STUDIES IN
LANGUAGE
COMPANION
SERIES 154

The Sociolinguistics of Grammar

Edited by
Tor A. Åfarli
Brit Mæhlum

JOHN BENJAMINS PUBLISHING COMPANY

The Sociolinguistics of Grammar

Studies in Language Companion Series (SLCS)

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Volume 154

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John Benjamins Publishing Company
Amsterdam / Philadelphia

The paper used in this publication meets the minimum requirements of the American National Standard for Information Sciences – Permanence of Paper for Printed Library Materials, ANSI Z39.48-1984.

Library of Congress Cataloging-in-Publication Data

The Sociolinguistics of Grammar / Edited by Tor A. Åfarli and Brit Mæhlum.
p. cm. (Studies in Language Companion Series, ISSN 0165-7763 ; v. 154)
Includes bibliographical references and index.
1. Sociolinguistics. 2. Socialization. 3. Grammar, Comparative and general.
4. Generative grammar. 5. Linguistic change. 6. Historical linguistics. I. Åfarli, Tor A., editor of compilation. II. Mæhlum, Brit, 1957- editor of compilation.
P40.5.S57S57 2014
306.44--dc23 2013049280
ISBN 978 90 272 5919 6 (Hb ; alk. paper)
ISBN 978 90 272 7051 1 (Eb)

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John Benjamins Publishing Co. · P.O. Box 36224 · 1020 ME Amsterdam · The Netherlands
John Benjamins North America · P.O. Box 27519 · Philadelphia PA 19118-0519 · USA

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Language variation, contact and change in grammar and sociolinguistics

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Language variation, contact and change, and in particular the efforts to *explain* the various linguistic phenomena associated with them, probably belong among the most controversial and most debated topics in modern linguistics. Such topics in fact dominated the science of linguistics in the 19th century, and during the last decades they have again come to the fore, not least as part of the general revitalization of historical approaches in linguistics. In contemporary linguistics, the phenomena of language variation, contact and change in their various disguises have thus been investigated from a number of different perspectives. Not only have new theoretical approaches and new methods been applied to new empirical material, but there have also been renewed efforts to understand old and well-known problems, often leading to new and original insights that have pushed the field forward.

It is not unreasonable to claim that the research tradition that has constituted the backbone of modern linguistics is what Newmeyer (1986) calls *autonomous linguistics*. This is a tradition that focuses on the structural regularities in particular languages, and that attempts to find the principles that are governing the structural regularities in language more generally, i.e. to identify the constraints of Universal Grammar. One pronounced characteristic of autonomous linguistics is that the descriptions and analyses that are postulated are on the whole advanced without taking into consideration the society, the language users themselves, or the beliefs of these language users. For this reason, autonomous linguistics has sometimes been characterized as a "speaker-free" linguistics – in contrast to a "speaker-centered" linguistics, which is found within more typically humanistic approaches (cf. Lass 1980: 122; more about this opposition below). There is little doubt that so-called autonomous linguistics has been indisputably dominant within the linguistic field, as opposed to more typical humanistic paradigms.

The presuppositions for the hegemonic position of the autonomous, speaker-free tradition are to be found, not surprisingly, in the general history of science in the Western world, and in particular in the initial phase of the modern humanities

in the beginning of the 19th century. Relevant here is also the internal relationship between the natural sciences on the one hand and the humanities on the other. The natural sciences had from the very beginning a position as a guiding star for the newly established disciplines within the humanities. And within this ideological climate it was generally considered as an indicator of the "scientificalness" of a paradigm if the scientific objects could be construed as more or less analogous with natural objects, inspired by the practices in, for example, biology, chemistry, and mathematics (cf. Koerner 1995). These ideals were perhaps particularly successful in linguistics, which, probably to a larger extent than in other fields within the humanities, is dealing with an object of inquiry where at least "some aspects […] can be formally represented in such a way that it LOOKS LIKE an autonomous object (whether it 'really is' or not)" (Lass 1980: 121). Or to quote Newmeyer (1986: 7): "Autonomous linguistics seems to bridge the natural sciences and the human sciences, to combine a thoroughly human subject matter with a precision and depth matched only in the hard sciences."

In today's linguistics there are a number of approaches and theories available, where some can be classified as belonging to autonomous linguistics and some not, and autonomous linguistics, at least narrowly understood, does not seem to have the dominating position that it had earlier. Still, autonomous linguistics as understood more broadly has been a kind of mainstream in the study of language variation and change up to our time. In spite of the many paradigms and shifts that have taken place within this tradition, there has in fact been a striking continuity regarding some of the more fundamental assumptions that are made. Lightfoot (1999: 254) has characterized this situation as follows:

> The classical view of science has dominated work on language change now for 200 years […]. Many nineteenth-century scholars […] believed that they had discovered laws of change […]. Twentieth-century researchers have sought historical universals, diachronic continua, theories of change, theories of grammaticalization, and whatnot. In all cases, they were looking for straight-line explanations for changes, which would allow long-term predictions.

This dominant research tradition has been met with different kinds of objections and criticism. We cannot go deeply into these here, but some of the essence of the criticism has to do with the aspects that are emphasized in McMahon's (1994) much-used textbook about language change. McMahon argues that, in spite of the numerous elegant analyses that structural linguistics has offered, these are not "truly explanatory" (1994: 47), which is the expression she uses. "This is because none successfully tackles either the problem of actuation (why sound change begins) or the issue of implementation or transmission (how the change spreads)," according to McMahon.

Here we are in the domain of humanistic linguistics, or, we could also say, in the domain of so-called speaker-centered linguistics, which was mentioned earlier. In connection with phenomena of language variation, contact and change, this approach can be said to be based on one fundamental idea, namely that the *motives* behind language change are genuine cultural phenomena. The theoretical and methodological consequence of this assumption is that processes of language change must be seen as historical processes, located within a socio-cultural frame, and not as some kind of natural processes, subordinated to laws of nature. "Languages don't change; people change language through their actions," to quote Croft (2000: 4). In order to really understand why language change takes place at all, language cannot be detached from its users or the situations in which they use it. On the contrary, humanistic linguists seek to bring people back into linguistics, in order to understand why language is changing.

In many ways, this approach to the phenomenon of language change represents an alternative to the tradition that has been the mainstream for a century or so. During the last few decades, this alternative approach to doing diachronic linguistics has been advocated by several researchers, for instance Andersen (1973, 1989), Shapiro (1991), Anttila (1993), and Keller (1994), to mention just some. A unifying characteristic of researchers such as these is the focus on language change as something that needs to be analysed within a historical, semiotic and thus hermeneutic context (for further discussion on these approaches, see Mæhlum 1999: 154–214).

The discipline that has perhaps contributed most to the renewal of the investigation of language change in a hermeneutic and speaker-centered direction is probably the discipline that is referred to by the umbrella term *sociolinguistics*. In the course of the last 30 or 40 years, many of the ideas, principles and assumptions that were recognized as primarily sociolinguistic have in fact become gradually integrated into historical linguistics. An example of this is the basic assumption that any particular linguistic change presupposes a preceding phase characterized by variation between the varieties involved (cf. Weinreich, Labov & Herzog 1968). Also, sub-disciplines have been developed in which sociolinguistics is integrated with more explicitly historical approaches, as is sometimes referred to as *socio-historical linguistics* (cf. in particular Romaine 1982, or newer contributions like Hernández-Campoy & Conde-Silvestre 2012). In this connection, we want to stress that sociolinguistics, despite being a typical synchronic discipline at the outset, has nevertheless been oriented towards language practices that are in flux.

For the last ten years or so, many sociolinguists have investigated the "big" processes of language change and restructuring, where many of these processes may be seen as driven by forces of globalization. In our time, the contact between people across borders and between different societies is constantly getting broader

and deeper, and at the same time, the challenges posed by migration and integration are becoming more pressing. Language is a crucial ingredient in these challenges, and moreover, novel research topics are being brought to the fore as a consequence of these processes (see, for instance, Coupland 2010, to appreciate the multitude of topics and approaches that are subsumed under the globalization tag). Thus, a number of topics connected to language contact, language domination and subordination, language mixture, language development and acquisition, and language birth and death are urgently in need of illumination.

Alongside the more humanistic or speaker-oriented efforts described above, linguists within formal or generative autonomous-type linguistics – based on the assumption that the central component of the language faculty is an inborn Universal Grammar (UG) – have continued and renewed their work. In particular, autonomous linguistics has come a long way from Chomsky's assumption in *Aspects of the theory of syntax* (1965) that the task of syntactic theory is to give an account of the language of an idealized speaker – hearer in a completely homogeneous speech community. Also, it has come a long way from the assumption of the core – periphery distinction in *Lectures on government and binding* (1981), where an exceptionless and streamlined core grammar is seen as the object of study, whereas exceptions and idiosyncrasies (e.g. language mixing outcomes) are relegated to the periphery to be taken care of later. Today language variation, contact, and change and notably its various outcomes – in other words, the very "peripheral" phenomena that were put aside earlier – are very much at the frontiers of research in autonomous UG-based syntax. Actually, so-called UG-based research on second language acquisition has been very active since the late 1980s; see, e.g. Hawkins (2001), White (2003), and Herschensohn & Young-Scholten (2013). Also, since the late 1990s, the investigation of dialect syntax and linguistic microvariation has gained momentum; see, e.g. Henry (1995) and Poletto (2000). This development has in part led to a rethinking of the traditional generative notion of parametric variation, both regarding microparameters and macroparameters; see, e.g. Kayne (2000), Newmeyer (2005), and Boeckx (2011).

From a situation in which autonomous generative grammar was almost exclusively concerned with a homogeneous core grammar in the 1960s and 1970s, the introduction of the principles and parameters approach in the 1980s triggered an orientation towards linguistic variation and comparative syntax. Actually, macroparametric comparative syntax was a main concern of the Government & Binding approach almost from its inception in the early 1980s, and soon research on second language acquisition and microparametric dialect syntax caught up, especially in the 1990s, as mentioned earlier. However, the theoretical developments that came with the Minimalist Program (Chomsky 1995) during the beginning of the 1990s were very much concerned with theoretical "big picture" core grammar

problems, which initially led to a divide between generative linguists in a theoretically oriented camp and a more empirically oriented camp, at least to some degree. However, during the last few years, partly under the impact of more empirically and corpus based research in, e.g. second language acquisition and dialect syntax, theoretical developments have taken place within Minimalist Program-style generative syntax to make it better suited as a useful tool for the analysis and explanation of fine-grained variation and contact phenomena.

Also, the last few years have seen a surge in generative research on language variation and on bi- and multilingualism, e.g. code-switching and code-mixing phenomena. Presently, this is a very active area in formal or generative approaches; see, e.g. Cornips & Corrigan (2005) and Bhatia & Ritchie (2013). This is an area that is perhaps particularly well suited for cooperation between the sociolinguistics camp and the autonomous or structural linguistics camp. And here too the empirical facts that are uncovered cannot be ignored, but rather call for concomitant theoretical development and renewal in generative linguistics. This is a very welcome development: A theoretically sophisticated and abstract theory of grammar whose theory-internal developments to a large degree have been driven by "conceptual necessity" reasoning rather than an urge for empirical coverage is in the process of being developed into a useful hands-on analytic tool. This development has taken place under the pressure of a flood of empirical facts that are constantly uncovered, not least as an effect of the corpus building "industry" that we have witnessed in recent years.

Thus, autonomous generative linguistics has travelled a long way since embracing the idealized speaker – hearer in a homogeneous speech community in the 1960s and 1970s and the core grammar orientation in the 1980s and 1990s. Today's generative linguistics has been (grudgingly?) forced to face real flesh-and-blood speakers with all their vagaries. In other words, speaker-free generative linguistics and "speaker-centered" sociolinguistics no longer seem to be poles apart with regards to the empirical linguistic facts that they face, even though the theoretical and explanatory challenges naturally are different, and should be. Therefore, there seems to be more common ground now than before between the two camps, and cooperation should prove fruitful.

The present book was preceded by a conference (*Language Contact and Change – Grammatical Structure Encounters the Fluidity of Language*), which took place at the *Norwegian University of Science and Technology NTNU* in Trondheim in September 2010. Most of the 11 papers contained in the book were delivered at the conference. Since, as we have seen, the grammarian camp and the sociolinguist camp represent the polarity we have been describing above between a speaker-oriented autonomous linguistics and a linguistics more oriented towards the humanities, these two groups of linguists have had few professional assembly

points where they could meet, and they do not encounter each other very frequently in scientific interactions. By putting together researchers from different theoretical and methodological camps, we wanted to contribute to what hopefully will turn out to become a fruitful long-term cooperation between researchers from the two camps (and already the interactions at the conference were indeed fruitful). We firmly believe that the most satisfactory understanding of the dynamics and complexity of language variation, contact and change in fact requires a joint effort by both grammarians and sociolinguists.

