        [triplets.
613  →   C:  yeah triple (0.3) [do you call it triplets?
614      T:                    [how old were they?
615      T:  um
616      C:  I didn't a:sk um I just (1.6)  [passed
617      T:                                 [um were they children
618          or (0.6) older?
619          (2.0)
620      C:  <very, little children> I guess they're just two
621          years [old,
622      T:        [oh: 'kay
```

In response to Chungho's multi-word description 'three same chil°d°, (0.4) children', Tom reformulates the description with a lexicalized item, *triplets* (line 612). With the reformulation, Tom shows that he recognizes the target referent and at the same time corrects Chungho's use of language form (Hauser 2005a; Kurhila 2006). In his response (line 613), Chungho first acknowledges and confirms the correction, though not with the same pronunciation ('triple') (see Kim 2012, for discussion of the yeah + X/X + yeah formats). Then, with the question 'do you call it triplets?', Chungho treats the word as a lexical item that he did not know before. (Note that he did not say 'did you say triplets?', which would request confirmation of an uncertain hearing.) By focusing on the word form, Chungho shifts orientation from topical talk to L2 learning. With the question, he orients to the epistemic imbalance between Tom as an L2 expert and himself as an L2 novice. Tom, however, refocuses the talk on topical matters. In overlap with Chungho's vocabulary question, he asks a question that advances Chungho's telling ('how old were they?') (line 614). By answering Tom's question, Chungho follows Tom's return to the topical talk.

Earlier in this chapter, we noted that conversation table participants use their membership in different language and cultural communities as a resource for generating topics. Such topics often come with descriptions of culture-specific practices and with culture-specific lexical repertoires. A participant talking about what they assume to be a culture-specific concept or practice may be unsure about whether the co-participants with different cultural backgrounds understand references to such objects. In order to achieve understanding, the speaker uses generic referential practices which address epistemic imbalances between the participants. At these moments, learning opportunities become available. Two such practices are illustrated below. An implicit method is to produce the target referent with rising intonation (Excerpt 8). An explicit method is to issue a knowledge check question (Excerpt 9).

In Excerpt 8, Tom describes how he was helping at a school festival when he was a high-school student.

Excerpt 8 Moon bounce (Kim 2009, p. 101)
C: Chungho; T: Tom

```
744      C:  ah so- m did you go to private school?
745          (0.4)
746      T:  um-um (0.4) 'at was, it was, (0.5) for public
747          schools, but it was j'st for the s- for the city,
748          (0.8)
749      T:  so the city got some money together, and put it.
750  →       n they had uh, a moon bounce¿
751          (1.8)
752      T:  which was is like u:h, they fill up (0.7)
753          something softer th'n air, you jump on it,
754          (2.4) ((knuckling sound))
755      T:  but no rides, not like this place, (0.7) did
756          you go on any of the rides?
```

When Tom's telling gets to a practice at the school festival called 'moon bounce' (line 750), he delivers the reference term with rising intonation ('a moon bounce¿'). The prosodic format displays uncertainty that the L2 participants know the expression and projects some response from them that shows whether or not they understand it. When no response is forthcoming (line 751), Tom takes the silence for a negative response and self-selects for a turn in which he describes what a moon bounce is.

In Excerpt 9, Tom is describing his older brothers.

Excerpt 9 Hide and seek (Kim 2009, p. 109)
T: Tom; C: Chungho; J: Jinho

```
1332     T: [they're all so funny. (0.5) but they also
1333        (.) played games with us, (1.0) like uh, (.)
1334  →     do you guys know what hide and seek is?
1335     C: yeah (under coughing)
1336     J: heh heh
1337     T: they had played that game with us all the time, (1.1)
1338        ((smacks lips)) (.) and ta:g, (1.1) tag, (0.6) you
```

Tom is about to name the games that he played with his brothers (line 1333). When the name of the target game is due after *like uh,* Tom puts the turn-in-progress on hold and issues a question with the format *do you guys know X*, where X is the target referent. (lines 1333–1334). With the knowledge-check question, Tom orients to the possibility that the game *hide and seek* might not be known to his interlocutors. However, both boys claim that they do know the game, and Tom continues with his story.

In the interactional environments that we have considered thus far, at least one of the participants orients to L2 learning while they are engaged in repairing a (potential) problem in speaking or understanding. On occasion, we can observe that repair, a method to maintain or restore mutual understanding, and other-correction of language form, a practice aimed at language learning, are sequentially displaced.

Hauser (2010) describes such cases, in which the correction follows a completed repair sequence. When the correction is sequentially displaced from the correctible item, the participants have to do extra interactional work to recover the error. Since the error correction becomes the sole interactional business, correction sequences that are both exposed and displaced make language learning into the focal social activity.

This section has shown a range of practices by which participants in conversations-for-learning handle problems in their talk and the opportunities for language learning that these practices engender. Two of these methods, passing up repair and post-completion corrections, occupy opposite ends on a continuum of orientations to language learning in conversation table interactions.

4.2 Development over time

Compared to showing how the participants in conversation table talk accomplish language learning as a social activity, demonstrating how participants' interactional competencies develop over time is a more difficult analytical project. As in any developmental research, an indispensible requirement is longitudinal data, that is, the focal participant(s) have to engage in successive meetings over an extended period of time (see also Pekarek Doehler and Fasel Lauzon, this volume). But even when these conditions are met, a conversation-analytic approach demands that researchers first gain some understanding of how conversation tables are organized through recurrent interactional methods and how participants generate moments for language learning in the course of their talk. Furthermore, tracing the development of an interactional object requires that the object can be observed in comparable sequential contexts, a requirement that can pose considerable methodological challenges (Markee 2008). For these reasons, the body of research on the development of interactional competencies in conversations-for-learning is still very small, and it is limited to talk conducted in English. Two studies examine the development of linguistic resources; lexical items (Jung 2004) and a grammatical feature, negation (Hauser 2013b). Two other studies report on the development of interactional practices; marking direct reported speech (Hauser

2013a) and taking up recipiency in story telling (Kim forthcoming paper 'Being a story recipient in L2 English conversation'). We will refer to the studies by Jung (2004) and Kim (forthcoming paper 'Being a story recipient in L2 English conversation') for illustration.

4.3 Development of linguistic resources

Excerpts 10a–c are from Jung's (2004) study of vocabulary learning and development at a conversation table arranged by an ESL program. The focal participant, Ok-son, is talking with different co-participants. In the first two conversations, recorded one month apart, Ok-son was unable to produce the target lexical item on her own. In the third conversation, held five months after the second, she produced the item without assistance and quite fluently. All three sequences were initiated by a co-participant's question about Ok-son's family.

Excerpt 10a Sisters 1 (Jung 2004, p. 54)
M: Mary, conversation partner; O: Ok-son; I: Isao

```
01      M: How big is your family.
02      O: hhhhehe .hh I have hehe many::: hehe .hhh
03         I have many:: (1.3) hh .hh sister. hehe I
04         have [four sister.
05      I:      [ma-
06          Oh.
07      M: Wow.
08         (1.7)
09  →      O: and one hh .hh (.3) ah fo:ur el- , elder sister
10         and one- (.3) ah, four older sister and one
11         elder sister. (.8) Only sister. hehe
12         (.7)
13      M: Oh, so four older sisters and one younger?
14  →   O: one younger a:nd uh  [fo:ur older.
15      M:                      [Yeah.
16         Older. Yeah.
17      I: A:::h
18      M: Oh wow.
19      O: Yeah.=
```

As Ok-son elaborates her answer by attempting to subcategorize her sisters (lines 09–11), she has difficulty finding the pertinent kinship terms. Starting with 'one', she self-repairs to 'fo:ur el-, elder sister and one- ', at which point she cuts off the ongoing turn again and, after some more searching, settles for 'four older sister and one elder sister' (10/11). With a summary ('only sister') and a laughter token, she shows that her turn is complete. In line 13, Mary claims a change of her understanding with the epistemic token *oh* and asks Ok-son to confirm Mary's new understanding of the number and subcategories of Ok-son's sisters by saying 'so four older sisters and one younger?' with rising intonation. Ok-son confirms Mary's candidate understanding in her next turn (line 14) by repeating the critical items from Mary's turn, 'one younger a:nd uh [fo:ur older.' By placing the repaired item 'one younger' turn-initially, Ok-son confirms Mary's other-correction of 'elder sister' as the correct resolution of Ok-sons word search. In this sequence, Ok-son starts with the contrast pair 'older sister' and 'elder sister'. After Mary's correction, she correctly uses the contrast pair 'older (sister)' and 'younger (sister)'.

One month later, Ok-son again struggles with the reference terms for her siblings (Excerpt 10b).

Excerpt 10b Sisters 2 (Jung, 2004, p. 40)
J: Jamey, conversation partner; C: Chieko; O: Ok-son; K: Katsu

```
01     C: Mm, you have t- o:ne sister?
02     O: .hh sss, (1.4) siste:rs, elder siste:rs o:ne,
03        (1.0) ah, (.8) hhhh yeah sisters, (1.4)
04        [three siste:rs
05     K: [How old is that sister
06     O: ahaha three: older sister a:nd o:ne,
07        (.7) hhhow can I say, °ah-°=
08     K: =[Younger [sister.
09     J: =[Younger [sister.
10     C:           [°Yeah, younger°,
11     O:           [Young, younger sister, ye:ah.
12     J: [O::h you have five-girls.
13     C: [O::h three sisters.
14        Eh?
15     O: yeah, but (.5) a::hm, nowadays we li:ve,
16        just(e::) my younger sister and I: and my parents.
17     C: O:::h.=
```

Ok-son's answer to Chieko's question starts with perturbations that show her difficulties in finding the right kinship terms. Using a category → subcategory format, she produces 'siste:rs,' followed by 'elder siste:rs one' (line 2). After more perturbations that suggest an ongoing word search, she affirms the result of her search , 'yeah sisters,' and then expands this turn component to 'three siste:rs' (line 4). At this point, Ok-son appears to have said that she has three sisters, one of whom is an elder sister. The last component of Ok-son's turn is said in overlap with Katsu's question in line 5 ('How old is that sister'). In her next turn, Ok-son does not respond to Katsu's question, suggesting she did not hear it. Instead, Ok-son produces a token indexing the outcome of a search, 'ahaha', and expands 'three siste:rs' to 'three: older sister'. As the sound stretches in the next turn component 'a:nd o:ne,' indicate, she is running into a lexical search problem again. This time she explicitly marks the re-entry into a word search by saying 'hhow can I say'. In response, both Katsu and Jamie supply the candidate solution, 'younger sister'. Ok-son takes up the proposal with the confirmation + agreement format X + yeah, 'Young, younger sister, ye:ah.'(line 11; Kim 2012), marking the successful outcome of the collaborative word search.

The preceding two excerpts show that Ok-son had problems producing the lexical unit 'younger sister', although she recognized the phrase when offered by the co-participants. Five months later, Ok-son uses the target referent without assistance (Excerpt 10c).

Excerpt 10c Sisters 3 (Jung 2004, p. 56)
K: Kyungmi, former interchanger; O: Ok-son

```
01     K: Okay. How many family members are there in
02        your family.
03        (1.7)
04        Who are they.
```

```
05          (2.1)
06      O: My farents? and I have (.) u:h fi:ve sisters.
07  →       It's (.5) ye:ah. (1.0) fo:ur older siste::r,
08          and one younger sister.
09      K: Wo::w [((  ))
10      O:       [I'm, (.4) I'm the fifth.
11      K: O::h you have alotta:::,
12      O: yeah. °my°=
13      K: =sisters.=
14      O: =Y:es.
```

In response to Kyungmi's questions about the size and composition of her family, Ok-son starts her answer in the order of seniority, beginning with her parents. Then she moves on to collect her siblings in the category 'sisters', with some display of uncertainty about the number of members in the category (line 6). After a search at the beginning of her next turn component, Ok-son breaks down the number of members in the superordinate category 'sisters' into 'fo:ur older siste::r, and one younger sister' (lines 7–8). Here then Ok-son produces the two subcategories of *sisters* correctly and quite fluently. In addition, the sequence shows that with the required lexical units available for production, Ok-son is able to design a more organized and comprehensive answer that clearly represents the categorial relationships of her family.

4.4 Development of interactional practices

As activities in which participants talk about their practices and experiences, conversations-for-learning are prime environments for story-telling. Participants bring their interactional competencies as story tellers and story recipients to the conversation table. However, when story tellings are done in a less familiar language, L2 participants may contribute less than they otherwise would (Hellermann 2008). This raises the question whether L2 speakers' practices of telling and listening to stories at the conversation table change over time. Hauser (2013a) showed that an L2 speaker's use of devices for marking direct reported speech in his story tellings developed over multiple stages over a five month period, from representing the talk as enactment by prosodic shifts to framing the voiced utterance with a Japanese quotative and finally by introducing the represented talk with person reference and a verb of saying in English. Focusing on an L2 participant's alignment as a story recipient, Kim (forthcoming) observed a number of changes over a period of five months. Stories were absent in the initial sessions, which were conducted in an interview-type format with the conversation partner taking the lead. As the participants met more often, the interactional organization of the talk became more conversation-like, story tellings gradually increased, and with them environments for story recipiency. In the last two sessions, there was a substantial number of sequential contexts for story recipiency. The focal story recipient's practices did not develop in a linear fashion, but they showed some notable changes. On the first occasions, Chungho displayed his understanding of the stories with an affect-marked recipient token and laughter, and with an empathy formulation ('I can imagine it') and a summary assessment. While he produced the nonlinguistic response tokens in a well-timed manner just after the teller delivered the punch line, the linguistically formulated turns were sequentially delayed. The next practices that emerged were ancillary questions, followed by a second story after the teller's response. In Excerpt 11, Tom reaches the end of a story about how one of his high school classmates used a watch with a remote control to turn the TV on in the middle of a lesson.

Excerpt 11 Did the teacher find out (Kim forthcoming)
T: Tom; C: Chungho; J: Jinho

```
14      T:  =during classes push zhoo push zhoo heh heh heh
15          it was awesome
16      J:  hehe .hh
17          (.)
18  →   C:  so um did teacher fa- found
19      T:  there's no way she could know (0.4) cuz it's just such
20          (.) uh y'know such a small a thing you can just (0.9)
21          oh I don't know what's go(h)ing on [xxx heh heh change it,=
22      C:  [hah hah hah
23      J:  [heh heh hehh
24      T:  =change the channel, turn it off
25          (0.8)
26  →   C:  yeah um (1.0) one of my friend had a cell phone (0.7)
27          the remote controlling cell phone
```

With his question (line 18), Chungho shows his understanding of the story and interest in its consequences, leading to further elaboration of the story beyond its possible completion with the teller's assessment (line 15). After Tom's answer, Chungho acknowledges the elaboration and launches a second story (line 26).

Finally, Chungho solicits a story from Tom and thereby aligns himself as a story recipient from the first position of the adjacency pair (Excerpt 12).

Excerpt 12 Motorcycle lesson (Kim forthcoming)
C: Chungho; T: Tom

```
448     C:  um- (0.6) how's your (.) motorcycle?
449     T:  finished. (0.3) I'd, yesterday was my last day ! class.
450     a:  nd,I got uh ninety fi:ve percent (0.3) on like, on the
451         driving part, [story continues]
```

As this section has shown, when L2 participants engage in repeated conversations-for-learning over a longer period of time, they can be seen to expand their repertoire of L2 resources and use available resources more assuredly over the course of the meetings. They also produce a wider range of interactional practices, and they use practices that they engage from early on with a tighter sequential fit in later conversations. An important but different question is whether or not the observable changes in interactional competencies can be attributed to participants' orientations to these resources and practices as learning objects in prior conversation table talk (Excerpts 2 and 7–10b. While it can be difficult to make such claims with certainty, Markee's (2008) proposal of learning object tracking offers one method that could be applied to document the development of interactional competencies in longitudinal conversation table data.

5. Some Directions for Future Research

Since the body of research on conversations-for-learning is small, studies are needed that expand the data base not only quantitatively but also qualitatively. As Kivik (2012) showed in her study of the Estonian coffee hour, the rich morphology of Estonian becomes an object of shared attention and learning in ways we do not see in morphologically less complex

languages such as English. Just how novice L2 speakers manage to design turns with the resources of different L2 grammars is an underresearched direction in conversation-analytic studies of L2 talk and learning in any setting. As L2 speakers typically participate in conversations-for-learning over many sessions, the activity is a natural provider of longitudinal data for investigating the development of L2 grammar in interaction.

One of many differences in conversation table setup is whether or not an L1 conversation partner participates. When this is the case, we saw that the conversation partner regularly assumes the discourse identity of interaction manager or pivot (Hauser 2008; Kasper 2004; Kivik 2012). In settings with no L1 speaker present, novice L2 speakers who spoke the same first language organized their turn-taking in the manner of ordinary conversation (Carroll 2004; Otsu and Krug 2013). No research has been reported yet on arrangements in which the target language is a lingua franca and the participants talk among themselves without an L1 conversation partner. The conversation table talk might gain more family resemblance with talk that is not arranged for language practice because the choice of the target language is normal for participants with different first languages even without participating L1 speakers as conversation partners.

All reported studies examine how the participants organize their talk, but so far only studies of conversation tables with an L1 conversation partner present investigate moments of L2 learning and development over time. The literature on in-class peer activities conducted under a variety of analytical perspectives documents that students generate learning opportunities for each other while pursuing the activity at hand (e.g., Cheng 2013; Kunitz 2013). These findings are directly consequential for educational practice since they assure program developers and teachers that communicative peer activities are beneficial for L2 learning. One direction for future conversations-for-learning without L1 conversation partners is therefore to examine how the participants generate and treat opportunities for L2 learning and what progress they make in their use of resources and interactional practices over time.

Because of the small number of available studies, the range of interactional practices that have come under scrutiny is limited as well. The most systematic attention has been given to turn taking, repair, question sequences, word searches, initial reference, and some story telling practices. Therefore, continued research guided by the conversation-analytic method of unmotivated looking is critical to gain a more detailed understanding of how participants organize diverse forms of conversations-for-learning. But we also need to get a more differentiated view of practices that are shared among differently arranged conversations-for-learning, and of how such practices might be calibrated to the contextual particulars of different conversation table settings. To that end, the comparative strategy demonstrated by Drew (2003) could be adopted. Drew examined formulations–actions that explicitly state a speaker's understanding of what another speaker said—in four institutional settings, psychotherapeutic consultations, call-in radio programs, news interviews, and industrial negotiations. The generic action of formulation was designed with different linguistic forms that were responsive to the specific institutional goals of each setting. In a similar manner, researchers of conversations-for-learning could select an interactional resource or practice in differently arranged settings and compare its formats and interactional consequences in equivalent sequential contexts.

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See Chapter 9: The Sequential Analysis of Instruction.
See Chapter 22: L2 Classroom Interaction as a Complex Adaptive System.
See Chapter 24: Documenting Change Across Time: Longitudinal and Cross-Sectional Ca Studies of Classroom Interaction.
See Chapter 25: CA-For-SLA Studies of Classroom Interaction: Quo Vadis?

24 Documenting Change Across Time: Longitudinal and Cross-sectional CA Studies of Classroom Interaction

SIMONA PEKAREK DOEHLER AND VIRGINIE FASEL LAUZON

1. Introduction: Classroom Interaction as a Local Accomplishment

Few social settings have been as extensively studied as the classroom. Since the 1960s, empirical research into classroom *interaction*, in particular, has been proliferating. Today, we witness an increased diversity of analytic approaches, based on various classroom observation instruments, investigating a wide range of factors that shape classroom interaction, such as students' and teachers' socio-cultural backgrounds, motivations and beliefs, task and curriculum design, or what has become called the 'hidden curriculum'. While the learning potentials of classroom interaction have typically been assessed by means of comparisons between different types of instructional activities, most often involving research designs based on pre- and post-tests (see for instance much of the work on Focus on Form, as reported e.g., in Lyster and Saito's 2010 meta-analysis), relatively little attention has been paid to how learning processes emerge out of the minute details of naturally occurring (i.e., non-elicited) classroom interactions, how learning trajectories can be tracked down through close observation of those details, and how the students' competences for interaction are deployed within the social activities taking place in the classroom and are possibly shaped by these very activities. Recently, however, Conversation Analysis (CA) has offered a set of studies addressing exactly these issues.

A distinctive feature of conversation analytic classroom research lies in its focus on how classroom interaction is locally accomplished, and how factors such as identity, motivation or competence emerge in and through the detailed unfolding of everyday practices between teachers and students, and among peers. CA classroom studies (see Kasper and Kim, this volume) have for instance shown that classroom tasks are established and progressively transformed through the course of practical activities that continually (re)shape learning opportunities (Mori 2002; Kasper 2004; Mondada and Pekarek Doehler 2004; Markee 2005; Seedhouse 2005; Hellermann and Pekarek Doehler 2010; see also Coughlan and Duff's 1994 seminal study undertaken within the framework of sociocultural theory).[1] Other CA studies

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have unveiled how the organization of cognitive processes related to learning in the classroom is mediated through social practices (Fasel Lauzon and Pekarek Doehler 2013; Markee and Kunitz 2013) and embodied by gaze (Markee and Kunitz 2013), gesture, body movement (Pekarek Doehler 2010) as well as the use of tools such as notebooks or blackboards (Mori and Hasegawa 2009). The findings provided by CA work on classrooms testify to the eminently locally contingent nature of classroom activities and their related learning potentials.

How precisely classroom interaction affects learning, however, has not been a focus of CA classroom research until very recently. This is more generally the case for CA research on change over time, relating to issues that have classically been cast in terms of 'development' or 'learning'. More than a decade ago Zimmerman (1999) called for CA to move toward systematic horizontal (across cultures or languages) and vertical (across time) comparative research. To date, however, with a few notable exceptions pertaining in particular to the study of child development (Wootton 1997; Forrester 2008; Filipi 2009) and, more recently, professional training (Hosoda and Aline 2010; Nguyen 2011; Rine and Hall 2011), CA research that analyses the organization of practices over time has remained scarce (but see some of the papers collected in Hall, Hellermann and Pekarek Doehler 2011).

In what follows, we present current CA research on classroom interaction that is concerned with documenting change across time at different levels of granularity. We first turn to studies that are concerned with change across (very) short time-spans (minutes, seconds), and hence can be seen as 'microgenetic' in nature. We then discuss current work that documents change across longer time-spans within a longitudinal research design. We finally present work that is based on a cross-sectional design to investigate change across long time-spans. We conclude by outlining future directions for research.

2. 'Microgenetic' CA Studies of Classroom Interaction

The notion of microgenesis originates in Vygotskyan developmental psychology (see e.g., Wertsch and Stone 1978). Microgenetic studies of social interaction are designed to document learning/development within a single interactional episode, 'grasp[ing] the process in flight' (Vygotsky 1978, p. 68). While a microgenetic study may be described as 'a very short-term longitudinal study' (Wertsch 1985, p. 55), its focus on a very short time-span apprehended in its full duration clearly differentiates it from a classical longitudinal study (see the section on longitudinal studies below). A microgenetic research design allows tracing individual or collective learning processes 'holistically': While a longitudinal study is typically based on data that have been *periodically* recorded over a given time-span, and hence may miss key moments contributing to learning (because of happenings occurring outside of the recorded data), microgenetic analysis, by essence, focuses on a continuous period of time, which is integrally available for analysis. It therefore is apt to provide a comprehensive picture of the observable, social side of the *process* of learning/development as it is deployed moment-by-moment within jointly managed and mutually coordinated courses of action – while the products of this process in terms of (relatively) sedimented learning outcomes may remain out of the picture.

Microgenetic classroom studies have traditionally been carried out within the framework of Sociocultural Theory (SCT). Donato (1994) for instance shows how students involved in group work in a second language classroom jointly solve problems related to linguistic forms through collective scaffolding, thereby providing evidence for the positive impact of peer interaction on language learning (for other key studies see e.g., Aljaafreh and Lantolf 1994; Coughlan and Duff 1994). While SCT and CA have developed as two relatively independent lines of research (for a recent discussion of their contribution to understanding second

language interactions and learning, see Pekarek Doehler 2013), the methodological apparatus of CA has been fruitfully put to use in microgenetic studies carried out within the framework of SCT, and, conversely, a number of CA studies concerned with learning have explored how participants change the way they accomplish a particular action within a single interactional episode (e.g., Mondada and Pekarek Doehler 2004; Mori 2004; Koschmann, Stahl and Zemel 2007; Melander and Sahlström 2009). We here refer to these studies as 'microgenetic', although they do not necessarily use that label.

CA studies of classroom interaction that set out to document change within a single interaction or interactional episode usually focus on patterns of language use such as the pronunciation of a word (Seedhouse and Walsh 2010) or a feature of grammar or lexicon – be it in the language classroom (Markee 2008; Pekarek Doehler 2010; Markee and Kunitz 2013) or in other types of classrooms (see Forrester and Pike 1998, on the mathematics classroom).[2] It may be that the development of pragmatic or interactional competence,[3] as well as of procedural competences not related to language (e.g., learning the behavioral rules of the classroom; learning how to deal with a given type of arithmetic problem) cannot be tracked within a single classroom episode. Also, the outcomes of learning processes may be pinned down only provisionally in microgenetic studies, namely by documenting that an interactional process of learning leads up to the re-use of the previously socially elaborated feature (e.g., a lexical item; a grammatical form) within a new sequential context.

The following excerpt provides a brief illustration of a microgenetic CA analysis:

Excerpt 1 – Fasel Lauzon and Pekarek Doehler (2013) (slightly adapted transcript)

```
   01 And: =oui *alors euh (1.1) tu:: °nous° (0.6)
                *André gazes at Diego
            yes so                    you us
   02       tu  as (0.4) dit  à  nous (0.5) que: (0.3)
            you AUX      told to us         that
→  03       les parents: sait  quelque chose mais:=
            the parents  knows something     but
   04 Die: =oui
            yes
   05 T:   alors [tu  tu  nous  *tu: ]
            so     you you us     you
   06 And:       [ils  ne  sait *rien]
                               *André gazes at the teacher
                  they NEG knows nothing
→  07 T:   tu  nous as  dit, (0.5) [*que  les parents savent,]
            you us   AUX told         that the parents know
            'you told us that the parents know'
→  08 And:                          [*°tu    nous as    dit,°  ](1.9)
                                     *André gazes at Diego
                                        you   us   AUX  told
                                         'you  told us'
→  09 And: mais: ils  ne  sait r- ils  dit (0.4) disent que (0.3)
            but   they NEG knows   they says      say    that
→  10      qu'ils    ne s- sait  rien,
            that they NEG   knows nothing
            'that they don't knows anything'
```

```
→ 11 T:   qu'ils    ne  savent [rien. ]
          that they NEG know    nothing
          'that they  don't know anything'
→ 12 And:                      *[savent] *(1.3) rien    et (1.1)
                               *André gazes down
                                            *André nods smiling (still gazing down)
                                know             nothing and
                               'know anything'
  13      je crois:: *ça::
                     *André gazes at Diego
          I  believe  that
  14      (1.8)
  15 Die: euh est-ce que j'ai  dit: que: (0.5) sa  fête  est aujourd'hui.
              did        I AUX say  that       her party is  today
```

In lines 1 to 3, André addresses a peer, Diego, who plays his daughter in a role-play taking place in a French as a second language classroom. The rhythmic and prosodic design of his turn (pause, syllable lengthening, low voice), as well as his self-correction (l.1 → l.2) suggest that André is struggling with the morphological shape and the placement of the first person plural indirect object '(à) nous' (l.1–3). After a short response from Diego (l.4) and in partial overlap with what appears to be the actual end of André's turn (l.6), the teacher provides two corrections, one regarding the placement of 'nous' (highlighted by means of accentuation, l.5 and 7) and the other targeting the form of the verb *savoir* 'to know' (l.7). Interestingly, André subsequently picks up only one of these corrections (*tu nous a dit*, l.8), namely the one that apparently meets his current linguistic preoccupations (the 'nous', l.1–2). He passes over the second correction, re-using twice the singular form of the verb *savoir* with a plural subject (*ils ne sait*, l.9 and 10). It is only after a further correction by the teacher (l.11), this time highlighted by means of accentuation, that André acknowledges the candidate solution by nodding and repeating the plural form of the verb (l.12). His own accentuation on the form is an additional indicator of this acknowledgment.

What is observable in this excerpt is arguably part of learning as a social process that crucially hinges on the turn-by-turn deployment of the co-participants' mutual actions. As Fasel Lauzon and Pekarek Doehler (2013) suggest, participants' cognitive orientations toward language and language learning are structured through the detailed unfolding of social interaction, and hence become observable through close sequential analysis of that very unfolding (see also Markee and Kunitz 2013; Pekarek Doehler 2010, 2013). The key issue here lies in the fact that through this turn-by-turn unfolding participants observably orient to language forms, indicate to each other the kind of trouble they encounter (l.1–2) and display that they grasp possible contributions by others as corrections (l.12). The turn-by-turn unfolding of social interaction hence becomes an analytic resource by means of which cognitive features such as attention focus or noticing become observable to the researcher as enacted through the participants' verbal and non-verbal (see e.g., André orienting his gaze toward the teacher l.6) conducts, i.e., as observably situated in what Schegloff (1992, p. 1338) calls the 'procedural infrastructure' of social interaction. Microgenetic CA analysis allows us to uncover and systematically describe how participants' orientations to learning and learning processes are deployed on a moment-to-moment basis within the sequential unfolding of social interaction.

But what can such analysis tell us about the outcomes of these processes? A microgenetic design is not an appropriate tool for providing evidence for long-term memorization, yet it may provide evidence for learning in the short term. As regards the classroom interaction André is involved in, such evidence is found 1 minute 20 seconds after the end of Excerpt 1 (for reasons of space, we do not reproduce here the interaction occurring in between):

Excerpt 2 – CODI-L2-secII-DK-A-1

```
  01 The: ma femme (0.5) veut  dire   euh (0.4)
          my wife        wants to say
  02      qu'  on parle (1.5) [(euh de)]
          that we talk              about
  03 And:                     [de    ça] (0.6)
                               about that
  04      de    cette chose (0.4) en deux semaines,
          about that  thing       in two  weeks
  05      (0.5)
  06 Die: d'accord papa
          okay     daddy
  07      (0.5)
→ 08 And: ouais (0.2) parce que les parents ne: ne    savent rien, (0.3)
          yeah       because   the parents    don't know  anything
  09      et  ça   c'est
          and that that's
  10      (3.5)
  11 T:   c'est  la  raison
          that's the reason
```

In line 8 André produces the target-language-like plural verb form *savent* (l.8), which was previously corrected, in a new sequential context. Such re-uses of a given linguistic form within new linguistic and sequential environments can be interpreted as indicators of the learning of that form – or at least as part of that learning. And these re-uses are sometimes oriented to and/or staged as learning outcomes by the participants themselves. For example, in Excerpt 1 André, by emphasizing his repetition of the correction provided by the teacher (*savent*, Excerpt 1 l.12) and pausing, nodding and smiling right afterwards, 'stages' that the correction has been noticed and displays some 'doing learning' of the form. Such observations suggest that participants orient toward social interaction as a site of learning, and as a locus for displaying learning outcomes to their co-participants (for further empirical evidence see Pekarek Doehler 2010).

While microgenetic CA research predominantly focuses on the second language classroom, a noteworthy exception is provided by the pioneering study carried out by Forrester and Pike (1998). Focusing on small-group task accomplishment in UK primary schools, the authors track the way the word *estimation* is progressively introduced and used by participants. They document how meanings and understandings are co-constructed as the pupils engage in activities in which they have to use newly introduced concepts, and how, progressively, these concepts become more concrete for the pupils.

In sum, microgenetic CA studies of classroom interaction document learning as a local process, embedded within the turn-by-turn unfolding of the social activities participants are

engaged in. They provide in particular evidence for how patterns of language use are jointly elaborated and configured through the sequential deployment of talk, and for how learning emerges out of the course of jointly coordinated activities.

3. Longitudinal CA Studies of Classroom Interaction

Longitudinal studies of classroom interaction rely on data involving the same students or student-teacher groups, recorded periodically over several days, weeks, months or years. Such studies are highly relevant when it comes to documenting *learning trajectories* over time, be it at the level of individuals or groups: learning can be traced as involving a more or less durable change in the middle or long run. While longitudinal studies of classroom interaction may incidentally show the type of learning processes that are documented in microgenetic studies, their contribution primarily lies in providing evidence for change in terms of (intermediate) learning outcomes.[4]

To date, longitudinal CA studies of classroom interaction are still rare. One of the significant stimuli for CA to move toward longitudinal studies stems from currently intensified concerns with the development of interactional competence in a first language (Wootton 1997; Forrester 2008; Filipi 2009) and in a second language (Hellermann 2008, 2011; Rine and Hall 2011; Pekarek Doehler and Pochon-Berger 2011). Longitudinal CA studies face a particular challenge when it comes to relating interactional learning processes to learning outcomes: 'A problem of course is how one can be sure that any learning that takes place is the result of what has been captured in the classroom recordings' (Gardner 2008, p. 238). Unlike microgenetic studies, longitudinal CA studies may not be the appropriate tool for showing how learning emerges out of social interaction. Their strength lies in documenting progressive change over time in how participants accomplish a given set of social actions and/or practices, and hence in providing empirical evidence for trajectories of interactional development.

The currently most impressive set of longitudinal classroom data available for CA analysis was recorded between 2001 and 2006 in a 'lab school', based on a partnership between Portland State University and Portland Community College. Approximately 4000 hours of classroom interaction were video-recorded, involving 800 adult ESL students (see Hellermann 2008, for more information on data collection). Part of this data set has been used by Hellermann in pioneering longitudinal CA studies aimed at describing the development of interactional competence in a second language by looking at various interactional practices related to task openings and endings, story openings and repair (see e.g., Hellermann 2007, 2008, 2011; see also Eskildsen 2011, 2012 for other longitudinal studies, partially drawing on CA, based on the same dataset). In what follows, we recall Hellermann's (2008) interpretation of two excerpts involving the same student, Jorge.

At the time of the recording of Excerpt 3, Jorge has attended an ESL class for 2 weeks. The students have been invited to ask their peers if they are happy, sad, tired, etc. The peers' names and answers are to be written down on a worksheet. After having addressed a first classmate, Jorge looks for another peer to engage in the task with.

Excerpt 3 – Hellermann (2008, p. 72)

```
50 Jo: ((looks to other students)) (Digna) ((writes other
51     student's name on his worksheet))
52     (5)
```

```
   53 V:  (meese) times
→  54 Jo: ((shifts posture to Digna)) Digna. Es (  )
→  55     tu tu estas (.) are you happy?
   56 D:  happy? Yes.
   57 Jo: (3) ((writes))
```

At lines 50–51, Jorge prepares to engage in the task with Digna, murmuring her name and writing it down on his worksheet. Jorge then physically turns to Digna and produces a summons (l.54), which is immediately followed by a first attempt to ask a question, in Spanish (l.54–55). Subsequently Jorge self-repairs and asks the question in English (l.55), gets an answer from his peer (l.56) and writes it down (l.57). Jorge's task opening is characterized by a shift in posture by means of which he enacts his engagement in the task in an embodied manner, and by the use of an address term that functions as a summons designed to attract the peer's attention. Jorge does not wait for the peer to respond to the summons and to display her availability to engage in the task. Rather, his launching of the task directly follows the summons.

Nine months later, Jorge's way of opening a dyadic task has changed, as illustrated in Excerpt 4. The students have been invited to ask yes/no questions to their peers:

Excerpt 4 – Hellermann (2008, pp. 74–75)