We will now briefly present the papers contained in the book. We have decided not to group the papers together thematically, although the reader will notice certain relationships between some of them. However, the overarching theme that unifies all the contributions is basically how to understand language variation, contact and change (and their outcomes) given the relative constancy of our inborn language faculty and of our theories of UG, on the one hand, and the vagaries of the socio-historical setting and development of a language, on the other hand.

The first paper, Salikoko S. Mufwene's "Language ecology, language evolution and the actuation question," deals with how languages may have emerged phylogenetically, and how and to what extent anatomical, mental and socio-ecological factors may have influenced this evolutionary process. This ecological approach to language evolution is the one that most likely, according to Mufwene, will be able to answer one of the most important questions concerning language change, namely what we earlier called the actuation problem. In Mufwene's words, this approach deals with problems concerning "[…] why a particular change occurred where it did but not elsewhere, and why at that particular time but not at another." Through his take on such problems, Mufwene sees a clear parallel between language development and language change on the one hand, and biological developmental processes on the other. At the same time, it is quite obvious that his ecological (and therefore natural science-oriented) perspective presupposes a number of humanistic (and we could even say sociolinguistic) dimensions, e.g. a passage like the following: "Languages do not change uniformly, as every idiolect evolves at its own pace, reflecting the interactional history of its speaker/signer."

Frederick J. Newmeyer's contribution, "Syntactic change: Between Universal Grammar and Fuzzy Grammar," starts out by comparing two very different approaches to the explanation and analysis of syntactic change. The first one is the traditional parametric approach pursued in formal or generative grammar, whereby syntactic change is abrupt and results in a cluster of (seemingly unrelated) changes; the other approach is associated with functional grammar and assumes that change is gradual and fuzzy. He argues that neither approach is fully correct,

but contends that syntactic change is discrete and abrupt, as typically argued in formal approaches, while at the same time arguing that syntactic change should not be analysed in terms of the resetting of parameters. Instead, he proposes that grammars are systems of discrete rules, and that language change is rule change.

The next two articles – "Language contact, linguistic variability and the construction of local identities" by Leonie Cornips, and "The social side of syntax in multilingual Oslo" by Ingvild Nistov and Toril Opsahl – may both be said to be sociolinguistic in their theoretical approach, but at the same time the linguistic phenomena that are investigated are traditionally assumed to belong to structural linguistics, more specifically syntax. Both articles focus on bilingual language contact settings. Nistov and Opsahl investigate youths mostly with minority language backgrounds in a multicultural setting in Oslo, and Cornips investigates youths from comparable multicultural backgrounds in Amsterdam and Rotterdam, but she also deals with bidialectal speakers who switch between the Limburg dialect and Standard Dutch.

Two fundamental theoretical dimensions that Cornips emphasizes in her contribution are firstly that "[…] although variation is constrained by the nature of possible grammars it is driven by social factors," and secondly that "[…] variation constitutes a robust social semiotic system, potentially expressing the full range of social concerns in a given community and variation does not simply reflect, but constructs, social meaning, hence is a force in social change." This same construal of social meaning is also central to the contribution by Nistov & Opsahl. They show how – among multicultural youths – the use of certain morphosyntactic features, in this case violation of the V2 constraint, seems to represent an expansion of a stylistic repertoire, serving specific interactional functions. They characterize this phenomenon as a multiethnolectal speech style. This is primarily used among youths with immigrant background, but it is also used by some youths from the Norwegian majority. Nistov and Opsahl not only wish to provide further sociolinguistic insight regarding a specific syntactic feature, but they also try to shed light on what Silverstein (1985) has called *the total linguistic fact*.

Guro Fløgstad's contribution, "The expansion of the preterit in Rioplatenese Spanish: Contact induced?" deals with the possible impact that language contact may have on grammaticalization. The case in point in Fløgstad's paper is the loss of the perfect/preterite distinction in Rioplatenese Spanish, where the preterite has completely replaced the perfect in the speech of young speakers. The initiation of this development is traced back to a period with huge immigration to the area about 100 years ago, during which many people were learning Rioplatenese as a second language. It is suggested that this socio-historical fact may contribute to an explanation of the loss of the perfect/preterite distinction and the expansion of the preterite, thus possibly establishing a causal, or at least a facilitating, connection

between a particular sociolinguistic setting and the emergence of certain structural properties.

Next, Steffen Höder, in his paper "Constructing diasystems: grammatical organisation in bilingual groups," starts out by criticizing linguistic theory for focusing too much on coherent, static and monolingual properties of languages. He reminds us that languages are in reality characterized by variability, and that multilingualism and multilectalism are rather the rule than the exception. In order to investigate this seemingly chaotic linguistic reality, he adopts and defends the notion of a diasystem, which denotes a linguistic system that includes more than one variety and that can be constructed on the basis of similarities between different varieties/systems. He elaborates the diasystem approach within a usage-based construction grammar approach, and the analytic tool thus developed is applied empirically to High and Low German, where he argues that High and Low German bilinguals increasingly incorporate the two varieties in a common system, resulting in a massive pro-diasystematic language change in several linguistic domains (lexicon, phonology, morphology, syntax).

In their paper "Syntactic frames and single-word code-switching: A case study of Mandarin Chinese – Norwegian bilingualism," Tor A. Åfarli and Fufen Jin, like Höder, start out from the contention that current linguistic theory tends to idealize data too much in order to obtain general and elegant theories of grammar. In particular, different kinds of language mixing do not fit in very well in an idealized approach, which typically emphasizes a homogeneous speech community. In their contribution, Åfarli & Jin focus on one particular type of language mixing, namely single-word (or word-internal) code switching, and they seek to develop the beginnings of a model of grammar, and in particular of the lexicon – syntax interface, that is equally well designed to handle monolingual data and bilingual mixing data. The model in question adopts the notion of a syntactic frame, which is developed within a neo-constructional generative approach. A theoretical tool is thus developed which is used to test cases of single-word code switching found in a small corpus of Mandarin Chinese – Norwegian bilingual speech. Overall, the paper argues that current models of grammar, to the extent that they are based on the assumption of a homogeneous speech community, should be replaced by a model like the one that is proposed in the paper.

Mari Nygård's paper, "Norwegian discourse ellipses in the left periphery: Interacting structural and semantic restrictions," is still another contribution that seeks to show that an empirical domain outside the mainstream should be captured by the analytic tools developed for what are considered to be core phenomena. Specifically, she sets out to show that phenomena of discourse ellipsis reach beyond the traditional topic drop phenomenon, and she further shows that the discourse ellipsis phenomena can be explained as the outcome of the interplay between a

general semantic recoverablility requirement and purely formal or syntactic principles. In particular, she shows that an interesting asymmetry regarding the elision of subject+auxiliary (possible) as opposed to the elision of object+auxiliary (impossible when the subject/object is in the topic position) is probably connected to the syntactic inheritance of agreement features by the T head from the C head in the syntactic structure. If true, this is a highly intriguing example of an analysis where syntactic principles are brought to bear on phenomena outside its core domain.

Derek Bickerton, in his contribution "The myth of creole 'exceptionalism'," defends the universalist bioprogram theory of creole languages against the accusation that such a theory requires creole languages to be treated as exceptional languages involving different processes from those of "normal" linguistic change. On the contrary, he says, the bioprogram theory has always been based on the premise of a unitary program for first-language acquisition that triggers similar processes regardless of whether primary input is robust or deficient. He goes on to discuss various ramifications of such an approach, among others that there is a continuum of creoles, depending on variation in input quality, and that some creole varieties may be similar to non-creole varieties where input is deficient. Like in some of the preceding contributions (e.g. the ones by Höder and Åfarli & Jin), the overarching aim is to develop (or defend) a parsimonious theory that is equally relevant for a variety of linguistic phenomena rather than theories that have only a limited empirical application.

Enoch Aboh and Michel DeGraff's paper, "Some notes on bare noun phrases in Haitian Creole and Gùngbè: A transatlantic Sprachbund perspective," is a comparative study of bare and determined noun phrases in argument positions in Haitian Creole and in one of its source languages, Gùngbè of the West African Kwa family. Both languages generously allow bare noun phrases in argument positions, and in both languages, bare noun phrases may occur in basically the same types of argument position that the determined noun phrases do, with similar but not identical interpretations. They set out to investigate several aspects of the syntax and semantics of noun phrases in the two languages, using the data and the resulting analyses as a window on the syntax and semantics of definite determiners and noun phrases cross-linguistically, hopefully with universal ramifications, as well. Among other things, they conclude that Haitian Creole could not have developed from a straightforward relexification process, and that the similarities between Haitian Creole and its source languages (Gùngbè, French) are rather comparable to those of very closely related languages found in microcomparative dialect syntax.

The last article in this book is Frans Gregersen's "Coding in time: On the historical character of linguistic knowledge." This contribution is somewhat different

from the others in that it has an orientation towards history of science rather than towards particular problems of language variation and change. Gregersen's point of departure is the results from two studies of the same phonetic phenomenon in spoken Danish, carried out more than 30 years apart. The surprisingly divergent results from these two studies prompt Gregersen to ask some very basic questions of a more general theoretical kind: What is the nature of the knowledge that linguistic studies contribute? How is this knowledge produced? Can we trust that it is true knowledge? Gregersen's own reasoning demonstrates how dependent the results are on historical settings. In Gregersen's own words: "Time is not only on our side, it is a fundamental condition for the humanities."

Acknowledgements

We would like to take the opportunity here to thank the following colleagues who kindly acted as reviewers of the individual contributions. They are listed below in alphabetical order according to last name: Peter Auer, Brian Chan, Ondene Van Dulm, Kristin Melum Eide, Jan Terje Faarlund, Stian Hårstad, Janne Bondi Johannessen, Marit Julien, Tore Kristiansen, Claire Lefebvre, Terje Lohndal, Kevin McCafferty, Gunvor Meidel, Christer Platzack, Christine Meklenborg Salvesen, Manuela Schönenberger, K.V. Subbarao, Øystein A. Vangsnes, Günther de Vogelaer, Mila Vulchanova, and Chris Wilder.

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Language ecology, language evolution, and the actuation question*

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I argue in this essay that from a phylogenetic perspective human languages emerged as communicative technologies responding to various ecological pressures experienced by the hominine species during its protracted evolution. The most important of these pressures were cognitive and social, notwithstanding the changing physical ecologies in which hominines have evolved and about which they have wanted to communicate. This adaptive process involved the domestication of the anatomy by the mind as it too evolved from more primitive forms to its current level of complexity and sophistication. The mind has coopted the most suitable parts of the anatomy to generate productive systems that are easy to learn, process, and adapt to the hominines' increasing cognitive capacity to satisfy the ever-changing communicative pressures they experienced. One may also argue that, overall, human languages evolved by successive exaptations of the anatomy and of extant means of communication to produce linguistic systems that would meet current and new communicative needs at different stages of hominine evolution. However, the reader is also referred to Mufwene (2013b), where the emergence of the mechanics of the linguistic technology is explained in more detail.

1. Introduction

In this essay I argue for an ecological approach to language evolution as one most likely to help us answer the "actuation question" in language change, viz., why a particular change occurred where it did but not elsewhere, and why at

* This essay was drafted when I was a fellow at the Collegium de Lyon (Institute for Advanced Study) during the 2010–2011 academic year. I am grateful to the Institute for all the logistic and material support that I received during my residence, which enabled me to explore productively a wide range of topics on the evolution of language. I am especially indebted to its director Alain Peyraube and his administrative assistant Marie-Jeanne Barrier, both of whom made sure that the fellows worked in the most hospitable conditions.

that particular time but not at another (McMahon 1994; Labov 2001; Mufwene 2008). The approach will also help us understand under what particular evolutionary conditions various milestone phenomena such as the emergence of phonetic communication occurred during the protracted phylogenetic emergence of language.

My thesis rests on the fundamental assumption that languages are more like viral species than like organisms. Their ecologies, which are both direct and indirect and roll the dice on the specific ways in which linguistic systems evolve, are multifarious (Mufwene 2001ff). Among the most important peculiarities of this position are the following:

1. Inter-individual variation within particular languages and even within dialects and sociolects (henceforth language varieties) is too important to be ignored in any study of language evolution. The notion of SPEECH CONTINUUM, inadequately associated only with (post-)creole settings since the early 1970s (e.g. DeCamp 1971; Bickerton 1973; but see Mufwene 2004), applies to all language situations, especially when the reality of IDIOLECT is given more than lip service. We must explain why there is such variation and what role it plays in the evolution process.
2. Consistent with Darwinian evolutionary theory, I also assume that language evolution is variational, not transformational. Like biological evolution, it proceeds by competition and selection among variants under particular ecological conditions. That is, it does not proceed by successive and parallel transformations of the kind A → B in the environment E, as traditionally hypothesized in historical linguistics. Rather, it involves competition[1] between alternatives A and B, with A or B prevailing because it was favored by particular ecological factors. The selection may also result in some sort of allopatric speciation, whereby variant A thrives and prevails in one geographical environment or part of the population, while variant B does in another. Such evolution occurs especially during the migration of part of a population to a colony, with one of them (the colonial or the metropolitan) remaining more conservative than the other.

1. As explained in Mufwene (2008), two or more variants are in competition when one or more of them may be (dis)favored in relation to the other(s) for a variety of reasons intrinsic or extrinsic to them, which may be captured by the assignment of markedness values. For instance, a lexical item may be disadvantaged because it is less transparent or more difficult to pronounce than an alternative, or because it is stigmatized. Competition applies to any situation where variants for the same function in a system are not equally weighted by the users.

3. Although languages are typically individuated in the linguist's discourse as if they were organisms, especially in historical linguistics and in studies of the phylogenetic emergence of language, they are actually collective creations reflecting the parallel contributions of various individuals that have used them at different times and on different occasions and have contributed differentially to their architectures and feature pools. Because they are internally-variable and are indeed extrapolations from idiolects of particular populations of speakers/signers, they are non-uniform constructs reflecting family-resemblance properties (Mufwene 2001, 2008).
4. I also conceive of languages as some sort of folk technologies, albeit as unplanned cultural artifacts, developed and developing incrementally without foresight of the outcome of general architecture (Mufwene 2013b). Thus, the innovations they incorporate and the modifications they undergo, typically in ad-hoc ways, reflect particular ways in which their users/creators respond to particular communicative pressures under specific ecological conditions. These are probably better captured by Wallerstein's (2004) notion of TIMESPACE, which can apply to the *hic et nunc* circumstances of interaction, the immediate ecology of speech acts.
5. Languages are emergent phenomena, in constant states of flux, in constant search of equilibrium, owing to changing patterns of interaction among their users. The phenomenon is also especially evident after the introduction of new elements and/or the elimination of some older ones. This emergentist perspective does not deny the significance of phonological, morphological and syntactic rules. It just invites us to assume that rules are not immutable nor anterior to, or drivers of, language change, despite the established working assumption that classes of the same items behave alike and undergo the same changes. Nor are rules anterior to various phenomena that have shown up during the emergence of language. Instead, they are emergent patterns, as understood in complexity theory and construction/usage-based grammar (see e.g. Croft 2001; Tomasello 2003). They are consequences of processes driven more likely by partial analogies between similar items than by sweeping abstract rules (McCawley 1976). The rules are similar but yet show variation across individuals, because the individual speakers'/signers' mental and anatomical structures are not identical, because the producers and interpreters of utterances are not influenced by identical interactional and developmental histories, and thus because the primary linguistic data generating the patterns are not identical from one speaker/signer to the other (Mufwene 2008). Speakers/signers understand each other not because they use identical systems but because similar minds deriving similar patterns from similar data can "read" each other (Mufwene 1989), in the sense of Sperber and

Wilson's (2002) "mind-reading" theory, which of course makes allowance for divergence or interpretation errors not necessarily due to Chomsky's (1957) performance factors.

6. It is important to distinguish between, on the one hand, the direct language ecologies consisting of individual speakers/signers and, on the other, the indirect ecologies, which consist first of the "timespace" of utterances, then of population structures which help shape the interactants' reactions to particular events in specific "timespaces" (Mufwene & Vigouroux 2012), and ultimately of the particular economic practices/systems that produce the relevant population structures. The latter are in turn largely consequences of particular geographical ecologies, consisting of climate and kind of soil, among many other factors which restricted the particular kinds of economies that populations inhabiting or relocating to them could develop. Indeed we can speak of a "cascade of ecological determinisms" ranging from the most indirect ecological factors to direct ones.[2]
7. The phylogenetic emergence of language need not be conceived of as monogenetic. Geographical considerations about the emergence of our hominine ancestors and modern human linguistic behavior militate in favor of polygenesis. We must also bear in mind the ever-evolving (thus diachronically variable) mental and anatomical structures of hominines and humans, which played a very significant role in determining which particular kinds of language(s) could emerge out of the increasingly richer and richer information exchanges, both in contents and in topics, they were engaging in (Mufwene 2013a, 2013b). Languages are as complex as the kinds of information they can package, in chunks of various sizes, to communicate.

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2. As shown by Chaudenson (1992, 2001, 2003) and Mufwene (2001, 2005, 2008, 2009), these considerations go a long way toward explaining the differential evolution of European languages in colonial conditions over the past half millennium, especially why slave and contract labor populations produced creoles only in some (parts of the) colonies but not in others, and why non-creole varieties did not evolve in any more identical ways than creoles did. Besides, the competition-and-selection mechanisms that produced creoles apply in kind also to the emergence of the non-creole varieties, bearing in mind that the massive shift to the dominant language did not take place at the same stage of the development of the colony for all the relevant populations. As shown in Mufwene (2009), the populations that shifted early to the dominant language and were also segregated early from the economically dominant population were more likely to produce a separate divergent variety, at least one that would survive to date, than those who shifted later and were integrated into the economically dominant group.

2. Some consequences of thinking of languages as species

The position that languages are species rather than organisms was first stated by Paul (1880/1991). It was resurrected by Mufwene (2001), who proposed the following justifications:

1. Languages as communal phenomena are not homogeneous; they vary across idiolects, dialects, and sociolects. Although idiolects are internally variable, reflecting the interactional histories of the relevant speakers/signers (having to do with the options available to them in the expression of their thoughts and feelings), languages exhibit the kind of variation that is more typical of species. They can be broken down not only into idiolects (the counterparts of organisms) but also into dialects and sociolects (the counterparts of subspecies).
2. Languages do not change uniformly, as every idiolect evolves at its own pace, reflecting the interactional history of its speaker/signer. So too does every dialect or sociolect evolve according to its own internal dynamics, reflecting the ways in which the idiolects it consists of converge towards a particular norm. Changes affecting some dialects or sociolects may not affect others. However, modifications undergone by a particular idiolect do not necessarily change the relevant properties of the dialect, sociolect, and language it is associated with, unless they are shared by many other idiolects. Distinctive features of particular idiolects are in competition with those of others, in that they are not all equally rated by the relevant speakers/signers. Thus, not all of them get to be copied by others, though those that spread do not necessarily originate in the same idiolects.
3. Boundaries of languages and species (like those of dialects, sociolects, and subspecies) are fuzzy, unlike those of idiolects, which are bounded by their speakers/signers as individual organisms. In boundary areas, it is hard to tell one language variety from the other, because interactions in these areas are not consistent with the stipulated boundaries. There are thus some idiolects whose dialectal or sociolectal affiliation cannot be determined unequivocally, especially those of speakers/signers that navigate across regional and/or social boundaries.
4. Indeed, like biological species, language varieties as communal phenomena exist as constructs, as they are extrapolations from the idiolects of their speakers/signers. They have no material existence similar to that of entities or material groupings that can be pointed at.
5. Thus, the structural characteristics of language varieties are extrapolations from those of idiolects sharing them, on the family resemblance model, just

like the genetic and behavioral properties associated with species are extrapolations from those of their member organisms. Phenomena having to do with their vitality, such as sustainability, endangerment, and death, reflect convergent patterns arising from the behaviors of individual members of the relevant populations.

6. Members of language communities do not behave like players in sports teams, with explicit rules of engagement. They produce convergent results because they are endowed with mental capacities that enable them to learn to respond often in similar ways to similar ecological conditions and even to copy from each other. Speakers/Signers of a language variety share with members of a biological species the capacity to respond in similar fashions to similar ecological conditions, though competence in a language involves the acquisition of the capacity by learning rather than by genetic inheritance.[3] Pressure to communicate successfully, thus to be understood by the addressee, is an important factor that accounts for copying and the ensuing convergence between speakers/signers who interact with each other. One may want to rephrase the saying "birds of a feather flock together" as "birds that flock together develop the same feather." Socially, they both make sense.
7. Being parasitic on humans, languages are more like viruses than like animals. Their vitality and structural characteristics reflect what the relevant speakers/signers, like hosts of viruses, do as they respond to various ecological pressures, including specific communicative needs under particular pragmatic conditions.

On the other hand, it is necessary to distinguish communal properties of languages, such as norms and inter-idiolectal variation, from individual ones, such as phonetic and lexical idiosyncrasies, as well as grammatical singularities. By mutual accommodation (involving learning/copying from each other), the idiolects of individuals who interact regularly with each other converge toward the same norms, becoming more like each other. Norms must thus be understood as emergent communal patterns rather than as stipulations by an institution (such as an academy) that is vested with authority over the members of a population. Beyond communicative networks, where idiolects are the most

3. For practical reasons, I omit the prerequisite that the language learner be biologically endowed with the capacity to learn human-specific cultural inventions such as language and other technologies that facilitate our species' adequate responses to diverse ecological conditions. This is a complex topic, quite controversial now (see a summary in Mufwene 2013a, 2013b), which may be left alone now without compromising the position developed in this chapter.

similar to each other, dialects and sociolects as emergent phenomena reflect particular population structures, which determine who is most likely to interact with whom and who is most likely to accommodate whom if they stepped outside their networks.[4] These considerations apply as much to the evolution of particular structures as to the vitality of a particular variety. From an evolutionary perspective, intent to be easily understood and to collaborate with other members of one's group (described by Tomasello 2008 and others as "cooperation") is an important ecological factor prompting speakers/signers to converge in the ways they express their thoughts and feelings. However, this is perhaps not the full story.

Regarding all these processes, innovators must be distinguished from followers/copiers (Tomasello et al. 2005; Croft 2000; Mufwene 2001, 2008). The latter participate in the spreading of features or practices that the former introduce into their interaction networks or communities. This observation highlights the fact that the agency of evolution lies in communicative activities of individuals, as some of them innovate new features or new uses of extant ones during specific communicative acts and others copy and spread some that may subsequently be characterized as successful, because the copiers found them useful. Multiple copying or spreading lays the evolutionary trajectories of features.

Since not every member of a community witnesses the same innovations and since alternative features can be innovated by different individuals for the same communicative needs, the copiers often face options while innovations spread. Depending on various criteria within the population, the options find themselves in competition in the feature pool shared by the overall population. This simply means that the alternative features produced by different individuals are not rated equally by other users and/or on different occasions. Selection, a mechanism of self-organization at the population level, rolls the dice on the fate of the variants/alternatives. It determines which variant(s) prevail(s) over which other(s), or it establishes a division of labor between them, which is a form of specialization known in linguistics as complementary distribution.

These dynamics make of languages what complexity theorists identify as "emergent phenomena," always in search of equilibrium (Dooley 1997; Heylighen 2008) or "coherence" (Steels 2000), with patterns emerging that are likely to change

4. It's not clear to me yet how to articulate STATUS within a network and what particular role it plays relative to the spread of features. Are the spreaders of particular features (often different individuals from the innovators) necessarily people of a higher social status? Also, can the question of how a feature spreads within a population be addressed independent of what is to be gained from copying it?

afterwards in response to changing ecological pressures. There are two main reasons why languages share these emergence characteristics:

1. There is no transmission comparable to the process in biology whereby genes are passed on by the carrier to a passive fetus of the offspring (who can be interpreted as a heir) at conception, i.e. without any agency on the part of the latter (Fracchia & Lewontin 1999). Cultural, hence linguistic, transmission is thus a misnomer for learning by inference (Mufwene 2008), which is prone to perception and/or interpretation errors, part of what has been identified in diachronic studies as "imperfect replication" (Lass 1997: 112), "transmission error" (Deacon 1997: 114), or more often as "transmission with modification." Unlike in biology, where, barring mutations, trans-generational changes are consequences of how genes are recombined and weighted within the new recombinations, linguistic materials that recombine are typically not faithfully reproduced in the first place. Aboh's (2009) hybridity hypothesis captures this phenomenon adequately, showing how, in the formation of creoles, materials from both the lexifier and the relevant substrates that are selected into the emergent systems are seldom faithfully reproduced with all nuances and constraints associated with them in the source language(s). Since individual learners do not operate identically and must learn from each other during typically changing dyadic or triadic interactions, the constant adjustments to one's interlocutors can both produce convergence and disrupt the current equilibrium in the communal system.
2. The other reason is that speakers'/signers' communicative needs are not always exactly the same. However, communicators cannot always innovate new forms or structures to convey new meanings. They often have to exapt current forms or structures to do the new job, thus innovating in a rather abstract way by expanding the domain of use of current words or rules. These are dynamics that keep linguistic systems in a state of flux.

In language communities, speakers/signers also alternate their roles as innovators or copiers and spreaders, as nobody has the privilege of innovating for all the others and nobody is lazy enough to wait for others to dictate to them how they must express what's on their minds. Copiers also act as agents of the selection process, though they do not do this with foresight of the ensuing structures or architecture. Their choices are always in the present "timespace," although they are informed by their past experiences. As the choices may change several times, depending on varying pragmatic conditions, this is when we have to invoke self-organization as the producer of emergent patterns and/or structures in a language variety.