```
78 Te: try to ask many different students.
79 Jo: ((Jorge shifts posture toward his deskmate)) okay
80     Julia,
81 Ju: okay ((Julia is writing))
82 Jo: are you ready?
83 Ju: (1) ((stops writing and orients posture to Jorge))
84     (come on)
85 Jo: okay ((clears throat))
86     (1)
87 Jo: did you (2) °okay° (2) did you call tre- (1) did
88     you call relatives yesterday?
89 Ju: yes I ((looks to board)) yes I did.
```

At the beginning of the excerpt, Jorge, just as in Excerpt 3, shifts his posture so as to orient to his peer, non-verbally enacting his preparation to engage in the task (l.79). Before he produces a summons, Jorge offers the discourse marker 'okay' (l.79), which verbally displays his transitioning between listening to the teacher's instructions and starting to perform the task. However, unlike in Excerpt 3, Jorge does not directly launch the task after the summons, but waits for his peer to respond (l.81). Furthermore, he explicitly checks whether his peer is ready to engage in the task (l.82) and waits until he gets a 'go ahead' signal (l.84). The launching of the task itself is accompanied by two more 'okays' (l.85 and 87) which indicate its imminence, but also Jorge's orientation toward a two-step procedure: a) check co-participant's availability; b) launch task.

The excerpt shows a general pattern observed by Hellermann (2008): at more advanced levels of proficiency, students increasingly use discourse markers at the start of dyadic task interactions, they explicitly allocate turns for the task, they check for co-participant availability to engage in the task and clarify aspects of the task to be jointly managed. These elements point to an increased interactional competence in their second language.

A key contribution of longitudinal (but also cross-sectional; see the section on cross-sectional studies below) studies on classroom interaction lies in providing evidence for the

development of interactional competence within the classroom. In the study reported above, Hellermann (2008) also explores such development in other interactional contexts. For instance, he observes that beginning learners tend to open stories *in medias res*, with little or no use of prefatory work such as story prefaces or pre-sequences, while intermediate level learners show an increased use of prefatory work and anchoring devices, thereby framing the stories in terms of place and time, and ensuring acknowledgement by the story-recipient before launching the story. Intermediate learners hence show a more fine-tuned design of story-openings than beginning learners.

While Hellermann's study focuses on dyadic peer interactions in ESL classrooms involving adult students, other studies have been concerned with other types of participation framework within other educational settings. Cekaite (2007, 2009) for instance documents learning trajectories of immigrant children in a Swedish immersion primary school. Using an ethnographic approach influenced by the language socialization paradigm and by CA, Cekaite shows how the children's participation to small-group and whole-class teacher-fronted activities changes over time, as observable through more fine-tuned interactional behaviors. For example, as regards turn-taking, after an initial silent period followed by the use of non-verbal resources (e.g., waving a drawing), a seven-year-old Kurdish immigrant starts taking turns by means of 'heavy' attention-getting devices, such as shouting answers in a repetitive manner, which are oriented to as inappropriate by the teacher; only later does the child progressively deploy more subtly synchronized turn-taking techniques that are oriented to as appropriate in terms of both timing and form (Cekaite 2007). The study shows that learning how to take a turn in a classroom-appropriate manner not only involves changing the way the turns are linguistically formatted, but also changing non-verbal conduct.

The evidence provided by longitudinal CA studies regarding interactional development in the classroom opens interesting avenues for understanding learning and socialization processes not only in the language classroom, but also in non-language subject classrooms (e.g., science or humanities) and in professional training classrooms that involve the teaching and learning both of professional communication and of professional gestures and procedures. An interesting case in point is provided by Rine and Hall (2011), who analyze the performances of an international teaching assistant in a training course, showing that the assistant increasingly introduces teacher-specific actions as he learns to give lectures to students. Similarly, Hosoda and Aline (2010) document changes, over a 19-month period, in the accomplishment of assessment and direction-giving by two EFL teacher trainees.

The existing longitudinal CA classroom studies provide a rich and diversified picture of what learning and development looks like when it comes to focusing on human interaction. They in particular offer important contributions to the current understanding of interactional competence and its development: over time, participants can be observed throughout courses of jointly accomplished activities to use new skills in the sequential ordering of actions, in the transitioning from one action to the next, in the initiating or closing of activities, and ultimately in the very coordination of social interaction. Interactional competence, therefore, rests on an intricate combination of both linguistic and embodied resources, as well as the sequential organization of turns and actions in real time (see also the section on cross-sectional studies below).

4. Cross-Sectional CA Studies of Classroom Interaction

Cross-sectional CA studies of classroom interaction investigate change over time by comparing sets of classroom data involving participants at different levels of schooling. While in longitudinal data sets the participants observed at time 1 and time 2 are typically the

same (but see footnote 4), in cross-sectional data sets the participants observed at time 1 and time 2 are different, yet are assumed to represent comparable samples of a given population. There is an obvious practical advantage of cross-sectional over longitudinal research designs: collecting the data sets for cross-sectional analysis can take place simultaneously. Such a design is especially useful and economic when comparison over a long time-span, such as several years, is at stake (e.g., between lower secondary and higher secondary school). While they do not allow tracing individual learning trajectories, cross-sectional studies of learning environments allow the comparing of groups of learners, and thereby the identifying of systematic differences between these groups as indicators of learning/development over time.

Cross-sectional CA studies of classroom interaction are scarce. We know only of two existing studies (Fasel Lauzon, Pekarek Doehler and Pochon-Berger 2009; Pekarek Doehler and Pochon-Berger 2011; see below), both of which were designed to observe the development of interactional competence between two levels of schooling. Just like the longitudinal CA studies (see the section on longitudinal studies above), cross-sectional CA studies focus analysis onto a well-defined action or activity (e.g., opening a story, providing a disagreement, etc.), so as to identify, for time 1 and time 2, patterns of interactional practices for accomplishing that action or activity, and to assess the systematic differences between these patterns at time 1 and time 2.

The following two excerpts stem from Fasel Lauzon, Pekarek Doehler and Pochon-Berger's (2009) study on disagreements in the French as a first language classroom:

Excerpt 5 – Fasel Lauzon et al. (2009), 8th grade (revised and simplified transcript)

```
   01 Car: quand euh patricia tu  dis euh ouais
           when      patricia you say     yeah
   02      qu'  y     avait pas une bonne ambiance,
           that there was   not a   good  atmosphere
   03      y     en  avait quand même une bonne.
           there PRO was   still      a   good ((one))
   04      hein  à part avec les profs.
           huh   except with DET teachers
   05      (1.5)
→  06 Bra: non non mais [ça c'est nul    ]
           no  no  but   that's   nonsense
   07 Car:              [(ouais c'était)-]
                          yeah  it was
→  08 Bra: ça c'est (bête   ce que tu  dis.)=
           that's    stupid what   you say
   09 Car: =mai:s si  quand on se      marrait euh (0.5)
            but   yes when  we PRO.REF had fun
   10      ouais mais bon=
           yeah  but  well
```

This excerpt is taken from an 8th grade French as a first language classroom (the pupils are 13 to 14 years of age) recorded in a Swiss public school. At the beginning of the excerpt, Carine addresses a peer, Patricia, by rewording what that peer said two minutes earlier, namely that there was not a good atmosphere in the classroom, with which

Carine disagrees (l.3). Carine's disagreeing stance is constructed by means of a format-tying (Goodwin 1983), which reinforces the contrast between the two assessments by creating a mirror effect ('there was not a good atmosphere', 'there was still a good one', l.2–3), although the scope of her disagreement is somewhat restricted by her comment *à part avec les profs* 'except with teachers' (l.4).

While Patricia does not react to the disagreement (see the pause l.5), Brandon expresses his own disagreement (l.6–8) by means of a turn-initial, straightforward *non non* 'no no' (l.6), backed up by a strong negative assessment of Carine's talk (l.6–8). Noteworthy in the excerpt are also the overlaps (l.6–7) and the fast follow-ups of turns (l.8–9), which indicate competition for the floor and increased participation on the part of the students. The excerpt illustrates recurrent features found with the 8th graders: disagreement episodes are constructed as competitive verbal sparrings, on the level of both content and access to the floor, disagreements are straightforward, often turn-initial, strong (often by means of polarity markers such as 'no'), with almost no hedges, and they appear to draw on a binary right-or-wrong logic oriented toward winning the argument rather than collaborating to find a compromise.

Disagreement episodes among 12th graders work quite differently from what we have just observed with the 8th graders in terms of the argumentative logic that appears to drive the episodes. Excerpt 6 is taken from a 12th grade French as a first language classroom (the students are 18–19 years of age), again recorded in a Swiss public school. The students discuss the differences in character of the two protagonists of a play, Estelle and Garcin.

Excerpt 6 – Fasel Lauzon et al. (2009), 12th grade (revised and simplified transcript)

```
   01 Cat: il a:  il a   besoin des autres
           he AUX he AUX needs  the others
   02      pour être satisfait intellectuellement,
           to   be   satisfied intellectually
   03      mais elle elle a   besoin des autres pour pouvoir vivre.
           but  she  she  AUX needs  the others to   be able to live
   04      (0.5)
   05 Cat: c'est différent.
           it's  different
→  06 Ais: mais- euh quand tu  as  besoin d'être satisfait intellectuellement
           but   uh  when  you AUX need   to be  satisfied intellectually
→  07      tu  as  aussi besoin des autres pour vivre parce que (0.4)
           you AUX also  need   the others to   live  because
   08      l'autre   il devient un support pour toi
           the other he becomes a  support for you
((45 seconds of Aishé's talk not reproduced here))
→  09      elle c'est un manque sentimental, pis c'est exactement pareil. (0.5)
           she  it's  a  sentimental loss   and it's  exactly    the same
   10      [c'est: c'est juste ils  ont  (x)-       ]
            it's   it's  just  they have
→  11 Cat: [ouais ils  ont- ils  ont  tous un manque]
            yeah  they have they have all  a  loss
→  12      ça   c'est clair mais- euh- el-
           this it's  clear but
```

```
→ 13    je disais que: a- à propos   de l'admission
        I  said   that    concerning    the admission
  14    enfin de la   non-admission  de: de estelle, (0.5)
        well     the 'non-admission' of     estelle
  15    par rapport à sa  situation, (0.4)
        concerning    her situation
  16    que  elle c'est- c- elle   arrivera jamais à  admettre,
        that she  it's      she'll never succeed   in admitting
  17    parce que (0.4) pour (0.4) vraiment vivre, (0.4)
        because         to         really   live
  18    elle a   elle- a   besoin du  regard des autres
        she  AUX she   AUX needs  the gaze   of  others.
```

At the beginning of the excerpt, Catherine establishes a contrast between the two protagonists' needs, which she qualifies as *différent* 'different' (l.5). Aishé responds with a *mais* 'but'-initiated disagreeing statement (l.6), culminating in her *c'est exactement pareil* 'it's exactly the same' (l.9) that strongly contrasts with Catherine's preceding assessment (l.5). Aishé uses a format-tying technique (l.6–7), yet, unlike what we have seen in Excerpt 5, this is done not so as to produce a binary opposition, but rather to show that different conclusions can be drawn from the same observation. Most noteworthy here is the fact that Aishé's turn appears to be designed not only to proffer a disagreement, but also to explain her own take on the two protagonists (see the account-introducing *parce que* 'because', l.7). Subsequently, Catherine (l.11 *et seq.*) in turn engages in further disagreement, producing the dispreferred action turn shape 'yes but' documented by Pomerantz (1984) for disagreements with assessments (l.11–12). The precise construction of her turn allows Catherine to first display her alignment with Aishé (l.11–12), to then corroborate the legitimacy of her own interpretation by means of some additional information (l.13–15), and only then to re-affirm her disagreeing stance (l.16–18). Just like in Aishé's preceding turn (see l.9), the explicit formulation of the disagreement proper is thereby pushed back to the very end of the turn at talk.

Fasel Lauzon, Pekarek Doehler and Pochon-Berger's (2009) cross-sectional CA analysis of how disagreements are interactionally organized at two different levels of schooling opens a window onto the communicative cultures at work at each level, and possibly also on some aspects of the development of first language interactional competence between the age of 13/14 and 17/18. While at the lower level of schooling disagreements tend to be turn-initial, direct and non-mitigated, as illustrated in excerpt 5, at the upper level the placement of the disagreements within the turns and the way they are shaped are more varied (turn-initial or prefaced by another action, direct or indirect, non-mitigated or mitigated); this may be indicative of some aspects of interactional development over time, testifying to more diversified resources put to use at more advanced age and levels of schooling. Such interactional development in turn may be complexly intertwined with the process of the youth's socialization into the classroom, and more generally with a change in the classroom communicative culture between the ages of 13/14 and 17/18. The latter point seems to be corroborated by the fact that, while at the lower level disagreements tend to rely on binary oppositions and follow a 'competitive win-or-lose mode', at the upper level they are organized following a 'collaborative mode' apt to foster the exchange of opinions, and possibly the co-construction of meaning-making. Taken together, the quoted elements show that cross-sectional CA analysis may shed light on the communicative logics of the classroom at different levels of schooling, and on some aspects of the students' process of socialization within the classroom.

Similar observations pertain to Pekarek Doehler and Pochon-Berger's (2011) study on disagreements in the *second* language classroom, in which they compare disagreement sequences in the French second language classroom at two levels of schooling and competence (again: 8th grade and 12th grade). The study documents systematic patterns of change between how intermediate and advanced students of French as a second language accomplish disagreements in the classroom, both in terms of the linguistic resources they put to use and in terms of how they sequentially organize disagreements. The study shows that the less proficient students produce exclusively overt disagreements characterized most typically by polarity markers ('no'), turn-initial positioning and the absence of hedges; by contrast, more advanced students diversify their techniques for managing disagreement, often producing strongly mitigated disagreements, using a variety of delaying devices that push the disagreement proper back in the turn (hesitation markers, agreement tokens and more generally prefatory talk that displays agreement), and they put to use a large array of linguistic resources (hedges, amongst others, but also format-tying) to fine-tune their positions.

While the abovementioned studies see interactional development and the process of socialization as inextricably intertwined, they still raise a tricky issue: to what extent can the observable change in the accomplishment of a given action be taken as specifically related to first or second language development/learning? This question may be equally relevant for longitudinal studies. In the abovementioned study on disagreements in the second language classroom, Pekarek Doehler and Pochon-Berger (2011) use cross-linguistic comparison with the first language data studied by Fasel Lauzon, Pekarek Doehler and Pochon-Berger (2009; see above) to address the issue. With the advanced students of French as a second language, i.e., the 12th graders, they find regular occurrences of format-tying techniques, discourse markers and weak agreement tokens (e.g., *ouais*, 'yeah'). These features are not found with the less advanced second language students at 8th grade, yet they are found – though less frequently – with the first language students at 8th grade[5]. As a consequence, the cited features cannot be merely a function of different communicative cultures at different levels of schooling or age differences between 8th graders and 12th graders. Rather, they are indicative of interactional development in a second language, involving students' increased sensitivity for the preference organization of talk (as evidenced in the turn-architecture of their disagreeing turns) and their growing capacity to monitor the linguistic details of co-participants' talk (as seen in their use of format-tying techniques).

The quoted findings from cross-sectional CA classroom studies converge with the longitudinal CA studies discussed in the preceding section, suggesting that the development of interactional competence (in a first or a second language) may be usefully understood in terms of the progressive diversification of speaker's systematic procedures ('methods' in the ethnomethodological sense of the term) to deal with the particulars of social interaction (see Pekarek Doehler 2010; Hall and Pekarek Doehler 2011): opening tasks, disagreeing, disengaging from an interaction, taking turns, etc. The findings indicate that the development of interactional competence comprises an increased sensitivity for such issues as recipient design and preference organization of talk, allowing speakers to better tailor what they are saying and doing to fit the displayed expectations, needs and states of knowledge of current co-participants at any moment in time (for a recent overview of CA studies on interactional competence in a second language see Pekarek Doehler and Pochon-Berger, forthcoming).

5. Future Directions

The classroom as a site of learning has been the focus of classroom studies stemming from a large variety of theoretical backgrounds. It is the unique feature of CA studies of classroom interaction that they set out to document the accountable methods that members use to

participate in social interactions within the classroom. CA studies of classroom interaction that document change over time provide new insights into learning processes and learning outcomes as eminently contextualized in the moment-to-moment unfolding of social interaction, and as inextricably embedded within courses of jointly coordinated and locally accomplished actions. As opposed to studies relying on pre- and post-tests, the CA studies discussed in this chapter share a common interest in the local, in-situ unfolding of participants' resources for action, and they scrutinize these resources both as possible features of the participants' developing interactional competence and processes of socialization, and as possible means by which learning processes are enacted, mutually coordinated and scaffolded. Unlike the observation of learning outcomes through formal evaluations such as oral proficiency interviews, the CA studies discussed in this paper enable us to observe the development of competences in intrinsically authentic practices. Because participants' competences and resources are 'sensitive to, and oriented to, and displaying the sensitivity and orientation to, who the co-participants are, what the context is' (Schegloff 1989, p. 141), the kind of contextualized analysis offered by CA studies of classroom interaction provides the grounds for a better understanding of the nature of the classroom, the relations between the participants to classroom interaction, the changes in these participants' practices and how these changes relate to learning.

While 'microgenetic' CA studies of classroom interaction provide evidence for learning as a social process accomplished in real time within the mutual coordination of turns at talk, typically focusing on linguistic forms, longitudinal and cross-sectional CA studies shed light onto some aspects of developmental trajectories or stages, in particular with regard to students' evolving competences for interaction; they trace development/learning in terms of the increased deployment and diversification of 'methods' (i.e., systematic procedures) for dealing with the organization and the contingencies of social interaction. Taken together, the existing studies provide a rich empirically-based contribution to our understanding of interactional competence and its development over time. And they feed into the kind of socially oriented understanding of learning as situated and constituted in interaction that was prominently called for in Firth and Wagner's (1997) seminal statement.

There is however currently a bias in CA research on change across time in the classroom that calls for a revision in future research: most of the existing studies are concerned with second language classrooms, and with the development of interactional competence. More fine-grained sequential analysis – of the type CA can offer – is needed that sets out to explore developing cultures of communication in the classroom, processes of classroom socialization over time, and the learning of things other than language or interaction. Such studies, while completing other research traditions more centrally concerned with the quoted issues, can be expected to foster our understanding of the classroom as a site of learning by shedding light on the detailed interactional ecology that sustains classroom interaction, and on how that ecology evolves across trajectories and levels of schooling. Last but not least, an important avenue for future CA research on classroom interaction lies in horizontal comparison (see Zimmerman 1999) in order to understand how the classroom ecology changes across teachers, types of schools, and their socio-historic environments.

NOTES

1 These studies provide rich empirical evidence corroborating Breen's (1989) now classic distinction between task-as-workplan and task-as-process (Breen 1989).

2 This is a general characteristic of microgenetic analyses. Lantolf (2000, p. 3) for instance notes from an SCT viewpoint that microgenetic analysis is concerned with 'learning a word, sound, or grammatical feature of a language'.

3 Although we agree that 'vocabulary appropriation is […] an integral part of interactional competence' (Markee 2008, p. 406), what we wish to stress here is a distinction between the learning of a language form and the learning of how to accomplish an action in a given language.
4 Note that in some cases, the longitudinally collected data is analyzed in a way that does not involve the longitudinal tracking of individual students, i.e., analysis focuses on how students perform at moment X+n vs. moment X without necessarily looking at the exactly same students in a given group. See for instance Hellermann's (2008) analysis of story openings.
5 For instance, the less advanced L2 speakers near to never produce other than turn-initial disagreements (98.3%), while the L1 speakers of the same age show more diversified placements of disagreement (only 73.6% are turn-initial). In this sense, the L2 advanced learners behave more closely to the younger L1 speakers than to the less-advanced L2 speakers, showing 68.3% of turn-initial disagreements. Similar tendencies can be observed as to the fact that both L1 students and advanced L2 students regularly produce distal disagreements, tying back to a source turn that occurred several turns earlier, yet less advanced L2 students never do so.

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See Chapter 9: The Sequential Analysis of Instruction.
See Chapter 22: L2 Classroom Interaction as a Complex Adaptive System.
See Chapter 23: Institutional Talk-For-Learning Beyond the Classroom.
See Chapter 24: CA-For-SLA Studies of Classroom Interaction: Quo Vadis?

25 CA-for-SLA Studies of Classroom Interaction: Quo Vadis?

NUMA MARKEE AND SILVIA KUNITZ

1. Introduction

This chapter is divided into two main sections. In the first, entitled *What is conversation analysis-for-second language acquisition (CA-for-SLA)?*, we begin by defining what CA-for-SLA is and then consider a possible objection to the notion of CA-for-SLA. We then situate CA as the most important offshoot of ethnomethodology (EM) and review its contributions to research on (classroom) interaction. Next, we discuss the most important question that has dogged CA since the 1990s: can CA *demonstrate* learning, given that CA is a quintessentially social discipline, which would therefore seem ill-equipped to say much, if anything, about cognitive matters such as language learning? In the second main section, subtitled *Quo Vadis?*, we selectively focus on three emerging issues in the field: More specifically, we discuss: (1) some implications of the emerging interest in embodiment and multi-modality in CA work on language learning; 2) recent empirical work on language alternation and code switching practices in various learning environments; and 3) what such CA-derived theoretical and empirical insights imply for language teaching and teacher training.

2. What is Conversation Analysis-for-Second Language Acquisition?

Broadly speaking, CA-for-SLA (a term first coined by Markee and Kasper 2004), also known as CA-SLA (Kasper and Wagner 2011), is a subfield of second language studies (SLS)/applied linguistics (AL) that uses conversation analytic techniques to study language learning. This body of work has mostly emerged since the publication of the Firth and Wagner (1997) symposium in Volume 81 of the *Modern Language Journal*.[1] These authors proposed that cognitive SLA needed to: '(a) develop its awareness of the interactional dimensions of language use in context, (b) adopt an emic (i.e., participant-relevant) approach, and (c) broaden the traditional SLA database' (p. 286).

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CA-for-SLA/CA-SLA is a form of ethnomethodological conversation analysis that unpacks second language user-learners' common sense understandings of their own and their interlocutors' real time, embodied language learning behaviors. In an interesting piece on the gradual adoption of CA techniques as powerful tools for doing SLA research over the last 40 years, Wong (2013) critiques the use of acronyms such as CA-for-SLA and CA-SLA. She argues that CA has won its seat at the SLA table, and that researchers who use this approach no longer need to '*advocate* for CA as the phrase CA-for-SLA or CA-SLA imply' (p. 16, emphasis added). While we are sympathetic to Wong's criticism, we suspect that it may take a long time for these acronyms to wither away. We now move on to consider the relationship between ethnomethodology and conversation analysis.

2.1 Ethnomethodology and conversation analysis

Ethnomethodology (EM) is a form of sociology that Harold Garfinkel founded in the 1950s and 60s (see Garfinkel 1967). In part, EM was a reaction to the kind of *etic* (that is, researcher-centric) 'grand theorizing' that characterized American sociology in the 1950s. Specifically, in contrast with the then dominant systems theory perspective associated with Talcott Parsons (Garfinkel's advisor at Harvard), EM is concerned with 'the body of common sense knowledge and the range of procedures and considerations by means of which the ordinary members of society make sense of, find their way about in, and act on the circumstances in which they find themselves' (Heritage 1984a, p. 4). Garfinkel came to the following radical conclusions: 1) a theory of social action is an emic by-product of empirical analyses that are always grounded in members' observable behaviors; 2) drawing on the phenomenological work of Edmund Husserl and Alfred Schutz (see, in particular, Husserl 1960, *Fifth Meditation*, among many other texts; and Schutz 1967), the problem of *intersubjectivity* is located at the very heart of the sociological enterprise; and 3) going against the cognitive revolution that was already in full swing by the mid 1960s, Garfinkel insisted on developing radically behavior*al* – though not behavior*ist* – analyses of human actions.

How are EM and CA related to each other? CA is the most well known offshoot of EM in sociology. However, EM is not the only intellectual source of CA. Following Heritage (1984a, 2001), CA is best described as the synthesis of a confrontation of ideas between Garfinkel's development of EM and Erving Goffman's (1981, 1983) work on face, footing, and the interactional order. CA was co-founded by two students of Goffman – Harvey Sacks and Emanuel Schegloff – and by Gail Jefferson, who was a student of Sacks. CA is concerned with analyzing how members artfully deploy a complex nexus of interrelated semiotic systems to achieve various kinds of mundane social actions, such as complaining, requesting, inviting, etc. The most important of these systems is *talk-in-interaction* (Schegloff 1987), which constitutes the primordial site of human sociality (Schegloff 1996). Briefly, talk-in-interaction is the superordinate term used to refer to two kinds of speech exchange systems, *ordinary conversation* (the kind of informal, mundane chit chat that occurs among friends and colleagues) and *institutional talk* (such as classroom interaction, doctor–patient communication, legal talk, etc.). Naturally occurring ordinary conversation is the benchmark for all interaction. Institutional forms of talk involve various systematic modifications to the default practices of ordinary conversation, which allow institutional actors to achieve the goals of the institutions that they talk into being.

Naturally occurring language learning behaviors may occur anywhere along a continuum of contexts, whose poles are informal learning that takes place 'in the wild' and formal learning that occurs in the classroom (see also Kasper and Kim, this volume; Kasper and Wagner 2011; Kunitz and Kivik 2014; Wagner 2013). Accordingly, CA has been used to address a number of areas in SLS/AL research (see Seedhouse 2005a), including: English for

specific purposes; language teaching materials design; language proficiency assessment; language classroom interaction; native speaker/non-native speaker talk; bilingual and multi-lingual code-switching; and language learning processes.

Seminal publications by Sacks, Schegloff and Jefferson laid the groundwork for CA's empirical accounts of how members orient to a normative architecture of conversational mechanisms such as *turn taking* (Sacks, Schegloff and Jefferson 1974), *repair* (Schegloff, Jefferson and Sacks 1977) and *sequence organization* (Schegloff and Sacks 1973). In addition, they formalized CA's distinctive approach to transcribing naturally occurring talk-in-interaction (see Appendix 1 at the end of this Handbook), and described the methods that members (and therefore analysts) use as proof procedures to understand each other in real time (for further discussion, see also Heritage 1984a, 1988; Schegloff 2007; Schegloff, Koshik, Jacoby and Olsher 2002; Seedhouse 2005a).

Turn taking is the underlying machinery that enables participants to *construct* and *allocate* turns in a remarkably smooth fashion. Repair is the mechanism that operates to fix trouble as efficiently as possible whenever it occurs. And sequence organization is the practice through which participants assemble individual turns into extended stretches of coherent and cohesive talk. In addition, members also orient to the *preference organization* of talk-in-interaction (Pomerantz and Heritage 2012), which permeates the previous three types of interactional organization. Preference in CA is a technical term that describes phenomena such as whether an expected action is actually done, or whether a spate of talk observably runs off without any trouble. So, for example, in ordinary conversation, a question sets up the expectation that an answer will follow in next turn (this is a so-called adjacency *pair*, made up of a prototypical question–answer sequence, in which a question is a *first pair part* or FPP, and the answer is a *second pair part* or SPP). If an answer duly follows in the second turn, this is the *preferred* pattern. If something else happens in the second turn (such as silence), this event becomes noticeable, and therefore accountable, as a *dispreferred* action. Similarly, talk that runs off without any trouble constitutes the *preferred* mode of interaction, while talk that is marked by problems of understanding, disagreement or various kinds of errors is typically *dispreferred*.

Let us now look at a brief example of classroom talk to see how this institutional speech exchange system differs from that of ordinary conversation and what dispreferred classroom talk looks like. During interaction that occurs just before the beginning of Fragment 1, L11 has been having trouble with understanding the sentence 'you pretend to pay us and we pretend to work' (which occurs in a reading text provided by the teacher) and his partner L9 has been unable to give a successful explanation. Fragment 1 picks up the talk when L9 proposes to call Jane (the teacher) over to help out (line 1).

Fragment 1 (classroom talk)

```
 1 L9: FPP1          can we call jane maybe,
 2                   ((unintelligible))
 3                   (0.3)
 4 L11: SPP1         myeah,
 5 L9: FPP2          nt jane?
 6 T: SPP3           uh huh?
 7 L9: FPP4          your input plea[h      [huh] huh ]
 8 T: SPP4                                  [huh]
 9 L11: SPP4                      [h huh [huh] huh.] huh
10 L9: FPP5          *hhhhh there is this e°::::h°
11                   (0.6) some sort of an idiom
```