The way in which intergroup variation has arisen in modern languages, especially between those that emerged recently such as creoles and pidgins, suggests that there is no particular reason for preferring a monogenetic account of the phylogenetic emergence of languages over a polygenetic account. We can very well speak of the evolution or emergence of languages, in the plural, instead of the evolution or emergence of language, in the singular or semantically non-individuated delimitation. We must bear in mind that in the former case, referring to the plural, the emphasis is on individual languages emerging more or less concurrently, but in the latter it is on the common properties of languages or the essence that they share, as when we speak of what distinguish(es) human language from animal communication. Every language variety has emerged locally in response to local ecological conditions, although these are probably also responses to other ecological conditions on a larger scale, such as climates and soil in a colony conditioning a particular economic system and the latter leading to a specific population structure, as explained above regarding the proposed "cascade of ecological determinisms."

This position does not deny the possibility that in human history some languages (such as the Romance languages) have emerged by speciation from a common ancestor, a process that was certainly influenced by local ecological factors, such as the contact of Latin with the local Celtic languages and even Germanic ones in the case of French. Thus, in various places, the local evolution cum indigenization of Latin produced neo-Latin varieties, which would evolve later into the modern Romance languages. In fact, even this account focused on macro-varieties (such as French, Portuguese, and Spanish) is an oversimplification of a more complex history involving also (1) post-indigenization competition among the earlier, less widely spread neo-Latin varieties (such as between that of Paris and those spoken in other parts of France, most of which were derided as *patois*) and (2) the spread of the "stronger" ones at the expense of "weaker" competitors, leading ultimately to the current dominance of the Parisian neo-Latin or modern French.[5] What the position claims phylogenetically is that there was not a single original language from which the ancestors of modern languages speciated. Note that even the common assumption that modern Indo-European languages can ultimately be traced to one common proto-language, rather than a cluster of related proto-Indo-European languages, is disputable.

Reasons for speaking of the phylogenetic evolution of languages (in the plural!), and of the evolution of language only when we want to focus on their common

5. In the case of neo-Latin varieties of Spain, Castilian has been spreading at the expense of other varieties, though Catalan and Galician in particular have been quite resilient. Castilian has prevailed in the former Latin American colonies of Spain, where it is known as Spanish.

architectural characteristics, are probably as good as, if not better than, for speaking of the evolution of an ancestral language that speciated after the exodus of modern Homo sapiens out of East Africa. An account of how linguistic diversity arose from a polygenetic emergence of languages is probably easier and more plausible than the alternative of explaining it from a monogenetic account. The available paleontological evidence does not suggest that modern humans emerged in one single specific location in East Africa, nor that they waited until they had invented a common language before dispersing, contrary to what is suggested in the Christian book of *Genesis* (Mufwene 2013a). Thus, different populations at comparable evolutionary stages, mentally and anatomically, are likely to have chosen different alternatives, such as with the invention of modern technologies today (Mufwene 2013b). Although this observation makes it more challenging to explain why they all developed similar technologies for communication, it does not make it compelling to adopt monogenesis to account for the common properties of languages. The following discussions will shed light on the direction of these conjectures.

3. Constraints on innovations and exaptations

Communicators are not free to innovate any kind of form or structure, nor are they free to package information in any conceivable chunks. They are severely constrained by their current command of the means they use to communicate and by what they know already. Generally, speakers/signers are constrained by their command of the current structures of their language variety (an internal ecological constraint) and by their cognitive capacity (a direct external ecological constraint). For instance, infants are not capable of communicating the same cognitive contents as their caretakers (at least in quantity and range of possible information), because their cognition is not as mature as that of their caretakers, they do not have as much experience with their environment as the latter (which is very useful), and the set of communicative pressures on them are not the same as on adults around them. Their inaccurate reproductions of the input systems are initially determined by the stage of their cognitive and anatomical maturation (which bear on dexterity), not by differences between their mental capacity and the endowment for cognition and communication associated with modern Homo sapiens.[6] The faithfulness of the reproductions is also determined by another

6. The relationship between ontogeny and phylogeny is precisely what has led to the emergence of the Evo-Devo paradigm in biology, having to do with how the manifestation or modification of particular developmental features can be correlated with particular evolutionary characteristics or generate new ones, how ecology bears on development and can influence evolution, etc.

important ecological factor, viz., the children's interactional histories (Mufwene 2008; Dor & Jablonka 2010). Familiarity with particular signals just makes it easier to reproduce them.

On the other hand, the populations who produced creoles and pidgins were, collectively, largely constrained by the language variety they intended to speak, which, depending on how much exposure they had had to it, limited the vocabulary and the related rules of grammar they could target. Another important ecological constraint stems from the languages they knew already, which not only affected their perceptions and interpretations of utterances in the target language but also provided alternative forms or structures to use instead of those of the target language, especially those to which they had not had sufficient exposure to learn. The ratio of the constraints varied within each population, depending on whether the interactions between the different ethnolinguistic groups in the contact setting were regular or sporadic (an effect of population structure!), whether the learners were young or adult, who the model speakers were, etc. However, the changes that produced creoles and pidgins had nothing at all to do with, from a phylogenetic perspective, (contact-induced) changes in the mental capacity of their producers (Mufwene 2005, 2008). Slavery and economic destitution did not reduce the mental capacity that all adult specimens of modern Homo sapiens are endowed with to learn a second language, subject to degree of exposure, individual motivation, and personal facility for language.[7]

As can also be learned from the literature on grammaticization, the modifications made in response to the new communicative pressures are constrained not only by what the communicator intends to express but also by what the grammar being exapted allows. For instance, the grammaticization of the adjectives *able* as a mood marker is constrained by the fact that it is an adjective. Thus, while it can be exapted to function as a deontic modal, it should not violate the norm that it must combine with a copula when it is used predicatively. It continues to behave syntactically as an adjective even in its new semantic function, as in the utterance *Mary may/should be able to solve the problem*. The same is true of the syntax of the FUTURE auxiliary *going*, as in *We are going to solve the problem*. The "semi-auxiliary," as *going to* is identified in the literature, still behaves like a main verb in negative and/or interrogative constructions (e.g. *Are we going to solve the problem?*), largely because it is in the progressive form and is therefore less verby. It needs its own auxiliary, the copula *be*, to carry the negation marker and make up for the constraint against its participation in the

7. These considerations should cast doubt on Bickerton's (1990, 2010) claim that (incipient) pidgins are among the fossils of his phylogenetic "protolanguage." However, the topic will not be pursued here, as it has been dealt with in Mufwene (2010).

Subject/Auxiliary Inversion convention. In other words, there is a significant amount of "self-scaffolding" (Wimsatt & Griesemer 2007) in the exaptations that speakers/signers make in their languages, with extant structures providing both the infrastructure for and constraints on the innovations.

Such ecological considerations put the phylogenetic emergence of language in a perspective that is especially informative. Throughout the protracted and incremental emergence of languages as communicative technologies, our hominine ancestors could not produce anything that was not permitted by their current mental and anatomical structures and by the means they were already using. The emergence of language is a protracted history of successive exaptations. Though we do not know for sure when the mind that was capable of driving language evolution emerged, paleontological evidence suggests that the emergence of specific anatomical constraints probably delayed that of the particular linguistic technologies that modern Homo sapiens now uses, particularly the supralaryngeal vocal track (made possible by the descent of the tongue root, Lieberman 2007: 46; Fitch 2010: 3120), which made possible the production of large inventories of phonetic sounds and called for combinatorial constraints known as phonology and syntax (Mufwene 2013a). As pointed out by Maddieson (2006), there must be good ecological reasons why only the supralaryingeal structures are used to produce sounds (but not the fingers or feet) and why, although there is significant typological variation across languages, the sounds produced are distributed only within a definite range of formant frequencies. Moreover, only variants of some core vowels (such as /i, a, u/, see also Fitch 2010) and some stop and nasal consonants tend to occur in all languages.

4. An ecological perspective on the phylogenetic emergence of language

This discussion cannot proceed without determining, especially at this juncture, what are the ecologies that bore on the phylogenetic emergence of language conceived of as a hybrid, physical (phonetic or manual) and mental technology for transmitting information from one individual or party to another.[8] Focusing on speech, it appears that it would have been difficult for hominines not endowed with modern Homo sapiens' anatomical structure to develop any variant of modern spoken languages. This is not to say that no language would have evolved

8. Details of the architecture of this technology, which is quite modular, are articulated in Mufwene (2013b).

at all. As is evident from signed language, alternative forms of modern languages could have emerged. A relevant question is why just these two, spoken and signed languages as autonomous means for articulate and elaborate communication. Another is why speech has prevailed over signing in all modern human populations. These questions are made more significant by Corballis' (2002) hypothesis that communication with gestures, though probably not in any form similar to signed language, may have started as early as Homo habilis, who had hands similar to modern humans and could use primitive tools but whose buccopharyngeal structure was not the same as that of modern humans. If that gestural language was not in any way close to modern signed language, an important question is whether Homo habilis also had the same mental capacity and lived under the same kinds of social pressures as modern Homo sapiens. According to several scholars, including Lieberman (2006), Tomasello (2008), Tomasello et al. (2005), and Fitch (2010), these were critical prerequisites to the emergence of modern language.

Communication transmits information about the world or about some condition as constructed by a particular kind of mind, assuming that the addressee shares with the communicator the ability to construct knowledge of the world in similar ways. Thus, modern mental and social minds capable of both this mental capacity and joint attention have been treated as prerequisite ecologies to modern language. Corballis' (2010) and Lieberman's (2010) self-corrections that modern spoken language probably emerged only 50,000–30,000 years ago are based on such considerations. If the modern human's anatomical structure was in place since the divergence from Homo erectus, then the emergence of modern language must be the consequence of the emergence of the modern mind around the same time or later.

One may thus also assume that the complexity of the architecture of modern language reflects that of the mind that produced it. The same mind must also account for the emergence of more complex social life, which called for the modern kind of complex communication to regulate the interactions between family members and within the larger community of people sharing the same habitat. The literature has rightly focused on joint attention and cooperation, which fosters negotiations through explicit exchanges of thoughts and points of views, rather than competitiveness, which privileges use of brute force (and trickery among nonhuman primates) for particular individuals to prevail. Thus, the structural simplicity associated with incipient pidgins and child language (Bickerton 1990; McWhorter 2001) has to do not with the basic modular architecture of language, which they share with other languages, but with the limited frequency of social interactions and topics to discuss in the case of pidgins and with the limited extent of cognitive maturation and limited number of topics of communication in the case of children. Studies such as Bakker (2009) now show that the phonetic inventories

of pidgins fall within the average-size range among the world's languages and are generally not significantly reduced relative to their lexifiers. We return to the complexity aspect of language below.

A noteworthy observation was made by Darwin (1871) regarding the parrot's ability to mimic phonetic communication without being able to produce original utterances. As Mufwene (2013a: 23) states it, (…) parrots cannot produce original spoken messages intentionally, although they can imitate human speech fairly accurately. Showing what an important driver role the human mind has played in the evolution of language, [Darwin] argued that it was for the same reason that other primates do not use their buccopharyngeal structure to speak.[9]

This observation supports the hypothesis that the modern mental capacity, which a modern human child is born with but must mature (according to a biological blueprint) before performing some of the tasks, was an important ecological factor in the emergence of language. Small though the genetic difference is between chimpanzees and modern humans (less than 2% according to some geneticists), the implications from the differences are exponentially big when it comes to human languages and other aspects of human cultures. The differences are comparable to several, incremental and minor modifications of computer designs that have improved the capacity and performance of each new generation of computers so significantly compared to their predecessors (Mufwene 2010: 306). Evolutionarily, the modifications that our minds and anatomies have undergone over the past 6–4 million years, as opposed to those undergone by other primates, account ecologically for differences between human communication systems and the means of communication used by the others. Modern human minds have created more complex social lives and more diversified social pressures for communication, which triggered the emergence of more complex communicative systems, all endowed with the capacity to adapt to new situations. The cultures that the other primates have developed from their respective social life styles, products of their particular mental structures, led them to produce the specific means that they use, which, according to some experts, are limited to finite sets of messages (such as alarm calls, intimidation grunts, expression of fear or submission, signaling the location of food, and invitation to play or to mate, among primates).

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9. Articulatory phoneticians may have a different opinion about this, since the other animals' buccopharyngeal structures are not shaped exactly like humans', which would still make it difficult for them to produce the kinds of phonetic inventories produced by humans. On the other hand, the parrot can mimic human speech, though it is anatomically quite different, as explained in the main text.