```
12                  you pretend to pay us and we
13                  pretend to work ((L9 is reading
14                  from his text))
15 T: SPP5          ok.
16    FPP6/CQ →     what do you think that could be:
17                  do you have any idea
18                  ((T looks at L11 as
19                  she says 'you'))
20 L11: FPP7/CQ →   do you- do you know what the word
21                  pretend, (.) means,
22                  (1.0)
23 T: FPP8/CQ →     do i know what the word pretend means
24                  ((T draws herself up to her full height
25                  and points to herself as she says i))
26 L11: SPP8        yeah- i- i- /dawt/
27                  i don't know that see
28 T:  FPP9         oh ok °who-° °do-° does anybody know
29                  what the word pretend means.
30                  ((T is speaking to the rest
31                  of the class))
```

(adapted from Markee 1995, 2006, pp. 146–148)

As the notations in the margin of each line show, a preferred question–answer (FPP-SPP) sequence structure is observable in this fragment from lines 1–15, in the course of which five adjacency pairs unfold in quick succession (note that in lines 7–9, L9's laughter in line 6 properly elicits T's and L11's collaborative laughter in lines 8 and 9). T closes down the fifth adjacency pair with 'OK' in line 15 and then does a FPP in the immediately following next increment of her turn in lines 16–17 that functions as a *counter-question* turn (CQ: see Markee 1995, 2004) that redistributes the turn to L11.

The fact that T does such a CQ turn at this moment in this institutional classroom context is not in itself remarkable (although this practice would be quite unacceptable in ordinary conversation). Whereas ordinary conversation is based on a locally managed system of peer relationships, in which anybody has the right to initiate questions and repairs, teacher fronted classroom talk is an unequal power speech exchange system in which teachers have the right (indeed, the professional obligation) to ask students questions and to correct errors as necessary. In contrast, students are obligated to respond to answer teachers' questions. These institutional agendas result in a pre-allocated Question-Answer-Comment (QAC) speech exchange system, in which teachers prototypically control the Q and C turns in pedagogical sequences. In contrast, students can only properly do A turns (McHoul 1990).

We can therefore now see that T inserts her CQ turn in lines 16–17 immediately after L9's FPP5 in lines 10–14, thus putting next speaker (L9 or L11) in the sequential position of doing an A turn. This practice ultimately has the effect of putting T back in position to potentially end this sequence with a final C turn. Furthermore, note how T's CQ turn (and the accompanying eye gaze behavior in lines 18–19) redistributes next turn to L11. More specifically, her observable analysis of the unfolding talk is that L9 has called her over for help and that it is therefore L9 who does not understand the sentence he quotes. However, T's analysis is actually incorrect (recall that L9 had unsuccessfully tried to help L11 understand what the problem item meant before he called T over). Thus, when L11 responds: 'do you- do you know what the word pretend, (.) means,' in lines 20–21, he is observably orienting to the fact

that he (L11) is not able to answer T's question, and that only T in this particular group of speakers is able to answer the question that was asked by L9 *on behalf of* L11.

But L11's action in lines 20–21 immediately puts him in hot water. In line 22, there is a one second pause (a phenomenon which often occurs in the environment of dispreferred actions and also frequently precedes a repair in next turn). This pause is followed by another CQ turn ('do i know what the word pretend means') and some important non-verbal pointing behavior by T in lines 23–25. These verbal and embodied behaviors all combine to indicate that T is reacting negatively to L11's prior question in lines 20–21. Why is this so? Lines 20–25 graphically illustrate that while teachers may properly ask students CQs (typically to engage other students in the talk-so-far, and/or to elicit 'better' student answers), students may *not* ask teachers such questions (see Markee 1995). More specifically, T treats L11's turn in lines 20–21 as an illicit CQ turn because it challenges her competence as an expert speaker of English. T's CQ turn in lines 23–25 is thus sequentially positioned as a resource that allows T to *enforce* the unequal power institutional speech exchange system that is currently in operation *as a means of pursuing her pedagogical agenda of providing corrective feedback to L11*. This analysis also explains why L11 has to explicitly clarify in lines 26–27 that it is *he* who does not understand the original problem sentence, not L9. This admission enables T to finally understand who owns the problem in lines 10–14 and is also a *social prerequi*site for the talk to continue in a productive fashion, which happens when T says 'oh ok' at the beginning of line 28. This change of state token plus closing particle (Heritage 1984b) indicates T has understood what L11 was doing in lines 20–22. In the remainder of T's turn in lines 28–29, T proceeds to redistribute her question about what 'pretend' means to the rest of the class (note again the institutional nature of this action). In short, the breakdown in the normative sequence organization of the talk that occurs from lines 20–27 only becomes understandable when it is analyzed in terms of the specifically *institutional* character of the speech exchange that is in force at the time that this talk is being produced.

These brief analyses of members' methods for making sense of what they are doing when they talk are both *context sensitive* and *context renewing* (Heritage 1984a, 1988). That is, members' real time analyses of emerging talk are acutely sensitive to the immediate context of what is being said. Furthermore, members' analyses of what actions (requests, challenges, eating crow, and the like) are being performed in each turn set up normative expectations regarding how the next speaker should respond in next turn. Consequently, what is actually said in next turn provides an unfolding, turn-by-turn proof procedure that is publicly available to participants (and, therefore, to analysts also) as a resource for making sure that what was said in previous turn is correctly interpreted in next turn. By extension, these emic proof procedures allow researchers to describe how (language) learning processes are publicly displayed and accomplished (Kasper and Wagner 2011) *in situ* as observable learning *behaviors* (Markee 2008). Crucially, these behaviors are co-constructed by participants *in* and *through* talk-in-interaction (Markee and Kasper 2004; Markee and Seo 2009). The upshot of these empirical analyses is that the classical view of language learning as an individual cognitive construct is ethnomethodologically respecified as a form of situated social action that observably emerges in the intersubjective space among participants (in this context, see our previous discussion of Garfinkel's preoccupations with the theory of social action that emerges from empirical analysis in EM).

2.2 *Can conversation analysis demonstrate learning?*

Clearly, the methods we have just described have great analytical power. But can they be used to *demonstrate* learning? The key argument in cognitive responses to the CA critique of classical SLA has always been that language acquisition and use are fundamentally different

things, and that a social perspective on language use is not theoretically equipped to deal with cognitive issues of language learning (see Ortega 2009 for a CA-friendly but nonetheless incisive discussion of this matter). It has taken CA researchers a long time to respond effectively to this classical SLA counter-attack. However, the main outlines of the CA response are now clear, and CA has without doubt been accepted as a key player in the ongoing evolution of emergentist and usage-based approaches to SLA (see Eskildsen 2012; Ortega 2013).

Broadly speaking, two rather different approaches to dealing with the conceptualization of learning have emerged within the CA community: a so-called *developmental* CA perspective (Pallotti and Wagner 2011) and *a purist* CA perspective (Lee 2010; see also Hauser 2011; Markee 2008). Researchers within the developmental CA group have essentially accepted the classical SLA critique that CA cannot, on its own, address the issue of learning. They have therefore sought to harness the considerable methodological power of CA to the research agendas of allegedly compatible, though nonetheless exogenous, learning theories such as emergentism, situated learning theory, sociocultural theory, or language socialization (see Brouwer and Wagner 2004; Cekaite 2007; Eskildsen 2012; He 2004, 2006, this volume; Hellermann 2007, 2009; Hellermann and Cole 2009; Mondada and Pekarek Doehler 2004; Ohta 2001; Piirainen-Marsh and Tainio 2009; and Thorne and Hellerman, this volume).

In contrast, 'purist' researchers stay strictly within the ethnomethodological fold of CA (Kasper 2004, 2006, 2009; Lee 2010; Markee 1994, 2000, 2008, 2011; Markee and Kunitz 2013; Markee and Seo 2009; Mori 2002, 2004; Mori and Hasegawa 2009; and Seedhouse 2004, though not Seedhouse, this volume). The epistemological rationale behind this latter choice is that adopting exogenous, *a priori* theories compromises CA's *data-driven* analytical approach to such an extent that it subverts CA's most distinctive contribution to SLA studies; i.e., Garfinkel's radical critique of etic theory construction (Hauser 2011; Markee 2008). In any case, the ability of researchers working within the purist CA tradition to demonstrate – *without having to rely on any exogenous theories* – how empirically instantiated language learning behaviors lead to user-learners observably incorporating linguistic changes into their actional repertoires in both the short and long term has never been in doubt. Markee (1994) and Markee and Kunitz (2013) serve as convenient bookends to substantiate this claim. Finally, despite the purist tradition's insistence on adhering to EM's indifference to a priori etic theory (Psathas 1995), this does not mean that CA has nothing to say about the construction of *emic* theories of learning-as-behavior that emerge as by-products of empirical analysis. A case in point is the finding that there is a systematic, social order of organization that is *independent* of psycholinguistic accounts of cognition, mind, and learning as underlying, individual mental phenomena that allegedly generate 'surface' manifestations of cognition (see also Drew 2005; Edwards 2006; Markee 2011; Markee and Kunitz 2013; Mori and Hasegawa 2009; Potter 2006). This conclusion has truly radical implications for SLA, since it opens up the possibility of developing *non-cognitive* accounts of how user-learners orient to *doing* language learning behavior *in their own terms*.

We now move on from these conceptual controversies to consider how CA researchers have also embraced the methodological need to engage in *longitudinal* research as part of their overall response to classical SLA criticisms of CA's alleged inability to address learning issues. Pekarek Doehler and Fasel Lauzon (this volume) provide a detailed overview of such studies, so the present discussion will be brief. Not surprisingly, developmental and purist CA researchers have pursued different agendas in their longitudinal work. More specifically, developmental CA has been particularly concerned with understanding the development of *interactional competence* and the various conversational skills that constitute it (see Barraja Rohan 2013; Brouwer and Wagner 2004; Hall, Hellermann and Pekarek Doelher 2011; and Pallotti and Wagner 2011). In contrast, purist CA has focused on tracking learning objects

and language learning behaviors as they occur in the moment and over time, in consecutive speech events (Markee 2008; Markee and Kunitz 2013; Musk 2011; Sahlström 2011). Both types of research have led to insightful findings. Nevertheless, as Lee (2010) points out, using CA to produce a developmental account of learning may involve methodological risks that can potentially lead to the kinds of epistemological consequences discussed previously.

3. Quo Vadis?

In this section, we focus on three emergent issues in CA work on language learning. More specifically, we discuss: (1) the emerging interest in embodiment and multi-modality; 2) recent empirical work on language alternation and code switching practices in various learning environments; and 3) the pedagogical implications of such CA-derived theoretical and empirical insights.

3.1 Embodiment and multi-modality

Markee (2000) predicted that CA workers interested in language learning issues would likely incorporate eye gaze, gestural and other embodied phenomena in their analyses, and this trend has become increasingly noticeable in recent years (see Carroll 2005; Majlesi and Broth 2012; Markee 2008, 2011; Markee and Kunitz 2013; Mori 2002, 2004; Mori and Hayashi 2006; Mori and Hasegawa 2009; Olsher 2004; Piirainen-Marsh 2011; Rine and Hall 2011; Seedhouse, this volume; Seedhouse and Almutairi 2009; Seo 2011; Seo and Koshik 2010; Steinbach-Kohler and Thorne 2011). To the best of our knowledge, however, there has been little discussion within the AL/SLS literature of the theoretical grounding for such a development. The brief discussion we develop here is meant to promote an ongoing dialogue on this issue.

For mostly serendipitous reasons of convenience, a lot of early CA work was based on audio-recorded telephone data. Audio recordings of telephone talk are perfectly adequate to capture what participants are doing as they speak, since participants do not have access to each others' eye gaze, gestures and other embodied actions. However, the publication of Goodwin (1979) and the substantial body of work that has subsequently followed has demonstrated beyond doubt that video is essential to capturing how participants orient to *all* the semiotic systems at play during face-to-face interactions in order to make sense of each others' actions. Now, Schegloff has made several deeply insightful contributions to our understanding of how talk is exquisitely choreographed with eye gaze, gestures and other embodied actions (see, Schegloff 1984, 1998). However, it is fair to say that for Schegloff (and, indeed, many other conversation analysts), it is the *verbal* aspects of interaction that are of *primary* analytic interest in CA.

For Charles Goodwin, however, it is *the laminated (i.e., multimodal) character of interactional and embodied human action as a whole* that constitutes the proper object of analytical inquiry (see Goodwin 2013 and other contributions to the 2013 special issue of the *Journal of Pragmatics* on multimodal interaction). Furthermore, Goodwin's work has compellingly shown that human action often involves the concurrent use, manipulation and/or production of material artifacts (see Goodwin 1994, 1997). This is particularly true of language learning behavior, during the accomplishment of which participants frequently consult (online) dictionaries and textbooks, and produce a variety of notes, scripts, PowerPoint slides, etc.

We align ourselves with Goodwin's perspective on these issues. Consequently, we argue that classroom interaction research *requires* the use of video recordings to achieve a minimally acceptable standard of empirical adequacy. Furthermore, researchers should strive to collect



Figure 25.1.

as many (preferably all) of the real world and online cultural artifacts that participants use, manipulate, produce and otherwise make relevant *in* and *through* talk-in-interaction, so that we can truly understand the incredible richness of multimodal interaction. For these reasons, our current transcripts have evolved from the kind of classic Jeffersonian transcript shown in Fragment 1 to the much more complex example shown in Fragment 2, which shows how talk-in-in-interaction (see line 76) is used to change a transitional version of a PowerPoint slide (the top version of the slide) into its final form (the bottom version of the slide) during small group work.

We recognize that such a requirement is extremely burdensome to meet, and that it complicates the classroom research enterprise exponentially. More specifically, the lack of widely accepted transcription procedures in multimodal research introduces considerable methodological variation and uncertainty into such research. In addition, the technical and logistical headaches that are inevitably associated with doing multimodal research (for example, the frequent use of multiple cameras, the large file sizes of video recordings, the heterogeneity of cultural artifacts, the increased amount of time and effort required to transcribe and analyze multimodal data, and the problems associated with efficiently organizing, storing and accessing the large volumes of data that are generated by multimodal research) are also very substantial and not to be underestimated (see also Seedhouse, this volume, who makes similar observations). But in our own experience, the potential analytic payoffs have been well worth the effort.

Finally, we also anticipate that the increasing interest in embodiment and multimodality among CA researchers who are interested in language learning issues will ultimately draw us all into an intense theoretical debate about what the construct of intersubjectivity can mean. More specifically, is intersubjectivity merely something that has to be achieved, defended and maintained (Garfinkel 1967; Heritage 1984a; Schegloff 1992), or does it involve a more basic construct – such as empathy – which pervades the human condition? Furthermore, does the scope of intersubjectivity properly include not just the ways in which members use natural language, but also how they deploy their bodies and an enormous

variety of tools as resources for grasping and participating in shared natural and cultural worlds (Duranti 2010)? Obviously, this is a vast and complex topic; we postpone a detailed discussion of these matters for another time and place.

3.2 Language alternation and code switching practices in institutional contexts of talk

Many CA researchers have productively exploited the distinction first made by Coughlan and Duff (1994) between task-as-plan and task-as-activity (see Hellermann and Pekarek Doehler 2010; Kunitz 2013; Mondada and Pekarek-Doehler 2004; Mori 2002; Seedhouse 2005b). This distinction emerges from the fact that learners are 'active agents' (Markee and Kasper 2004, p. 496) who achieve the assigned task on a moment-by-moment basis, according to their own ongoing interpretation of the task itself and of the instructional setting in which they perform it. The task is thus accomplished as an activity that can differ considerably from the teacher's plan. Nowhere is this more evident than in empirical studies of user-learners' language alternation practices in institutional learning environments (see Amir and Musk 2013; Bonacina and Gafaranga 2011; Cromdal 2005; Kasper 2004; Kunitz 2013; Lehti-Eklund 2013; Mori 2004; Musk 2013; Piirainen-Marsh 2011).

Of course, such an interest is not new in AL/SLS. Language alternation practices in general and code switching in particular[2] have mostly been studied from a multilingual/ecological perspective (see Canagarajah 2007; Cook 2007; Kramsch 2009; Levine 2011) or from a sociocultural/cognitive perspective (see Antón and Di Camilla 1999; Macaro 2005; Scott and De La Fuente 2008; Swain and Lapkin 2000; Turnbull, Cormier and Bourque 2011). However, the contribution of CA studies to this line of research lies in its ethnomethodological focus on what participants *actually do* (versus what they are *supposed* to do) *in terms of their observable language choices during specific moments of language learning behavior*. In this emic, sequential approach to language alternation, what counts is not the *prescribed medium of instruction*, which reflects the teacher's (or the school's) language policy, but rather the *observed medium of classroom interaction*, irrespective of whether the participants' actual language choices turn out to be monolingual or bilingual (Bonacina and Gafaranga 2011).

CA research in this area is still in its infancy, but a number of provocative insights are beginning to take shape. First, although there is a considerable variation in the amount of L1 use in different L2 institutional contexts, it seems likely that there is always some use of the L1, particularly in foreign language classrooms. At the very least, this insight requires teachers to carefully monitor the process of task implementation; in addition, it means they have to reflect on whether they regard such a practice as desirable or not (see below).

Second, the distribution of the L1 and L2 is always an orderly phenomenon. Briefly, in the context of task planning and performance in which the medium of interaction is left up to user-learners (and even in contexts where an L1-only policy is the official norm), the L1 seems to be used as the language of the *process* of planning, while the L2 used in subsequent teacher-specified tasks such as PowerPoint presentations is the *product* of prior planning in the L1 (Kunitz 2013). As we suggested earlier, this empirical finding strongly suggests that teachers need to make important decisions about a complex issue which, furthermore, has a long history in second and foreign language teaching. In such circumstances, the power of reified custom should not be underestimated (Markee 1997). More specifically, the predominant (if not the exclusive) use of the L2 in the classroom has been a theoretical pillar of curriculum theory since the emergence of the Audiolingual Method in the late 1940s. From our perspective, curriculum theory needs to be a data-driven enterprise. We therefore claim that researchers and teachers need to: (a) develop a much better understanding of how the L1

and the L2 are actually used in institutional contexts; and (b) revise the widespread characterization of L1 use—including translation from the L1 to the L2 or vice versa—as necessarily inappropriate or undesirable language learning behaviors (see also Cummins 2007).

Third, the discrepancy between task-as-plan and task-as-activity is likely to be hugely consequential for language assessment. Now, CA researchers have already started to investigate the interactional organization of different types of oral language assessment, such as student-student interactions in paired and group oral assessment (Gan 2010; Greer and Potter 2008; Lazaraton and Davis 2008; Sandlund and Sundqvist 2011), teacher–student interactions in language proficiency interviews (van Compernolle 2010, 2011), and tester–examinee interactions in standardized tests (Okada and Greer 2013; Seedhouse and Egbert 2006). Nonetheless, as Jacoby and McNamara (1999) pointed out, using CA to do oral assessment raises the thorny issue of what exactly is to be assessed and how (see also McNamara 1997). The issue becomes exponentially more complicated (particularly in terms of dynamic assessment: see Antón, this volume) if it turns out that assessment of the L2 as product is inextricably entwined with more or less substantial use of the L1 during the process of learning. Consequently, future research on language assessment that is informed by a CA perspective needs to investigate the intricate relation between process(es) and product(s) in task planning and performance, including the teacher's instructions, the task-in-process (including the language alternation practices enacted by participants), the final outcome(s) of task performance, the trustworthiness of the assessment procedures being used, and the grading system as an integrated whole.

3.3 Pedagogical implications

Clearly, the findings from all these lines of research can be employed for teacher training purposes (see Seedhouse 2008), so that teachers can become more attuned to what happens in talk-in-interaction in the classroom, both during regular class time and during oral exams. Moreover, when engaged in training that is grounded in CA insights, teachers can become more sensitive to the conversational mechanisms that organize naturally occurring talk-in-interaction. CA training for teachers may thus represent a crucial resource for language educators to enhance their reflective practice, to improve their interactional teaching skills, to respecify their teaching goals regarding oral abilities, and to deepen their understanding of classroom dynamics. To this end, new tools – such as the 'conversation-analytic role-play method' (or CARM; see Stokoe 2011) – are being designed and implemented.

4. Conclusions

Finally, in terms of future developments, we argue that, despite the considerable progress that CA has made during the last 15 years or so in establishing itself as a major player within the field of SLA studies, much work remains to be done in terms of consolidating and formalizing these gains. More specifically, existing and future centers of excellence in CA work need to develop inter-connected, collaborative, international research projects that bring analysts (especially young researchers at the beginning of their careers) from different continents together to work on a broad range of languages beyond English. Furthermore, a key mission of such centers should be not only to deepen the research base of CA, but also to engage teachers, teacher trainers, materials designers, curriculum designers and language testers in an on-going dialog regarding how CA may inform professional practice and development.

NOTES

1 See also the 10-year anniversary symposium in the same journal edited by Lafford (2007).
2 Many researchers treat language alternation and code switching as interchangeable terms. However, we embrace Gafaranga's distinction (2000, 2009) according to which language alternation indicates any use of more than one language in a stretch of talk, while code switching is a specific type of language alternation that the participants treat as functional to the local interactional purposes.

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See Chapter 9: The Sequential Analysis of Instruction.
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See Chapter 23: Institutional Talk-for-Learning Beyond the Classroom.
See Chapter 24: Documenting Change Across Time: Longitudinal and Cross-Sectional Ca Studies of Classroom Interaction.

Part VIII The Critical Theory Tradition

Overview of the Critical Theory Tradition

NUMA MARKEE

The chapter by Martin-Jones (this volume) focuses on two interrelated, complementary strands of critical ethnography: research into multilingual classroom interaction and language policy. Before reviewing these two perspectives, Martin-Jones clarifies that she uses the term *multilingual* in a particular way. More specifically, this term is shorthand for *bilingualism* and *multilingualism*. This convention is used to highlight the complex nature of individual and group repertoires. In addition, this convention focuses attention on the broad range of communicative resources that speakers use in multilingual classroom contexts, including styles, genres and registers, verbal and non-verbal communication, texts and images. Martin-Jones then reviews the most important epistemological shifts that have occurred in these two bodies of research and illustrates these changes with some key studies. Next, she situates the critical turn that is observable in both these strands of research within a broader epistemological shift toward poststructuralist and postmodern perspectives within sociolinguistics, ethnography and other social sciences. Specifically, citing Saxena and Martin-Jones (2013), she identifies three historically sequential phases of work on multilingual classroom interaction: 1) so-called first generation studies, which are primarily technical and descriptive; 2) second generation studies, which embrace a critical perspective; and 3) a third generation of studies which is still in the process of emerging. Regarding this last generation of research, Martin-Jones notes: 'This contemporary research shows continuity with previous generations but there is also a movement into new kinds of research sites and new epistemological spaces are being opened up at the interface with other fields of research (e.g., the study of multimodality in classroom interaction)' (p. **xx**). Finally, she shows how research on multilingual classroom interaction and language policy have merged together in important ways. This chapter is a particularly important contribution to the Handbook in that it provides detailed information about how multilingualism – whether as classroom-related activity or as the object of policy making and implementation – studied through the lens of critical ethnography has evolved not just in North America and the United Kingdom but also in other countries that are otherwise not represented in this Handbook, including Botswana, Laos and Mozambique. Research in these post-colonial

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contexts is particularly valuable because it allows educators and applied linguists to engage with levels of multilingual complexity that are seldom encountered in developed countries.

The chapter by Miller (this volume) shows how difficult it is to understand whether specific instances of students' classroom behavior may – or may not – be doing resistance. Noting that, historically, there has been a predisposition in critical classroom research to treat students' talk that contests power as a desirable practice, Miller proposes a more nuanced approach to these issues. Thus, she combines traditional critical discourse analytic concerns with promoting social justice with a CA-influenced microanalytic methodology that is designed to explicate how constructs such as power and resistance are achieved in and through locally managed interactional practices. More specifically, Miller begins by reviewing work that demonstrates how locally negotiated resistance or oppositional behaviors emerge on a moment-by-moment basis, and how complex, contingent, and dynamic the power relationships are. She then shows how students' resistance behaviors may be understood as being simultaneously oppositional and also accommodationist and reproductionist at the same time. Finally, she reviews some studies that help to understand that, while oppositional behavior is often associated with resistance, conversely classroom behaviors (which on the surface of things seem quite collaborative) can in fact mask important struggles over identity and ideology. Thus, while Miller does not situate herself within a language socialization perspective on classroom interaction, nor does she invoke a learning-as-apprenticeship metaphor for classroom language learning, this piece has much in common with Talmy's chapter in this volume. Both authors take a refreshingly critical perspective on critical theory. Furthermore, both use methodologies that are ultimately borrowed from or inspired by conversation analysis to develop a local, grounded understanding of why and how students contingently engage in oppositional behaviors.

The chapter by Appleby (this volume) uses a critical ethnographic methodology to investigate the complexities of international (language) development work as a context that frames classroom discourse and interaction. Appleby begins by situating international development contexts as sites in which issues of power and (lack of) access to knowledge are worked out in particularly stark ways. More specifically, while the stated goal of development work may be to reduce or eliminate poverty, in practice it often paradoxically results in the de facto establishment of all kinds of macro- and micro- level inequalities; for example, between donor and host nations, between provider and recipient organizations, and between teachers and students. Typically, these different stakeholders often also have divergent visions of what development is and different expectations about whose interests should be given priority in the (language) classroom. In this kind of situation, EFL teachers who work for aid agencies often take on huge developmental responsibilities, for which they have rarely been trained. Consequently, the likelihood of failure due to the use of culturally and educationally insensitive methodologies – the author targets so-called communicative and task-based approaches to language teaching in particular in this regard – is quite high. In the empirical part of her chapter, Appleby then uses a semi-structured interview methodology to investigate how these complicated developmental issues actually played out in English-medium language aid programs operated by Australian nongovernmental organizations in Timor-Leste in the immediate post-colonial period following the withdrawal of the Indonesian military from this country in 1999. More specifically, Appleby interviewed four EFL teachers (three of whom had minimal levels of experience in language aid work) about their experiences in Timor-Leste. She documents the wide variation in these teachers' responses to development in the wild – which ranged from naïve to quite nuanced – and also shows how out of sync the teachers' and students' perspectives were on what the development projects they were involved in could realistically achieve. In so doing, Appleby also shows how these stakeholders disagreed about issues of power, and

thus how these issues unfolded in quite different ways in the four classrooms that were the backdrop for these development projects.

The chapter by Martín Rojo (this volume) elaborates a Bourdieusan perspective on social issues that have an impact on teaching Spanish as a SL to (mostly Arab) immigrants in Spain. More specifically, Martín Rojo argues that social inequality in an increasingly multilingual globalized world that is characterized by large (im)migration flows to and from different countries should be understood as the product of an unequal distribution of various forms of capital, including *economic* and *symbolic* capital. This latter category includes *educational* and *linguistic* capital. Thus, if one speaks the standard variety of language X as opposed to a non-standard variety of this language, or worse still, if one does not speak language X at all, the result will be that speakers of the standard variety will have much better access to education and will ultimately be more economically and socially mobile than speakers of non-standard varieties of the same language, who will in turn be ahead of people who speak no variety of language X, whether standard or non-standard. Martín Rojo develops this thesis as follows. She begins by reviewing the sociolinguistic literature that grounds the idea that inequality in education is inextricably linked with mastery of different linguistic varieties or communicative styles. She then outlines the details of a micro-ethnographic, task-oriented approach that is designed to show how these linguistic resources are distributed through different kinds of classroom activities. Next, she draws on the Bourdieusan-derived concepts of *capitalization* and *decapitalization* to study how participants themselves contribute to the production and distribution of these linguistic resources in everyday educational interactions. And finally, she shows how the unequal distribution of resources in education is naturalized and legitimated. Throughout the chapter, she illustrates how this theoretical framework works by drawing on empirical analyses of how Spanish as a SL programs located in three Madrid secondary schools provide differential access to increased social mobility to the students who attend these programs.

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26 Multilingual Classroom Discourse as a Window on Wider Social, Political and Ideological Processes: Critical Ethnographic Approaches

MARILYN MARTIN-JONES

1. Introduction

This is the first of four final chapters which approach language-in-education practice and policies from a critical perspective. The aim of this chapter is therefore to open a conversation with readers about what it means to do critical ethnographic research in classrooms, in different sociolinguistic and educational contexts. The main focus of this chapter is on two interrelated and complementary strands of ethnographic research in multilingual settings which have incorporated critical perspectives: (1) Critical ethnographic research into multilingual classroom interaction; (2) Critical ethnography of language policy.

Critical ethnographic research into multilingual classroom interaction is a relatively well-established field of study that dates back to the early 1990s. It builds on the foundations of ethnomethodology, micro-ethnography, ethnography of communication, interactional sociolinguistics and the sociology of face-to-face interaction (Goffman 1981). As I will show in more detail later, it employs analytic lenses from these different interpretive approaches to study the ways in which code-switching, and the use of multiple linguistic and semiotic resources, contributes to the situated meaning-making processes at work in different multilingual classroom contexts. The critical phase of the research was developed in post-colonial contexts and in minority language settings in Europe and Canada (e.g., Canagarajah 1993, 1995; Heller 1994, 1999; Martin-Jones and Heller 1996) and, from the outset it was framed explicitly as being related to language-in-education policy. One of the aims of this critical research has been to open 'a window on education-based processes of social and cultural production and reproduction and on the linkages between local interactional processes and institutional processes' (Heller and Martin-Jones 2001, p. 5).

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Critical ethnography of language policy is rooted in the tradition of linguistic anthropology in North America and first came to be defined as a field in the late 1990s. In fact, significant developments in theory and method have been made within the last decade (e.g., Hornberger and Johnson 2007; Johnson 2009; McCarty 2011). The main aim of those involved in developing this strand of research in multilingual settings has been 'to re-conceptualize language policy as an interconnected *process* generated and negotiated through policy texts and discourse – as opposed to an authoritative product whose implementation is unvaried' (Johnson 2009, p. 156). Instead of viewing policy as merely embedded in policy documents and then implemented in uniform ways, the focus is on different social actors and on the ways in which they engage with the policy-making process. Often the research involves multi-site ethnography, tracking the ways in which policy is made, interpreted, negotiated or contested at different levels: at governmental (or even global) level or at local, regional, neighbourhood, school or classroom level.

In this chapter I provide genealogical accounts of the development of these two strands of critical research, tracing the epistemological shifts that have taken place within each strand and giving examples of individual studies. I also put forward the argument that the critical turn in both strands of research was part of a broader shift that has taken place within sociolinguistics and ethnography (and within other social sciences) towards critical theory and towards post-structuralist and post-modern perspectives. In the concluding section, I show how these two strands of research have become intertwined, as the nature and scope of research in each strand has changed. I then conclude by drawing attention to the common elements apparent in contemporary critical research on multilingual classroom interaction and language policy.

Before I move to the next section, I should briefly explain my use of the term 'multilingual' in the title of this article, since it will have different connotations for different readers. I have chosen to use the term as a shorthand form for both 'bilingual' and 'multilingual' because I want to highlight the plural and complex nature of individual and group repertoires. I also use it to focus attention on the range of communicative resources used by speakers in multilingual classroom contexts, including styles, genres and registers, verbal and non-verbal communication, texts and images.

2. Critical, Ethnographic Research into Multilingual Classroom Interaction

Saxena and Martin-Jones (2013) distinguish between three phases or 'generations' of research into multilingual classroom interaction: (1) a first generation of studies, which initiated the work of providing detailed description and analysis of the texture of multilingual classroom conversations in different social and educational settings; (2) a second generation of studies which adopted an explicitly critical approach, with some researchers turning to social theory and expanding the scope of their ethnography in order to explain why the multilingual patterns of classroom conversation identified through the research were the way they were; (3) a third generation of research that is still being developed. This contemporary research shows continuity with previous generations but there is also a movement into new kinds of research sites and new epistemological spaces are being opened up at the interface with other fields of research (e.g., the study of multimodality in classroom interaction).

I will briefly review the first two foundational generations of research here, drawing attention to the epistemological shifts (and continuities) reflected in the work and outlining

the specific social and historical contexts in which the research was carried out. (Fuller reviews are provided in Martin-Jones 2007; Lin 2008; Saxena and Martin-Jones 2013). I will then turn to examples of third generation studies in the final section of the chapter.

2.1 The first generation studies

The first generation of research into interactional practices in multilingual classrooms was developed in the 1980s by scholars in the fields of sociolinguistics and linguistic anthropology in North America. The research reflected the influence of social constructionism and the broad epistemological shift towards viewing language as a form of social action and towards research of a qualitative and interpretive nature. A good deal of this research had an educational focus and echoed the growing concern, in the 1970s and early 1980s, about the education of children from linguistic and cultural minority groups. It built on three distinct, but interrelated, conceptual and methodological foundations.

One group of studies (e.g., Mehan 1981; Zentella 1981) was grounded in the ethnomethodological tradition. Researchers working in particular classrooms, in different bilingual education programmes, provided detailed description and analysis of bilingual classroom interaction, investigating the accomplishment of what Mehan (1981, p. 40) called 'the mutual synchronization of behaviour', between teacher and students. The focus was on the sequential structuring of bilingual classroom talk, on the management of turn taking in more than one language and on the local interactional routines established in each classroom. These studies emphasised the need to understand that, on entering bilingual schools and classrooms, students not only have to get acquainted with a new interactional order and orient themselves to the activities and joint tasks involved in 'learning lessons', but they *also* have to learn the local routines for the management of multilingual resources and repertoires.

A second group of studies developed a micro-ethnographic approach, building on early work by Erickson (1975). Studies conducted in this vein often involved the analysis of video-recorded episodes of classroom talk, because the analytic focus was on the use of verbal and non-verbal cues, on rhythm and timing in interactions between teachers and learners and on the accomplishment of cultural congruity. This approach to multilingual classroom interaction was put to particularly good use in settings where teachers and learners had different sociolinguistic and cultural backgrounds and different communicative styles (e.g., Cazden *et al.* 1980; Erickson and Mohatt 1982).

A third group of first generation studies grew out of the linguistic anthropological work that had come to be known as 'ethnography of communication' (Hymes 1964). These studies provided description and analysis of 'culturally distinct' interactional practices and narrative styles, along with aspects of non-verbal communication (e.g., conventions around silence in conversational interactions). The contexts for this research included indigenous education programmes in North and South America (Phillips 1983; Hornberger 1988) and bilingual education programmes in the USA. This work grew out of a concern about the failure of schools to take account of the linguistic and cultural resources or 'funds of knowledge' (Moll *et al.* 1992) that children were bringing to the learning process. The focus of some of this empirical work was on comparison of language and literacy socialisation practices at home and at school. Researchers worked across domains, following children from home to school. Detailed accounts were provided of children's experiences of talk and texts in different domains, using key concepts from the ethnography of communication such as 'speech event' (Hymes 1972) and 'literacy event' (Heath 1982). The latter concept provided a key unit of analysis for the study of the ways in which talk unfolded around texts within the interactional routines of daily life at home and at school.

The development of these conceptual and methodological foundations for interpretive and discourse analytic research into multilingual classroom interaction generated new understandings of the ways in which teachers and students draw on the multiple language resources in their communicative repertoires as they negotiate the daily rituals of classroom life. They showed how teachers and their students use their language resources to demarcate different kinds of communicative activities and purposes: signalling the transition between small talk before a lesson and the start of a lesson; specifying a particular addressee; distinguishing 'doing a lesson' from talk about it; changing footing or making an aside; distinguishing talk about a text from the act of reading it aloud or distinguishing classroom management utterances from talk related to lesson content. We now know much more about the different kinds of discursive routines (multilingual and monolingual) that emerge in particular kinds of sociolinguistic conditions, when particular kinds of bilingual or monolingual educational provision are ushered in with new educational policies. Focusing on the dynamics of interaction has made us keenly aware of the range and complexity of the communicative processes at work in bilingual and multilingual classrooms and of the ways in which discourse practices are indexically oriented to wider ideologies (e.g., about sole use of the language of instruction in class).

2.2 The second generation studies

In a second generation of research into multilingual classroom interaction, from the early 1990s onwards, the scope of ethnographic work widened and multi-layered analyses came to occupy the center ground. Starting out from classroom settings and from the everyday interactional routines of classroom life, researchers began to seek ways of linking their detailed accounts of the interactional order of particular classrooms, with analysis of wider social and ideological processes operating at different levels of policy-making, in particular historical contexts. These developments, in both theory and method, came to be the distinguishing features of the second generation studies. They also coincided with and were informed by a major epistemological shift in the social sciences towards critical theory and post-structuralist/post-modern thought.