Bearing the above considerations in mind, we can focus on particular ecological pressures that hominines must have experienced toward the emergence of human language(s). The parrot example also highlights the fact that speech need not be produced by the kind of buccopharyngeal structure that modern humans are endowed with. In particular, the (African) parrot has no teeth and no lips, but it has a syrinx sunk deep in its throat in lieu of the mammalian larynx and can mimic speech, although other birds likewise endowed with a similar anatomical structure cannot do the same. This suggests that the parrot is endowed with some mental capacity for phonetic imitation that other birds do not have. This also means that humans equipped with the same minds that distinguish us from other animals but with a different anatomical structure for producing phonetic sounds would have developed the same kinds of language(s).

On the other hand, we cannot use our armpits to produce speech, contrary to what some African myths report about putative strange cannibalistic populations that children may encounter if they venture too far in the forest. Neither the storytellers nor those who grew up with me who often ventured deep into the forest or in foreign territories ever encountered people who used organs other than their buccopharyngeal structures to speak. Maddieson (2006) is right on the mark in pointing out that hominines/humans co-opted the supralaryngeal or vocal tract to develop the phonetic sound technology because they could thus produce a much wider range of distinct sounds (which can also be modulated by prosody!) than they could with foot stamping, finger clicking, hand clapping, or air squeezing under armpits. These considerations prevail over other practical advantages such as freeing the hands for other activities (e.g. carrying tools or pointing) while communicating, although these ecological factors are significant too.

Evidently, hominines/humans domesticated the organs that were the best suited for the phonetic technology. As much as they can vocalize or use their limbs, the other primates did not evolve the kinds of minds and social cultures that would prompt them to domesticate the same organs toward similar communicative technologies (Darwin 1871). Thus, since our hominine ancestors' anatomical and, arguably, mental structures were not like ours, we cannot assume that they could, at any stage of our phylogenetic evolution, have developed a means of communication close or similar to modern human language(s). The same minds that invented phonetic technology also produced representational systems (especially in the form of cave drawings/paintings), which suggests that Homo erectus, like Homo habilis before them, was probably not capable of holding complex communication through signing. No such evidence has been found, unlike that which, combined with bone fossils, can be used to infer the probable time of the emergence of phonetic language. May sign language itself have emerged about the same time as speech, except that sign languages coud not have perdured as long

as spoken languages in the absence of sustainable deaf communities that evolved separately from or coexisted with speaking populations? Being numerically negligible minorities integrated in families of speakers has usually made it difficult for deafs to form separate communities of their own in which they interacted regularly with each other.

The distinction between the evolution of the hominine-to-human mind and that of the anatomical structure as separate evolutionary trajectories and ecological prerequisites is an important heuristic dimension missing from the earlier speculations on the emergence of human language from natural cries, from antiquity to the 19th century. Darwin's (1859, 1871) theory of evolution by successive mutations favored by changing ecologies and by competition and selection among competing variants has helped redirect the scholarship on the subject matter of the evolution of language, which has inspired the present recasting of the scenarios from an ecological perspective. Accordingly, I submit that the human anatomy and mind are the most fundamental ecological factors that have borne on language evolution, phylogenetically, historically, and developmentally. They filter, through the interpretation that every individual makes of the pressures coming from the social environment and how he/she responds to them, all other external ecological factors that bear on language evolution.

Bipedalism has been invoked typically for the greater terrestrial mobility it allowed hominines as hunter-gatherers to have and the more extensive usage they could make of their forelimbs (arms/hands) then freed to use tools, gather food, and carry them. These advantages apparently became more pronounced with Homo erectus, who could travel longer distances and even migrated out of East Africa. As suggested above, bipedalism bore as an ecological factor in favoring the selection of phonetic technology as the preferred means of communication. However, little has been said about the anatomical reconfiguration it triggered in the Homo genus (compared to other animals), especially in the basicranial and the pulmonary structures that would eventually make modern speech possible by the time of modern Homo sapiens 50,000–30,000 years ago (Lienerman 2002, 2010). It is not sure when the descent of the tongue root and larynx occurred, and whether the structural change occurred in one phase or in stages, as in human ontogenetic development. It is, nonetheless, worthwhile determining why modern speech (different from language) did not emerge until so recently in our phylogeny. What was missing? I conjecture the mind; but could there have been other reasons?

It is also commonly assumed that some sort of social life, perhaps initially comparable to that of nonhuman primates such as chimpanzees, must have been in place since those early beginnings about 3 million years ago. It would have exerted pressure to communicate, in order to organize communal life (e.g. Corballis 2002; Lieberman 2006). This has led Tomasello (2008) to underscore

the role of joint attention. One can safely conclude that as social life became more sophisticated, communicative systems that evolved to meet its increasing demands for more explicit, elaborate, and/or effective communication (Rousseau 1775) also evolved more sophistication or architectural complexity. However, this conclusion says nothing about the particular technology, manual or phonetic, that was developed in response to this ecological pressure. As pointed out above, scholars such as Corballis (2002), MacWhinney (2002), and McNeill (2005) have argued that the earliest forms of hominine communication could not have been phonetic, because, according to them, Homo habilis' anatomical buccopharyngeal structure, which was similar to that of today's nonhuman primates, could not have produced the phonetic technology required for it.[10] It is necessary here to distinguish vocalizations, which are continuous but not digital or discrete, from phonetic sounds, which are just the opposite and allow what MacNeilage (2008: 320), anticipated by Rousseau (1775), calls "syllabic variegation." Thus the diversification of sounds in a phonic sequence makes it easier to tell syllables or syllabic peaks apart, especially when consonants are also inserted between vowels. Words can thus also be distinguished more easily by their respective phonic makeups.

On the other hand, along with Lieberman (2002), Corballis had argued earlier that phonetic communication, though not necessarily equipped with modern syntax, could have started as early as the late Homo erectus, about 500,000 years ago. Both have recently retracted this position, arguing that the neck of Homo erectus and early Homo sapiens was too short (Corballis 2010; Lieberman 2010). According to Lieberman, "neck lengths that would support a fully human [supralaryngeal vocal tract (SVT)] are not apparent in the fossil record until the Upper Paleolithic, some 50,000 years ago (…) the sudden appearance of an array of advanced artifacts has been taken to be a sign of cognitive advance. […] The presence of a human SVT in a fossil hominid can be regarded as an index for the reiterative neural substrate that makes voluntary speech possible" (Lieberman 2010: 175).

As pointed out above, the capacity to produce speech was in itself a consequence of the descent of the tongue root (Lieberman 2007: 46; Fitch 2010: 3120), which, in earlier literature, had been assumed to have happened much earlier in the hominin phylogenetic evolution, even 2 million years ago according to some estimates. Assuming now that the descent occurred later, as suggested by Lieberman's observation, nothing could really have happened before this anatomical change.

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10. In this context, what underscores the significance of the modern human mind as an important ecological factor is the fact that nonhuman primates have not developed a signed language comparable to those developed by humans.

On the other hand, it has also been observed that there is a flaw in this reasoning. The larynx is deeper in adult than in pre-adolescent humans, and it descends deeper in male than in female adults. Yet these anatomical differences cannot be correlated with richer phonetic inventories in those who have a more deeply-descended larynx. Thus, this counter-observation suggests that the "neural substrate" to which Lieberman also draws our attention had a more significant role to play. In addition, it highlights the ecological significance of social life. As men interact with women too, there would be no reason for one of the genders to develop a richer phonetic inventory for communication within a mixed-gender community. Overall, as pointed out by Maddieson (2006), most languages have phonetic inventories that fall within the middle range (15–25 consonants and 5 oral vowels), as opposed to those that have small inventories and those that have very large ones.

The role of the mind should not be underestimated. It accounts for the emergence of complex human cultures, emerging from complex human interactions (among themselves and with their physical ecologies), which linguistic communication must match. One can argue that complex vocabularies reflect the complexity and diversity of information to be conveyed by users of the language technologies. The richness of information calls for complex but economical ways of distinguishing one symbol from another (thanks to recursion and constrained combinations of limited numbers of units), without making the system too difficult to learn and use. Thus, by the convergence of the systematic and mutually accommodating behaviors of individual speakers/signers, norms emerge which produce community-specific selections of phonemes or manual units and principles (phonological, morphological, and syntactic) for combining them into larger meaningful sequences: words, phrases, sentences. Although combinatorics, which allow recursion, are a consequence of linearity of the phonetic technology, it took a special mind to co-opt our basic ability to vocalize and gesture (which we share with nonhuman primates) and develop more complex communicative technologies. It also took a sophisticated mind, more intelligent than that of other primates, to realize that combining a smaller repertoire of elemental, unanalyzable units recursively would produce generative systems much easier to use than producing a new unanalyzable symbol for every new utterance with a different meaning.

Typological variation suggests that as communal systems linguistic technologies of the world need not have originated monogenetically. Chances are that, given the wide range of phonetic options that can effectively be used by humans, each hominine colony that produced a language (in response to the range of its communicative pressures) could have selected any subset of phonetic or manual units. It so happens that there are some core vowels, consonants, and manual units that are attested in all languages. May this suggest that phonetic inventories evolved

protractedly but no population could escape the fundamental evolutionary trajectories that were constrained by the evolution of our anatomical structures? Are there fundamental sounds that every population just had to start with? Assuming that, as in child language acquisition, phonetic acquisition is concurrent with lexical acquisition, could it also be that the phonetic inventories of various populations increased concurrently with increasing needs for richer communicative systems possessing larger vocabularies? Typological variation would have arisen from different populations responding to communicative pressures in alternative ways past the basic set of core sounds, like the cardinal vowels ([i], [u], [ɛ], [ɔ], [a]) and the most common consonants. While the emergent systems all increased their phonetic inventories, they need not have innovated the same additional sounds nor in the same numbers. As pointed out by Maddieson (2006), variation in the size of the phonetic inventories has no bearing on the size of the vocabularies that different populations can produce. Different populations did not have to settle on the same norms for combining the sounds either, though there are combinations that appear to have been favored (such as CV, NCV, and CGV) as opposed to those that populations tend to avoid because they require more energy, are found too difficult, or mark oppositions less effectively (such as a word-initial Stop + Sibilant sequences or Stop + Stop sequences in which the alveolar precedes the labial: [tp] and [db]).

When morphology emerged is another question altogether, though we can assume safely that richer communication must have entailed more than continuing to name novel entities and states of affairs (events and conditions). Various populations must have found it helpful to identify some minimal meaning-bearing combinations of sounds that can be used over and over again to generate new words that can be easily understood by hearers that were not familiar with them.[11] Eventually, pressures had to arise to go beyond naming and to predicate about entities and conditions, thus to communicate in sentences, and to distinguish between ways of referring and situating states of affairs in time and space.[12] The reality of

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11. In this respect, language communities do differ on whether they prefer derivations (by prefixation, suffixation, or infixation), compounds, or a combination of both strategies. The basic principle is still the same: forming larger meaningful units from smaller meaning-bearing ones.

12. For an idea of how part of this evolution may have happened, see Heine and Kuteva (2007), though it is debatable whether the whole grammar emerged by repeated processes of grammaticization. It is difficult to invoke this process to account for, e.g. clause subordination and predicate serialization to form complex sentences, or for the use of adjectives and relative clauses to modify head nouns. An alternative evolutionary scenario is articulated in Mufwene (2013b).

typological variation among the world's languages also suggests that there were variable options; different populations settled arbitrarily on subsets of those. An interesting question from the perspective of Universal Grammar, regardless of whether or not one assumes that it drove the emergence of language (Mufwene 2013a, 2013b) is to what extent the human mental/cognitive infrastructure constrained the kinds of syntactic phenomena that occur in the world's languages. What role did it play in facilitating the emergence of complex sentences: what did it rule out as unworkable?

5. Conclusions

The main purpose of this essay was less to explain how language(s) may have emerged phylogenetically in mankind than to focus on anatomical, mental, and social ecological factors that bore on this evolutionary process as facilitators or constraints. We thus focused on the actuation aspect of the protracted evolutionary process. A fundamental assumption that has threaded throughout is that communication preceded language; it would just complexify in response to pressures emanating from hominines' greater mental capacity and more complex social life. Domesticating their own anatomies, hominines/humans developed phonetic and manual communicative technologies that would eventually evolve into modern languages. Spoken languages could only incorporate sounds and combinations thereof that hominines/humans could produce, perceive, and process easily. Similar considerations must bear on the particular selections of manual shapes and movements that make up signed languages. We must bear in mind that combinatorial constraints (including phonology and syntax) are largely consequences of the linearity imposed (to different degrees) by the physical properties of the media used (MacNeilage 2008; Mufwene 2013a).[13]

Evolutionarily, we may argue that the components of the linguistic technologies did not all emerge at the same time, not even the phonetic inventories that made spoken languages possible. They must have emerged at different times, depending on the specific stages of hominine/human anatomical and mental evolution that facilitated the production of particular features in the technology, for instance, predication, mode of reference, modification of the head noun or of the

13. Signing is less constrained by linearity than speech, because several components can be used concurrently, such as hand shape, motion, direction, and plane. This also makes up for the speed of articulation which, according to Corballis (2010) would have favored speech (Mufwene 2013a, 2013b).

predicate, and production of complex sentences, all of them consequences of the symbolic nature of phonetic or manual "signifier," to use a convenient Saussurean term. The phonetic inventories themselves may have evolved incrementally, to facilitate the creation of larger vocabularies, as human populations became more adept with the emergent technologies.

One can conclude that languages are the kinds of technologies that reflect what human anatomies and mental structures are capable of in response to all the pressures for communication that increasingly more complex social structures, phylogenetically speaking, exerted on hominines and humans. If it is true that full-fledged modern human language(s) did not emerge or reach their present levels of complexity until 50,000–30,000 years ago, then can we not conclude that, because the modern anatomy has remained almost the same since the emergence of Homo Sapiens some 200,000 years ago, humans had to wait until the late emergence of a modern human mind for modern languages to emerge?

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Syntactic change

Between universal grammar and fuzzy grammar

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Two diametrically opposed positions on syntactic change have wide currency in the literature. The first is the classical position of mainstream formal linguistics. In this view, UG-based strategies lead to a dramatically rapid cascade of seemingly unrelated diachronic changes. The second view has been developed primarily in the context of functional linguistics and associated statistical approaches. In this way of looking at things, diachronic change is 'fuzzy', in the sense that syntactic categories and constructions undergo a gradual evolution. In this paper I argue that neither position is correct. Syntactic change is discrete and abrupt, as is maintained by most formal syntacticians. However, we must abandon the view that such change can be interpreted in terms of UG-provided parameters or cues.

1. Introduction

This contribution represents a continuation of my personal research program, namely, to try to reconcile as far as possible the seemingly opposed positions of formalists and functionalists in linguistics.[1] When it comes to language change, the rhetorical differences between the two approaches border on the extreme. Let me give a (somewhat exaggerated) picture of the two opposing views about the nature of syntactic change:

(1) (Slight) caricatures of two contrasting views of syntactic change:
   a. **The formalist position.** Syntactic change is driven by the child applying innate Universal Grammar (UG)-provided strategies to the primary data that it encounters. A slight change to the child's input can lead to cataclysmic consequences throughout the morphosyntax of the language involved.

1. I would like to thank Tor Åfarli and an anonymous reviewer for their comments. Errors are my own.

b. **The functionalist position.** Syntactic change is driven by (external) functional pressures, which lead to more frequent use of one morphosyntactic element over another. The response to such pressure is a gradual shifting of the properties of these elements. Syntactic change therefore refutes the idea of self-contained grammatical systems with discrete rules and categories.

It is certainly not the case that every historical linguist completely endorses one position or the other. But there are many who come close to doing so. This paper argues for a middle ground. In my view, syntactic change is compatible with the idea that categories and the grammars that provide them are discrete entities. However there is little evidence to support UG-based models of syntactic change. In other words I argue for a fairly traditional way of looking at language change. Grammars are systems of discrete rules. Grammatical change can be interpreted first and foremost as rule change. What *causes* rule change and therefore grammar change is an interesting and important question, but one that will not be my focus here. The paper is organized as follows. Section 2 challenges some of the more extreme views of language change that arise from research in the functionalist tradition. Section 3, on the other hand, presents a critique of the principal approaches proposed to handle change by formal linguists, namely parameter-based and cue-based theories. The last section (§4) is a brief conclusion.

2. An examination of some functionalist theories of language change

This section takes a close look at some issues raised by functionally-oriented historical linguists. Section 2.1 discusses the question of the gradualness of change, §2.2 the role of adults versus children in language change, and §2.3 the role of frequency in language change.

2.1 On the gradualness of linguistic change

In the classical functionalist view grammatical change in general and categorial change in particular tend to be gradual, in the sense that over time a category A slowly takes on the properties of category B – so slowly and gradually that there is no identifiable fixed point in time where one might say that we no longer have an A or that we now have a B. Consider the well known fact that nouns often grammaticalize into prepositions and that adjectives often grammaticalize into

determiners or quantifiers. In the functionalist view, these transitions are gradual rather than abrupt. As Martin Haspelmath has written:

> Every practicing grammarian knows that it is practically impossible to come up with a set of criteria that neatly distinguish nouns from adpositions … adjectives from determiners or quantifiers … and so on. For diachronic change, this continuous view of the lexical/functional distinction implies that grammaticalization is a gradual process, and no single point in time needs to be identified at which a lexical category turns into a functional category. Thus, grammaticalization changes can be described without invoking the concept of abrupt categorial reanalysis. (Haspelmath 1999: 1045)

Firstly, it needs to be pointed out that there is a non sequitur in the quotation. From the fact that it is difficult to distinguish categories *synchronically*, it does not follow that change cannot be abrupt *diachronically*, that is, that language change forces us to accept the idea of 'fuzzy categories'. But there is a larger issue here. Conclusions about fuzzy categories – whether the evidence is drawn from diachrony or synchrony – invariably result from failure to distinguish categories from subcategories. Consider a concrete example. In the high tech sphere, many formerly transitive verbs in English are now being used as intransitives or middles:

Recent examples of transitive verbs now used as intransitive and/or middle verbs (Fan 2008: 40):

(2) a. The information will display on the screen.
b. Please wait while your information processes.
c. Sit back and relax while Windows 98 installs on your computer.
d. How about software that installs easily?
e. The icon will copy to your desk.
f. The distribution will calculate automatically.
g. The menu will repeat.
h. Modem will disconnect after 20 minutes of inactivity.
i. For example, the 120GB hard drive will format to about 112GB.

Do we conclude from that that there is no discrete category 'Verb'? Certainly not. All that happened was the optional change of some verb subcategorizations. *Display, process,* and, *install* are as much verbs as they ever were.

Often categorial squishes are asserted without any evidence provided for the kind of gradual change that would support nondiscrete categories. So consider the discussion of deverbal prepositions in Kortmann and König (1992). In their view there is a squish with respect to the degree to which verbal participles have undergone reanalysis as prepositions:

(3) Gradient with respect to the degree of reanalysis of participles as prepositions (Kortmann & König 1992):

lowest degree → highest degree

facing	considering	according to	during	past
lining	failing	allowing (for)	pending	ago
preceding	barring	owing to	except	bar
succeeding	following	notwithstanding	concerning	

Kortmann and König state that the words on the right are a higher degree of prepositionality and a lower degree of verbality than those on the left, and use this observation to assert the gradual transition of one category into another – in this case the transition of verbs to prepositions. But they present no historical evidence that the rightmost words gradually over time dropped their verbal properties and took on prepositional properties. That is they do not present evidence that the word *during*, say, first behaved like *facing* and then like *considering* and then like *according to*. Actually, it is not even clear to me that the rightmost elements are in general more prepositional than the leftmost elements. So they say that the fact that *during* can be stranded shows it is more prepositional than the words to the left of it in the gradient:

(4) Which lecture did you sleep during?

But stranding with *leftmost facing* seems just fine to me:

(5) What problems are you facing?

The words on the left *look more* like verbs than some of the words on the right and can certainly *be* verbs, but there is no reason to think that in one of their lexical entries they are less than full prepositions.

Most of the cases that I have looked at that have been put forward to support gradual fuzzy change turn out to be nothing of the kind when they are examined carefully. So in a 2001 paper, David Denison reluctantly concluded that the facts of language change support the idea that categories are fuzzy and nondiscrete:

> If we are prepared to recognise the possibility of intersective gradience between morphosyntactic categories, i.e. word classes, then the consequence seems to be that we must recognise intersective gradience between syntactic constructions. A given string may have for a given speaker an analysis in some sense intermediate between the conventional 'before' and 'after' analyses. The theoretical status of such intermediate structures remains unclear at the moment.
>
> (Denison 2001: 135)

One of his examples involved the evolution of the partitive construction: *kind of, sort of*, and so on. But a year later Denison himself showed how the evolution of

this construction can be interpreted in terms of a series of discrete steps, each following from a reanalysis of the previous stage, and preserving the older structure as an option. (6) illustrates:

(6) The evolution of *kind of* (loosely based on the discussion in Denison 2002):

a.	Class meaning	[a kind] [of bird]
b.	Binomial	a [kind [of bird]]
c.	Qualifying	a [[kind-of] [$_{N}$bird]]
d.	Post-Determiner	these [[kind-of] [$_{NP}$ (aquatic) [$_{N}$ birds]]

In other words, over the years the word *kind* shifted from the status of head noun of an NP taking a PP complement (cf. *a species of bird*) to a PP complement-taking N (or N' in the X-bar system), where it and its complement are both under the scope of a determiner (cf. *a book about India*), to a lexical item incorporating the following preposition, to a full adjective. As Denison noted, if one is willing to posit small evolutionary steps, then there is no barrier to thinking of syntactic change in terms of a series of discrete changes. Traugott and Trousdale agree, in what I find to be an excellent restatement of the classic picture painted by formal grammarians:

> Rather, we argue that most instances of change involve small micro-steps that are in fact discrete and therefore abrupt (in a tiny way) … (20) … It is true that, taken as a whole, grammaticalization is a gradual process but the micro-steps involved are discrete and therefore abrupt for individual speakers. (39).
>
> (Traugott & Trousdale 2010)

It is also important to keep in mind that *semantic* change can be gradual, without there being any necessary implication for *syntactic* change. For example Anette Rosenbach has documented the gradual increase of human modifiers in N–N structures (like *Bush administration*):

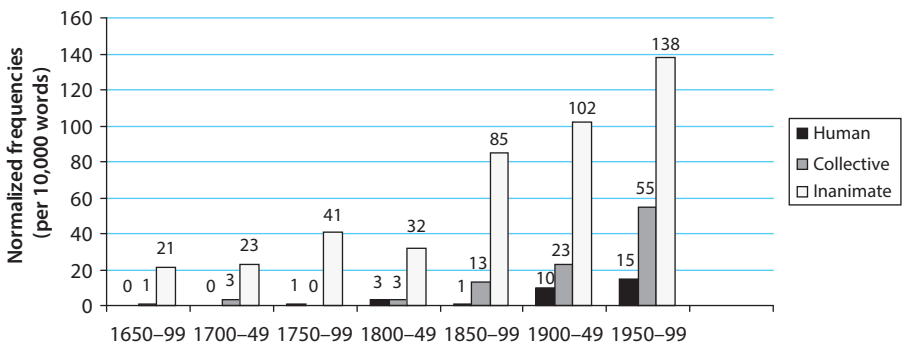


Figure 1. Distribution of noun modifiers according to animacy (Rosenbach 2010: 167)

It is an interesting fact that human nouns are increasingly used as the first element. But that has no bearing on the *structure,* which seems to have remained constant over the centuries.

Another thing to keep in mind is that gradual diffusion of a change across a speech community is fully compatible with abrupt reanalysis from adult to child. So each step in the reanalyses depicted in (6a–d) might well have been abrupt, in terms of an instantaneous restructuring of the adult grammar by a child language learner. At the same time these reanalyses might have diffused gradually through the speech community, say, leading to a gradual increase in the text count of the subsequent stage from a prior stage. Much of the functionalist literature seems to ignore this point, as it concludes that *grammars* are gradient from the fact that grammatical change *spreads* gradually. But that does not follow at all.

Another wedge against the idea of gradient grammars is the evidence that speakers can mentally represent 'competing' forms in their grammars (Kroch 1994). So in the early 17th century the time of Shakespeare and the King James Bible, it seems clear the most speakers of English had both (7a) and (7b) as variants:

(7) a. I did not go.
b. I went not.

Over time the (a) variant replaced the (b) variant, but for a long historical period speakers' grammars represented both forms. Competing grammars are often derided by functionalists on the basis of the supposed implausibility of having to store double the amount of information. But that critique is based on a misunderstanding. It is only at the points of variation that there is competition. It is not a question of two whole grammars in competition. Representing two ways of producing the past tense in English is, in principle, no more complex than representing two forms for the past tense of *hang*: *hanged* and *hung*.

2.2 Adult grammars and functional forces

A related question regarding syntactic change that divides formalists and functionalists is the degree to which adult grammars can be affected by external functional forces. William Croft, a leading functionalist, poses just that question:

> Can the dynamic processes in language [i.e. processes involved in diachronic change – FJN] be conceived of as the interaction among self-contained grammars of individuals? Or is the interaction such that the grammars of individuals are more intimately interconnected with those dynamic functional forces. That is, can an individual adult speaker's grammar be influenced by those forces?
>
> (Croft 1995: 517)

Croft argues that formal approaches to grammar could be refuted by a demonstration that the cognitive processes that cause grammatical change are still (potentially) operative in the adult grammar. He remarks that if such is the case, then the simplest representation of grammatical knowledge will make reference to those forces, thereby refuting a central pillar of formal approaches to language. Along these lines, he puts forth an argument against self-contained grammars. He observes that research has demonstrated that language change occurs in variable patterns of use in the adult speech community and that:

> Most speakers have most variants as part of their grammatical competence, and employ them differently depending on their social position in the speech community and the circumstances of the conversational interaction. … in this sense the grammar is not self-contained. (Croft 1995: 518)

But the uncontroversial fact that speakers *use* different forms in different situations is irrelevant to whether their *grammars* are self-contained or not. To challenge formal grammar successfully, one would minimally have to show that the adoption of new forms was so 'intimately interconnected with … dynamic functional forces', that a speaker's knowledge state before and after the adoption could not profitably be separated *from* those functional forces.