Cognizant of the fact that language policy-making at national and regional levels is always embedded in asymmetrical relations of power between social groups, with different linguistic and cultural resources, and in different discourses about education in the context of linguistic and cultural diversity, some second generation researchers began to identify ways to 'study up' (Nader 1974), from the vantage point of the classroom and to provide a fuller explanatory account of the patterns and regularities that they were observing in the cycles of multilingual classroom life.

Some researchers (e.g., Arthur, 1996; Canagarajah 1993, 1995, 2001; Heller 1994, 1999; Heller and Martin-Jones 2001; Jaffe 1999, 2011; Lin 1996, 1999; Martin-Jones and Saxena 2001, 2003) developed a critical ethnographic approach by engaging explicitly with social theory, either postcolonial theory (see Canagarajah 2001) or the work of French social theorists such as Michel Foucault (1977) or Pierre Bourdieu (1991).

Over ten years of ethnographic and discourse analytic research in French language minority schools in Ontario, Canada, Heller (1994, 1999) pioneered an approach to theory-building which took the work of Bourdieu (1991) as a starting point. The main theory-building strategy was to focus on two main ways in which schools operate as institutions linked to the state: firstly, the ways in which schools serve as spaces within which specific language varieties (e.g., those designated as national, official languages) and specific linguistic practices (ways of speaking, reading and writing) come to be inculcated with legitimacy and authority; secondly, the ways in which schools function as spaces for selecting and categorising students (or members of staff, such as those working primarily with

minority students) and the ways in which schools function in assessing student performance (including linguistic performance) and providing credentials that are ultimately tied to positioning within the world of work.

The work of Bourdieu (1991) proved to be of particular relevance in pursuing these lines of theory-building, particularly his notion of 'legitimate language.' Bourdieu has provided us with one of the most comprehensively theorised accounts of the processes involved in the (re) production of legitimate language and of the role of schooling in these processes. Nevertheless, there are some weaknesses in Bourdieu's model of cultural reproduction. These lie in his focus on symbolic domination and in the bleakness of his vision. For Bourdieu, symbolic power saturates consciousness and remains uncontested. However, as researchers working in a critical ethnographic vein have argued (and shown empirically – see, for example, the studies represented in Heller and Martin-Jones 2001), the imposition of language-in-education policies in schools and classrooms, is primarily accomplished in and through interaction. The institutional order is always indeterminate, since it is interactionally constructed. Drawing on Giddens' (1984) theory of structuration, Heller (1999) and others have stressed that there are always possibilities for exercising agency and for challenging and even modifying the institutional and social order. At the same time, it is clearly not possible to argue that the practices of teachers and learners in schools are completely unconstrained. It is necessary to see teachers and learners as being socially positioned and, at the same time, showing agency, in navigating the constraints of language policies in particular school and classroom sites.

Methodologically speaking, the core focus of these critical second generation studies was the interactional order of particular schools and classrooms, in particular sociolinguistic settings. This involved observation and audio recording of multilingual classroom talk, the writing of field notes, and ethnographic interviews with participants in the research. Beyond the classroom, the ethnographic work led these researchers to other social spaces within schools (e.g., to staff rooms, school assemblies and/or meetings), to other local institutional settings where language policy and curriculum issues were addressed (e.g., in-service teacher education sessions or meetings in local administrative offices) or even to national institutions such as ministries of education. Visits to local and national institutions gave access to some policy and curriculum documents, while the gathering of other policy documents and historical records involved a combination of Internet-based research and archival work.

In analysing the interactional order of classrooms, the second generation researchers began by employing analytic lenses that had been developed within the interpretive traditions mentioned above. Thus, for example, in a study of multilingual interaction in primary classrooms in Botswana, Arthur (1996) drew on Goffman's (1981) theatrical metaphor for face-to-face interaction and his notion of 'footing.' This enabled her to capture the dynamics of the recurring patterns of interaction and the uses of multiple language resources that she had observed in these classrooms. Arthur (1996, p. 25) showed how the teachers and students engaged in joint 'staging' of ritualised performances in English, with teachers switching occasionally to Setswana for use as a 'backstage' language, to encourage participation by students or to address individual students (outside of the main frame of the lesson).

Taking account of the wider policy context, Arthur (1996) explained that the use of Setswana as a 'backstage' language was one of the ways in which teachers managed the challenge of putting into practice the nation-wide policy of using English as a medium of instruction in the later years of primary schooling. At the time when the study was carried out, Setswana was the medium of instruction for the first four years of schooling so the students in the classes she observed would have been familiar with its use in the school setting. However, Arthur (1996) notes that the teachers expressed considerable ambivalence about using Setswana because of the strict requirements regarding monolingual teaching through the medium of English, despite the fact that they were showing considerable creativity in

using multilingual communicative resources to manage the challenges of using English as the main language of teaching and learning. By drawing our attention to the detailed patterning of multilingual interactions in these classrooms, Arthur (1996) gave us revealing insights into the ways in which English was being discursively constructed as the sole 'legitimate language.' We also see the ideological pressures on teachers and the workings of symbolic domination in these primary school settings.

I turn now to a second example of a critical ethnographic study in which analysis of the interactional order was linked to the wider policy context and to wider discourses about language education. The example comes from three years of ethnographic research that I carried out with Mukul Saxena in primary schools in one local education authority in the North of England (Martin-Jones and Saxena 2001, 2003). These were schools where a majority of children spoke a Pakistani variety of Panjabi[1] and were learning English as an Additional Language (EAL) in school.

Just before we began the study, this particular local authority had initiated a scheme that involved the appointment of bilingual classroom assistants to work in reception classes in a number of schools (i.e., during children's first year of primary education). This local policy initiative was a response to national guidelines and the stated aim was to provide additional in-class support for children learning English as an Additional Language. Before beginning the study, we had followed language policy developments at the national level. These had led to the issuing of guidelines in favour of appointing bilingual classroom assistants 'to provide a degree of continuity between the home and school environment' and 'to work alongside the class teacher' (DES 1985). This new form of provision came to be known as 'bilingual support.' However, as with many policy developments, there was considerable lack of clarity about what 'bilingual support' might actually mean in practice. The notion was interpreted in different ways in different local education authorities and in different schools and classrooms.

In the first year of our study, we built an account of the ways in which the national policy guidelines were being interpreted, and the ways in which the professional 'role' of the bilingual assistants was being defined by those responsible for implementing the scheme in schools across the local education authority where the research was based. We identified two broad interpretations of the national policy guidelines and two broad understandings of the ways in which 'bilingual support' might be translated into practice. The first scenario envisaged was one in which bilingual assistants would concentrate on working with small groups of learners who were perceived to be finding the transition to school particularly challenging, and they would make use of the learners' home language wherever necessary. The second scenario was one where the bilingual assistants would work 'alongside' the class teacher, interpreting the words of the class teacher wherever necessary. This second scenario came to be known as 'tandem teaching'.

In the second year of the study, our research focus turned to the everyday discourse routines emerging in these two kinds of teaching/learning events. We observed, audio- and video-recorded events that were conducted multilingually in two classes, in two different schools. The bilingual assistants we worked with in these two classes spoke Panjabi, Urdu and English. In the first kind of teaching/learning event, the bilingual assistants were able to use the children's home languages in relatively open-ended exchanges with the children. They switched between languages in subtle and nuanced ways in negotiating their relationship with different children and in linking home and school contexts for learning.

In analysing the multilingual interactions in teaching/learning events such as these, we adopted Gumperz's (1982) notion of 'contextualisation cue' – a notion developed in his later work, as he began to refine his approach to code switching. In this work, Gumperz came to see contextualisation cues as key means by which participants in bilingual conversations negotiate their way through an interaction, making situated inferences about what is going on, signalling to interlocutors how their contributions are to be understood and evaluating

the contributions made by other participants. Contextualisation cues range from phonological, grammatical and lexical choices to different kinds of code switching and style-shifting. They also operate at the prosodic, paralinguistic and gestural level.

The bilingual assistants in the classes participating in our study employed code switching as a contextualisation cue in a number of ways when they were working alone with small groups of learners. For example, one bilingual assistant switched from Panjabi to Urdu when addressing one child who spoke Urdu at home, rather than Panjabi, signalling to him that she was aware that his parents originated from Karachi (not Panjab). The bilingual assistants also made spontaneous use of culturally specific cues. These included non-verbal cues such as gestures and head movements, as well as grammatical and lexical cues. For example, one bilingual assistant made frequent use of terms of endearment such as *beTe* (literally – 'my child') and the other bilingual assistant used the most intimate second person pronoun *tu* ('you' – singular), drawing on a distinction in the Panjabi pronoun system that is not available in English and indexing the closeness of her relationship with the children.

However, most of the teaching/learning activities that the bilingual assistants in these two classes were involved in were jointly managed with the class teacher. What was common to all these 'tandem-teaching' activities was that the monolingual teachers assumed the main speaking rights. The monolingual English-speaking teachers allocated turns to the bilingual assistants when they felt it necessary for their words to be reformulated in Panjabi. They also interrupted the contributions made by the bilingual assistants and took the floor, turning the classroom conversation back to English whenever they deemed it to be appropriate. Thus, in these teaching/learning events, patterns of code switching across turns were thus primarily shaped by the monolingual participants in those events. Although we had established in our interviews with them that both the monolingual teachers were committed to encouraging the bilingual assistants to develop ways of working multilingually in class which would have concrete benefits for the children, and although they saw tandem-teaching as a means of giving status to the bilingual assistants (encouraging them to work with them in leading whole class activities with them rather than working in the corner of the classroom with a small group), they were actually constraining the contributions that the bilingual assistants were able to make in Panjabi to joint teaching/learning activities such as these. In the events that we observed and analysed, the bilingual assistants were being positioned 'as assistants' through the discourse practices of their monolingual colleagues, while at the same time, quite clear messages were being given to the children about the relative value of the languages being used and about the status of each bilingual assistant within the classroom hierarchy.

As with other second generation studies, describing and analysing the interactional routines emerging in these two kinds of teaching/learning events took us to the heart of the language policy-making in this local authority and in these two schools. It took us to what Heller (1995) called 'the interstices in which strategies of implementation have to be invented.' In these schools, and in others in this local education authority, the strategies for reorganising classroom life in the early stages of this local policy initiative were shaped by local interpretations of the notion of 'bilingual support.' However, scope for making local interpretations and local appropriations of the policy was largely defined and delimited by the different discourses underpinning the national policy guidelines.

3. Critical Ethnography of Language Policy

While multilingual classroom research began with the interactional order of classrooms and then expanded its scope to include the wider social and symbolic order, with the ethnographic work becoming more multi-layered and critical in nature, the multi-layered nature

of critical ethnography of language policy was developed as part of a theoretical and methodological critique of early critical approaches to language policy. These early critical approaches tended to focus only on language policies and policy texts generated at a 'macro' level. This included policies introduced at the level of the nation-state or even global trends, such as policies around the teaching of English worldwide.

Critical approaches to language policy were first proposed in the late 1980s/early 1990s (e.g., Tollefson 1991, 2002; Phillipson 1992). Tollefson (1991) led this epistemological shift in the field, drawing on critical theory and the work of scholars such as Habermas (1973). He put forward a historical-structural approach to language policy, defining its aims as follows (Tollefson 1991, p. 32): 'the major goal of policy research is to examine the historical basis of policies and to make explicit the mechanisms by which policy decisions serve or undermine particular political and economic interests.' Tollefson (1991, 2002) also drew attention to the role of ideology in 'naturalizing' language practices that are linked to language policy developments, in particular institutional contexts such as education.

Tollefson's (1991) critical historical-structural approach to language policy research is widely acknowledged as marking a significant step-change in the development of the field. His choice of critical theory as a basis for his theory-building shows what Pennycook (2001, p. 7) calls 'a compassion grounded in a sharp critique of inequality.' However, the 1990s proved to be a time of major epistemological shifts in the field, as the influence of post-structuralist and post-modern theory began to be felt. Critical approaches that represented the power of policy-making as residing primarily with the state and with policy texts produced at a 'macro' level were by-passed by a broad movement towards research which foregrounded the diffuse and discursive workings of power. The influence of the work of social theorists such as Foucault (1977) is evident in this period, especially Foucault's view of how hegemony percolates through discourse and how particular means of communication and forms of action come to be construed as 'natural.'

Some researchers made explicit reference to Foucauldian theory in their research on language policy. For example, in an early contribution, Pennycook (2002) adopted Foucault's (1991) concept of 'governmentality.' Pennycook (2002, pp. 91–92) interprets the concept as follows: 'The notion of governmentality focuses on how power operates at the micro-level of diverse practices, rather than macro regulation of the state. Indeed, in the notion of governmentality these micro- and macro-relations are elided.' He sees the power of policies as residing in the discourses around language, culture and knowledge that surface in particular political contexts. As Pennycook (2002, p. 92) himself puts it: 'In language policy, therefore, the issue is not so much mapping out the formal policies that promote or restrict the use of certain languages, but instead how debates around language, culture and education produce different discursive regimes.' Pennycook (2002) illustrates the value of applying the notion of governmentality through a detailed historical analysis of colonial language policy in Hong Kong.

The turn to discourse in the 1990s led to new debates about research design and methodology in policy studies. If the workings of power are diffuse and contingent, what should the descriptive and analytic focus of research on policy be? Debates around questions such as this led researchers across the social sciences, in sociology, education, anthropology and sociolinguistics, to opt for ethnography in policy-related research (e.g., Ball 1993; Levinson and Sutton 2001; Shore and Wright 1997; Walford 2003). Reflecting on the terms of these debates and their implications for the study of language policy, McCarty (2011, p. 3) asks how research might be recast so as to 'investigate policy as a practice of power that operates at multiple intersecting levels: the micro-level of individuals in face-to-face interaction, the meso-level of communities of practice and the macro-level of nation states and larger global forces.' Similar questions have been posed by other researchers conducting research in

educational settings in both the global south and the global north (Canagarajah 2005; Hornberger and Johnson 2007; Ramanathan 2005; Ricento 2000; Ricento and Hornberger 1996; Johnson 2009, 2010, 2013; Hult 2010).

With the role of educational practitioners in local policy processes firmly in their sights, Ricento and Hornberger (1996) made the first explicit case for a multi-layered approach to language policy. Reviewing the field of language policy, they acknowledged the advances made through the development of the historical-structural and critical approaches, especially the research relating to the role of discourse and ideology in sustaining particular language policies. But, they argued that more attention should be given to the different 'agents, levels and processes' (Ricento and Hornberger 1996, p. 408) involved in language planning and policy, and they introduced the now familiar 'onion' metaphor as a way of representing the multi-layered nature of language planning and policy processes.

A decade later, Hornberger and Johnson (2007) put ethnography firmly on the language policy agenda, providing illustrations from their own work in Peru and in the USA to show how one might go about 'slicing the onion ethnographically' (2007, p. 509). Hornberger and Johnson reiterated the critique of language policy research which focuses only on the global, national and institutional dimension of policy-making and on the political and ideological processes driving language education policies. They demonstrated, in compelling detail, why the study of language policy 'on paper' (i.e., the discourse analysis of policy documents) needs to be combined with ethnography to avoid giving only a partial account of the ways in which policy-making unfolds. As they put it:

> An ethnography of language policy can include textual and historical analyses of policy texts but must be based in an ethnographic understanding of some local context. The texts are nothing without the human agents who act as interpretive conduits between the language policy levels (or layers of the LPP onion). (Hornberger and Johnson 2007, p. 528)

Taking this argument further, in a later article, Johnson (2009) proposed an alternative way of representing the process of policy implementation. Building on anthropological and sociological research on education policy (Levinson *et al.* 2009), he noted that:

> Traditional divisions between policy formation and implementation implicitly ratify a top-down perspective by characterizing those in power as legislating directives that are implemented by practitioners. Instead, 'policy' is a dynamic process that stretches across time, and implementation or 'appropriation' is not just what happens after policy is made – it is a link in a chain of policy process in which all actors potentially have input. (Johnson 2009, p. 142)

Instead of employing the term 'implementation', Johnson (2009) proposes that we should view language policy as 'a tripartite set of processes – creation, interpretation and appropriation' (2009, p. 141). He also makes a useful distinction between 'policy as text' and 'policy as discourse' (2009, p. 142), drawing on the work of Ball (1993) in policy sociology. Johnson argues that, in dealing with policy texts, of various kinds, the analytic focus should not be on uncovering the intentions of the authors, but rather on the 'variety of ways in which particular legislative or 'top-down' policy is interpreted and put into action by active and creative agents' (2009, p. 142). However, he also argues that this analysis of local interpretations should be counter-balanced with analysis of policy as discourse, because of the 'potential power of educational discourses to set discursive boundaries to what is considered educationally feasible or normal' (2009, p. 143). Because of his concern with the discursive nature of language policy processes, Johnson (2009) has chosen to combine ethnography with Critical Discourse Analysis (CDA). In his view, CDA with its underpinnings in the work of

Foucault (1977), complements an ethnographic approach to language policy in several ways: in the emphasis placed on the discursive basis of power, in the primacy given to processes of text production and interpretation, in the characterization of the different 'layers of context' (2009, p. 151) in which policy processes unfold and in the attention to counter-discourses, as well as dominant discourses.

Johnson (2007) carried out a four-year ethnographic study of policy creation, interpretation and appropriation which focused on one urban school district in the United States: the School District of Philadelphia. The wider context for the study was the introduction of new Federal Government legislation, in 2001, called the No Child Left Behind Act (NCLB 2002). Title III of this Act phased in a new language education policy which gave primacy to English-only or transitional educational programs. Title III replaced Title VII of the Elementary and Secondary Education Act (1994). There was widespread concern among those working with English language learners across the United States that the considerable achievements in maintenance and additive bilingual education programs would be swept away as a result of this policy development. Combining ethnography and critical discourse analysis, Johnson (2007) investigated each step of the policy process: he retraced the debates that had taken place around the creation, at Federal level, of the original policy text, along with the modifications that were made to different drafts of the text during the legislative process. He concluded that a discourse of 'flexibility' had been incorporated into the policy document that was eventually adopted. Those charged with running language education programs at state or school district level were thus able to opt for the programs that they deemed to be most appropriate. The one condition was that the programs adopted would have to be informed by 'scientifically-based research' related to language education (Hornberger and Johnson 2007, p. 515).

Secondly, he built an account of the ways in which the Title III legislation was interpreted and appropriated, at two different points in time, in the School District of Philadelphia. His focus was on one administrative office – the Office of Language, Culture and the Arts (OLCA) – which ran all the bilingual and ESOL programs, and on two lead administrators at OLCA who, at different points in time, were assigned the responsibility of interpreting the terms of the Title III legislation and guiding the development of local language education programs. Crucially, the two administrators had different views and beliefs about language education and different understandings of research in applied linguistics related to language learning. The first administrator was known locally as 'a staunch advocate of developmental bilingual education' (Hornberger and Johnson 2007, p. 517) and had been involved in the development of a series of initiatives around bilingual education. She led local educators in the collective process of formulating a pragmatic policy for the Philadelphia School District which 'ended up combining Title III's focus on English with an inclination to additive bilingualism' (Hornberger and Johnson 2007, p. 517).

However, this first administrator left her post, a couple of years after the start of Johnson's (2007) study. As indicated above, the person who succeeded her differed in her views about the language education of English language learners and in her understandings of research into language learning. Her views and beliefs were closely aligned with dominant discourses that privileged transitional and English-only programs. This second administrator went on to introduce, in a top-down manner, new educational programs which placed more emphasis on the acquisition of English and transition to English-only education.

Johnson's (2007) critical ethnographic research involved participant observation in meetings at School District level, interviews with individuals involved at different levels of the policy process, as well as the textual and discourse analytic research around the creation of policy documents. It cast revealing light on the multilayered nature of the policy-making

process, and the agency of those interpreting and appropriating policy locally. It also demonstrated how local understandings of wider discourses related to types and goals of different language education programs can shape the directions that policy-making takes.

4. New Directions: An Intertwining of the Two Strands of Critical Research

As I have endeavored to show in this chapter, the two strands of critical research in multilingual settings – critical ethnographic research on multilingual classroom interaction and critical ethnography of language policy – have gradually become intertwined and mutually informing, as the nature of the research in each strand has developed over the last two decades. Contemporary studies in multilingual schools and classrooms – the 'third generation studies' identified by Saxena and Martin-Jones (2013) – are now incorporating theoretical and methodological insights from both strands of research. There is, unfortunately, insufficient space to do justice to the full range of contemporary research here, so I will just cite two recent studies.

Cincotta-Segi (2011a, 2011b, 2013) recently carried out multi-level ethnographic research into language policy processes in Northern Laos. In this study, she combined detailed analysis of multilingual classroom interaction with an ethnographic account of the diverse ways in which national language policy, which privileges the Lao language and script, has been interpreted and actually appropriated at different policy-making levels, from the Ministry of Education to local village schools and classrooms. In the classroom settings, she showed, with meticulous attention to detail, how three different teachers varied in the extent to which they use Lao. Her account also brought the voices and views of the teachers to the fore, as they reflected on and explained their own discourse practices.

In a study grounded in a decade of work with bilingual education programs in Mozambique, Chimbutane (2011, 2012, 2013a, 2013b) also combined fine-grained analysis of classroom interaction with ethnography, including the writing of field notes and interviews with teachers and students. In addition, he provided an historical account of national language policy shifts, from sole use of Portuguese throughout the school system, to the introduction, in the 1990s, of bilingual education involving the use of local African languages, at primary level, in some regions. His research revealed an ideological orientation towards a language-separation approach to the organisation of bilingual education, and negative views about codeswitching, among some teachers. Again, the voices of the teachers come through clearly in his account, as they express their views on their own multilingual education practice. Chimbutane (2013b) shows us that there needs to be more engagement with teachers if we are to bridge the gap between enduring ideologies about 'language-separation' and current thinking about researchers about the pedagogic benefits accruing from 'flexible bilingualism' (Creese and Blackledge 2011).

Both of these studies in post-colonial contexts combine the rigor of detailed analysis of multilingual classroom interaction with multi-site ethnography, at different levels of the policy-making process and critical historical analysis of national policy developments. As research on language-in-education policy processes continues to unfold in this vein and move into new research sites, four common elements are becoming apparent.

Firstly, there is now a common concern with unveiling the complex and multilayered nature of language-in-education policy processes and, in particular, with foregrounding the agency of educational practitioners, while there is also acknowledgement that their actions are not entirely unfettered. Hornberger and Johnson (2007, p. 527) remind us of the importance of

showing that: 'local educators are not helplessly caught up in the ebb and flow of shifting ideologies in language policies: they help, develop, maintain and change that flow'.

Secondly, there is growing recognition of the need to view language policy-making as a social practice. Those who take this epistemological stance are moving towards embracing trans-disciplinarity and engaging with contemporary social theory, so as to provide fuller explanations of situated policy processes and to build an understanding of why things happen in classrooms the way they do.

Thirdly, there is shared commitment to ethnography. As McCarty (2011, p. 3) has put it: 'Our lens into these policy processes is ethnography … at its core, an ethnographic analysis is a cultural analysis – a peeling back of tissues of meaning to answer the question: "What is going on here?"' Ethnography is well suited to the study of policy processes as they unfold over time and, as Johnson (2009) has shown us, multi-site ethnography allows us to track policy processes of appropriation across different social and institutional spaces. Crucially, ethnography allows us to take account of the emic perspectives, values and beliefs of those involved in at different stages of policy-making and to document the ways in which policies impinge on their lives. As Davis (1994, p. xiii) has argued, we need to provide accounts of 'the interrelationships among language policy intent, implementation and *experience*' (my italics).

Lastly, in critical research in multilingual settings, there continues to be concern with ways in which research can contribute to change and to working towards what Pennycook (2001, p. 8) has termed 'preferred futures.' Since the metaphor of the 'policy onion' was first mooted by Ricento and Hornberger (1996), it has been extended in various ways. As I showed earlier, Hornberger and Johnson (2007, p. 511) argued for 'slicing the onion ethnographically', with a view to 'exploring how various local interpretations, implementations, negotiations and perhaps resistance can pry open implementational and ideological spaces for multilingual education.' This implies a researcher–practitioner relationship in which the researcher takes the lead, while making a commitment to sharing findings with practitioners and working together for change. Menken and García (2010, p. 259) take us one step further, arguing that there should be more engagement and collaboration with educational practitioners 'as stirrers of the onion, producing the dynamism that moves the performance of all the actors.' Classroom-based ethnography is well suited to this goal of fostering researcher-practitioner dialogue and collaboration because it involves extended involvement with research participants across the span of a research project.

NOTE

1 The traditional way to spell Punjabi or Punjab is with a 'u', but some scholars argue that this letter in the Roman alphabet does not adequately capture the initial vowel in these Panjabi words, hence the alternative spelling here with an 'a'.

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See Chapter 27: Power, Resistance and Second Language Learning.

See Chapter 28: Seeing 'Language and Development' Play out in Classroom Interaction.

See Chapter 29: The Social Construction of Inequality in and Through Interaction in Bilingual Classrooms.

27 Power, Resistance and Second Language Learning

ELIZABETH R. MILLER

1. Introduction

I still remember well one very brief interaction from my first day of full-time teaching more than twenty years ago. Facing a group of ninth-grade English language arts students at a bilingual private school in Puerto Rico, I addressed a question to a female student near the front of the room. She responded by wrinkling her nose at me. I had arrived on the island only a few days before and was very much a cultural outsider. I registered the student's brief gesture as impudence. Within a few weeks, I came to realize that she was one of the 'good students', serious about school and hard-working. I also eventually learned that wrinkling one's nose at one's interlocutor can signal lack of understanding regarding what the other has said. I badly misinterpreted that student's response to my question, perceiving student opposition where there very likely was none.

In the two years that followed, I daily encountered far more direct, much less ambiguous oppositional behavior performed by students. However, in terms of resistance theory, I realize that I still understand very little of what was *really* going on. I do know that I did not enjoy what I perceived as student resistance and worked long hours every evening attempting to plan classroom learning practices that would engage and interest students – and make my life easier. The situated, embodied experience of working with students who appear to resist or oppose what we as teachers do typically evokes quite different impulses than does the scholarly activity of exploring issues of power and resistance in classroom interactions. Hearing or reading terms such as *power* and *resistance* often evokes within us an impulse to align with resistance, to side with those who speak truth to power. Such impulses are understandable and desirable when we conceptualize social relationships in terms of dominant versus marginalized and oppressed social groups. Proponents of critical pedagogy research have long advocated for an awareness of how power inequalities and hegemonic relations are reproduced in classroom contexts and have challenged teachers and researchers to work to transform these inequities (see Darder, Torres and Baltodano 2002).

However, researchers who spend time analyzing what actually transpires in classrooms have also become increasingly aware of the complexities of power relationships in these sites

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and have found that acts of resistance often do not lead to transformative change but can result in entrenched inequalities. Given that a large proportion of the exercise of power and resistance occurs in and through language, it is incumbent on scholars interested in second language learning processes to pursue fully contextualized and highly situated understandings of how power and resistance are exercised in second language classroom contexts. In many cases it takes someone other than the teacher, someone who is able to observe and analyze in great detail the classroom processes in which the teacher and students are actively engaged in order to arrive at a deep understanding of what is *really* going on.

2. Power and Resistance in Classrooms

The emphasis in critical pedagogy research on accounting for the role of power relations in classroom contexts began to be taken up by second language scholars in the late 1980s and early 1990s (Pierce Norton 1989; Pennycook 1989, 1994) and gathered momentum with a special issue in *TESOL Quarterly* on critical approaches to teaching English as a second language (Pennycook 1999) and in an edited book on critical pedagogies and language learning (Norton and Toohey 2004), along with numerous other publications. However, specific attention to *resistance* as a researchable phenomenon in second-language classroom studies has been far more limited. Though numerous studies comment on evidence of resistant or oppositional behaviors, typically those exhibited by students, relatively few interrogate the theoretical implications for understanding resistance in relation to second language learning. Undoubtedly, the most influential contributions to theorizing resistance for second language studies can be found in the early work of Suresh Canagarajah (1993, 1999), explored more fully in a later section of this chapter.

Importantly, when one incorporates resistance into one's theory of power, one cannot view power as a monolithically deterministic force. Canagarajah (1999, p. 33), who adopts a poststructuralist orientation influenced by Foucauldian perspectives, views power as exercised, 'sustained at the micro-level by diverse local networks', thereby creating space for 'tension and conflict' which can then 'enable opposition and change.' Thus, a resistance theory of power allows us to explore how teachers and students *negotiate* power. That said, a resistance orientation does not simplistically level the playing field for the exercise of power. That is, some entities, forms of knowledge, and/or groups of people have the resources, established and legitimated histories, and naturalized status as 'commonsensically' dominant which allow them to reproduce their ways of being and knowing in the world. Along with many other scholars, Pennycook (2001) recognizes the role of English language teaching in reproducing inequities on a global scale given that it can promote the perspective that the English language is an inevitable prerequisite for socioeconomic advancement around the world, an ideologically constructed view which grants considerable advantage to native speakers of English. Thus, language classrooms, perhaps especially ESL or EFL classrooms, ought not be treated as autonomous sites where participants engage in neutral, non-political activities, but must be seen as 'precisely part of society…both reflecting and reproducing social relations' (Pennycook 2001, p. 126).

However as resistance theorists, and Pennycook himself, contend seeing classrooms only as dominated or only as sites for reproducing societal inequities ignores the complex ways in which students and teachers exercise power, resist dominant cultural forms, and often appropriate and reconstruct them for their own ends. But what exactly do we mean by resistance? What kinds of behaviors or language practices can be identified as such? Here the scholarship is less definitive. Giroux (1983, p. 110), who addressed critical pedagogy in the broadest sense, cautions against allowing the concept of resistance 'to become a category

indiscriminately hung over every expression of "oppositional behavior".' He insists instead that resistance be understood as 'an analytical construct and mode of inquiry that contains… an interest in radical consciousness-raising and collective critical action' (1983, p. 110).

Unfortunately, if I were to restrict my review of research studies to only those that delivered analyses of second language classrooms engaged in 'radical consciousness-raising and collective critical action', I would have little to write about. In fact, most studies seeking to understand resistance explore some form of 'oppositional behavior', cases of 'acting out' rather than 'acting toward.' As Canagarajah (1999, p. 98) found in his research among Sri Lankan university students in an English for general purposes class, students' oppositional behaviors are often 'unclear, ambivalent, and largely passive.' However, he also contends that such instinctive rather than consciously resistant behaviors still 'hold ambivalent possibilities for resistance' though such resistance typically advances reproductionist or accommodationist orientations to 'dominant ideologies' simultaneously (Canagarajah 1999 p. 98). Even Giroux acknowledged that oppositional behavior (as differentiated from resistance) deserves to be investigated so that we can understand 'the interests underlying a specific form of behavior' (Giroux 1983, p. 109) and interpret such behavior 'through the historical and cultural mediations that shape it' (Giroux 1983, p. 110). At the very least, he notes that oppositional and/or resistant behaviors need to be removed from 'the logic of deviance, individual pathology, learned helplessness (and, of course, genetic explanations)' and be treated instead as important signifiers of 'moral and political indignation' (1983, p. 107).

Indeed, resistant and/or oppositional actions in classrooms emerge, almost inevitably, when individuals or groups perceive some threat to their identities. Such 'moral indignation' may appear, even to them, to be only a matter of personality conflicts, of individuals not getting along, but perceived identity threats can most frequently be understood as socially and ideologically based. As such, even though students' oppositional behaviors often have self-sabotaging effects on their learning progress or on their chances for gaining access to desirable identities, when we seek to understand why and how such oppositional behaviors emerge, we gain a deeper understanding regarding the profound inseparability of identity to language learning processes. We also come to see with greater clarity how ideologies are circulated and lived in everyday interactions. That is, we 'see' the ideologies *as* they are resisted. What initially appears to be an individual act of defiance or impudence comes to be understood as fundamentally ideological. However, in order to get beyond what appears, on the surface, as merely students acting out and to tease out the transformative potential from the reproductionist effects of oppositional behaviors, we need to undertake careful explorations of what is actually going on in classrooms.

3. Exploring the Very Local to Understand the Social and Ideological

Analyzing what happens locally in any context, including in classrooms, can take many forms. One approach that I believe is well suited to exploring the on-the-ground negotiation of resistance and power in classrooms is microethnography. The term microethnography is generally adopted to identify a research method that analyzes the moment-by-moment emergence of everyday practices. It developed out of classroom-based research, and the term 'microethnography' itself was first used by Smith and Geoffrey (1968) in their study on the 'complexity of an urban classroom.' Although there is no canonical data collection method associated with this research approach (Streeck and Mehus 2005), microethnography has

come to rely on video- or audio-recordings of classroom interactions along with other types of ethnographic data such as interviews, artifacts, and field notes. Bloome *et al.* (2005, p. xvi) contend that since the interactional practices that comprise classroom cultures are 'complex, ambiguous, [and] indeterminate' they require fine-grained analysis, and one can only undertake such analyses through repeated viewing of and/or listening to interactional events made possible with video- or audio-recorded data.

From the beginning, microethnographic research has incorporated issues of conflict and power as analytic concerns, perhaps because such issues are seemingly ever-present in classroom cultures. As just one example, we find in McDermott and Gospodinoff (1981) an exploration of the nature of the conflictual cultural border crossings that occurred between a white American teacher and a Puerto Rican student. Given the orientation to power as dynamic and negotiable among scholars who explore resistance, microethnographic explorations of local interactional processes provide an analytic focus by which to trace, turn by turn, how power is exercised and resisted. Garcez (1997, p. 193), for example, argues that microethnography 'can provide deep analysis of phenomena which may be impossible to perceive in real-time observation and which may be too heavily laden with common-sense perceptions for participant observers to see through them.' More recently, Pane and Rocco (2009, para 4) noted that 'critical microethnography' not only helps researchers understand the moment-by-moment emergence of classroom practices and the power relations that are inextricably woven into them, but it also can help them, along with teachers, understand how to 'create spaces to transform oppressive educational practices that maintain the status quo.' And arriving at an understanding of how power and resistance are actually enacted in a particular site should always lead to considerations of how we might direct such energies toward concrete strategies for social transformation (Pennycook 1999).

However, this attention to the particular and the analytic interest in identifying 'local' interactional processes has garnered microethnography its share of criticism. The primary concern among critical theorists is that the intense focus on the details of classroom life comes at the expense of accounting for the historical, ideological, economic, and/or sociocultural influences on these classroom practices. Kumaravadivelu (1999, p. 472), for example, urges second language researchers to lift their eyes from micro-level social interactions and connect them to the macro-level social world, noting that 'the L2 classroom is not a secluded self-contained minisociety; it is rather a constituent of the larger society in which many forms of domination and inequality are produced and reproduced for the benefit of vested interests.' We see the need for this expanded vision very powerfully in Chick's (1996, p. 24) re-analysis of his microanalysis of classroom interaction in a South African classroom to incorporate an understanding of the influences of 'apartheid ideology and structures' on local KwaZulu teacher–student interactional styles. Given that micro*ethnography* typically includes a range of ethnographic data collection practices, researchers frequently incorporate broader ideological and historical influences in their micro-level investigations. However, what the research studies considered in this chapter demonstrate is that the macro, the ideological, the social, all happens locally. Some time ago, McDermott and Roth (1978, p. 323) defended the moment-by-moment analytic approach adopted in microethnography by arguing that 'ordinary behavior can reveal much of the machinery for the workings of social structure.' Indeed, scholars are increasingly treating the 'local' as the space where seemingly macro-level social phenomena are constituted and recreated (Pennycook 2010).

In what follows, I discuss several studies that have expanded our understanding of the dynamics of power and resistance in second language classrooms, with an important emphasis on theorizing resistance through understanding local classroom-based behaviors in light of historical, ideological and/or sociocultural realities. I first discuss findings from one of my own studies, co-authored with Jane Zuengler (see Miller and Zuengler 2011),

which demonstrates how a close analytic approach, typical for microethnographic research, allows us to *see* locally negotiated resistance or oppositional behaviors and to *see* the complexity, contingency, and dynamism of power relations. I then introduce several studies that explore second language students' resistant behaviors as simultaneously oppositional and accommodationist or reproductionist. Finally, I describe two studies that explore classroom interactions which, on their surface, do not appear to be sites of resistance. These studies help to demonstrate that while oppositional behavior often signals resistance, seemingly collaborative classroom interactions can mask identity struggles and ideological clashes and are deserving of investigation as well. What all of these studies help us understand is that close attention to what is actually going on in classrooms can allow us to see ideologies in action, power being exercised, and identities under negotiation.

4. Tracing Resistance, Identity and Ideology in Classroom Interaction

In following the moment-by-moment enactment of power and resistance in our analysis of an extended interaction in a 'sheltered' civics classroom in an American secondary school, my co-author Jane Zuengler and I foreground the negotiability of power, resistance and collusion as well as the dynamism of constructing and protecting identities and of constituting ideologies. Our close analysis of classroom talk also incorporates contextual information gathered over the course of a larger five-year ethnographic study involving a number of other researchers and classroom sites. I have included here one brief excerpt from longer classroom interaction. In order to situate this brief stretch of talk (adapted from Miller and Zuengler 2011, pp. 141–142), it will be helpful to know that Agnew (all names are pseudonyms) is the primary classroom teacher – an English-speaking, white male. Li is a bilingual Hmong-English-speaking female teacher's aide (the Hmong people are a distinctive ethnic and language group from the interior of Laos). Mao is a bilingual Hmong-English-speaking female student, and May is a Hmong-speaking female student with only rudimentary proficiency in English who is a relative newcomer to the United States. The use of italics marks talk that originally was uttered in Hmong and is translated into English here.

1.	Mao:	Okay I'm going to tell you. (to May)
2.	Agnew:	Shhhh. (to class)
3.	Mao:	Plea:se
4.	Agnew:	Mao wants to talk to you. (to May)
5.	Mao:	Do:nt (.) give (.) us essa:y.
6.	Agnew:	Shhhh. (to class)
7.	Li:	*May, if you say it, say that.*
8.		(May glances back at Ms. Li)
9.	May:	*Say it, how do I say it.*
10.	Li:	*Just say what Mao just said.*
11.	Agnew:	Listen. Shhhh. Tell her again. (to Mao)
12.	Mao:	Please
13.	Agnew	Shhh.
14.	Mao:	Do:n't gi:ve u:s (.) essay.
15.		(Several students laugh)
16.	Mao:	*Just say that*, no essay, *like that only.*

17. Mao: No essay.
18. Mao: No essay.
19. May: *How come every time it has to be me who has to say it*.
20. (More laughter from students)
21. Agnew: I can't understand her so I guess you get essays.

In this brief interaction, we witness Mao 'helping' May to produce an English-language utterance. What May is told to say, 'please don't give us essay' (lines 3–5, 12–14) is performed by Mao as a polite, simple request with the vowel sounds lengthened (indicated by colons within words) and micropauses between words (indicated by the use of the (.) marking). As such, its production seems intended to help May hear and understand this English utterance clearly so that she will be able to reproduce it herself. Mao then reduces the model utterance to a simple two-word phrase 'no essay', repeating it chant-like three times (lines 16–18). Throughout this interaction, Mr. Agnew shushes the other students several times, in part to make it easier for May to hear Mao and likely to make it easier for him to hear May should she speak. Ms. Li encourages May, in Hmong, to '*Just say what Mao just said*' (line 19). Though it seems likely that May was able to hear Mao sufficiently well and that her expertise in English was sufficiently advanced for her to be able to understand and reproduce the simplified utterance performed by Mao, she refuses to comply, and instead utters, in Hmong, '*How come every time it has to be me who has to say it*' (line 19). In this brief exemplar, we can observe a moment at which a student appears to resist what everyone – her primary teacher, a teacher's aide, and a fellow student – is 'encouraging' her to do.

It is important to understand that the institutional designation 'sheltered' for this civics classroom means that it accommodated students' non-English native languages, in this case Hmong and Lao, through providing bilingual teacher's aides. The instructional time was shared between the primary classroom teacher who spoke in English and the two bilingual teacher's aides who translated his instructional talk into Hmong and Lao. Students were free to direct their questions to one of the teacher's aides in Hmong or Lao and to have explanations provided to them in their native languages. Social chatter in Hmong and Lau was also prevalent and only sanctioned when it interfered with the instructional activities. The American teacher, Mr. Agnew, had learned short phrases in Hmong such as *totau* (meaning 'understand'), which he uttered frequently as a comprehension check. As such, an ideology of inclusiveness and of respect for students' non-English languages was actively practiced in this classroom.

Though the ideology of inclusiveness served to validate students' native languages, it simultaneously aligned with an 'access' ideology, which viewed classroom native-language provisions as a means to an end. Mr. Agnew articulated this access ideology in an interview when he commented that he wanted to get students 'mainstreamed as soon as possible' and that he viewed what happened in the sheltered classroom as a means for helping students gain access to English and to academic content so that they would be able to participate confidently in the practices of a 'regular classroom' (Miller and Zuengler 2011, p. 136). Thus, the ideology of inclusivity was in fact enacted in concert with and in service to the access ideology.

The extended focal interaction that we explored was initiated when May, the Hmong student with limited English expertise, directed a request, in Hmong, to Ms. Li in an exam review session. Her request was for Mr. Agnew to write the essay question that would appear in their upcoming exam on the blackboard so that students would know how to prepare for the exam (this kind of pre-exam provision was not uncommon for Mr. Agnew). On this occasion, however, Ms. Li seems to orient to the access ideology rather than the inclusivity ideology, and directed May to voice her question directly to Mr. Agnew, in

English. May resisted, and that moment of refusal, likely based in her linguistic inability to voice her question in English, became the catalyst for Mr. Agnew to teasingly insist, over multiple turns, that she voice her request in English. This detour from the instructional focus of classroom talk was unusual for him. Though there is much to critique in how Mr. Agnew helped to create a spectacle of May, one can also view it as a concession on his part to yield instructional time in order to incorporate May into the classroom talk as a central participant and to allow her to contribute to shaping the exam review practice so that she could benefit from it. As the 'banter' unfolded, with Mr. Agnew insisting, using his limited Hmong in some cases, that May voice her request in English and she refusing to do so, Mao, another Hmong-speaking student with much stronger English proficiency than May, inserted herself into the talk. She began bargaining with the teacher to abandon all essay questions on the exam. Though playful in manner, Mao was quite direct in voicing her desire to get by with less work, to insist on an easier exam format. Eventually, Mr. Agnew agreed to a compromise with the class, contending that he would include fewer essay questions on the test on the condition that May utter her question in English. In order to achieve her own agenda of having fewer essay questions on the exam, Mao colludes with Mr. Agnew to help convince May to voice her request in English, part of which was shown in the excerpt above.

Though May had voiced a serious question with respect to the upcoming exam, her performance of a serious student identity is recast as incompetence in English, an identity which she understandably resists. Her reticence and possibly her inability to voice her question in English seems to be treated, on this occasion, as opposition to speaking English and thus resistance to the access ideology. In this way, it seems that resistance is constructed *for* May where likely none was intended. May's utterance in line 19, '*How come every time it has to be me who has to say it*' (spoken in Hmong), suggests her awareness that communicating the content of her request no longer mattered; it had in fact been voiced by Mao and other students in English to Mr. Agnew. What mattered was that she publicly demonstrate her compliance with the teacher's expectation that she try to speak in English, an action made 'sensible' in terms of the access ideology. At the same time, it is because of her linguistic limitations that she is positioned as a central participant in the classroom talk (the first time this positioning had ever happened that semester). She is granted time and personal attention; her participation is treated as important.

In contrast, Mao voiced overt resistance to the teacher's plan to incorporate essay questions in their upcoming exam, and though positioned as a non-serious student through her attempts to get the teacher to reduce the number of essay questions on the exam, her ability to perform her resistance playfully rather than belligerently displays her pragmatic sophistication in using English. Mr. Agnew deftly reframed Mao's resistance when he corralled her to help convince May to speak in English and, in order to do this, he ceded the interactional floor to Mao. Thus, what we see in the above interaction as Mao constructs the simplified model utterance for May to repeat ('Please don't give us essay') marks a reversal from Mao's resistant stance to Mr. Agnew to one of collusion with him. That said, the utterance she produced for May's benefit represents her own challenge to Mr. Agnew to have fewer or no essay questions on the test rather than May's original question. Thus, a question voiced in Hmong can be seen to generate an evolving series of turns in which resistance, collusion, claiming control and ceding control of the floor is negotiated among (some of) the participants in this sheltered civics classroom.

Mr. Agnew's own use of Hmong along with Mao's and Ms. Li's use of Hmong, when directed at May in urging her to speak in English, are not treated as paradoxical. Rather these shifts to a non-English language are likely treated as 'sensible' in this interaction given the implicit understanding that reliance on Hmong is a stop-gap measure, necessary for meaning-making but only as a temporary phase in students' expected movement toward

English mastery and participation in mainstreamed classrooms in alignment with an access ideology. May did finally voice the two-word phrase 'no essay' in English, and Mr. Agnew conceded to including only one essay question on the exam and eventually agreed to write out the essay question on the board so that students could prepare for it.

Though encouraging students to use English so that they can develop their expertise in the language seems 'sensible' given the dominance of English outside their classroom and the need for English proficiency in order for these students to continue their education, it is not at all clear that the interaction which took place in the classroom on this day encouraged May to do so. In the two class periods that followed this one, Mr. Agnew continued to pressure May to speak in English. In the first of these, he walked past May's desk, smiled, and said in Hmong, '*Speak English*' to which May responded, in Hmong, '*I don't know how to speak it*.' Again, in the following class, he walked over to a group of students that included May. They were speaking together in Hmong about tornados in Thailand (Ms. Li has just finished translating Mr. Agnew's announcement that a tornado drill would take place the next day). He again uttered, '*Speak English only*', in Hmong, to the group. May looked at another student and told her, in Hmong, to tell Mr. Agnew what they were talking about, in English. In both cases, Mr. Agnew performed these utterances in his typical blustery, teasing manner, suggesting his recognition that unmitigated displays of controlling power would likely only intensify student resistance. Further, the fact that he chose to make these moves using Hmong himself may have been an attempt to present himself as not anti-Hmong. Thus, he appears to moderate his displays of teacher control in hopes of eliciting student compliance and is likely aware that negotiating power with students can often be more beneficial than brute coercion (Manke 1997).

In this focal interaction, the institutionally more powerful members of the class ultimately determine the outcomes on the exam, and the dominant, perhaps hegemonic, access ideology is the one that prevails. However, through tracing the emergence and maintenance of May's and Mao's differently resistant behaviors in this particular classroom interaction, we also come to see how power and resistance are exercised and negotiated among the teacher and teacher's aide and students and even between students. We also see how identity preservation and the invocation of particular ideologies can lead to resistant behaviors and how ideologies are constituted in these local actions. Other studies which have traced resistance as it emerges in the turn-by-turn development of interaction include Cekaite's (2012) research involving immigrant students in a first-grade classroom in Sweden and Jinkerson's (2011) research in an English-medium primary classroom in Finland. They both point to aspects of identity construction and the constitution of particular ideologies in these conflictual classroom interactions. In the following section, I discuss two research studies which foreground another kind of locally constituted complexity. They present cases in which oppositional behaviors produced by students come to be understood as simultaneously accommodating or *re*producing the unequal power relations and undesirable identities that they reject, however unconsciously.

4.1 Oppositional and *accommodationist actions in classrooms*

Canagarjah's (1993, 1999) research among Tamil-speaking students who were enrolled in his English for general purposes class at a Sri Lankan university demonstrates why second-language students' oppositional behaviors are important foci for investigation. Unlike most microethnographic research, Canagarajah does not undertake a turn-by-turn analysis of teacher–student interaction; he does, however, provide descriptive details of the classroom situation including close analysis of students' marginalia written in their textbooks. In gaining an understanding of the factors that seemed to motivate students' opposition to

classroom practices, Canagarajah provides us with insight into the historical, political, and sociocultural realities that made these oppositional behaviors 'sensible', and in so doing, he demonstrates the inseparability of macro- and the micro-'levels' of analysis.

The Sri Lankan students enacted their resistance most visibly by not coming to class. Canagarajah reports that attendance dropped from an early average of 94 percent to about 50 percent after the first two months. This apparent student apathy or lack of interest in the class was, however, contradicted by their outside-of-class efforts. Many of them paid for private tutoring in English and insisted in interviews conducted at the end of the term that they worked hardest in English compared to their other university classes and that learning English was a high priority for them. Another case of seeming contradiction was students' passivity in class, demonstrated through their reluctance to engage with communicative teaching/learning practices such as pair work or role-playing activities. This passivity contrasted with their active participation in the classroom 'underlife' through creating 'glosses' in their textbooks during class (1999, p. 88). Their comments and images, scrawled into the margins of their textbooks, provided a semiotic contact surface by which Canagarajah could begin to interrogate students' attitudes to the discourses promoted in these textbooks that were produced in the United States. He acknowledges that students' glosses were likely 'scribbled spontaneously and almost unconsciously' (1999, p. 88) on the assumption that the teacher (Canagarajah himself) would not see them or be able to identify who wrote them. Canagarajah, however, came to understand that these glosses served as counter-discourses to the discourses implicitly advocated in the textbooks, discourses which made students feel 'alien, incompetent, inferior, and powerless' (1999, p. 91). Students incorporated aspects of their 'lived cultures' (1999, p. 93) in these glosses, such as references to the ongoing nationalist struggle in Sri Lanka, aspects of traditional Tamil–Saivite culture, popular culture references to movies and songs, as well as transgressive references to sex and romance, using 'humor, sarcasm, and parody' (1999, p. 92).

Canagarajah argues that students engaged with the content of their textbooks through glossing because they could do so from a 'safe distance' (1999, p. 95). As he understands it, this type of student engagement with course material did not threaten their identities. This understanding was corroborated when students commented in interviews that performing the role plays in class using realistic intonation (modeled by Canagarajah) was 'unbecoming' (1993, p. 617) to them. Students' high motivation to learn English grammar rules (and pay for outside tutors to help them achieve this) rather than using the language realistically or communicatively enabled them to maintain 'minimal contact' (1993, p. 622) with the language, which Canagarajah describes as a strategy that 'enable[ed] them to preserve their cultural integrity (however tenuously)' while also enabling them 'to accommodate the institutional requirement of having to pass English and thus bid for the socioeconomic advantages associated with the language' (1993, p. 622). Thus, their oppositional behaviors such as decreasing attendance and classroom passivity are 'sensible' when one understands that they function to protect students from perceived (even if unconsciously so) threats to their identities.

However, Canagarajah adds that such actions also prevented students from learning deeply or critically, and he notes that their reliance on popular culture and their exploration of sexual and romantic themes in their textbook glossing activity can best be described as escapist and sexist rather than interrogational or transformative. As such, these Tamil students' actions do not align with Giroux's (1983) definition of resistance as radical, politically informed acts. Instead, what we find is the simultaneous production of oppositional behaviors which hold 'ambivalent possibilities for resistance' along with 'accommodation to dominant ideologies' such as existing gender biases (Canagarajah 1999, p. 98). Importantly, however, given Canagarajah's detailed interrogation of such ambivalent

behaviors, we understand the fundamental role identity work and ideology play in matters pertaining to language learning. We also come to understand that the ways in which identities are enacted and resisted and the ways ideology and power are exercised will vary depending on the complex relationships and histories of each classroom context.

The tension between simultaneous resistance to unequal power relations and accommodation to or reproduction of these very inequalities in students' oppositional behaviors is further demonstrated in Talmy's (2004, 2008) longitudinal microethnographic research in a secondary school ESL classroom in Hawaii. In this context, students sought to construct for themselves a 'local' identity and resist a newcomer or 'FOB' (Fresh off the Boat) ascribed identity. However, the 'school sanctioned productions of ESL' (2008, p. 625) constructed students in these classes as relatively homogeneous, a 'monolithic out-group of recently-arrived cultural and linguistic "Others"' (2008, p. 626).

Not surprisingly, this ascribed identity was highly stigmatized, particularly in relation to 'regular' monolingual English-speaking students. Equally unsurprising, students in the ESL classes resisted this identity and did so through acting out against the mandated curriculum that assigned below-grade-level work and required students to write about 'their' cultures (including students who had lived in the US for more than nine years) and to learn about US culture and customs. Students performed their resistance through refusing to complete homework or by completing only the easiest in-class work (such as worksheets), leaving assigned materials at home, starting class late and finishing early, bargaining with the teacher for reduced homework loads and teasing students who did do the work.

In terms of resistance theory, these students' actions, like those in Canagarajah's study, appear to hold little potential for social transformation. In fact, the 'local' ESL students, the ones with the highest levels of English language expertise and the greatest familiarity with US culture, received lower grades than did their 'FOB' or more recently-arrived peers, thus earning them the label of 'low-achieving' which resulted in their 'remain[ing] 'stuck' in ESL' (Talmy 2008, p. 639). Furthermore, as Talmy (2004) argues, their efforts to resist the discrimination and racism that were embedded in their ascribed ESL identities did nothing to repudiate linguistic discrimination but were simply attempts by these students to reposition themselves more favorably within the existing linguistic and cultural hierarchy.

Oppositional behaviors, thus, can serve as signposts for locating discrimination, racism, language ideologies, and other power inequities in classroom practices that often have become so naturalized and common-sensical that we otherwise might see them as neutral rather than political and invested with reproductionist effects. At the same time, if scholars explore only oppositional behaviors, at the local scale, we may miss other ways in which resistance is enacted. In the following section, I describe two studies where there was no apparent student opposition. In fact, these appear to be cases of orderly and relatively collaborative teacher–student interactions

4.2 Resistance in orderly classrooms

Chick's (1996) oft-cited study of KwaZulu teacher–student interactions in a classroom in South Africa showcases one such orderly classroom. Teacher–student interactions are described as 'rhythmically coordinated' (Chick 1996, p. 36). Resistance is thus not manifested in individual student or teacher actions but comes to be understood when their jointly produced interactions are examined in light of apartheid era policies. In earlier studies, Chick had reported on his microanalytic explorations of these student–teacher interactions and indicated that he believed them to demonstrate a preference for 'conventional' or culturally specific KwaZulu interactional styles (Chick 1996, p. 24). He found that a highly synchronous

interactional style was achieved in these classrooms because of the tendency for teachers to produce yes/no-type questions or other utterances that were prosodically shaped to elicit simple confirmative chorusing responses from students. However, he began to suspect that resistance was being constructed in this cohesive interactional format given that teachers had been directed to adopt communicative language teaching methods which emphasize group work and learner choice, viewed as more egalitarian teaching approaches.

This notion gained credibility as Chick expanded his scope of analysis to include historical, political and other contextual influences on this classroom interactional style. He notes, for example, that in contrast to white schools where the student:teacher ratio stood at 16:1, in KwaZulu schools, the student:teacher ratios stood at 53:1 in primary classrooms and 37:1 in secondary classrooms. In working with such large numbers of students, teachers would of course find it very difficult to engage students individually in classroom interactions. More significantly, Chick notes that most of these KwaZulu teachers had been educated in apartheid-era schools in which education in English was limited, and they had almost no contact with English speakers in the post-apartheid era and thus little opportunity to enhance their proficiency or confidence in using the language. Students too were typically severely underprepared for the mandated transition to all-English instruction that occurred in their fourth year of schooling. As a result, they often resorted to memorizing much of the classroom content but frequently did not understand what they had committed to memory.

Chick concluded that the synchronized interactional style practiced in KwaZulu classrooms was a means of coping with these extreme circumstances that worked against deep learning and effective teaching. He saw their classroom interactional style as 'safe talk' in which teachers could save face and not be shown up as incompetent by not giving space to students to raise problematic issues or ask questions for which they might not have the answers. Students could save face by not needing to answer individually and thus did not need to display when they did not know something or that they did not know English particularly well. As such, their manner of doing classroom interactions allowed teachers and students to mask their limited proficiency in English and their partial understanding of the academic content, and thus to maintain their dignity to some degree by creating a 'façade of effective learning' (1996, p. 36).

In exploring this deeply camouflaged resistance, Chick's micro-level analysis gave him an understanding not only of how teachers' and students' synchronized interaction was achieved but also of the kinds of identities that were constructed and protected through interacting in this way. At the same time, he recognized that the resistance to educational innovation as practiced through 'safe-talk' had the unfortunate effect of limiting learning among students and, as such, continued to 'reinforce the inequalities that gave rise to it in the first place' (1996, p. 36).

In another orderly classroom context, this time in a secondary school in Hong Kong, Lin (1996) identified teachers' resistance to an ideology of language purism in their code-switching practices from institutionally mandated English-medium instruction to Cantonese. Lin indicates that a popular discourse denigrating the mixing of English and Cantonese contributed to the passing of educational policies which dictated that the language of education in Hong Kong schools should be monolingual, either only English or only Cantonese. Though Cantonese is the native language of the great majority of the Hong Kong population, and in the 1990s English was the native language of only two percent of the population, English is nevertheless regarded as the language of educational and socioeconomic advancement and, in most cases, obtaining professional credentials in Hong Kong requires that one have a knowledge of English. As a result, many parents 'choose' to have their children attend English-medium secondary schools. However, since these same children have typically been educated in Chinese-medium primary schools, the transition to English-only instruction at

the secondary level is extremely difficult. Lin (1996, p. 96) notes that 'widespread classroom code switching has arisen as a local, pragmatic way of coping with this predicament.'

In seeking to understand how code-switching in classrooms was actually practiced and their local effects, Lin reanalyzed the turn-by-turn teacher–student interactions published elsewhere (Johnson 1985). She identified teachers' code-switching practices as 'language brokering', noting that teachers frequently switched to Cantonese when eliciting responses from students and then translated students' Cantonese-medium utterances into English which allowed them to treat student contributions as 'part of the official corpus of L2 [English] lesson knowledge' (Lin 1996, p. 73) – similar to the identity effects of the South African students' chorusing responses identified in Chick's (1996) study. Lin saw that teachers' code-switching practices, though resisting policies that mandated linguistic purism, helped make such institutionally mandated and societally valued English-medium instruction 'accessible, meaningful, relevant, and thus more bearable and less alienating for students' (Lin 1996, p. 71).

At the same time, Lin offers strong warnings regarding the social stratification that is perpetuated by policies advocating linguistic purism and a prevailing misrecognition of English-medium schooling as the ticket to socioeconomic advancement. She advocates for a robust expansion of Chinese-medium schooling in order to promote quality education for the majority of Hong Kong students. However, her attention to micro-level code-switching practices demonstrates their 'logic' and their positive (if limited) pedagogical effects. She is thus able to show the validity and desirability of this kind of 'resistance' even though she does not seem to regard them as offering much hope for broader social transformation.

5. Conclusion

In focusing on microanalytic approaches which follow the emergence of power and resistance in classroom interactions, we gain an appreciation for the complexity of power relations in classrooms. We come to understand that there is always space for agency to be exercised, opportunity for opposition and/or resistance to be enacted, and, thus, that power is negotiable. The ethnographic aspect of these studies which broadens the scope of consideration to historical, sociopolitical and sociocultural influences helps us to understand that these local actions are always responsive to larger, ideological values and at the same time we begin to see how ideologies of language and beliefs about (un)desirable identities are created and sustained as individuals participate in everyday social and pedagogical practices. We *see* policies and curricula and beliefs about Self and Others put into practice as they are adopted, resisted or transformed locally.

The studies examined here showcase students' and, to some degree, teachers' oppositional behaviors rather than the kind of radical resistance advocated by Giroux. However, these microanalytic explorations demonstrate that classroom contexts need to be understood in their own terms, and, thus, a universal definition of 'resistance', such as that provided by Giroux (1983), may have only limited efficacy. It seems to me that the goal for researchers and teachers is to attempt to understand *why* resistance or oppositional behaviors emerge in particular contexts, in order to determine how best to move forward in ways that promote learning, respect participants' identities, and that recognize the ideological impetus for such oppositional behaviors. It is unlikely that any teacher will achieve this fully or that they will manage to mitigate all oppositional behaviors.

Feminist poststructuralist scholar Jennifer Gore (1992, p. 57) voices strong reservations regarding the way critical pedagogy often frames the teacher as the 'agent of empowerment' and adds, 'my major concerns are that these claims to empowerment attribute extraordinary

abilities to the teacher and hold a view of agency which risks ignoring the context(s) of teachers' work.' Though Gore does not dismiss the need for teachers to 'take purposeful… politically motivated action' she does argue that that there is a 'rather strong possibility that [such] purposes might not be attained' (1993, p. 59). Auerbach (2000, p. 162) too recognized that 'contradictions, challenges, ironies and paradoxes' will always be part of second-language classrooms. Though she encourages language teachers to work towards social change where they can, she also assures them that there is no 'arrival'; that teachers and students are 'always in the process of becoming' (2000, p. 161). And it is this struggle, Auerbach contends, that 'keeps teachers watching, listening, experimenting, reflecting and reinventing' (2000, p. 161).

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See Chapter 7: Can Neo-Marxist and Post-Structural Theories in Education Inform Each Other? Using Genre Approaches to Bridge The Gap.
See Chapter 26: Multilingual Classroom Discourse as a Window on Wider Social, Political and Ideological Processes: Critical Ethnographic Approaches.
See Chapter 28: Seeing 'Language and Development' Play Out in Classroom Interaction.
See Chapter 29: The Social Construction of Inequality in and Through Interaction in Bilingual Classrooms.

28 Seeing 'Language and Development' Play out in Classroom Interaction

ROSLYN APPLEBY

1. Introduction

This chapter explores classroom discourse and interaction through the lens of critical theory, and takes as its focus the context of English language teaching in international development programs. The first part of the chapter presents a critical perspective on international development as a context for classroom discourse and interaction. From a critical perspective, development contexts – characterized by poverty, conflict, and international intervention – can be understood as domains for the workings of power and knowledge. Development contexts are seen to establish hierarchies at macro and micro-levels: between donor and host nations, between provider and recipient organizations, and between teachers and students in the development classroom. Each of these parties may have different visions of development, and these visions may entail different expectations about whose interests and priorities will prevail in the language classroom.

The second part of the chapter examines the ways in which these complex characteristics of development are played out – and overturned – in classroom interactions by examining a series of ethnographic accounts from a language and development program in postcolonial Timor-Leste. These accounts of classroom interaction demonstrate the way that different understandings of development, and of development participants, are brought into the classroom, and point to the unfolding workings of power in classroom relationships. The chapter closes with a brief review of recent research in the arena of classroom discourses and practices in language and international development programs.

2. International Development as a Context for English Language Teaching

The dominant paradigm of international development was established in the early post-World War II years, when concurrent processes of reconstruction and decolonization set a new international agenda on the basis of a world divided into 'developed' (First World)

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and 'undeveloped' (Third World) nations. In this paradigm, undeveloped nations were depicted as following a pre-established pattern of economic, political and social modernization in order to ameliorate poverty and achieve progress towards the social and material standards of living attained in developed nations. In these early years, previously colonized countries tended to be viewed as lacking the means to modernize and develop, thus justifying the need for First World intervention in less developed nations in the form of economic assistance and the transfer of modern scientific and technical knowledge (Escobar 2004). Although the meaning of development has now expanded to encompass a range of goals related to improved governance, education, health, equity, democratization, and sustainability (Rist 2008), the adoption of neoliberal, market-based approaches has, in recent decades, seen a return to models that focus on Western style economic growth. These models tend to view education in language and literacy primarily as a means of ensuring a skilled workforce and improving labor productivity, with education in English promoted as a way of increasing national competitiveness in the global economy (Romaine 2013). In keeping with these views, English language training in development projects is mostly aimed at specific instrumental purposes such as the teaching of academic and vocational skills.

2.1 Critical interpretations of language and development

Critical development theories provide a markedly different perspective on international development. Originally influenced by Marxist scholars, critical perspectives view economic development and modernization as a means of maintaining political, commercial, and cultural domination over less developed nations by fostering dependency on the transfer of technologies and expertise from the former colonial nations (the wealthy, powerful *center*) to their former colonies (the impoverished *periphery*) (McKay 2004). In terms of educational programs, dependency is linked to the adoption of Western educational forms and models, the preferential use of Western languages in vocational and higher education, and reliance on Western academic books and journals, practices that combine to make periphery universities consumers of knowledge from the center rather than producers of locally mediated knowledge (Altbach 1998; Coleman and Sigutova 2005). In both the center and the periphery, instrumental expectations attached to English as a key to social and economic advancement rely on powerful mythologies of progress that frame English as a 'mythical hero' of development (Pennycook 2007, p. 100).

From a critical perspective, English language education programs sponsored by political interests reflect this belief in the power of English, and reinforce periphery dependency on Western norms. Program appointments draw from an international English language teaching industry, in which center-trained teachers, skilled in pedagogies that are presented as being universally relevant, are sent throughout the world to promote a raft of TESOL techniques, train periphery teachers in the latest methodologies, distribute or develop teaching materials, and solve training needs in government and higher education (Phillipson 1992). Such practices establish a position for the native-speaking English language teacher as 'expert,' 'flown in on sleek jet planes' and expected to 'perform his or her role' according to 'script and plan' (Toh 2003, p. 557). The script for English language teaching arguably remains dominated by a hegemonic commitment to a set of iconic practices (Holliday 2005), including communicative language teaching (CLT), which provide the basis for donor-led development pedagogies despite concerns about their applicability in particular periphery contexts (Kumaravadivelu 2006). As Kumaravadivelu (2006, p. 64) observes, 'CLT offers perhaps a classic case of a center-based pedagogy that is out of sync with local linguistic, educational, social, cultural and political exigencies'.

Task-based teaching and learning, an approach similar in many respects to CLT, emerged as a local initiative in the Bangalore Project (1979–1984), and arose from dissatisfaction with an existing grammar-based syllabus. The project was designed to promote language learning through engagement in problem-solving tasks (such as information-gap activities) that focused on meaning, rather than explicitly on grammar. Debates about whether the Bangalore Project was ultimately successful revolve, first, around the extent to which the approach was imposed by 'center'-aligned professionals, and the extent to which local teachers experienced ownership of the innovative approach (Markee 1997). Doubts have also been raised about the feasibility of adopting task-based approaches in periphery contexts where there is little use of English outside the classroom, and learners are focused on acquiring English for passing grammar-based examinations. Third, critics suggest that while language-learning tasks may, in theory, be designed to simulate 'real life' activities relevant to the learners' local context, they may not necessarily engage with the broader social, cultural, political, and historical particularities that shape learners' lives and opportunities (Ellis 2003).

The adoption of task-based learning may also prove problematic in development projects because of the influence exercised by donors and their partner institutions. Given the pressure to comply with donor and institutional expectations, language aid projects may engage learners with 'real world' tasks, but these tasks may ultimately serve to assimilate learners into the neo-liberal economic and political goals of powerful institutions, rather than prompting interrogation or transformation of prevailing conditions. Thus, while task-based learning can open possibilities for classroom activities to engage with the lived experience of learners, there may be significant difficulties with implementing this approach in a meaningful and transformative way in development contexts.

From a critical perspective, then, English language education has been viewed as a project of imperialism and class interests which poses a threat to indigenous languages, diminishes opportunities for mother-tongue education, and functions as a gatekeeper to socioeconomic advantage and influence (Romaine 2013). Taken together, such processes may serve to reproduce and reinforce hierarchies between the various participants in the development context: between donor and host nations; between provider and recipient organizations; and between center-trained experts and local communities of teachers and learners in the classroom.

2.2 *Alternative models for language and development*

In recent years, a diverse range of alternative development theories has grown out of dissatisfaction and disillusionment with both modernization and dependency paradigms. Alternative approaches, informed by critical development theories, have broadened the concerns of development to include 'bottom up,' grass-roots interests, and an emphasis on democratic structures of community participation, self-reliance and empowerment. Favoring local, indigenous knowledges, and influenced by feminism, these approaches have helped to challenge Western economic and scientific bias in development thinking and to encourage alternatives that imagine other ways of living (Rist 2008). Rather than focusing on oppression, exploitation, deficiencies and needs, such approaches aim to harness people's potential to shape their own destiny, with economic freedom reimagined as a way of promoting political, social and cultural opportunities (Sen 1999). Within this more complex picture, development is understood as an on-going, contingent, trial-and-error process of integrating multiple knowledges in a larger framework against which a critical stance should be maintained (Craven 2002).

Alternative approaches to development that aim to support participation in the democratic processes of a complex, globalized society, require a more sophisticated range of language,

literacy and communicative skills than those necessary for performing a functional role in the economy. In alternative development approaches, literacy is integrally linked with ideology, culture, knowledge and power, and includes the ability to read the interaction between social systems, historical relations and global networks as part of a process of self-identification and cultural transformation (Rassool 1999). Influenced by Freirean ideals, postcolonial critique and dependency theory, critical literacy is recognized as an important part of the struggle for independence and political enfranchisement, and as a means of contributing to human rights through 'economic and political redress in relation to historical forms of control and exploitation' (Rassool 1999, p. 86).

In terms of English language programs, then, alternative models would ideally attend to the ways in which the language can be taken up and appropriated by periphery communities for their own purposes in extending cultural identities, and resisting cultural domination. Transformative agendas of this sort are associated with the shift from 'appropriate pedagogies' that adapt dominant center-derived language teaching practices to periphery contexts, to 'pedagogies of appropriation' that take the local context (its social, political and economic contingencies) as a starting point for teaching, and focus on the ways that English language can be taken up and transformed at the micro level of the classroom, and used as a form of disruption and resistance to globalizing norms (Canagarajah 1999, 2005). Such proposals attempt to move beyond dichotomous views of power as residing solely in institutions or in human agency and focus on the negotiation of a discourse that traverses these polarities.

2.3 Enacting critical alternatives for language and literacy in development

One example of how critical approaches to language, literacy and development have been brought together is demonstrated in a pedagogical model of participatory adult education known as REFLECT (Regenerated Freirean Literacy through Empowering Community Techniques). At its inception in the mid 1990s, this approach combined Freire's philosophy with practical tools that draw on the knowledge of participants in the planning and management of development programs. As a collaborative process, REFLECT is ideally facilitated by a teacher from the same community and socioeconomic circumstances as the participants, and aims to systematize local knowledge, analyze topics of local concern, and promote empowerment towards individual or collective action (Archer and Cottingham 1997; Cottingham, Metcalf and Phnuyal 1998). In this process, the development of multiple languages and literacies is integral to the achievement of social and political change (www.actionaid.org; Archer and Newman 2003). What this and other Freirean-inspired programs emphasize is the importance of plans for action that are derived from an ethnographic understanding of contextual constraints that limit the opportunities of marginalized communities, rather than a technicist approach that predetermines project goals and then measures success according to imposed targets (Mosse 2004; Robinson-Pant 2009).