In a subsequent book (Croft 2000), Croft does provide a number of examples designed to demonstrate that one cannot separate functional forces from grammatical representations. So for example, he points to pleonastic negation, whereby language users insert an overt negative particle where a negative sense had previously been only covert. The (b) sentences of (8–10) are historical innovations based on the (a) sentences:

(8) a. That'll teach you to come early.
    b. That'll teach you not to come early.

(9) a. I really miss having a phonologist around the house.
    b. I really miss not having a phonologist around the house.

(10) a. I could care less.
     b. I couldn't care less.

Croft asserts that some cognitive predisposition led language users to feel that an overt negative was 'needed' in such constructions. Even if such were true – and I find such a scenario implausible – that would not be sufficient to refute formal grammar. The reason is that the cases involving pleonastic negation do not demonstrate that 'the cognitive processes that cause changes to the grammar, are still (potentially) operative *in* the adult grammar'. At most they demonstrate that such processes can lead ultimately to *changes to* a grammar. Croft assumes that an autonomous system is, by definition, unable to interact with or be affected by external forces. But this is not true, as I have argued in many publications (see especially Newmeyer 1998).

Croft goes on to note that a usage-driven model would require abandonment of the child-driven model of grammatical change that is generally accepted by formal syntacticians. So let us turn now to the question of adults versus children as initiators of grammatical change, and whether the answer to this question bears on the adequacy of formal approaches. An old tradition holds that grammar-restructuring is primarily the work of children. The idea goes back at least as far as Hermann Paul (1880/1920). But before proceeding further with the issue of the age of the actuators of grammatical change, we have to draw an important distinction. That is the distinction between change in *grammars*, that is change in grammatical competence, from mere additions to or deletions from the speaker's potential stock of *utterances*. Not every aspect of one's verbal habits, no matter how 'entrenched' it seems to be, necessarily points to a property of one's grammar. It might be difficult to determine in any particular case whether a form or construction in regular use is part of one's linguistic system, but it is often possible to do so. Consider, for example, the prestige usage of the nominative pronouns in *He and I left*, as opposed to nonstandard *Him and me left*.

(11) a. He and I left. (prestige usage)
b. Him and me left. (nonstandard, but widespread, usage)

Emonds (1986) and Sobin (1997) argue, quite plausibly, that constructions such as (11a) are not part of our internalized competence at all. And Emonds provides tests that bear out such an idea. Four factors point to their being a purely learned extragrammatical phenomenon that English speakers 'tag onto' their grammars:

(12) a. College and business writing handbooks have to devote entire sections on subject pronouns.
b. Widespread overcorrection of usage is attested (e.g. *Did you see he and I?)*, suggesting that 'correct' usage has not been internalized.
c. The handbooks often resort to an 'avoid the construction' strategy for conjoined subject pronouns.
d. Even middle class children go through a stage of producing *Him and me left*.

Clearly, adults have the ability to innovate entirely new forms and constructions. But it is not so easy to find clear-cut evidence that such forms and constructions have necessarily been assimilated into their grammatical competence. One measure of the stability of adult grammars is the fact that even when we want to change our grammars, we find it extremely difficult, if not impossible, to do so. For example, Labov (1972: 289–290) discusses how difficult it is for middle class American blacks who did not grow up in vernacular culture to learn the vernacular as adults. As he notes, this fact cannot be due either to lack of motivation or to lack of exposure to

the dialect. Labov's conclusion is that it is *too late* for them to master it, since their system has already stabilized on the educated norm. Pointing out that one's childhood class dialect in England tends to betray one for life, Labov writes:

> If it is true that Received Pronunciation cannot be mastered by someone who has been to the wrong school, this would stand as additional confirmation of the fact that the regular rules of the vernacular must be formed in the preadolescent years. (Labov 1972: 290)

Labov (1982) develops further the position that grammatical change is actuated primarily by children. The following quote summarizes his view of the relationship between children's grammars and adult grammars, as far as language change is concerned:

> If parents have acquired new forms in their later years, these will of course be transmitted to their children. *But research so far shows that such later acquisition is not likely to be highly systematic.* Research findings so far point to the following scenario:
>
> (1) Children learn their underlying forms from their parents.
>
> (2) Under the influence of pre-adolescent and adolescent peer groups, speakers may acquire low-level late rules of phonology and grammar in a systematic form.
>
> (3) The influence of peer groups on higher level rules and patterns of underlying forms is likely to be irregular.
>
> (4) *Changes in rules and underlying forms through the acquisition of superposed dialects later in life are normally irregular.* (Labov 1982: 69; emphasis added)

In other words, even if it happened to be an adult who first said, say, *I couldn't care less,* that would not be evidence of a change in an adult grammar. That particular expression might well have been stored by that adult in some grammar-external stock of utterances, only to be integrated into grammatical competence by the next generation of language learners.

Is the question of whether grammatical change is child-based or adult-based even relevant to the question of the correctness of formal models? Certainly if grammar-modification shuts off around puberty, we would have support for formal models. Throughout most of life grammar would be a 'self-contained system' in the strongest sense possible. But suppose that our system of grammatical competence were able to develop and change over our entire lifetime, rather than to shut off from further development after childhood. Would that challenge formal approaches? In this regard, Chomsky has remarked:

> Suppose contrary to apparent fact, that the system never hit a steady state but kept growing (like a carp) until termination of life. I don't see that anything much would change. (cited in Pateman 1987: 91, Footnote 16)

I agree with Chomsky. What it would take to refute formal approaches is the demonstration that adult grammars are in such flux that it is disadvantageous to describe them as *stored systems*. That is, one would have to show that grammatical structure is created 'on the fly', as it were, with its systematic properties emerging from the dynamics of the communicative interaction. This is the position of the most radical functionalist approaches, and there is little evidence to support it.

2.3 Language change and the role of frequency

I close my remarks on functionalist approaches to language change by offering a few remarks on the role of *frequency,* which is central to most functionalist approaches to diachrony. Frequency of use is indeed undeniably important as a factor in directing grammatical change. Frequency drives the grammaticalization of locative nouns to adpositions, pronouns to person markers, auxiliaries to tense and aspect particles, and much much more. But a word of caution is required here. Language change is directed by more factors than frequency. In fact an over-reliance on frequency would lead one to make the precisely wrong predictions in some cases. Let me provide two examples.

According to K. Aaron Smith (2001), in the history of English frequency drove the replacement of *be* by *have* as the auxiliary used with participles. Since *have* was always more frequent than *be* in this respect, over time the former drove out the latter. So we now say (13b) and not (13a):

(13) a. The messenger is come.
b. The messenger has come.

But the frequency-based explanation has no account for why in German the exact opposite has happened. According to Piebsch and Collinson in their book *The German Language*, some verbs – for example *folgen* – that used to take *haben,* now take *sein*. Another curiosity of German (and Low German) is the use of the auxiliary *sein* with the verb *sein* itself. This differs from the other Northwest Germanic languages like English and the Scandinavian languages, which use the auxiliary *have*. There are some interesting differences in usage between German dialects of the north vs. those of the south. In dialects of the north (including Standard German), stative verbs like *stehen* 'stand' and *sitzen* 'sit', but not *sein* itself take the auxiliary *haben*. In the south they take *sein*. Since we have no reason to believe that verbs translating as 'follow, 'stand', 'sit', and so on would be used more in one part of the Germanic-speaking world than another, is it clear that the frequency of use of a particular form is only one of a number of factors driving language change.

A second example is from Brinton and Traugott (2005: 17–18). Citing Haspelmath (2002), they note that the suffix *-ment* is extremely common in Modern

English, but is not being extended to new forms. It would appear that in this case some structural factors predominate over frequency-based ones.

Even if frequency were a bigger factor than it is in driving language change, we would do well to keep in mind an astute observation by Charles Yang:

> Although infants seem to keep track of statistical information, any conclusion drawn from such findings must presuppose that children know *what kind* of statistical information to keep track of. After all, an infinite range of statistical correlations exists … (Yang 2004: 452; emphasis in original)

The *kinds* of statistical information that are kept track of, Yang asserts, are provided by Universal Grammar. For example, particular types of statistical generalizations that children draw vis-à-vis sound structure are based on their apparently knowing innately that the syllable is the relevant unit over which the generalization is drawn, not segments or classes of segments.

3. Against UG-based model of language change

This sections puts UG-based models of language change under the microscope and concludes that they are unmotivated. Section 3.1 discusses the problems inherent to a such an approach, while the following three sections analyze what have been considered to be textbook examples of UG-directed change: loss of V-to-I in English (§3.2), loss of inversion, V2, and null subjects in French (§3.3), and a purported clustering of changes in Scandinavian (§3.4). Section 3.5 illustrates the fact that much of what has been attributed to parameters or cues can be handled by processing principles and §3.6 contrasts a theory with UG-based strategies with one with rules.

3.1 UG-based approaches to morphosyntactic change and their inherent difficulties

Let us do an about-face now, and look at how formal linguistics has handled syntactic change. Here is a restatement of the mainstream formalist position:

(14) **The formalist position.** Syntactic change is driven by the child applying innate Universal Grammar (UG)-provided strategies to the primary data that it encounters. A slight change to the child's input can lead to cataclysmic consequences throughout the morphosyntax of the language involved.

UG-based approaches to morphosyntactic change fall into two general categories: parameter-based and cue-based. The former are historically prior to the latter. The

general assumption had been that the constructs of UG are parameterized in such a way that acquiring a language involves little more than setting values for each parameter, based on the appropriate environmental trigger. In earlier versions of parametric theory, it was assumed that UG principles themselves are parameterized (Chomsky 1981; Rizzi 1978). After Borer (1984), the general assumption was that parametric variation is situated in the properties of functional categories, that is, categories that play specifically grammatical roles. In cue-based approaches (see especially Lightfoot 1999, 2006; Lightfoot & Westergaard 2007), children scan their linguistic environment for certain abstract innate cues as a tactic for setting their grammars. Stated as such, there is no necessary incompatibility between parameter-based and cue-based models of acquisition and change. That is, one could simply think of cues as pieces of structure that help the child to set parameters (for such a view, see Dresher (1999). However, Lightfoot's position is now that 'cues that are realized only in certain grammars are the points of variation between grammars and there is no need for an independent notion of parameter' (Lightfoot 2006: 78).[2]

In what follows, the distinction between parameter-based and cue-based approaches will be largely ignored, since they share a crucial feature that will be the target of my attack here. To be specific, they both predict a *clustering* of properties that undergo change. That is, in this scenario, a change in a parameter setting or a cue-based change bring about a whole series of changes, which a priori might not be expected to go together. And even more importantly, in many cases the parameters or cues are so abstract that poverty-of-stimulus arguments apply. That is, one arrives at the conclusion that only an innate UG could have possibly led the child to posit the parameters or cues that triggered the putative cascade of changes (for a recent development of this idea, see Crain 2012).

In the remainder of this section, I examine three of the best-known claims regarding clustered changes that seem to cry out for a UG-based explanation. I attempt to demonstrate that there is no evidence for robust crosslinguistic clustering, thereby calling into question UG-based theories of change.

Let me start by putting forward a few *general* difficulties inherent in doing UG-based typology. To begin, parameter settings and cues are abstract properties of abstract grammars, while the features described in typological research

2. The issue is complicated by the fact that, for Lightfoot, parametric theory is associated with a particular approach to acquisition, namely, input matching, which he finds inadequate. It is not at all clear to me that the association is a necessary one, though this question need not concern us here.

are typically superficial easily observable properties of languages. For example, is Chinese a null-subject language? For most typologists the answer is so obviously 'yes' that there is no room for debate. But for generativists the answer is not clear-cut. For example Gilligan (1987) excludes Chinese and Burmese and Thai and a dozen other languages from the class of null subject languages, on the grounds that there is no evident AGR projection. That might well make theoretical sense, given what we know about the central role of AGR in a host of grammatical processes. But to a typologist, the exclusion of Chinese looks like cooking the data in advance, to make the correlations come out the way that a generative grammarian might want them to.