Realizing the broad aims of critical and participatory pedagogy inspired by Freirean philosophy has proved to be challenging, and literacy development projects based on these ideals have been subject to acute critical scrutiny. On a systemic level, Tabulawa (2003, p. 10) holds that participatory pedagogy has been enthusiastically embraced and prescribed by donor institutions as a value-neutral, one-size-fits-all approach, but in practice is designed to install Western education (via the teaching of modern literacies) and to 'facilitate the penetration of capitalist ideology in periphery states . . . under the guise of democratisation.' In this sense, a focus on participation merely serves to incorporate individual learners into the

broader trajectory of mainstream development, while obscuring the agency and power that continues to reside in the institutional position of the teacher/facilitator.

Caught between ideals and realities, teachers, in particular, can face immense difficulties in translating Freirean concepts into practice, and seldom have sufficient time and opportunity to reflect, rethink and revise their teaching (Bartlett 2005). On an individual level, Fiedrich and Jellema (2003) point to the impossible expectations that surround participatory projects and their exaggerated faith in the power of human agency to effect change. They argue that the 'triumphalism of participatory orthodoxy' has meant the struggles of participants, and their contradictory alignments in the discourses of language, literacy and empowerment tend to be silenced (2003, p. 21). Unable to carry forward Freirean ideals of deploying literacy in the service of class struggle, development practitioners may retain participatory techniques and literacy methods as part of a depoliticized and professionalized program, while notions of social critique and transformation are abandoned. Thus, although participatory approaches are 'usually presented as a fundamental break with "top-down" ethnocentric paradigms of development,' their reported achievements in producing 'modern rational selves' ironically mirror 'the very same attitudes and practices long championed by the development community' (Fiedrich and Jellema 2003, p. vii).

Critical approaches to language and literacy development have largely been oriented towards first-language contexts, and require some rethinking when transferred to foreign language teaching situations, particularly those mediated by dominant languages, and facilitated by imported 'experts' appointed by powerful funding institutions. These conditions significantly affect the ways in which critical or participatory approaches to English language teaching are realized in development projects (see, for example, Appleby *et al.* 2002; Appleby 2004; Appleby 2005/2006; Taylor-Leech 2009; Watson 2007). Teachers may find an emphasis on participants' agency is a relief from insinuations that they represent a form of Western domination in periphery communities. They nevertheless need to keep in mind the potential for imperialist tendencies in development interventions that promote native speaker expertise, center-driven methodologies, and outcomes-based curricula for English language teaching projects that can ultimately serve to maintain economic, linguistic, cultural and political inequalities (Brock-Utne 2010; Brutt-Griffler 2002).

3. English Language Teaching in the Development Classroom in Timor-Leste

I now turn to a discussion of the ways in which these complex characteristics of development are played out in classroom interactions by examining selected ethnographic accounts from Australian development programs in Timor-Leste. The accounts, collected as part of a larger research study into the contextualization of language teaching in development (Appleby 2010), are drawn from semi-structured interviews with four Australian female teachers, and focus on their experiences of classroom discourse and interaction during the course of their work in Timor. In this chapter, extracts from the teachers' account are provided in '*quoted italics.*' The teachers, all referred to here by pseudonyms, ranged in age from early 30s to mid 50s, and for three of the teachers, Elly, Fay, and Jane, this was their first experience of language teaching in a development project. All were employed by Australian non-government organizations responsible for delivering development aid programs in Timor during the period between Indonesian occupation and the achievement of full independence, when the role of English in the new nation's language policy was yet to be determined. Ann, Elly, and Fay taught EAP to university students in Dili, the capital city; Ann also taught English in a

small program for high school students in a remote regional location; Jane taught English language and teaching methods to in-service school teachers in a major regional town. Although some of the students in these projects aspired to studying in an English speaking country at some time in the future, most used English to further their studies or professional activities in Timor-Leste.

The themes and challenges that emerge in these accounts exemplify some of the key issues identified in critical analyses of language in development, as illustrated in recent publications from the field (see, for example, Appleby 2010; Coleman 2011a; Erling and Seargeant 2013). In order to appreciate these accounts, it is necessary to first grasp something of the political, social, and linguistic context in which the classrooms were situated.

3.1 Social and linguistic dynamics in Timor-Leste

Timor-Leste officially became the world's newest independent nation in 2002, after centuries of struggle against Portuguese colonial rule and a quarter century of Indonesian occupation. The withdrawal of Indonesian military forces and administration in 1999 was accompanied by a wave of violence that destroyed much of the country's infrastructure and resulted in loss of lives and mass dislocation of the Timorese population. Across the country, the burning of almost all school buildings and the disappearance of most teachers who fled back to Indonesia meant the destruction of the entire education system almost overnight. In an effort to quell the violence, the international community first sent peacekeeping forces under the auspices of the United Nations, and then channeled significant funding towards reconstruction and development. Australian development programs in Timor-Leste have been motivated by historical allegiances, by the promise of access to rich oil and gas reserves that lie in the sea between the two nations, by a sense of solidarity with the Timorese struggle for independence, and by strategic concerns for stable relations with Australia's northern neighbors. Since decolonization, Timor-Leste has been an important component of Australia's international development program, which has focused assistance in key areas including governance, health and education.

Following the Indonesian departure, a significant issue in the structuring of the new education system was the political struggle over the nation's language policy, with various parties supporting different approaches (Hajek 2000). For all students in Timor-Leste, English represented only one part of a multilingual complex since most speak one or more of the 19 national languages, the younger generations had been educated in Indonesian, and some of the older adult students also spoke Portuguese. In the schools, Timorese teachers negotiated a range of local oral languages and continued to use the Indonesian curriculum until the new Timorese course of study could be determined. The influx of international agencies meant that English appeared as the language of power and economic advancement, and English language training courses were requested by Timorese tertiary students despite the move towards Portuguese as a national language. For these students, English could be seen as a language of resistance to the power wielded by an older generation of nationalists educated under the Portuguese colonial regime. However, the 2002 constitution eventually declared Portuguese and Tetum (a national lingua franca) co-official languages, with English and Indonesian designated as working languages.

The physical conditions for teaching in this context, while extreme, were perhaps not atypical of those experienced in many development programs. The campus buildings, in which all the services and infrastructure had been destroyed or removed leaving only the shell, evoked strong physical and emotional responses from teachers. As one teacher wrote, the university campus '*was razed. We went into this burnt out building still smelling of smoke, walked up the staircase which was mostly blown away and up to the first floor where the students were*

crowded into classrooms with no windows and doors in groups of about 70.' On the walls were weapons instructions, a reminder of the international military occupation, and in the place of windows and doors were gaping holes that let in the flow of smoke, insects and noise from the outside where '*tanks and trucks thunder past; helicopters rattle overhead; taxi drivers toot their horns incessantly*'.

3.2 Problems for teaching 'in context'

Given conditions such as these, one of the central challenges for language in development programs is devising and enacting classroom pedagogies that will bring English, as a global language, into dialogue with a unique set of local circumstances that may be entirely unfamiliar to the foreign teachers employed by donor organizations. A host of issues can militate against this sort of dialogue occurring: teacher education programs in donor nations seldom provide adequate preparation for the experience of working in developing countries; program administrators may stipulate 'modern' Western teaching methods and imported textbooks of little relevance to local circumstances; and pressure to achieve standardized 'project outputs' in a limited time frame make little allowance for the messy and unpredictable processes of participatory education (Bax 2003). Moreover, although the mantra of teaching English 'in context' is widely repeated, in practice, teachers may have difficulty in even defining what context is: attending to language in context can mean almost anything, from applying functional language in practical, everyday situations, to considering 'how the classroom, text, or conversation is related to broader social cultural and political relations' (Pennycook 2001, p. 5).

A default reliance on methods, materials and institutional expectations of 'standards' can therefore become a way of organizing the English language classroom: the organization of routine lessons, topics and activities in textbooks, the graded descriptors of international language tests, or the sequencing of competencies in a genre-based syllabus all represent a stabilization and ordering of classroom discourse and interactions. And although materials, methods and curricula may be mediated and appropriated by both the teacher and students in a complex process of conscious and unconscious adjustment (Kumaravadivelu 2001; Sunderland *et al.* 2000), they nevertheless restrict the ways in which teachers and learners interact.

Amongst the teachers in this study, accounts of classroom interaction demonstrated diverse patterns of engagement with learners' social and political circumstances. Some accounts described a set of habitual classroom routines, transferred from teachers' training or experience, that appeared to discourage engagement with a flow of social, historical or political ideas from the immediate context outside the classroom walls. Others described classroom interactions in which routine lessons foundered in the face of the social and cultural challenges posed by a vastly different context. A third group described interactions that indicated a more active engagement between the classroom and the outside world, and in which teachers' and students' performances came together in novel ways. None of these broad categories applied exclusively to single teachers, but rather describe different ways of interacting experienced by teachers at various times.

3.3 Ann: business as usual

Teaching English as a volunteer in a development program in Timor-Leste was, in some ways, nothing new for Ann who had previously worked as a volunteer in Indonesia, where she had enjoyed the elevated status accorded native speaker English teachers. On a remote Indonesian island, she was transformed from being '*just an English teacher*' into being a

'*precious commodity*' as '*the first and only ever English native speaker they'd had.*' A similar veneration of native speakers, and a conflation with good teaching, was expressed by Ann's students in Timor, who reportedly implored: '*we want to be taught English, and we want to have good lecturers, from America and Australia, we need good lecturers.*'

For Ann, good teaching meant introducing communicative teaching methods which, as the ideal of a modern, progressive language pedagogy, tend to reinforce a concept of non-Western teaching practices as backward and deficient (Bax 2003; Phan Le Ha 2004). Indeed, all the teachers in this study expressed an adherence to communicative approaches, and certain project documents stipulated this as a requirement. Yet teachers' descriptions suggested that communicative approaches are poorly defined, and primarily meant requiring students to talk in groups or pairs, with the oral activity itself seen as more important than the content or context of the talk. The drive to represent any teaching practice as communicative, regardless of contextual constraints, was indicated in Ann's insistence that in one particularly large class, '*I did my best to make it as communicative as I could,*' with the sign of success being that '*about a third*' of the students '*put up their hands with answers*' to her questions.

As a foreign teacher held in high esteem, Ann was free to structure lessons based on her own expertise, yet the resultant activities did not necessarily emerge from, or connect with, concerns from outside the classroom; instead, '*favorite lessons*' developed over years of experience framed the classroom discourse. For a group of school students, Ann planned lessons based on a stepped series of topics and functions she described as universal examples of '*everyday English, you know, that's what we do, don't we?…They were beginners so we did introductions, and shopping, telling the time, months of the year. I made it active for them and we did lots of games but they always had a language purpose. […] I've taught lots of beginners before. It wasn't hard, that's all I can say really, because it was something I've done lots before, and I thought: okay, this is the level, and all right we start with that, we go on to that, that, that, that, that topic, that'll practically fill the whole course. So it just rattles along.*'

Another series of lessons connected with local geography may have had greater potential for engagement with the local context; however, the perspective embedded in the lessons suggested a construction of the world beyond the classroom walls as a product of the tourist gaze. '*We did one on culture, leisure, directions, and we also did one on geographic features of Dili [the capital] and the surrounds, so Dili as a visitor would see it. So we did all this kind of "what's a good place to go swimming?" and "what can I see as a tourist?" and that sort of thing.*' In this discursive construction of the classroom, it seems that the hierarchies of development were, however unintentionally, actualized by the teacher, who set the scene and the script for classroom interaction, and positioned the students as working in the service of the foreign community. Ironically, Ann's own experience of Timor, where she shunned the company of wealthy expatriates in favor of living with a Timorese family and making strong connections with Timorese friends, was quite different to the shopping and tourist discourses she drew on in her teaching, yet these apparently remained the dominant discourses for organizing the classroom and shaping a particular view of the world outside.

3.4 Elly and Fay: confronting difference

For most of the teachers in this study, attempts to constitute classroom interaction through the routines dictated by familiar textbooks and favorite lessons came to be something of a problem. Elly's TESOL training meant that she had a very '*structured idea about what we were doing,*' by way of a set of standardized scripts: '*We decided what we were doing before we went in, it was planned out, we went through it, and the students fitted in, really, and that was our TESOL training, […] you can go anywhere, I mean, pretty much, and do the same thing.*' However, all this

changed when she found the TESOL routines that had worked in locations as diverse as Siberia, Australia and Indonesia, '*crashed and burned*' during her experience in Timor. Her assumptions about universal teaching content and method were '*completely transformed*' by the dynamic nature of this context: '*the thing that struck me was how my ideas of what to teach at a certain level went out the window, and how much the students shaped the curriculum far more.*' Elly found there was no point in trying to '*superimpose*' teaching experience from another place '*without any attention being paid to the realities, which of course is crazy because the realities were really, really important*': *We're teaching in bombed out buildings, so that's one, physical location, right, […] we're there as a project from another country, at a point where this country's trying to work out its self determination issues, I mean, it's just dumb. As if we could have not come into contact with those issues, and they wouldn't come up in the classroom, it's just ridiculous really.*'

Here, even the simplest questions posed for practicing language use '*didn't work*': '*like, "what do you have for breakfast?" I mean, partly they didn't work because they didn't <u>have</u> breakfast.*' Although teachers understood that their lessons should ideally be contextualized, constructed from information gathered from students and relevant to their needs, the habits of TESOL training, together with institutional prescriptions and time constraints, militated against an effective engagement with context. Despairing of her ability to adapt standard lessons, Elly's colleague, Fay, concluded that '*there doesn't seem to be <u>any</u> published material that would be appropriate,*' particularly since the textbook world presented '*a lifestyle where everyone is extremely rich and extremely articulate.*' This was a problem for some teachers not only because the textbook world was remote from students' experiences, but also because students might assume the teachers supported the materialistic values represented in a glamorous textbook world (Gray 2002).

Students who resisted scripted communicative exercises were often fluent when given the opportunity to construct their world in written English. When given '*a creative writing activity or a free writing exercise*' their texts were both passionate and highly political, which was something quite unfamiliar in her Australian teaching experience. Their political sensibilities had been forged through their participation in the struggle for liberation, and they now had a keen interest in affecting the construction of their new nation. Critical accounts of national historical events and questions about current political happenings outside the classroom filled students' writing: the role and impact of the UN, Timor's relationship with Australia, the nation's past and future struggles were recurrent themes. Students also wrote about their personal memories, their day-to-day experiences of family survival, thoughts about people who had been tortured or had died, people who they missed. These textual expressions provided a clear contrast with those presented in conventional textbooks, and considering the students' consistent determination to write their stories, it seemed at times they were keen to integrate these experiences and views into classroom activities.

However, the sensitive emotional and political content of students' written and spoken accounts presented the teachers with various challenges. Contractual obligations prohibited teachers' involvement in political issues, and by implication prevented explicit classroom engagement with students' political experiences and expressions. Sensitivity to stories of personal suffering also led some teachers to draw away from contact with their students' personal trauma and grief. With her class of '*complete beginners,*' Fay was '*really surprised about how much they wanted to say […] about the Timor situation, they wanted to talk about their lives, I was actually shocked at how open they were, they were quite openly saying things, writing about their family, "my sister is dead" or "my uncle is crippled", or things like that, there seemed an overall willingness to speak about what was happening.*' Yet Fay felt her TESOL training offered no mechanism to engage with these experiences, and she was uncertain about how to respond in a way that was appropriate in a culture with religious values and beliefs so different from her own. Hearing similar experiences in her own classroom, Elly also confessed

her professional training was inadequate in this situation: '*I didn't have the skills, you know, someone sitting there telling you how their friend died, you know, how to give the space for them to be able to say that but also thinking I don't think I can cope with another student telling me another story like this today. I mean I've had three already, that was it, I just couldn't, I found that really, really hard*.' The difficulties of addressing emotionality and memory were perceived as partly a result of the dry disciplinary construction of the classroom discourse: '*there was no space provided for them to talk about that kind of stuff, and again, I don't know whether that was a cultural thing or whether that was partly to do with the way the classroom was set up as well*.' Such absences and disconnections meant that although these teachers expressed solidarity with Timorese political activism, there was an experiential gulf that could not be crossed, so leaving the teacher as a permanent outsider to the host culture.

3.5 Jane: mobilizing difference

Accounts in the previous section demonstrated some of the ways in which classroom interactions occurring in Timor-Leste challenged teachers' sense of disciplinary certainty and pedagogical authority. In this final section I explore a third group of classroom experiences that indicated a movement away from interaction orchestrated by the teacher through routine texts and methodologies. Rather than envisaging the development classroom as a place where linguistic and economic imperialism is enacted, these pedagogical experiences point to a disruption of orderly classroom practices, a shift in the roles of teacher and learner, and a two-way movement of people and ideas across the classroom walls. The impact of students on these classrooms interactions meant that outcomes could rarely be anticipated, and could not necessarily be assessed by standard measures of language proficiency.

For Jane, one step in engaging with difference was her struggle against her superior positioning as a development expert, and the deference – sometimes demonstrated through bowing – expressed by her Timorese colleagues and students. Jane's discomfort with this unfamiliar display was related to the consequent social hierarchy that this produced. Attempts to shift from a position of unwarranted superiority were often accompanied by her acknowledgement that she was not necessarily the one who knew what was going on, either inside or outside the classroom. Resisting the position of the knower, Jane admitted that, as an outsider in this context, she '*never knew what was going on*;' however, this '*wasn't bewildering*' or a cause of anxiety. In the end she came to realize '*it doesn't matter that you don't know, and probably you'll never know*.' In this move, rather than positing a knowing subject, a detached 'monarch-of-all-I-survey,' Jane sought to relinquish the *a priori* position of authority granted her as the teacher, and through contextual experiences of 'disorientation, incomprehension, self-dissolution' (Pratt 1992, p. 222) became open to a different sort of engagement with place and people.

In an early attempt to disrupt the stable patterning of classroom interaction and to make connections with her students, Jane drew a time-line of her own life experiences, and used this as a model in the hope of eliciting students' own life stories. But students were reluctant, resistant. When inside the space of the classroom they were '*very non-committal about their personal stories and about the war,*' eluding the institutional schema of the panopticon and the disciplinary gaze. However, a physical move beyond the institutional envelope opened up possibilities for different, destabilizing practices: when outside the classroom, students' stories about the meanings of various places were more readily shared. Walking down the street, she would be shown where '*this place was bombed, the bombs came over here, this happened here, and that sort of thing*.' Similarly, while a textbook lesson based on beach-going activities in Australia had prompted little response from students, a subsequent visit to a Timorese beach produced an unexpected sharing of knowledge and meaning. On the beach together

with her students, memories and experiences emerged as students told her that '*going down to the water and swimming is not something that they did […] Swimming or being in the water was avoided because, when the Indonesians were there that was part of the torture, they'd take them down to the beach and put their head down underneath and that kind of thing […] it takes a bit of courage to [go there], because this is what happened.*' In these new interactions, the students had become the experts, narrating the stories that weave places and people together (de Certeau 1984); and through sharing these different experiences, students resisted the meanings inherent in the conventional organization of classroom texts and interactions. Although Jane had insufficient knowledge of the culture of Timor to adapt the content of her imported textbooks, moving outside the classroom allowed a more subtle contextualization of language and meaning, and a different, more powerful interaction between the teacher and students.

A further shift in classroom practice emerged in resistance to the regulated time limits and goals imposed by institutional and disciplinary requirements in the development context. On the one hand, students expressed resistance by following their own priorities, and missing class in order to observe holy days, attend to family obligations, commemorate anniversaries and engage in political activities. On the other hand, teachers' adherence to a program designed to achieve institutional goals also relaxed as they came to terms with the impact of a different set of contextual circumstances. In Jane's project, a syllabus had been set by the project management and based on an Australian ESL textbook: '*I suppose initially, in a new environment and in teaching something that was new, it was like, "this is on the page, okay, I'll get through this today"*' Industriously rushing around, '*still working at Australian pace,*' her embodied, pedagogical performance had reflected a regulatory politics that underpins development and strives for efficiency, productivity and progress. As Adam (2003, p. 71) points out, such notions of 'time thrift' have been ingrained in the West since the industrial revolution and have been central to the neo-colonialist agenda of globalization and development: to be modern, progressive, even civilized means to 'embrace the industrial approach to time.'

But for Jane these habits were gradually challenged and then changed by a new, phenomenal sense of being in a particular place and time: '*Once I could slow down to East Timor, it was difficult to keep, I suppose the professionalism, my expectations of teaching, and to be able to slow down to the pace that one has to slow down to, you know with the heat and things, and I think I managed it towards the end, […] I was able to sort of slow down, I didn't have to go* [gestures of speedy, robotic talking and moving].' This change of pace coincided with a release from the tyranny of the textbook: '*I mean I didn't have to open the book and think, "Oh, my God what am I doing today?"*' In her classroom interactions, this meant she could be more flexible, to '*risk,*' and '*begin to be creative, which I wasn't, I wasn't there in that space when I first started.*' She had moved from a place of having '*conflict going on, rushing here, rushing there,*' to '*slowing down,*' and learning just to *'be there.*' Both inside and outside the classroom, the conventional temporal and spatial regulation of her teaching practice had slipped away, enabling more open pedagogical practices, and more creative engagements between languages and the place of learning in development.

The accounts discussed in these three sections illustrate a number of different ways in which 'language and development' can be played out in classroom discourse and interaction. On the one hand, we see practices and interactions that seem to enact development discourses in which the 'expert' teacher exercises control according to a familiar script of lessons imported from elsewhere. On the other hand, we have seen circumstances in which pedagogical expectations have been disrupted, as students bring to the classroom a vastly different set of experiences to those of the foreign teacher. In these situations, the orderly discourses of development and classroom interaction have been challenged and found inadequate to the task of constructing a dialogue that engages with the ideas and experiences that

flow into the classroom from the world outside. For some teachers, then, a shift in expectation and practice is necessary, involving a movement outside the classroom, and a changing pattern of interaction that slowed down and slipped outside the boundaries of the textbook. These different ways of doing language in development mirror some of the recent shifts in research published from the emerging field of language and development.

4. Contemporary Research in Language and Development

English language teaching projects in international development are caught between conflicting demands, expectations and desires, shaped by an ambiguous mix of instrumental, center-prescribed, modernizing aims, combined with principles of 'bottom-up' empowerment and social transformation. A recognition of these complexities has resulted in a marked shift in published research on language in development. As Coleman (2011b, p. 13) notes, early studies of English language teaching in development contexts were 'highly optimistic in outlook and confident that progress was being made' in bringing the supposedly universal tenets of center-derived ELT practice into the classrooms of the developing world (see, for example, proceedings of early Language and Development conferences at www.langdevconferences.org). In recent years, however, there has been a shift in interest towards critical, political understandings in this field, with an increasing number of studies that provide a more nuanced analysis of the complexities and conflicting demands of language in development projects (see, for example, Appleby 2010; Bruthiaux 2002; Erling and Seargeant 2013; Ferguson 2013; Seargeant and Erling 2011; Shamim 2011; Taylor-Leech 2009; Wedell 2011; Widin 2010). From a critical perspective, there has been serious questioning in regard to whether any of the scarce funds available in development contexts should be devoted to the teaching of English (and other colonial languages) in contexts when there are more pressing needs for improvements in mother-tongue education, healthcare, housing, and so on (Brock-Utne 2010; Bruthiaux 2002; Coleman 2011b; Romaine 2013; Shamim 2011; Trudell 2012).

From its early diffusion, imposition or importation through colonialism, and its spread in the service of economic advancement, the growth of English in periphery countries has now gained its own momentum within the forces of globalization. In development communities, decolonization and the establishment of the nation state may entail resisting English in favor of establishing a new national identity, but globalization has partially dissolved national boundaries and reinserted the importance of English through the spread of multinationals, market forces, popular culture, and digital technology (Canagarajah 2005). Thus, although official development policies and initiatives may value linguistic diversity and promote multiple national languages, many developing countries have experienced an unplanned boom in demand for English as the language of necessity (Brock-Utne 2010). For social and economic advancement, for accessing foreign aid money, for the chance to escape grinding poverty, or for passing gatekeeping examinations, 'English by popular demand' is purportedly 'what parents and governments want' (Kennett 2002, p. 239). And yet the problems associated with the spread of English through development programs have not dissipated. The precise nature of the relationship between socioeconomic development and competence in English is often unclear (Arcand and Grin 2013), and the dreams of a better life that are routinely associated with the learning of English language are often illusory (Appleby 2010). For teachers on the ground, then, the challenges of enacting critical, participatory pedagogies through the teaching of a dominant language in a unique sociolinguistic and cultural environment, while meeting the instrumental demands of donor-funded projects, are still immense.

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See Chapter 26: Multilingual Classroom Discourse as a Window on Wider Social, Political and Ideological Processes: Critical Ethnographic Approaches.

See Chapter 27: Power, Resistance and Second Language Learning.

See Chapter 29:The Social Construction of Inequality in and through Interaction in Bilingual Classrooms.

29 The Social Construction of Inequality in and through Interaction in Multilingual Classrooms

LUISA MARTÍN ROJO

1. Introduction

Within sociolinguistics, inequality in education has frequently been understood as a consequence of inequality in the determination of the current worth of different linguistic varieties, communicative styles or discursive practices, which I call a process of *valuation*. More specifically, I understand valuation as part of a broad and complex process of distribution of the linguistic and social resources necessary for educational integration and social mobility.

From this perspective, social inequality is produced by recurrent patterns of unequal distribution of goods, wealth and opportunities. In relation to this distribution, schools play a significant role as social institutions that produce and distribute knowledge and other forms of symbolic capital. Under certain conditions, knowledge is convertible into economic capital and may become institutionalized in the form of academic qualifications (Bourdieu 1986). Thus, schools potentially play a key role in both capacity building and social development and may facilitate individuals' social mobility. At the same time, schools may also inhibit access to equal opportunities and rewards for those on the margins of society. Acknowledging this role of schools, sociolinguistics, linguistic anthropology and discourse analysis have tried since the late 1950s to elucidate to what extent linguistic phenomena contribute to the construction of inequality in schools, and to its naturalization and legitimization.

This question has become particularly important in the current context of globalization. As population movements and trade have increased and labor relationships in international/multinational corporations and local institutions have become more complex, so have the linguistic needs of individuals. More specifically, language not only enables the movement of various forms of capital, goods and people, it also ensures access to markets and services, such as the labor market and higher education. Thus, people's need to expand their linguistic repertoires has led to an increase in demand for language education programs, and thus to a growth in the numbers of such programs. In such a competitive climate, increasing mobility also obliges schools in multilingual cities to offer courses that

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teach different languages of instruction to a diverse body of students, who often have transnational backgrounds. At the same time, the 20th century saw a progressive expansion in the catalogue of human rights, the consolidation of social and economic rights and, by extension, linguistic rights. The context of globalization has also lent new significance to the role of schools as institutions charged with the task of language maintenance and revival (Dûchene and Heller 2007). The proliferation of language programs in schools is consistent with the commodification of languages within globalization and new economies, by means of which an economic value is assigned to languages based on the potential for social mobility that they offer. Thus, from an economic perspective, different linguistic varieties have different economic value, and different language programs have different academic statuses (Dûchene and Heller 2013).

This chapter, which uses empirical data drawn from several research sites in Madrid, Spain,[1] is organized in four sections. Firstly, I review the sociolinguistic thesis that inequality in education is a consequence of the unequal value that is assigned to different linguistic varieties or communicative styles. In other words, I consider the unequal value of different communicative resources to be part of a broader, complex process, namely, how the linguistic and social resources that are necessary for socio-educative integration and social mobility are distributed. Secondly, I outline a micro-ethnographic, task-oriented approach to understanding the distribution of such resources through classroom activities. Thirdly, I draw on the concepts of *capitalization* and *decapitalization* (Martín Rojo 2010, based on Bourdieu's notion of the convertibility of different forms of capital and social distribution) to study the roles participants play in the production and distribution of these resources in everyday educational practice. And finally, I outline how the unequal distribution of resources in education are naturalized and legitimated. Through these analyses, we will capture some of the most recurrent patterns of unequal distribution of resources found in schools. We will also observe how social agents reproduce, challenge or resist such patterns of distribution. From this analysis, we will be able to see how such patterns work not just in the context of processes of social *inclusion*, but also in processes of *exclusion* and *stratification*. I conclude that the logic of these distribution patterns have their roots in, and are legitimated by, certain values and ideologies that are central to power relations and which compete for predominance.

2. The Role of Linguistic Resources in the Construction of Inequality

Sociolinguistic research on education has highlighted the role of disparity in the determination of the social, cultural and economic *value* of linguistic varieties, in the construction of inequality. Some speakers possess the prestige, standard linguistic varieties that are valued and demanded in significant social contexts (such as school) from the outset, while others have to acquire them. Conversely, the use of vernacular varieties by non-standard variety speakers is frequently rejected in pedagogical and assessment contexts. For linguists, differences in valuation are mainly explained by the *unequal* status of individuals and groups, which leads to those who are 'different' being characterized as not competent, and to invidious predictions regarding their potential success or failure (Labov 1972; Bernstein 1975; and Erickson 1987 for a more interactional and critical approach). In fact, current sociolinguistic research has shown that the negative appraisal of linguistic and cultural differences has a consequent adverse impact on marginalized minorities within the larger society, preventing them from overcoming obstacles to their own social and economic success (see Ogbu 1993; Heller 2004, for a review of the deficit/difference debate). Thus, sociolinguistic research has challenged most sociological studies of the 1960s, 70s and 80s, which saw educationally

failing working-class children as being passive victims of socialization, social deprivation or unfavorable labeling by the school. In contrast, the normalizing, sociopolitical role played by schools within the structures of class domination has been highlighted (see Willis 1977) by focusing on the wholesale negative appraisal by educators of non-standard linguistic and cultural features that occur in the speech of minority groups.

The imposition of a monolingual standard, which establishes a single language of instruction and rejects the practices in which speakers use (often creatively) different resources from their linguistic repertoires, has always been discriminatory given the multilingual reality, de facto if not in law, of most nation-states. This imposition of monolingual standards is particularly striking as the increased mobility and diasporic trajectories of many students contribute to the polyglot forms of their linguistic repertoires, which encourages increased hybridization practices and *translanguaging* (García 2006; Blackledge and Creese 2014) as well as the emergence of new identities. The maintenance of linguistic ideologies in schools, such as the ideologies of monolingualism and standarization (see Martín Rojo 2010, pp. 221–260, for an overview), entails not valuing the languages spoken by students in multilingual and multicultural schools, and the rejection of heteroglossic speech practices.

Sociolinguistics has shown the extent to which the unequal valuation of linguistic varieties and practices also leads, as part of a domination process, to the construction of the 'other' as deficient (a broad panorama is offered by Heller and Martin-Jones 2001, and by Heller 2007; see also Rassool *et al*. 2007). Those who do not belong to the hegemonic groups can be seen as people who do not 'fit in' or who are 'atypical.' Superiority and inferiority are constructed in terms appropriate to the school and to the dominant culture, as a form of 'cultural racism' (Grosfoguel 2003). From this point of view, education not only plays an essential part in the reproduction of social inequalities, but also naturalizes and legitimates them (Bourdieu and Passeron 1977). Education, in the form of remedial and compensatory programs, is justified by the supposed existence of 'different levels' of knowledge and communicative competence and is targeted to 'compensate' for these differences and create a level playing field.

The dissimilar value assigned to the skills, knowledge and languages of students, and to their practices and communicative styles, is rooted in the value systems of the social classes and cultural groups who enjoy the greatest influence. Thus, this unequal valuation promotes and reproduces the values and interests of such groups, usually predominantly Western values and interests.

In spite of the significant effects that the unequal valuation of students' cultural and linguistic backgrounds has on the reproduction of social inequalities, it cannot fully explain how this process takes place within the classroom itself. In order to contribute to this debate in the following sections, we therefore analyze how the unequal distribution of those linguistic and social resources that are necessary for educational integration and social mobility is actually produced at two different levels of organization: 1) at the classroom level; and 2) at the programmatic, curricular level, which is where the selection of content, languages and students occurs. At these two levels, local discursive practices show how they are embedded in and, at the same time, shape the social order (see Martin-Jones in this volume for the relationships between linguistic practices and social processes).

3. A Task-Oriented Approach to Understanding the Distribution of Linguistic Resources

With the aim of studying the distribution of resources in the classroom, I developed a 'task-oriented ethnography' (Cicourel 2000, p. 115), which involves the systematic observation and recording in classes of routine and particular verbal, nonverbal and paralinguistic

activities, the collection of any documents produced by those activities and finally the participants' own views and interpretations. Consistent with the aim of studying inequality, these observation procedures have to provide data on students' educational successes and failures as exemplified by students' grades and educational trajectories.

In my previous research, I analyzed complete teaching units, distributed across several sessions or lessons, in different educational programs – looking particularly at remedial and compensatory versus mainstream classes, and Spanish as a second language classes for newcomers, versus the prestigious Spanish–English bilingual program (Martín Rojo 2010; 2013, 2014). This analysis focused on the types of activities that were planned and how they were developed within the interactions that took place in a particular lesson in a given subject and at the same unit stage, in different programs – e.g. the topic of *argumentation* or the subject of *Al-Andalus*,[2] which addresses the period of Muslim rule in Spain.

The main axes of the analysis were: how are classroom activities organized and coordinated? The very existence of different educational programs and of educational grouping or tracking within the school is predicated on the unequal evaluation of students, their needs and their educational futures. Thus, programs differ in the contents taught, in the activities developed, and in the languages and knowledge that participants are permitted to mobilize in developing these activities. That is, which elements are allowed front stage and which are forced backstage? Following a task-oriented approach such the one proposed above, the analysis of classroom practices will show how the activities planned by the teachers and the resources which they deployed in each program varied across different educational programs, despite the fact that the educational cohorts and subject matter that were studied were the same.

4. The Distribution of Resources Through Classroom Activities

In Example 1 from a Spanish as a Second Language (SSP) class for newcomers at the *Violetas* secondary school in Madrid, we can see the correlation between the teacher's *pedagogical focus* – i.e., her decisions regarding what will be learned, how and when (see Seedhouse 2004, for an analysis of how this focus shapes classroom interactions) – and her understanding of the aims of the program as well as her expectations in relation to her students.

According to the claimed curricular goals for this class, the program needed to provide newcomer students whose home language was not Spanish with the resources needed to face the demands of proficiency in academic Spanish in mainstream classes, so that they might follow the content and participate in the activities offered in the wider school. However, our analysis of what happens in this class shows that the lessons were centered around everyday communicative uses, far removed from any academic context. The topics studied during the year under study at *Violetas* were presented in the following sequence: greetings, requests and basic instructions, parts of the body, city maps, medical services, public transport, the market and jobs. All of these topics address familiar content and basic vocabulary rather than the task of acquiring an academic register.

Something similar happened in relation to classroom activities. As we see in Example 1 Victoria, one of the teachers, as she usually did at the beginning of each day, carries out activities aimed at explaining the content of specific lexical units, followed by other activities designed to reinforce this kind of language acquisition. The activity in this case consists of drawing colored circles on a photocopy in order to highlight the new words and to identify

the lexical category to which they corresponded (agent versus place/establishment). During the activity, the vocabulary items learned are checked one by one, and the work of each student is then also checked (see Pérez-Milans 2006 for an in-depth study of these classes). The participants in this class arere GaoSheng, ShiQing, Feng, Rodrigo, Arnaldo, Fadila, Amina, Aisha and Aleksandra, from various countries (China, Brazil, Morocco and the Ukraine).

Example 1[3]

Teacher: Victoria
Students: Aisha, Rodrigo, GaoSheng

→	1	***Victoria***	*{a Aisha} ¿qué es un científico?*	{to Aisha} what is a scientist?
→	2		*¿es una tienda?*	is it a shop?
	3	***Aisha***	*{mirando a la profesora} no*	{looking at the teacher} no
	4	***Victoria***	*{niega con la cabeza mirando su*	{shakes her head while looking at
	5		*hoja} ¿qué es?*	the sheet} what is it?
	6	***Aisha***	*{mirando su hoja} es&*	{looking at her sheet} it is&
→	7		*{GaoSheng, mientras tanto, tiene*	{GaoSheng, in the meantime, is
	8		*la vista fija en su hoja, y Rodrigo,*	staring at his notebook, and
	9		*recostado en su silla, mira a*	Rodrigo, leaning back on his
	10		*Victoria y a Aisha}*	chair, looks at Victoria and at
	11			Aisha}
	12	***Victoria***	*{a GaoSheng} &¿qué es un*	{to GaoSheng} and what is a
	13		*científico?*	scientist?
→	14		*{coge el diccionario de chino-espa-*	{she takes the Chinese-Spanish
	15		*ñol del aula y busca en él}*	dictionary in the classroom and
	16			starts looking it up}
	17		*{GaoSheng mira su hoja y no*	{GaoSheng looks at his notebook
	18		*mira a la profesora}*	but does not look at the teacher}
	19	***Rodrigo***	*((( )))°*	((( )))°
	20	***Victoria***	*di {sigue buscando en el diccio-*	tell me {she continues to look
	21		*nario} //{deja de buscar y mira a*	it up in the dictionary} / / {she
	22		*Gao Sheng, que sigue sin mirarla}*	stops looking up the word and
	23		*¿¡qué es de estos tres!?*	looks at Gao Sheng, who is still
	24			looking at her}
→	25		*{tono de impaciencia} / a ver / sólo*	{impatient tone} what is it out of
	26		*tienes que-*	these three? {her tone is impa-
	27			tient} / let's see / you only have
	28			to-
→	29		*¡ROJO AZUL O-O NEGRO!*	RED BLUE OR-OR BLACK!
	30	***GaoSheng***	*{a la profesora} (asú)°*	{to the teacher} (like this)°
	31			*{literally 'blue.' with a non standard*
	32			*pronunciation}*
	33	***Victoria***	*¡pos venga! /*	well come on! /
→	34		*¡claro! {sigue buscando en el dic-*	of course! (10') {she continues to
	35		*cionario de chino-español}*	look up the word in the Chinese-
	36			Spanish dictionary}

In Example 1 activities are directed mostly at eliciting the meaning of basic items of vocabulary, and at determining the lexical and semantic categories they belong to. The students are not actually asked to practice new structures and to use the words in face-to-face conversations with peers inside or outside the classroom. In eliciting sequences, the students are asked, 'What is a scientist?' instead of being required to construct sentences showing that they know the term and how to use it. In Example 1, Aisha must state to which category this word corresponds: that of agents (who carry out a profession) or places/establishments where such a profession is performed (i.e., a shop). The teacher simplifies the language to such an extent that the second question she asks (line 2) – is it a shop? – is almost surreal. Note that Aisha does not reply (a behavior that would be a consistent response to the puzzling nature of the preceding question), so the teacher asks GaoSheng to intervene. GaoSheng remains silent, looking at his note book. This behavior seems to irritate the teacher (lines 17–26), and she then appears to suppose that he lacks competence. Next, the teacher simplifies her request, and the boy only has to state the category of the word, by choosing the corresponding color (line 26). From the contextualization cue (Gumperz 1982), 'only' (in: 'you only have to-' line 26), it can be inferred that she considers this task to be undemanding. Finally, she manages to get an answer from the student (in a very low voice) and gives him a positive assessment ('of course!' in line 34). However, the activity is not finished until the main tasks are completed, and a circle is marked around the word. The students have to select the color that identifies the categories the teacher has established to explain the concept of professions, choosing between agents, who carry out the activity, and 'shops.' or places where the activity is performed. These categories are not well defined. Indeed, they are so simplified that it is difficult to understand them. Finally, in this case, the activity ends without the students giving a definition, which is instead obtained from the dictionary.

In fact, classroom activities in this program frequently consist of going to the blackboard and making lists of words or circling them in certain colors to show their meanings or parts of speech. The preference for these activities is derived from the fact that the teachers' pedagogical focus in this class is to develop basic interpersonal communication skills, and not to enable the students to catch up with their peers in using Spanish to communicate complex, academic concepts. Furthermore, the teachers apparently believe that these basic interpersonal skills (BICS) are developed by defining terms, and not by practicing them.

These kinds of activities are far removed from those performed in mainstream classes, tasks such as listening to and summarizing a presentation, reading a text book, or writing an essay, all of which require the use of more complex sentences and grammatical structures, together with low-frequency vocabulary. Consequently, students in this class are not being equipped with the linguistic capital needed to follow a mainstream class in the language of instruction, and thus the formation of new capital is discouraged. To ensure their integration into the education system, an effective bridge must be extended, and opportunities to develop academic Spanish in the content areas must be created.

Doing this is not impossible, and in fact, during a subsequent study at a different school, *Villabavel*, I observed that when the language of instruction is content-focused and targeted towards attaining academic language proficiency, the aims of the lessons, their activities and procedures are markedly different from those observed at *Violetas* (see Martín Rojo 2014). In this new setting, the teacher designed a new procedure: over a nine-month period, before the non-Spanish speaking newcomer students had been completely mainstreamed, the SSL program teachers accompanied students to some mainstream lessons, and during the remaining periods, they worked in the Bridging class, preparing them to be able to follow these mainstream lessons, and to do the exercises and activities involved. This procedure ensured that the level of the lesson content (e.g. energy production, the structure of the cell, matter) was suitable for the students' age, and that the activities performed and the demands

made corresponded to those of a mainstream program. More specifically, at Villabel, an academic, non-simplified linguistic register was the focus of instruction. Thus, when an authentic content-based approach to language teaching is implemented, the logic of deficit is eliminated. Naturally, for this to occur, a prerequisite is that the teacher believes the students are capable of responding appropriately. Teachers who have high expectations concerning their academic performance prioritize their students' participation in the learning process, while those who have little or no expectations of their class and consider their students to be poorly schooled and difficult to educate, recommend them to follow a remedial program.

In fact, this contrast has been revealed by our research on the English/Spanish bilingual program and on SSL Program for non-Spanish-speaking migrants. In spite of the common goal of teaching a new language of instruction, both programs differ in teaching procedures, methods and goals implemented. The design and the implementation of bilingual language programs are based on relatively progressive views of language education, in that a select number of students were prepared to master English and Spanish in an academic domain and thereby gain access to higher education and to an increasingly globalized job market. On the other hand, SSL programs for non-Spanish-speaking migrants are designed and implemented in most of the Spanish Regions as remedial or 'special classes'. Thus, following a deficit approach, the teachers focused on basic interpersonal skills and on school routines and procedures, thus ensuring that students merely conformed to such expectations (see Martín Rojo 2010, pp. 137–184 for a detailed analysis). From this contrast, we can see how teachers form expectations for student performance and tend to plan their goals and tasks differently depending on these expectations. In Spain, as in many European states, despite constant criticisms and controversies, compensatory education and 'special' classes are set aside for students with a migrant background, instead of promoting content and language integrated learning, and ensuring that the activities performed and the demands made correspond to those of a mainstream program. It is necessary to combat racism and xenophobia in the population as a whole, and this aim may be achieved by: 1) changing the curricular goals of mainstream and SSL programs; and 2) training the faculty of the future to change their approaches to teaching (see Eurydice 2004).

5. Distribution of Resources Within Activities: at the Heart of Capital Distribution

During lessons, the distribution of different forms of capital that we were studying was articulated through the spatial and symbolic distribution that is involved in Goffman's (1959) distinction between front and backstage; this distinction is also used in classroom research by Heller and Martin-Jones (2001) and Martín Rojo (2010). Given the asymmetrical relationships within the classroom, the teacher decides the distribution of resources between the two spaces. More specifically, Goffman creates this distinction with the aim of analyzing how an individual's identity is displayed through role(s) and how a consensus is reached between the actor and the audience, that is, by sharing ceremonials and values within an 'individual-society' dialectic. Indeed, the struggle for resources among participants can be understood and analyzed through this spatial metaphor. Front stage is where the performance takes place and where the performers and the audience are present. On the stage, the drama/action is played out in front of the rest of the community, employing a set of references common within social norms. In (language) education contexts, access to the front of the stage is controlled to a certain extent by teachers, who establish who is a ratified participant,

what is a relevant activity, a legitimate topic and a legitimate language to be used. Meanwhile, those contributions, topics and languages that are not considered by teachers to be legitimate elements within class activity are relegated to the backstage. Nevertheless, students often try to influence this distribution and bring new topics, languages and activities to the front stage, as we will see in the following examples. Whenever these attempts are unsuccessful, students can only manifest their opposition to the teacher's spatial distribution of resources at the back of the stage.

In the following example from the same Spanish as a Second Language class at *Violetas* school, this process of distribution of symbolic capital between the front and back stage can clearly be seen. In this excerpt, the teacher, who is still working on the topic of professions, refers to 'singers and musicians.' and asks students to give examples they know, in order to check their comprehension.

Example 2[3]

Teacher: Victoria
Students: Feng, Aisha, Amina, Fadila

	1	***Victoria***	*{a Feng} dime un cantante ↑ (2') el*	{talking to Feng} tell me a singer
	2		*nombre / un cantante /*	↑ (2') the name / a singer /
→	3		*dime↓*	tell me↓
→	4	***Feng***	*¿en chino?*	In Chinese?
→	5	***Victoria***	*no no / en español*	no no / in Spanish
→	6	***Aisha***	*(en español)* °	(in Spanish)°
→	7		*{risas}*	{laughter}
→	8	***Feng***	*no↑ / yo no lo sé ↑*	no↑ / I don't know↑
	9	***Victoria***	*¿no conoces ninguno en español?*	you don't know any in Spanish?
	10	***Feng***	*sí↑ //*	yes↑ //
→	11		*no lo sé↑*	I don't know↑
→	12	***Amina***	*yo mucho ↑*	I know a lot ↑
	13	***Victoria***	*a ver // di*	let's see // tell us
	14	***Feng***	*¿qué?*	what?
	15	***Victoria***	*Bisbal ↑ // [dime una canción de*	Bisbal ↑ // [tell me a song of
	16		*Bisbal]*	Bisbal's]
	17	***Feng***	*[(( ))]*	[(( ))]
→	18	***Amina***	*[¡ah! / no lo sé]*	[ah! / I don't know]
	19	***Fadila***	*[Bulería bulería]*	[Bulería bulería]

In this excerpt, the participation framework is completely influenced by the rule that requires examples of knowledge to be demonstrated in Spanish. The students try to participate by giving examples from their own background (lines 4 and 12). The teacher addresses Feng explicitly, with a request 'Tell me'. Feng does not answer, but in turn poses a question, seeking to ascertain the correct interactional procedure. The question 'In Chinese?' is a presuppositional actioning device, from which we deduce that he can give an answer if Chinese names are allowed. The teacher decides what counts as knowledge, which in this case is specified as knowledge that refers only to Spain and Spanish culture, by restating the rule in line 5. The laughter of his classmates shows that they are aware of the rule and consider the question to be out of place (line 7). When Feng falters or is unable to provide the 'appropriate' answer, Amina strikes, taking Feng's turn. But the teacher continues to address

both Feng and Amina with questions that demand an even greater knowledge of the local culture, leaving both students unable to respond.

This logic of knowledge hierarchization leads to the devaluation of the students' currently available symbolic capital, since the symbolic capital they possess is not considered adequate and cannot be used in the construction of knowledge. If the students obey the rules, they cannot participate in the joint activity, as exemplified in Feng and Amina's responses: 'I don't know' (lines 8–18).

In this class, as in many other classes studied in very different places around the world, a monolingual norm is enforced by the teacher, which can be made explicit by using directive speech acts: 'don't speak Chinese.' 'only use Spanish' or the well known 'English only' in US schools. The inequality of resources that the students possess derives from this rule, which controls the distribution of different forms of capital within the teaching program. It is as a result of this (mis)management of diversity that students are deprived of capital in their schooling and have to start from scratch in their educational trajectories.

Indeed, the decapitalization of certain participants has a counterpart in the capitalization of other sectors of the population, who enjoy the advantage of speaking the language. If we observe what happens when students challenge this distribution, and manage to represent their own diversity at the front of the stage, we will see how a change in power relations is produced. In the following example, from a school we have called *Evangelista*, we see how the simple inclusion of a term common in Latin American varieties of Spanish has a strong empowering effect on the students. This example involves the school's history teacher, who tended to emphasize the difference between 'developed' and 'under-developed' nations, among which he included the countries of origin of his students (90% of whom were Latin American).

Example 3[4]

Teacher: Genaro
Students: Genaro, Jose, Brian, Jorge

→	1	***Genaro***	*PATATA!* ***(a)*** *O BANANA*	POTATOES! OR **(a)** PLANTAIN
	2			PLANTAIN
	3		*/ ¿eh?*	/ eh?
	4		*{risas}*	{laughter}
	5	***Jorge***	*banana {risa}*	plantain {laughter}
	6	***Genaro***	*¡no la*	no a
→	7		*banana es el plátano! /*	plantain is a banana! /
→	8		*perdón! / ¡la PATATA! / ¿otro*	sorry! / a POTATO! / another
	9		*nombre de patata que*	name for potato that
→	10		*tenéis en América?*	you have in America?

Firstly, the teacher recognizes that the knowledge of these linguistic varieties is a form of capital that belongs to the students and thus he cannot continue to present himself as the only fount of knowledge (line 10). In these and other examples analyzed, when students bring their own linguistic varieties to the front stage and introduce them into the activity, it has a profound impact on power asymmetries among the participants. Thus, within these practices, they show they are competent in more than one variety and not just students with 'limited competence' in Spanish. They are also challenging the standard norms by bringing in something complementary to the aforementioned monolingual norm, which many

teachers and schools institutionally promote. When the monolingual or the standard norm is challenged, the teacher's position is redefined in the course of situated activities and interactions. Students can correct the teacher, and thus the asymmetry between the two parties is reduced (line 5). In this way, the inclusion of other varieties challenges the traditional teacher-centered order in the class, and therefore, by contrast, we can imagine the decapitalizing consequences that might arise from their exclusion (a detailed analysis of the impact of the inclusion of resources normally excluded from the front stage can be found in Martín Rojo 2014).

Thus, the distribution of resources and capitals in the school is not merely a reflection of the social order, but is the result of moves made by participants to gain various forms of capital or to block other participants' access to them. According to this, different student responses have been observed, from hybridization to the reproduction of the monolingual norm analyzed in this paper, or even students resorting to linguistic caricatures through their ironic self-presentations as 'zerolingual' (Jaspers 2011). Thus, what the proposed spatial metaphor allows us to capture is the dynamic and situated character of the distribution of different forms of capital and the agency of the various participants.

Furthermore, we see that the unequal distribution of different kinds of capital is not only effected through norms that favor those who already possess certain valued forms of capital such as, for example, being able to speak other languages and varieties, or possessing some particular kinds of knowledge rather than others. Frequently we discover that these norms have the effect of impeding the redistribution of different types of capital in the classroom, by hindering, for example, the typical attempts of students to gain new capital. In the following example, we can can see how ShiQing, a newcomer student from China in a Spanish as a Second Language class, is able to build the semantic field of the days of the week by escaping from the monolingual rule and resorting to all the languages in her repertory.

Example 4[5]

Teacher: Victoria
Students: ShiQing, Amina, Arnaldo, Fadila

	1	**ShiQing**	{sigue la trayectoria de la profesora	{follows the teacher walking over
	2		hacia el observador y, cuando ésta	to the researcher and, when she
	3		de espaldas, se dirige de nuevo a	has her back turned, turns to
	4		Feng}	Feng again}
→	5		(星期六怎么说？ / (( )))º	{pinyin: xīngqī liù zěnme shuō? /
	6			(( ))} (( ))}
	7		{Feng tiene la mirada fijada en su	{translation: how do you say
	8		hoja. La profesora y el investigador	Saturday?}
	9		prosiguen la conversación}	{Feng is staring at his worksheet.
	10			The teacher and the researcher
	11			continue their conversation}
	12		monday tuesday wednesday	monday tuesday wednesday
	13		thursday friday / eeh /	thursday friday / eeh /
	14		(我就记得六个/ 第-第六个忘	{pinyin: wǒjiù jìde liù ge / dì- dì
	15		记 了!)º?	liù ge wàn jì le!}
	16			{translation: I can only remember
	17			six / I've forgotten the sixth one}

	18		{leyendo en su hoja en voz muy	{reading in a very quiet voice
	19		baja, y en paralelo a la	from her worksheet, and overlap-
	20		conversación entre la profesora	ping the conversation between
	21		y el investigador}	the teacher and the observer}
	22		(lunes martes miércoles jueves	(lunes martes miércoles jueves
	23		viernes sábado (( )) monday	viernes sábado (( )) monday
	24		tuesday wednesday / tuesday /	tuesday wednesday / tuesday /
	25		monday tuesday (( )) for- friday /	monday tuesday (( )) for- friday /
	26		sat- sat (( )))° {levanta la mirada	sat- sat (( )))° {she looks up from
	27		de su hoja y se dirige a Feng}	her paper and turns to Feng}
	28		星期六怎么说？	{pinyin: xīngqī liù zěnme shuō?}
→	29		and	{traducción: how do you say
	30			Saturday?}
	31	**Victoria**	[¿habéis terminado?]	[have you finished?]
	32	**ShiQing**	{a Arnaldo} [(( ))] / ¿cómo se	{to Arnaldo} [(( ))] / what's it
	33		llama? {le tira del brazo a Arnaldo	called? {she tugs at Arnaldo's
	34		y le señala en su hoja} sapato /	arm and points to his sheet}
	35		¿cómo se llama?	*sapato* (literally shoe[6]) / what's it
	36			called?
	37	**Arnaldo**	saturday	saturday
→	38	**ShiQing**	saturday	saturday
→	39	**Arnaldo**	{corrigiendo a ShiQing} sábado /	({correcting ShiQing} sábado /
	40		no sapato // SÁbado	no *sapato* // SÁbado
→	41	**ShiQing**	SÁbado / {señalando en la hoja}	(SÁbado / {pointing at the sheet}
	42		¿esa?	that one
→	43	**Arnaldo**	saturday	saturday
	44	**ShiQing**	sa[turday]	sa[turday]

More specifically, ShiQing uses Mandarin as a reference to develop the units of a semantic field (the days of the week), and to build the term 'sábado' in Spanish. The Mandarin names for the days of the week are based on a numerical sequence (lines 12–13). The word for 'week' (xīngqī) is followed by a number indicating the position of the day within the week: 'Monday' is literally 'week one' or *the first day of the week*, 'Tuesday' is 'week two.' and 'Saturday' is 'week six'. In the example ShiQing is considering this pattern, but she is also following an English list, in which a different pattern is applied. Mobilizing the different resources she has in her multilingual repertoire, she is investing in the activity (Norton 2000), and trying to build the legitimate language of instruction in her new school. By using this translingual practice, and with Arnaldo's support, she eventually finds the answer.

Studies on translingual practices in education (García 2006) have labeled this skill a learning resource, but nevertheless it runs up against norms that block its application. In addition, within the approach expounded in this paper, these translingual practices can be 'converted' into other forms of capital, namely good marks and possible success in school. Finally, as discussed in the following section, the application of the rules governing the distribution of different types of capital is justified and legitimized by the devaluation of other resources and languages.

6. The Naturalization and Legitimation of the Unequal Distribution of Resources in Education

Both the existence of educational programs that separate and compartmentalize diversity, and the application of the rules governing the distribution of different kinds of capital in educational practices are justified and legitimized by assigning unequal values to different languages and other linguistic and educational resources, as well as to the students themselves. It is here that the we again encounter the contributions of the so-called 'theories of deficit' or 'difference.' and the subsequent critical turn that warns of the need to relate such unequal valuation to the differing interests of various social groups and classes in their different social contexts. In fact, racial/ethnic relationships, inherited from colonial times, are being reactivated in the context of the international division of labor and the expansion of neo-liberalism. The fact that these relationships persist prioritizes certain languages and students and devalues others in newly multiethnic areas, both metropolitan and rural.

Numerous pieces of research have evidenced the existence of hierarchies of ethnic and national groups that shape and are shaped by the unequal distribution of capital at school, and the fact that this inequality is legitimized by the institution. If some symbolic resources are valued more highly than others, the students who possess such capital will readily be considered 'competent' or 'good students' while those who do not are seen as 'incompetent.' or at least 'less competent' (see Martín Rojo 2010, for an extensive bibliography on this hierarchization of students). The belittling and exoticization of the 'other' are at the heart of colonialism, of ethnic nationalism and of contemporary racism (Grosfoguel 2003). They can even be seen, to some extent, in schools in countries that have experienced large-scale immigration over decades or in countries that are considered to be founded on immigration (see, for instance, Urciuoli 1996).

Nevertheless, these representations of languages, knowledge and participants in the educational community, despite being rooted in society, are not automatically replicated in the classroom. Just as with the distribution of different kinds of capital, they can and are questioned in teacher–student interactions. In the following example, the teacher explains to the researcher that one of the students in the class, who comes from Morocco, does not really meet the 'standards' necessary to be enrolled at the school because of the low standards of education Morocco. She does this in front of the class' students.

Example 5[7]

Teacher: Alicia
Students: Fatima, Amina
Researcher: Esther

1	**Alicia**	[que es que va]yas / a clase /	[is for you] to go / to the class / and
2		y p- / ellas no PUEDEN / ellas	b- / they CAN'T / they WOULD
3		QUISIERAN ir a clase / pero no	LIKE TO go to the class / but they
4		PUEDEN porque tienen un nivel	CAN'T because their level is very
5		muy bajito	very low
6		{la alumna se ríe}	{the girl laughs }

7	**Alicia**	tienen poca base de	the level is very low in
8		Marruecos / ¿entiendes? / tú	Morocco / you know? /
9		sabes que no saben bien	you know they're not
10		matemá:ticas / yy / noo- / noo- /	very good at
11		les falta base de	mathematics / aand / they can't- /
12		conocimientos //	they don't- /
13		{dirigiéndose a Esther}	they haven't got the
14			basic knowledge //
15			{addressing Esther}

The student is presented as an 'unaddressed recipient' (Goffman 1981, p. 133) and thus her chances of intervening are reduced (lines 2–5). Some nervous laughter on the part of the student (line 6) is followed by negative comments, expressed with some difficulty by Alicia, the teacher (lines 7–15).

In multilingual contexts, the linguistic varieties currently found in schools have usually come into contact through the transnational movements of people, as a result of which languages with a national status and their associated values in students' countries of origin run up against other linguistic values and ideologies in the country of immigration. In this context, speakers have to negotiate the legitimacy of their linguistic practices, and therefore often their own legitimacy as members of the linguistic community in which they are schooled. Thus, in my research, the reactions against the rules imposed by the teacher – rules which exclude other languages – are particularly intense in the case of Arabic. In the Moroccan linguistic market, Modern Standard Arabic is the preferred language of instruction. In Spanish schools, Spanish is upheld and established as the dominant, legitimized language, while Arabic is downgraded to the status of a language that cannot be used at school.

When participants do not share the system of values assigned to languages by the community, not only do misunderstandings arise, but also the whole process of 'conversion' of a linguistic variety or style into symbolic capital can be challenged (see Bourdieu 1980, 1986). The students do not question this assessment of languages, but they do question the arguments used by the teacher and the ideologies that support them, presenting the use of Arabic in class as a lack of 'respect' (Martín Rojo 2013a).

These kinds of tensions, related to the reproduction or contestation of the linguistic ideologies of programs, can also be observed in post-colonial contexts in cases where bilingual programs deal with the colonial language and an endangered language. For example, in the case of bilingual or intercultural education, such as 'Indigenous Education' ('Educación indígena') in Mexico, whose alleged purpose is language revival and/or maintenance, we observe that indigenous languages are often merely used as languages of communication between teachers and students, but not as languages of instruction. Even though this is not the use demanded by the programs' regulations, not only has resistance on the part of the teachers to their use been documented academically, but also opposition on the part of the parents (Gómez Lara 2011). Very similar observations can be found in Walsh's studies on intercultural education in Ecuador (Walsh 2000). A particularly revealing study was carried out by Unamuno, who analyzes bilingual education in El Chaco, where indigenous teachers are relegated to a lower level in the classroom, acting as translators or assistants to the white teacher, rather than as teachers of equal status (Unamuno 2012). In these cases, the implementation of programs created to revive or maintain the language and culture of indigenous communities are constrained by a colonial ideology that is difficult to overcome even by indigenous teachers themselves and which, furthermore, reproduces the traditional undervaluing of these languages.

Nevertheless, in the same way that teachers can reproduce the ideologies and values that are dominant in society, they can also, though not without effort, oppose their reproduction. As seen in Pérez Milans' analysis (20013, Chapter 4), teachers can develop a two-pronged practice that allows space both for their official status as participants – who are institutionally expected to implement the relevant programs, following the *Instructions from the Departments of Education* – but also as individuals who are able to question such regulations and to explore other approaches. These attempts are often the initiatives of isolated individuals, even though, in recent decades, new social agents have entered the scene and alternative approaches to educating in different languages are emerging, particularly in formerly colonized areas. Programs such as the Zapatista Autonomous Education in southern Mexico, show how it is possible to design an education in which languages and people previously excluded are not only included in educational process, but are the agents of their own inclusion.

7. Conclusions

In this paper, the analysis of how inequality is constructed has been approached within the dynamics of the distribution of symbolic capital that takes place in everyday practice in school. The related concepts of capitalization and decapitalization refer to acts of conferring and withholding symbolic capital — such as the failure to give value to students' previous schooling, languages and knowledge — through educational programs and through educational norms. This distribution of resources impedes and prohibits the use of undervalued linguistic varieties and knowledge to gain access to mainstream and elite education programs, and restricts the acquisition of different kinds of capital, such as mastering the language of instruction.

The unequal valuation of linguistic varieties and students from different social classes or ethnic backgrounds shapes and is shaped by this unequal distribution of resources. This is, however, only one of the elements involved in the construction of inequality. The analysis of educational practices reveals the 'micro-physics' of the unequal distribution of capital. In the line Focault's micro-physics of power (1975), the distribution of resources operates and exist through people; and we need to decipher it in a system of relations and exchanges on a daily basis. All participants are involved in this distribution, depending on the power to act that they enjoy.

It has been shown that the unequal distribution of resources in education is linked to differences of interests and to the struggles for material and symbolic resources that exist between different social sectors, and proves itself to be a key factor in social reproduction. It would thus seem impossible to design a school that does not reinforce social inequality. However, it has been pointed out (see Alba 2013) that some historical cases of educational catch-up by disadvantaged groups indicate that, under favorable circumstances, maximally and effectively maintained inequality can yield to other forces. These attempts are often made by individuals, but under certain circumstances, the system of exclusion might collapse, perhaps in periods of particular economic growth, in which the inclusion of minorities does not threaten the privileges of the dominant classes (see Alba 2013 on 'non-zero-sum mobility' in the USA). Along these lines, fresh approaches might be born of new attempts to oppose the logic of decolonization and to problematize ethnic/social domination, by creating novel programs and incorporating social agents traditionally excluded from the process of designing and implementing such programs.

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NOTES

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2 Al-Andalus is the Arab name for those parts of the Iberian Peninsula ruled by Muslims between 711 and 1492.
3 Corpus Asopracipeia [U12VV200404Aa].
4 Corpus Asopracipeia [1dE220104S1].
5 Corpus Asopracipeia [U112vV200404Aa(2)].
6 ShiQin's pronunciation of "sábado" (Saturday) in Spanish corresponds to the word "zapato" (shoe), pronounced as 'sapato', that is, as it is usually pronounced by most of the Spanish speakers, although this is not the standard form in Madrid schools.
7 Ethnographic observation and recording by Esther Alcalá [090423AEAJ].

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See Chapter 7: Can Neo-Marxist and Post-Structural Theories in Education Inform Each Other? Using Genre Approaches to Bridge the Gap.

See Chapter 21: A Language Socialization Perspective on Identity Work of ESL Youth in a Superdiverse High School Classroom.

See Chapter 26: Multilingual Classroom Discourse as a Window on Wider Social, Political and Ideological Processes: Critical Ethnographic Approaches.

See Chapter 27: Power, Resistance and Second Language Learning.

See Chapter 28: Seeing "Language and Development" Play out in Classroom Interaction.

Part IX Final Words

30 Where Does Research on Classroom Discourse and Interaction Go From Here?

NUMA MARKEE

1. Introduction

I begin by providing a preliminary summary of the most important emerging research issues and questions that were identified by writers *within* the Research Methodology and Assessment section, and within each of the six Traditions in this volume. I also identify issues that were implied or *not* addressed within each Tradition as and when appropriate. From this summary, I then synthesize a list of crosscutting issues that are likely to dominate research on classroom discourse and interaction in the next five to 10 years. Following the example of Hulstijn, Young and Ortega (2014), who seek to bridge the gap between cognitive and social approaches to research in second language acquisition (SLA), the aim of this second section is to explore whether, and if so how, bridges may be built *across* the various Traditions in this Handbook, and ultimately to *transcend* rather than to *emphasize* whatever ontological and epistemological differences may presently divide us.

2. A Preliminary Summary of the Most Important Emerging Issues and Questions within Traditions on Classroom Discourse and Interaction Research

2.1 Emerging issues in the Research Methodology and Assessment section

In his suggestions for future quantitative research in second language acquisition (SLA), Long (this volume) suggests that the use of new technologies (such as eye-tracking hardware/software) that complement behavioral observations of teachers' and learners' language learning activities, and emerging work on language aptitude in theoretical SLA studies will likely lead to important new insights that can feed into the improvement of instructed language learning. He also notes that the generalizability of experimental classroom interaction

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research has until now been potentially compromised by the fact that such research has been carried out in two different kinds of settings – laboratories and (more or less) intact classes – whose results are not easily comparable. Long therefore outlines a two-stage model of future research on classroom interaction (which reminds me in some ways of the kind of beta testing model of software development that is widely used in the software industry) that is intended to finesse these problems of generalizability. More specifically, he suggests that research on instructed language learning should begin in the laboratory and should then be followed up (if the results of the initial laboratory studies are statistically significant) by further research in the classroom. As Long notes, the advantage of adopting such a two-pronged approach is that 'if the same statistically significant advantages are observed [in both settings], the researcher/evaluator can begin to have confidence in the potential for teaching recommendations' (p. 69). However, he also acknowledges that generalizability may still be compromised if the results of the classroom studies are in the same direction as those of previous laboratory studies but do not reach statistical significance. In such cases, researchers should try to provide *ex post facto* explanations for these differences that are consistent with the overall trends observed in both settings, while also acknowledging the limitations of their conclusions.

In their discussion of future directions for ethnographic research that enables readers to read in an informed way across different research traditions, Green, Castanheira, Skukauskaite and Hammond (this volume) suggest that no single theory can ever lay claim to having a monopoly on the truth. As these writers see it, research in discourse studies therefore needs to: 1) be located within the *linguistic turn* that has occurred in the social sciences as a whole; and 2) make visible the social consequences of adopting a particular research perspective in terms of the issues and problems that this perspective allows us to address. These writers add that discourse analysts also need to pay explicit attention to the *reflexive turn* in social science. Drawing first on work in anthropology, they argue that researchers *write* culture, they do not just *find* or *simply* report it. They then show how this idea has been interpreted in sociology, particularly in work on inscription and transcription, and argue that, within the fields of education and applied linguistics, researchers need to be absolutely transparent in reporting their theoretical assumptions regarding such matters if readers are to understand what can and cannot be understood from their research. Finally, they suggest that their chapter lays the foundations for 'constructing an *ethnographic meta-analysis of literature* through the process of uncovering and then contrasting what different perspectives make possible to be known' (p. 41). The relevance and timeliness of such a program to addressing major crosscutting issues such as the role and parameters of social context in research on classroom discourse and interaction (see Markee, Chapter 1, this volume) surely needs no further explanation.

The chapter by Skukauskaite, Rangel, Rodriguez and Krohn Ramón (this volume) has much in common with the previous contribution by Green, Castanheira, Skukauskaite, and Hammond, which is hardly surprising, since Skukauskaite is a co-author in both pieces. The themes of reflexivity and the consequent stress on the importance of socially committed research, the interest in opening up the research process to a broad range of stakeholders, and the need to engage in cross-disciplinary dialog as interconnected resources for ethnographic meta-analysis are foundational in both chapters. These themes should all be further developed in future research on classroom discourse and interaction. These authors' discussion of the importance of understanding the processes as well as the products of classroom discourse and interaction will likely continue to have resonance in 21st century applied linguistics and education (see also Hulstijn, Young and Ortega 2014, and, in particular, Talmy 2014), as will the conversations about the importance of intertextuality and how to do longitudinal work in qualitative research. In this context, Skukauskaite, Rangel,

Rodriguez and Krohn Ramón make some interesting observations about what different kinds of qualitative research can contribute to such research. Their perspective on these matters is important because it stresses the need for collaboration between different schools of qualitative research, which I think is going to be a particularly important theme in future research on classroom discourse and interaction, as will research that invites us to question the comparability and trustworthiness of results obtained through different methodologies.

Antón identifies a number of interesting topics for future research on dynamic assessment. She notes that many recent alternative approaches to assessment tend to treat an understanding of interaction as foundational to understanding and assessing sociocognitive processes in the classroom. An understanding of interaction is also crucial for 'analyzing the validity and reliability of classroom assessment practices' (p. 86). The different theoretical assumptions made by sociocultural theory (SCT) regarding how language learning is achieved – basically that learning begins as a socially contexted *inter*mental phenomenon that is transformed over time into an *intra*mental psychological achievement (Vygotsky 1978) – imply an important future reconceptualization of how validity and reliability are defined, how these constructs are to be achieved and measured, and what their relative importance is in the overall process of dynamic assessment. Antón also suggests that interactionally based approaches to assessment (such as dynamic assessment) may serve as a useful complement to more traditional standardized assessments. She also points out that since dynamic assessment is based on a philosophy that blends assessment with teaching, teachers become key players in the development and use of assessment tools that are particularly meaningful and useful in classroom contexts. Furthermore, such tools have the potential to tap into collaborative dimensions of learning that are not easily captured by more traditional means of assessment. Finally, Antón also argues that socially contexted, interaction-based approaches to assessment need to be put on a firmer theoretical footing. In this context, she comments that future research on interaction-based assessment needs to: 1) establish whether such forms of assessment are *complementary to or independent of* more traditional means of assessment; 2) clarify how useful the frameworks that have been proposed so far actually are; and 3) demonstrate the actual impact(s) on learning that the adoption of interaction-based assessment procedures might actually bring about.

To summarize, I believe that these issues are some of the most interesting questions raised by SCT advocates, and that they will undoubtedly continue to be of great importance in future research on the assessment of classroom discourse and interaction. Epistemologically speaking, the partnerships between researchers and teachers that are inherent in dynamic assessment are explicitly based on the critical notion of *praxis* (see Lantolf and Poehner 2014; Thorne 2005; Thorne and Hellermannn, this volume). Furthermore, as I pointed out earlier, Antón's commitment to SCT poses an interesting ontological issue about the role of theory in applied linguistics and education. Despite its praxeological inclinations, SCT is an priori, etic theory of (language) learning and interaction. As such, it is no different from other etic theories, such as cognitive-interactionism (see Long 1996), although these two theories obviously differ profoundly in how they conceptualize language learning and also on many matters of research methodology.

Interestingly, none of the authors in this section explicitly address how qualitative and quantitative approaches to doing research on classroom discourse and interaction interact – but then, I did not ask them to do this. The emerging general consensus on such matters (see Hulstijn, Young and Ortega 2014) is that there should be greater tolerance and acceptance of methodological diversity than existed in the 1990s. But the devil is always in the details. For example, how necessary – or merely desirable – is it for experimental research to be grounded in prior qualitative research? Is qualitative research merely a precursor to experimental research, or is it something that is consequential *sui generis*? Regarding quantification,

replication and meta-analysis, what can we learn from these different ontologies and epistemologies, particularly within qualitative approaches to research, which are not normally associated with such concerns? Furthermore, what *kind(s)* of theories of language learning (behavior) that occurs during classroom discourse and interaction is it that we are trying to develop, and what is the *role* of these theories in the process of creating new knowledge? More specifically, are these theories *emic* or *etic*, and what are the ontological implications of choosing one kind of theory over another, or of attempting to combine insights from such theories? Furthermore, does theory *drive* knowledge creation (as in etic perspectives), or (as in some emic perspectives) is it merely a *by-product of empirical findings* that are *ethnomethodologically indifferent* (Psathas 1995) to a priori theory?[1] And above all, is it desirable or possible ultimately to develop meta-analyses and syntheses of ontological and epistemological insights from these very different perspectives, and if so, how do we work out the details of such an enterprise? I submit that these are all questions that need a great deal more work in the future.

2.2 *Emerging issues in the Educational Tradition*

Frederiksen and Donin (this volume) stress the ongoing importance of *longitudinal* work in future research on classroom discourse and interaction, and this is a priority that I strongly endorse, irrespective of whether we situate ourselves in broadly quantitative or qualitative epistemological camps or (as these authors do), straddle the divide between these camps. There is an emerging consensus that language learning is a process that always takes place over time (see Skukauskaite, Rangel, Rodriguez and Krohn Ramón this volume); longitudinal research is therefore an essential component of work on classroom discourse and interaction. From my perspective, quantitative research has the longer tradition of carrying out longitudinal research,[2] although more could be done on such research even within this paradigm. Finally, let me point out that, although instructed SLA has a long established research agenda regarding classroom discourse and interaction, the edited volume by Seliger and Long (1983) was still drawing directly from the educational literature on how talk is done in content classrooms. Thus, the idea of situating future research on *language* classrooms within a broader tradition of research on *content* classrooms in fact involves instructed SLA revisiting its roots rather than adopting a completely new set of research concerns.

Collin and Apple (this volume) argue strongly that social, cultural and political dimensions of context are key factors in understanding how classroom discourse works. In this regard, their chapter implies that research on classroom discourse and interaction that is framed within a critical discourse analysis (CDA) perspective is by no means monolithic. Rather, it makes more sense to talk about a continuum of CDA research, whose poles are *political* and *poststructuralist* versions of CDA. In light of the claim by Bucholtz (2003) that there is some question as to which school of CDA does a better empirical job of accounting for discoursal data, this chapter obviously plays into the larger debate about what the proper bounds of context in classroom research should be. I therefore argue that future CDA-inspired research on classroom discourse and interaction would do well to situate itself on the political/poststructuralist continuum that these authors invoke in their chapter. In addition, since CDA makes an issue of *resisting* and *changing* social inequities in the classroom, it would be interesting for such research to engage with the question of *what successful social change in the classroom actually looks like* and *how it was achieved* (see Markee 1997 who provides a preliminary technical account of such matters).

For applied linguists in particular, the chapter by Bloome (this volume) is an excellent example of how research on a familiar topic can be understood in novel ways by looking at it through another disciplinary lens. As Bloome demonstrates, applied linguistics/second

language acquisition research on the social organization and acquisitional function of interaction in small group work has its roots in the education literature (see, for example, Seliger and Long 1983). I strongly believe that current and future research on these topics would benefit from an explicit cross-fertilization of ideas between the education and applied linguistics literatures on classroom discourse and interaction.

Given that millions of teachers give instructions on a daily basis in (language) classrooms all over the world, the chapter on instruction giving by Lindwall, Greiffenhagen and Lymer (this volume) is a particularly interesting contribution to a research topic that is singularly under represented in the applied linguistics literature. The chapter also testifies to the emerging importance of *multimodal* analyses of classroom interaction in applied linguistics (see the chapters by Duff and Anderson; Markee and Kunitz; Negueruela-Azarola, García and Buescher; Seedhouse and Van Compernolle, this volume), and also points the way to further research on the interactional organization of various informal institutional contexts, which is clearly a hot button issue in a number of Traditions right now (see the chapters by Van Compernolle in the Sociocultural Theory Tradition, by Duff and Anderson and Lee and Bucholtz in the Language Socialization Tradition, and by Kasper and Kim (this volume) in the CA Tradition). In my opinion, work on these three topics will continue to generate considerable research interest in the future.

To summarize, it seems to me that the most important issues for further research that emerge from the Educational Tradition include: 1) the need for longitudinal research; 2) further clarifications concerning the interrelationships between the political and poststructuralist wings of CDA; 3) the potential for cross-fertilization that is inherent in scholars from different traditions revisiting themes of common interest; 4) the need to rethink our conceptions about what constitutes the proper boundaries of classroom research; and 5) multimodality.

2.3 *Emerging issues in the Cognitive–Interactionist Tradition*

Kim (this volume) identifies the following issues in the cognitive–interactionist tradition as requiring further research. First, she calls for more process–product research on classroom interaction, though the kind of research that she is calling for involves the kind of ethnographic research proposed by Ortega (2005) rather than the quasi-experimental and experimental research reviewed by Long (this volume). Second, she calls for more methodologically focused research on the fidelity of task treatments, by which she specifically means 'whether learners actually approach task performance as researchers or teachers expected that they would (Coughlan and Duff 1994)' (p. 176). In addition, she also calls for more research on validity issues in task-based research in particular. Third, Kim calls for cognitive–interactionist research to go beyond its traditional interest in grammar and to start investigating areas such as pronunciation, vocabulary use, pragmatics, and the content and quality of L2 writing. Fourth, she suggests that, when it comes to applying the results of cognitive–interactionist research to the classroom, researchers should go beyond merely informing readers how to design or implement a *single task* in a classroom. Instead, they should address how such research can have an impact on the design of *entire course curricula*. Fifth, focusing in particular on future directions for work on priming, Kim notes that the implications of this line of research for classroom pedagogy are still in their infancy, and that classroom-based priming research needs to be carried out to complement the laboratory-based studies that have been the norm so far in this area of research.[3] And finally, Kim calls for more research on how teachers actually use tasks in the classroom. More specifically, she notes that teachers who design and use tasks as part of their everyday pedagogy need to be trained in how to maximize language learning through the use of tasks, and that they should be involved as full partners in classroom research projects.

In terms of future directions for research on input and output in SLA, Gass (this volume) notes that more work needs to be done in at least three areas. These include: 1) replication studies, which need to be carried out on some of the most recent work on input and output; 2) the continuation of ongoing work on how learners interact with different tasks *socially* and *cognitively*; and finally, noting that waiting for teachers to develop their experience with task based language teaching over periods of 5-10 years is not a luxury that we can afford, Gass urges us to consider whether or not we can design intervention programs that can potentially speed up the process of teachers developing relevant professional expertise in this area. From my perspective, the most interesting of these future areas of research are: 1) Gass' call for cognitive–interactionist researchers to consider both the social and cognitive dimensions of task based language teaching in their research; and 2) her call for better teacher education/training interventions that would train teachers to use techniques that promote students getting comprehensible input and producing comprehensible output more effectively and more rapidly than is the case today. With respect to point 1, Gass' position on the interconnectedness of the social and cognitive dimensions of task based language teaching is a marked improvement on the position that she held in 2007 (see Gass, Lee and Roots 2007). Furthermore, it attests to the broader emerging consensus that is emerging among cognitive–interactionist researchers on such matters these days (see Mackey 2014; Bowles and Adams, this volume; Kim, this volume). Finally, concerning point 2, I believe that if Gass' call for better teacher education/training programs is to yield the kind of results that Gass envisions, we will need to gain a deep understanding of how experienced and inexperienced teachers differ in terms of their *expertise* in task based language teaching. In this context, there is a small literature on expertise within the applied linguistics literature (see Johnson 2005; Tsui 2003) and a more general literature on this theme, which is also potentially relevant for educators and applied linguists (see Ericsson 2009, and Ericsson, Charness, Feltovich and Hoffman 2006).

Bowles and Adams (this volume) call for more research that uses mixed methods approaches that go beyond the traditionally cognitivist underpinnings of the interaction hypothesis (Long 1996) – i.e., which also draw on social theories of SLA. As already noted, such a call reflects the new maturity of 21st century approaches to instructed SLA and mirrors broader attempts to bridge the gap between cognitive and social approaches to second language learning (see Hulstijn, Young and Ortega (eds) 2014; Gass, this volume; Kim, this volume).

In terms of further research on corrective feedback (CF), Lyster (this volume) argues that future research on the effectiveness of CF needs to pay attention to a constellation of intersecting variables. These include cognitive, linguistic, and contextual levels of inquiry. Such research is necessary in terms of advancing our basic theoretical knowledge about CF. In addition, it is also important in terms of informing future teacher education/training decisions. More specifically, Lyster argues that research at the cognitive level should focus on: 1) how recast effectiveness (and other types of CF) is constrained by individual differences; 2) the longitudinal effects of different types of processing that are triggered by different types of CF that are potentially manifested in immediate (or delayed) learner repair. At the linguistic level, Lyster suggests that research on the effect of different types of CF in different linguistic domains (for example, morphosyntax versus vocabulary versus pronunciation versus pragmatics) is an especially propitious topic for further investigation. And at the contextual level, he calls for further research on how CF varies across instructional settings, with a specific focus on whether 'observed differences in discourse patterns across instructional settings differentially affect target language development' (p. 225). Finally, Lyster suggests that research on peer-to-peer CF and on the potential benefits of strategy training would also be useful. Among these various topics for further research, the integrated,

multi-level approach advocated by Lyster (see also Kim, this volume on this issue) is a particularly important strand of inquiry, as is the focus on longitudinal research, which also resonates with the broader methodological issues identified by Gass (this volume).

In summary, the most important topics for future research that emerge from the four contributions to the Cognitive–interactionist Tradition include the need: 1) for (multi-methods) research that involves taking into account a range of social factors that are treated as intervening variables in SL learning; and 2) to bridge the gap between basic and applied research on tasks by developing more effective teacher education/training interventions to get teachers up to speed in this complex area of language pedagogy as efficiently as possible.

2.4 Emerging issues in the Sociocultural Theory Tradition

Negueruela-Azarola, García and Buescher (this volume) call for further research on the interconnections among different dimensions of the zone of proximal development (ZPD), including the social and private dimensions of cognition/learning, and the merging of communication and conceptualization through interaction, especially in language classrooms. More specifically, these authors explain that concept-based teaching (CBT) is concerned with promoting conceptual mediation and internalization. Such an approach needs to articulate what curricula and research programs that are based on meaning categories (for example, aspect) look like, and to show how they interface with other categories such as text, genre, tense, or modality. Pedagogically speaking, therefore, 'language programs need to *integrate* concept-based materials, tasks, and assessments' (p. 245, emphasis added). Furthermore, teacher cognition is also viewed as a conceptual, and above all, a functional process. And from a basic research perspective, Negueruela-Azarola, García and Buescher stress that conceptualization data in SCT constitute the critical theoretically motivated evidence that is needed to document development as a conscious, conceptual, multimodal process. Lastly, they also identify gesticulation as an important area for future research.

As I pointed out earlier, Mahn (this volume) claims that while the notion of the ZPD is frequently cited, it is also often deeply misunderstood. He therefore sets out to develop a new reading of this construct that particularly emphasizes the importance of making explicit how everyday and academic concepts are interrelated. The research project that he describes at the end of his chapter, which documents how teachers in an American high school developed their understanding of what ZPD-based teaching entails, is an excellent model which documents how to carry out future praxeological research on this topic.

Van Compernolle (this volume) calls for SCT to extend the range of discourse analysis methods that it uses for the purpose of conducting microgenetic and ontogenetic analysis. More specifically, he notes approvingly of the growing rapprochement between SCT and CA (see, for example, Thorne and Hellermann, and Pekarek Doehler and Fasel Lauzon, this volume). Furthermore, he also identifies systemic-functional linguistics and relevance theory as potentially useful allies in further research on the emergence of sociolinguistic competence in classroom discourse and interaction. Finally, like Negueruela-Azarola, García and Buescher (this volume), he also singles out concept-based instruction that focuses on sociolinguistic development in regular classrooms as another important area for further research.

The chapter by Thorne and Hellermann (this volume) provides an insightful review of how SCT understands learning and development as socially situated cognition that is mediated through expert-novice interactions. As in the chapter by van Compernolle, CA methods of transcription and analysis are appropriated as tools for doing SCT. I expect this trend,

which is by now well established, to continue in future SCT research. However, I would urge SCT researchers who engage in the kind of hybrid SCT/CA approach to SLA that the Thorne and Hellermann chapter exemplifies so well to consider in future research a number of important epistemological issues that are raised by the marriage between SCT and CA. Such a marriage is undoubtedly attractive in that it combines a compelling theory with a powerful methodology. But SCT researchers tend to gloss over the fact that CA is grounded in the principle of ethnomethodological indifference to a priori theory (Psathas 1995), including (in this instance) SCT. More specifically, as I noted in my discussion of methodological issues earlier in this chapter, SCT is an a priori etic theory, while CA eventually yields emic theoretical generalizations that are a by-product of empirical findings. These two perspectives are not easy to reconcile, and further research is needed to address this issue.

In summary, I believe that the most important themes for future research that emerge from the four chapters that constitute the Sociocultural Theory Tradition include the need to: 1) further clarify our understanding of fundamental theoretical constructs such as the ZPD and closely related notions such as CBT; 2) investigate in more detail what SCT has to say about emerging issues such as multimodality; and 3) explore in greater detail what the larger epistemological implications of the marriage between SCT and CA might be for sociocognitive approaches to SLA in general.

2.5 Emerging issues in the Language Socialization Tradition

In terms of further research on language socialization (LS), the most important themes mentioned by He which, in my opinion, would benefit from further research include: 1) the insight that we need to consider teachers' and students' verbal behaviors as a unified communicative whole; 2) the dynamic, bi-directional and transformational nature of expertise that is negotiated in and through interaction in heritage language classrooms; and most importantly, the idea that 'language socialization *compels us* to focus on interaction in the classroom' (p. **xx,** emphasis added). Again, this theoretical focus on the importance of classroom interaction is reminiscent of the praxeological orientation of SCT. This is not surprising, since SCT exercises such an important influence on LS.

The chapter by Lee and Bucholtz (this volume) is particularly rich in terms of the diversity of themes that would benefit from further work. However, from my perspective, the most interesting areas for further study highlighted by this paper include: 1) Lee and Bucholtz's call for more research that focuses explicitly on the socialization of children and their capacity for deploying behaviors that do agency and expertise in novel and interesting ways; and 2) their contention that the SKILLS program (and other programs like it) 'can take advantage of socializing processes not only to foster individual opportunity and transformation but also to advance social change on a much wider scale' (p. 316). These positions contribute forcefully to the larger debate that I initiated in Markee (Chapter 1, this volume) concerning *whether*, and if so *how*, different conceptualizations of context may be usefully combined in future research on classroom discourse and interaction.

Similar issues are prominent in the chapter by Duff and Anderson (this volume). More specifically, Duff and Andersen's call for more macro- and micro-interactional and discursive research on academic language and literacy socialization at different levels and across a wider range of content areas and communicative events echoes the similar call made by Lee and Bucholtz in their chapter (see above). The Duff and Anderson chapter therefore also provides a powerful set of ground rules for the debate that I believe needs to occur concerning how context should be handled in future research on classroom discourse and interaction. In addition, by expanding the traditional boundaries of classroom interaction to include what learners do with social media and other emerging technologies, these authors put the study

of multimodal interactions center stage as an important emerging theme in education and applied linguistics that also requires much more follow up research.

As I said in Markee (Chapter 1, this volume), the chapter by Talmy (this volume) sets the methodological bar very high for future research of *any* kind that uses CA methods as part of its methodological arsenal. But this chapter also points the way to other exciting new developments in LS. The critical self-awareness that is a hallmark of this chapter – see in particular the highly nuanced treatment of the self-destructive consequences of the participants' resistance to the infantilizing curriculum at Tradewinds High – is consistent with the call by Blommaert *et al*. (2001) for critical research to be above all *self*-critical. This is a stance that undoubtedly needs more discussion in future LS research. Finally, it seems to me that this chapter, combined with Talmy's (2007) call for a *motivated looking* approach to membership categorization analysis/CA, provides useful pointers for how SCT researchers might reconsider the epistemological ramifications of the marriage between SCT and CA in a more critical fashion. Such a move would also have the beneficial effect of contributing to the theoretical richness of the broader debate on context that I have called for, since CA and cultural–historical activity theory versions of SCT in particular have rather different perspectives on context.

In summary, the issues that seem to require particular attention in future LS research include further study of what happens interactionally both *inside* and *outside* the classroom. To the extent that LS: 1) is a site for the use of many qualitative methodologies; 2) broadens the notion of what counts as classroom interaction; and 3) that some versions of LS at least involve an explicit commitment to social change, issues of context will continue to be an important topic for future research within this tradition. And finally, multimodality will undoubtedly feature prominently in future research in this area. In this context, it will be important to develop a careful definition (or definitions) of what is meant by multimodality, since what Duff and Anderson (this volume) mean by this term seems to involve including synchronous and asynchoronous forms of electronic communication within the purview of classroom research, while for other writers in this Handbook, multimodality has to do with what non-verbal forms of communication can (or should) be included in transcripts.

2.6 *Emerging issues in the Conversation Analysis Tradition*

In terms of future research in the CA Tradition, the chapter by Seedhouse (this volume) engages with two crucial areas: 1) the extent to which CA – a behavioral discipline – is capable of independently providing meaningful insights into language learning, an area of research which has until recently been dominated by cognitively oriented work; and 2) the implications of multimodality for CA research. As already noted, a good deal of cross-disciplinary work has already been undertaken by SCT and LS researchers who use CA methods to a greater or lesser extent in their research. Seedhouse's principal contribution to this area has been to suggest that CA may also be subsumed within a complexity/chaos perspective on SLA, and this is definitely a development whose theoretical implications need to be fleshed out in greater detail. More generally, it seems to me that the most important question that Seedhouse and other advocates of hybrid approaches to CA need to answer is what such a move buys us theoretically – more specifically, does CA demonstrably *need* to invoke exogenous theories of SLA in order to have anything useful to say about language learning – and, from a methodological perspective, what does this development do for us in terms of enhancing the rigor of our analyses of real time interaction? Less controversially, Seedhouse's proposals for a multimodal approach to CA work on classroom interaction usefully identifies some of the key issues that need to receive more attention in future research in this area. More specifically, while multimodal CA

potentially yields deep insights into the interconnectedness of talk, eye gaze, gesture and other forms of embodied action, it also requires researchers to make significant investments in terms of the amount of time and energy that are required to produce multimodal transcripts. Indeed, depending on how sophisticated the transcripts that researchers wish to produce actually are, researchers may even need to develop new technological skills with a broad range of complex, not to say expensive, software programs. Thus, the decision to engage with multimodal CA is not one that is taken to be lightly.

In terms of further research, Kasper and Kim (this volume) note that the database on conversations-for-learning is currently still quite small, and therefore needs to be expanded both quantitatively and qualitatively through the use of longitudinal studies. They also call for research on such conversations in which none of the participants are NSs of the target language, arguing that: 'the conversation table might gain more family resemblance with talk that is not arranged for language practice because the choice of the target language is normal for participants with different first languages even without participating L1 speakers as conversation partners' (p. 406). Furthermore, these authors suggest that an important direction for further research on how conversations-for-learning without L1 conversation partners are organized would be to 'examine how the participants generate and treat opportunities for L2 learning and what progress they make in their use of resources and interactional practices over time' (p. 401). Finally, they also call for CA researchers who are interested in language learning to follow the lead of Drew (2003), who outlines his proposals in this publication for a comparative CA methodology for analyzing talk-in-interaction in different institutional settings.

The chapter by Pekarek Doehler and Fasel Lauzon (this volume) addresses one of the most important emerging issues in CA work on classroom interaction, namely how to develop a longitudinal perspective in such work. This is a complex topic, which will undoubtedly continue to receive ongoing attention in the future. In this context, Pekarek Doehler and Fasel Lauzon break new ground by pointing out that most current longitudinal CA work on L2 interactions (which has focused on the development of interactional competence over time) has not paid much attention to the question of how longitudinal work is carried out in L1 classrooms, and this is definitely an interesting direction for future research in this area to explore. Furthermore, they suggest that future CA work on classroom interaction should broaden its horizons and investigate: developing cultures of communication in the classroom, processes of classroom socialization over time, and the learning of things other than language or interaction. Such studies, while complementing other research traditions more centrally concerned with the quoted issues, can be expected to foster our understanding of the classroom as a site of learning by shedding light on the detailed interactional ecology that sustains classroom interaction, and on how that ecology evolves across trajectories and levels of schooling. Last but not least, an important avenue for future CA research on classroom interaction lies in horizontal comparison (see Zimmerman 1999) in order to understand how the classroom ecology changes across teachers, types of schools, and their socio-historic environments (Pekarek Doehler and Fasel Lauzon, this volume, p. 421).

Markee and Kunitz (this volume) specifically mention three emerging issues in CA work on classroom interaction at the end of their chapter. These are: 1) the pros and cons of multimodality in CA work on language learning; 2) recent empirical work on language alternation and code switching practices in various learning environments; and 3) what CA-derived insights imply for language teaching and teacher training. However, as the phrase 'Quo vadis?' in the title of the chapter implies, the entire chapter is an extended consideration of where CA might go in the future. More specifically, as an example of a so-called purist approach to CA, this chapter adopts a strong version of CA's narrow approach to context as

an *achieved*, *local*, and *sequential* phenomenon. It also rejects the contention that CA cannot *demonstrate* learning without invoking exogenous theories of language acquisition by invoking empirical evidence that demonstrates how longitudinal language learning behavior is achieved in both the short and longer term. Consequently, this chapter provides a clear alternative to mainstream approaches to context in applied linguistics and SLA, and also to hybrid SCT, LS or chaos theory/CA approaches to analyzing classroom interaction. While purist CA positions on these issues are definitely in the minority, I believe that further *empirically* driven (as opposed to *theoretically* driven) research on these matters has the potential to lessen the likelihood of an unproductive stalemate that often occurs when proponents of different theories face off and defend their respective pieces of theoretical turf on primarily theoretical grounds. Now, I recognize that the suggestion that empirical findings are more important than a priori theory is highly controversial, because theory construction – particularly *etic* theory construction – has such a high status in applied linguistics (indeed, in all disciplines). Furthermore, I also recognize that, in order to develop a truly *emic* understanding of how participants make sense of classroom talk-in-interaction as a profoundly mundane activity, it paradoxically takes a lot of background theory to arrive at the ethnomethodological conclusion that CA research on classroom interaction should be indifferent to prior theories that have already addressed these issues. But that is precisely why we need much more research to unravel these mysteries, which to date have received little sustained attention in the applied linguistics and education literatures on classroom discourse and interaction.

To summarize, the most important themes for future research in the Conversation Analysis Tradition as a whole seem to be: 1) the extent to which CA is equipped to address matters of language learning, and specifically whether or not it needs to invoke exogenous theories of learning in order to have a seat at the SLA table; 2) the need to develop a coherent program of longitudinal research; 3) how to do context; and finally, how to do high quality multimodal research.

2.7 Emerging issues in the Critical Theory Tradition

The chapter by Martin-Jones (this volume) focuses on how research into multilingual classroom interaction intersects with language policy and highlights four themes that clearly merit further discussion in this area. These include: 1) the importance of uncovering the complex, multilayered nature of language-in-education policy processes, focusing in particular on the agency of educational practitioners while also acknowledging the constraints under which they act; 2) the need to view language policy making as a transdisciplinary social practice that embraces and engages with contemporary social theory; 3) a commitment to: a) multi-site, critical ethnography that is designed to track how the appropriation of policy statements across different social and institutional spaces is actually done; b) recognizing the importance of participants' emic perspectives, values and beliefs as they engage with different stages of policy making; c) documenting how language policies actually affect participants' daily lives; and 4) a concern with doing research that contributes to social change and which illuminates 'how various local interpretations, implementations, negotiations and perhaps resistance can pry open implementational and ideological spaces for multilingual education' (Hornberger and Johnson 2007, p. 511). Furthermore, echoing calls we have already heard from Antón (this volume), Skukauskaite, Rangel, Rodriguez and Krohn Ramón (this volume) and Kim (this volume), Martin-Jones calls for a type of classroom-based ethnography that fosters close researcher-practitioner relationships, in which dialog and collaboration become hallmarks of a mutually beneficial research process.

There are some interesting parallels between the chapters by Miller (this volume) and Talmy (this volume) in that both these authors are clearly committed to using microanalytic research techniques to uncover how power and resistance are achieved in classrooms, and to linking these insights to larger historical, sociopolitical and sociocultural processes. Like Talmy, Miller also adopts an interestingly skeptical stance about what critical research should attempt to do. More specifically, she distances herself from the universalist approach to defining resistance advocated by Giroux (1983). She also cites with approval Gore's (1993, p. 57) strong reservations regarding the way critical pedagogy often frames teachers as decontextualized 'agent[s] of empowerment,' and ends her chapter with the observation borrowed from Auerbach (2000, p. 161) that it is the struggle involved in the process of becoming that 'keeps teachers watching, listening, experimenting, reflecting and reinventing.' I find this simultaneously politically committed and interactionally process-oriented approach to critical pedagogy particularly appealing. It is quietly, yet deeply, subversive of *both* the capitalist status quo *and* of critical approaches to classroom discourse and interaction. This heretical combination (my characterization, not Miller's) potentially encourages us to explore in an innovative fashion different ways of transcending current limitations and divisions (regarding, for example, the proper scope of context, which remains the 800 pound gorilla at this particular table in the applied linguistics and education literatures). In conclusion, I strongly endorse Miller's way of doing critical pedagogy as an approach that is likely to continue to yield significant insights into how issues of power and resistance are organized in and through classroom interaction in the future.

The chapter by Appleby (this volume) is concerned with the impact of language aid programs on economic, human, and educational development in developing countries. As I noted in Markee (Chapter 1, this volume) this kind of research is a very necessary complement (or counterweight?) to research on the spread of English as the world's most important language of wider communication. More specifically, current work in this area fundamentally questions the easy assumption that characterized early language and development work which assumed a priori that, *of course*, English was a key resource for development. This assumption has been replaced by a hard-headed reappraisal that questions whether funds for English language instruction would not be better allocated to programs that focus on mother-tongue education, healthcare, and housing. As a former British Council language aid 'expert' in the Sudan in the 1980s, I completely agree with Appleby's conclusion that:

> [f]or teachers on the ground, then, the challenges of enacting critical, participatory pedagogies through the teaching of a dominant language in a unique sociolinguistic and cultural environment, while meeting the instrumental demands of donor-funded projects, are still immense.
>
> (Appleby, this volume, p. 486)

However, if the claim by Waters (2009) that current understandings of how to manage curricular innovation are not that different from the state of play in the late 1990s (see Markee 1997) are correct, there is clearly an urgent need for more praxeological research on these issues. While Appleby uses a survey-based approach to investigate such matters, I believe that the broader methodological proposals put forward by Martin-Jones (this volume) would be a particularly valuable resource for future research in this area.

Finally, the chapter by Martín Rojo (this volume) adopts a Bourdieusan perspective to analyze how teaching Spanish as a SL to immigrants in Spain is impacted by a range of social issues. In terms of future research in this area, Martín Rojo remarks that, despite the generally grim picture that she paints of how unequal access to education is methodically achieved and replicated through the processes of capitalization and decapitalization, there are nonetheless times when change (in the shape of novel educational programs that include

rather than exclude minorities) can occur. She suggests that such programs become possible during periods of strong economic growth – that is, when the inclusion of minorities does not threaten the privileges of the dominant classes. In line with the kind of integrated language policy/classroom implementation research program previously described by Martin-Jones (this volume), comparative research that deepens our understanding of how policy decisions demonstrably impact classroom interaction processes under different economic conditions will likely continue to be an important theme in critical approaches to SL pedagogy.

To summarize, the most important themes for future research in the Critical Theory Tradition include: 1) a commitment to research which promotes progressive social change; 2); an interest in how different levels of context interact with and affect each other; 3) a focus on issues of identity, power and resistance, and how these issues either affect and/or play out in classroom interactions that take place in both developed and developing countries; and 4) a reliance on a broad range of complementary ethnographic methodologies and techniques to understand how classroom discourse and interaction works.

3. Emerging Crosscutting Issues in Research on Classroom Research and Interaction: A Synthesis

In the previous section, I provided a detailed summary of future research topics that emerged directly from the contributions to this Handbook. In the present section, I narrow down these themes to a list of what I consider to be the most important topics for future research on classroom discourse and interaction in general. From a methodological perspective, the moment is ripe for research that seeks to promote comparison and dialog across qualitative and quantitative paradigms. In particular, we need to be willing to take a leaf (or leaves) from each other's methodological books. So, for example, I believe that research that creatively explores how to develop qualitative approaches to doing meta-analysis and replication studies – which are usually understood to be typically experimental concerns – would be truly groundbreaking. Similarly, we need to do more cross-sectional and longitudinal work on classroom discourse and interaction in both qualitative and quantitative research, although again, I think that the need for such research is more urgent in the qualitative paradigm, where such studies are still in their relative infancy. And I also think that the time has come for much more collaborative research that involves teams of researchers and practitioners working together on common problems from both the theoretical and practical ends of the knowledge construction continuum of classroom discourse and interaction research.

From an ontological and epistemological perspective, I believe that the most important questions we need to engage with include far-reaching discussions of the kind(s) of theories of classroom language learning (behavior) that we are trying to develop, and what the role of these theories is in the process of creating new knowledge. For example, emic and etic theories have quite different goals and stand in different relationships vis-a-vis the empirical findings which they synthesize. More specifically, while etic theory *drives* knowledge creation, emic theory is a *by-product* of empirical findings. Furthermore, we need to clarify what role praxeological theories should play in applied linguistics and education, as this is a crucial question in the context of collaborative research between researchers and practitioners in particular.

In terms of substantive research topics that need further research, I would identify context, multimodality and the ongoing rapprochement between cognitive and social approaches to

understanding classroom discourse and interaction as being the most important issues that need our further attention. With respect to context, I argue that all stakeholders in this matter first need to understand the complexity of the arguments that have been made either for or against particular notions of context (see Markee Chapter 1, this volume). At the same time, we also need to investigate whether and how these sometimes very different notions of context can be usefully deployed to complement each other. So, for example, the kind of CDA perspective on the links between classroom research and language policy advocated by Martin-Jones (this volume) can potentially be theoretically reconciled with Schegloff's (1997) proposal for successive phases of technical and scholarly research (to use Wetherell's (1998) term). More specifically, I would like to propose a synchronic reinterpretation of Saxena and Martin-Jones' (2013) diachronic account of the three generations of classroom/policy research that they review in this paper. Recall that the first generation of such research was primarily descriptive and technical. The second generation became more critical in orientation. And the third builds on the previous two and begins to engage with other emerging issues such as multimodality. Thus, the synchronic reinterpretation of Saxena and Martin-Jones' (2013) diachronic account of classroom/policy research that I am proposing rests on the insight that these three generations of research can function in parallel with each other. I also think that collaborative research that involves teams of researchers who use CA and (critical) ethnographic research methods on common data sets during different phases of technical and scholarly research would be of immense interest. Important empirical questions to resolve in such a research program include whether these different research methods yield comparable results (as in, for example, longitudinal and cross-sectional research), and whether such mixed methods collaborations in fact yield novel insights into the interface between policy making and classroom implementation. Other kinds of research on context that might also be carried out include studies such as the one undertaken by Amir and Musk (2013), who use CA to investigate how a teacher's micro-level (i.e., classroom level) language policy on the use of the L1 in an ESL classroom in Sweden plays out in interaction, thus finessing rather cleverly many of the context-related issues raised by Schegloff (1987). And finally, research which deliberately seeks to empirically explore just how fuzzy the borders between ethnographic and CA notions of context actually are (see Kunitz 2014) would also be particularly welcome.

Focusing now on multimodality, it is clear that this theme is rapidly emerging as an important research issue across several traditions in this Handbook. This development is obviously quite exciting, as it broadens the potential scope of research on classroom discourse and interaction rather considerably by encouraging us to engage in the concurrent analysis of multiple semiotic systems. But as noted in the chapters by Markee and Kunitz (this volume) and Seedhouse (this volume), it is also important not to underestimate the problems associated with adopting a multimodal perspective on classroom discourse and interaction. While significant progress has already been made on these issues, we can certainly not afford to rest on our laurels, and considerable work remains to be done on how classroom discourse and interaction understood as a form of unified human action is actually achieved by participants.

Finally, regarding the ongoing rapprochement between cognitive and social approaches to understanding classroom discourse and interaction, as demonstrated by the publication of Hulstijn, Young and Ortega (2014), applied linguistics is in a much better place now than it was during the ontology and epistemology wars of the 1990s. In this context, one of the most interesting developments that I believe will receive increasing attention in the future has to do with recent developments in cognitive science and other disciplines. More specifically, traditional models of cognition have always located mind in the brain of the individual and set up a dichotomy between cognition and the human body on the one

hand, and between cognition and behavior on the other. During the last 20 years, workers in cognitive anthropology (Hollan, Hutchins and Kirsh 2000; Hutchins 1995, 2006; 2007; Hutchins and Johnson 2009) and cognitive psychology have often blurred these distinctions, using terms such as *socially distributed*, *embodied*, *extended*, or *situated mind/cognition* to capture a more unified perspective in which mind and cognition are no longer exclusively individual properties. Furthermore, the mind is said to be shaped by the body's involvement in action within its physical context (see Chemero 2009; Clark 1998, 2008; Gallagher 2005; Menary 2010; Noë 2004; Robbins and Aydede 2009; Shapiro 2011; Varela, Thompson and Rosch 1991, for a broad sampling of this literature).

By and large, this literature has not had much influence on the cognitive SLA literature yet. For example, the important volume edited by Doughty and Long (2003), which purports to frame SLA studies as a branch of cognitive science, still clings to the notion that human cognition is a property of the individual mind/brain. And this idea is still widespread today. However, there are signs that this situation may be changing, particularly in the area of emergentist, usage-based perspectives on language (Hopper 1998), grammar (Ochs, Schegloff and Thompson 1996) and SLA (see Ellis 2014; Ellis and Larsen-Freeman 2009; Ellis, O'Donnell and Römer 2013; Eskildsen 2012). Similar developments have also occurred in CA and related disciplines such as discursive psychology. For example, Schegloff (1991, 2006a, 2006b) and Goodwin (2000a, 2000b, 2007) have both worked on this topic. By extension, this research has had a profound influence on my own work (see Markee 2008, 2011; Markee and Kunitz 2013; Markee and Seo 2009) and on that of others who also work on second language learning data (Kasper 2006, 2009; Mori and Hasegawa 2009). I therefore offer these varying perspectives as a source of interesting ideas for new research perspectives on the social dimensions of cognition, particularly as this is done in the course of classroom discourse and interaction.

NOTES

1 See Markee (2008) and Markee and Kunitz (2013) for a heretical CA perspective on many of these issues.
2 More specifically, in Markee (2008), I noted that CA or CA-informed longitudinal studies on classroom interaction only began to appear around 2004 (see Young & Miller 2004; for an update on this kind of research, see Pekarek Doehler & Fasel Lauzon, this volume). Note, however, that longitudinal work within an ethnographic tradition is better established than in CA.
3 Note how these proposals parallel to a certain extent those of Long (this volume).

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Appendix Transcription Conventions in Conversation Analysis

IDENTITY OF SPEAKERS

Dan:	pseudonym of an identified participant
?:	unidentified participant
He Hua?:	probably He Hua
PP:	several or all participants talking simultaneously

SIMULTANEOUS UTTERANCES

Dan:	[yes	
He Hua:	[yeh	simultaneous, overlapping talk by two speakers
Dan:	[huh? [oh] I see]	
He Hua:	[what]	
Feng Gang:	[I don't get it]	simultaneous, overlapping talk by three (or more) speakers

CONTIGUOUS UTTERANCES

=	indicates that there is no gap at all between the two turns

INTERVALS WITHIN AND BETWEEN TURNS

(0.3)	a pause of 0.3 second
(1.0)	a pause of one second.

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CHARACTERISTICS OF SPEECH DELIVERY

?	rising intonation, not necessarily a question
!	strong emphasis, with falling intonation
yes.	a period indicates falling (final) intonation
so,	a comma indicates low-rising intonation suggesting continuation
descr↑iption↓	an upward arrow denotes marked rising shift in intonation, while a downward arrow denotes a marked falling shift in intonation
go:::d	one or more colons indicate lengthening of the preceding sound; each additional colon represents a lengthening of one beat
no-	a hyphen indicates an abrupt cut-off, with level pitch
bec<u>au</u>se	<u>underlined</u> letters indicates marked stress
SYLVIA	large capitals indicate loud volume
sylvia	small capitals indicate intermediate volume
sylvia	lower case indicates normal conversational volume
°sylvia°	degree sign indicates decreased volume, often a whisper
·hhh	in-drawn breaths
hhh	laughter tokens
> the next thing<	>…< indicates speeded up delivery relative to the surrounding talk
< the next thing>	<…> indicates slowed down delivery relative to the surrounding talk

COMMENTARY IN THE TRANSCRIPT

((coughs))	verbal description of actions noted in the transcript, including non-verbal actions
((unintelligible))	indicates a stretch of talk that is unintelligible to the analyst
… (radio)	single parentheses indicate unclear or probable item

OTHER TRANSCRIPTION SYMBOLS

co/l/al	slashes indicate phonetic transcription
→	an arrow in transcript draws attention to a particular phenomenon the analyst wishes to discuss Duff and Anderson (this volume)
…	ellipsis
]	points of overlapped speech across two turns
::	lengthening of syllable
(( ))	researcher comments or translation
italics	non-English speech
-	short untimed pause
(x)	unclear word
word-	false-start or self-correction

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