Following on that example, just because a language appears superficially to be V2, it does not mean that the same parameter or cue is at work as in German and Dutch. So for example, the Kru languages Vata and Gbadi look pretty V2-ish. But the evidence seems to be that what we have here is the movement of the V to T, not to C. If so, then the same parameter or cue is not at work as in German and Dutch. (see Koopman 1984: 197).

To provide another example, none of the tests typically used by typologists to determine basic word order would lead to the conclusion that German and Dutch are SOV. Nevertheless, generative grammarians are overwhelmingly in favor of an SOV assignment for those languages. But that assignment is a product of fine-grained grammatical analysis – the sort of analysis that is not only missing, but scorned as well, in the vast majority of typological studies that we might want to make use of.

The fact that parameter settings and cues are abstract properties of abstract grammars means that mere observation of surface properties will almost never suffice to determine a setting for a particular language. So German's SOV order is masked in main clauses, according to the standard analyses, by the movement of the inflected verb into C and the movement of the initial XP into CP. Presumably German would be assumed to have parameter settings or cues that trigger these movements. But we can see how easy it is for the effects of one parameter or cue to mask the effects of another.

To make things even more complicated, it is generally assumed that not all syntactic outputs result from parameter settings or innate cues. Rather some are products of extraparametric language particular rules. Consider the treatment of Hixkaryana in M. C. Baker (2001), based on an earlier proposal in Kayne (1994). This language for the most part manifests OVS word order:

(15) *kanawa yano toto* Hixkaryana (Derbyshire 1985)
canoe took person
'the man took the canoe'

One's first thought might be that what is needed is a parameter allowing for OVS order. But in fact Baker rejects the idea that a special word order parameter is involved here. Rather, he argues that Hixkaryana is (parametrically) SOV and allows the fronting of VP by a movement rule:

(16) S[OV] -> [OV]S

In other words, in this account word order is determined both by a parameter and a language-specific rule.

When one thinks about the complexities of grammars, one must to come to the conclusion that it is inconceivable that every syntactic difference between languages and dialects results from a difference in parameter settings or cues. Consider five out of the dozens of morphosyntactic differences that exist among English dialects:

(17) VP ellipsis:
  a. Mary gave me an expensive present for my birthday, but she shouldn't have. (North American usage)
  b. Mary gave me an expensive present for my birthday, but she shouldn't have done. (British usage)

(18) Negative concord:
  a. I don't know anything about any ballot stuffing.
  b. I don't know nothing about no ballot stuffing.

(19) Conjoined subject pronouns:
  a. He and I have signed up for the tour.
  b. Him and me have signed up for the tour.

(20) Preposition stranding/pied piping:
  a. Who did you speak to?
  b. To whom did you speak?

(21) Stylistic inversion after initial adverbials:
  a. Mary ran away.
  b. Away ran Mary.

If each of these analytically independent distinctions were to be handled by a difference in parameter setting or by a different cue, then extrapolating to all of the syntactic distinctions in the world's languages, there would have to be thousands if not millions of parameters or cues. That is obviously an unacceptable conclusion. Yet nobody has any clear idea about which syntactic differences should be considered parametric, and which should not be.

In any event, let us move to a few concrete examples that have been proposed regarding parametric syntactic change. We will see that, in fact, they do not support such an approach to change at all.

3.2 History of English: Loss of V-to-I, rise of Neg-V, and Adv-V ordering

David Lightfoot in many publications (see especially Lightfoot 1993, 1999) has pointed to a clustering of changes that he claims were an automatic consequence of the parametric (in later work, cue-based) change of losing V-to-I movement. The following gives a rough idea of what English looked like before the parameter resetting and after the resetting:[3]

(22) Before the loss of V-to-I movement (Lightfoot 1999):
  a. Read Kim the Bible? (inversion of V)
  b. Kim reads not the Bible. (V – Neg ordering)
  c. Kim reads always the Bible. (V – Adv ordering)

(23) After the loss of V-to-I movement:
  a. Does Kim read the Bible? (no inversion of V)
  b. Kim does not read the Bible. (Neg – V ordering)
  c. Kim always reads the Bible. (Adv – V ordering)

According to Lightfoot:

> … the loss of the V-to-I operation in English *entailed* the predominance of forms [like those in 23] (Lightfoot 1999: 105; emphasis added)

In other words, if Lightfoot is right, then in language after language we should find clusterings of forms like in (22) and (23). But that is simply not the case. Let us start with Adverb – Verb ordering. Unfortunately, we cannot precede very far in testing its crosslinguistic distribution. It is frequently the case that for a given language, different adverbs have different positions and the same adverb can often occur in more than one position. And worse, there is not universal agreement on what elements belong to the category 'Adverb'. But it is clear that in Old English both time and manner adverbs could routinely occur between the verb and the direct object (Pintzuk 1993) and that in Modern English neither can. But time and manner adverbs went their separate ways. So time adverbs do indeed occur preverbally (as in 23c) and not postverbally as in (24):

(24) *Kim reads the Bible always.

But for manner adverbs the situation is partly reversed. The preferred position is after the verb, though preverbal is also possible:

(25) a. Kim sliced the bread carefully.
  b. Kim carefully sliced the bread.

---

3. For the sake of simplicity, in the remainder of this section I refer to 'parametric change' rather than 'cue-based change'. As far as the material treated is concerned, nothing of importance depends on the differences between the two approaches to change.

What do these facts say about the parameter? The fact is that nobody knows, for the simple reason that the parameter has not been formulated carefully enough to distinguish between different species of adverbs.

Looking at negation, it is true that the negative word *not* in English is preverbal, just like time adverbs. But that is a simple consequence of the fact that *not* belongs to the same syntactic category as time adverbials, including adverbials such as, *just, barely*, and so on (see Jackendoff 1972; C.L. Baker 1991; Ernst 1992; Kim 2000; Newmeyer 2006). In languages where the sentential negator belongs to some category other than Adverb, there is no necessary correlation between negative-verb order and adverb-verb order. Here are some examples:

A. Negation can be encoded by a complement-taking verb:

Tongan (Churchward 1953: 56; Payne 1985: 208)

(26) a. *Na'e 'alu 'a Siale*
ASP go ABSOLUTE Charlie
'Charlie went'

b. *Na'e 'ikai* [$_S$ *ke 'alu 'a Siale*]
ASP NEG ASP go ABSOLUTE Charlie
'Charlie did not go'

'ikai behaves like a verb in the *seem* class (we know there is a complement because *ke* occurs only in embedded clauses).

B. Negation can be encoded by an Auxiliary**:**

Estonian (Blevins to appear):

(27) Negative forms pattern with perfects, which are based on a form of the copula OLEMA

Property		**Auxiliary/Particle**	**Main Verb Form**
NEG(ATIVE)	NONPAST	*Ei*	(UNINFLECTED) STEM
	PAST		PARTICIPLE
PERFECT		OLEMA	

C. Negation can be encoded by a derivational affix:

Turkish (Payne 1985: 227)

(28) V + Refl + Recip + Cause + Pass + Neg + Possible + Tense/Mood + Person/Number

D. Negation can be encoded by a Noun:

Evenki (Tungus) (Payne 1985: 228)

(29) a. nuŋan a#cin 'he is not here'
b. nuŋartin a#cir 'they are not here'
(*a#cin* has a plural form and takes case endings like ordinary nouns)

In all cases the distribution of Negation is determined by the distribution of the supercategory to which it belongs. That fact is unpredicted by the parameter.

What about the supposed correlation between V-fronting and V-Neg order? In fact very few languages front V in questions and most of those that do appear to be spoken in Europe, like Finnish, German, Icelandic, Romanian, and Mainland Scandinavian. Only a few V-fronting languages outside of Europe have been reported, including Malay (as one strategy), Manggarai, Palauan, and Warekena. A complicating factor is that what often what seems to be inversion might just be the manifestation of a free movement strategy, as appears to be the case for Hungarian. In any event, of the languages with V-fronting, only German and Icelandic clearly have V-Neg order. The others are Neg-V, except possibly for Manggarai where I was unable to find any data. So there does not seem to be any crosslinguistic support at all for the correlations predicted by the parameter.

Even more problematically, there is little reason to believe that verb – negation orders result from movement at all. Both Cinque (1999) and Holmberg (2003) have argued that Neg Phrases can occur above any projection. If such is the case, then the claims of the parameter for verb – negation order are simply untestable.

3.3 History of French: Loss of simple inversion, loss of V2, and loss of null subjects

Let us look at the history of French now. According to Roberts (1993: 226), in the history of French a change in the value of the Nominative Case Parameter triggered loss of simple inversion, loss of V2, and loss of null subjects. Roberts is quite explicit that the proposed parameter has crosslinguistic justification. However, the only examples he provides to justify that claim are from language varieties spoken in Northern Italy and Southern France. And of course, as Roberts himself acknowledges, the fact that Italian remains a null subject language is hardly support for the parameter. In later work Roberts (2007: 62) further notes that Old French allowed null subjects only with V2 orders. It is not clear to me (or to him, apparently – see p. 63) how and why a parameter licensing V2 and one licensing null subjects should be linked. In any event, null subjects are among the most common grammatical phenomena, whereas V2 and simple inversion

are quite rare. Therefore, one's first thought would be that any parameter linking the three would be doomed to failure. Still, the parameter would receive *some* support if V2 languages tended to be those with simple inversion. The following summarizes what is known about the crosslinguistic distribution of V2 and V fronting respectively:

(30) V2 languages are attested only in Germanic, in languages in contact with Germanic (Sorbian, Old French and some other early Romance languages, Rhaeto-Romance, Breton, and Middle Welsh), and in Kashmiri (Plank 2012).

(31) V fronting is found in Finnish, German, Icelandic, Malay (as one strategy), Manggarai, Palauan, Romanian, Scandinavian (Mainland), Warekena.

In fact, the only overlap that we see here is found in the Germanic languages. So we are forced to conclude that there is little crosslinguistic support for the Roberts parameter.

3.4 History of Scandinavian

Holmberg and Platzack (1995) and in much later work argue for a parameter which distinguishes a number of properties of the Mainland Scandinavian languages from those of the Insular Scandinavian languages. While the precise formulation of the parameter will not be my primary concern (it has naturally undergone revision over the years), the five correlations in (32) appear to be the most robust:

(32) The principal correlations in Holmberg and Platzack (1995) and later work (ISc = Insular Scandinavian; MSc = Mainland Scandinavian):

a. ISc but not MSc allows null nonreferential subjects.
b. ISc but not MSc has non-nominative subjects.
c. ISc but not MSc has stylistic fronting.
d. ISc but not MSc has V to T in embedded clauses (both are V2 in main clauses).
e. ISc but not MSc has relatively rich subject verb agreement.

So the question is whether the group of clusterings that we find that distinguish ISc from MSc robustly separate classes of natural languages in general. Let us take them one at a time.

(32d) presents immediate problems. What (32d) means, as I understand things, is that the parameter leads to a class of languages appearing to be V2 in embedded clauses. But no more than a few languages in the world have been reported with embedded V2. How could that feature then possibly be linked universally with the other features common to ISc, each of which is relative common?

Now look at (32c), namely, generalizations about stylistic fronting. We need to ask whether the possibility of stylistic fronting tends to accompany embedded V2, null nonreferential subjects, non-nominative subjects, and relatively rich subject-verb agreement. The answer is 'We do not know'. As far as I know, stylistic fronting, at least insofar as it seems the same as what we find in ISc, has not been identified in other languages. But Holmberg (2005) does note that stylistic fronting has a lot in common with what is called 'Long Head Movement', a process that is found in South and West Slavic Languages, Old Spanish and older forms of European Portuguese, and in Breton. (33) and (34) are examples from Slovak and Breton respectively:

(33) Long Head Movement in Slovak (Borsley, Rivero & Stephens 1996):
Napisal som list
written have.1SG letter
'I have written a letter

(34) Long Head Movement in Breton (Borsley et al. 1996):
Lennet en deus Yann al levr
read 3SGM has Yann the book
'Yann has read the book'

Long Head Movement is a purely root phenomenon, which makes it differ from Stylistic Fronting. But like Stylistic Fronting, it can move one-word expressions, it is clause bounded, and is blocked by a fronted NP. So perhaps the same parameter is at work in Stylistic Fronting and Long Head Movement. So we need to ask whether Slovak and Breton have, say, non-nominative subjects. Now according to several sources that I consulted, Slovak *does* have non-nominative subjects, but they are of the German sort, not the Icelandic sort. For example they do not coordinate with nominative subjects, though at least in Polish they can be antecedents for binding in a limited way:

(35) Polish (Adam Przepiorkowski p.c.):
Piotrowi zachciało się jabłek ze swojego sadu
Peter-DAT wanted REFL apples-GEN from his-REFL orchard
'Peter felt like (having) some apples from his orchard'

But the fact that both Polish and Slovak behave the same way (Franks 1995) is bad for the parameter, since, according to Borsley and Rivero (1994), Polish, unlike Slovak *lacks* Long Head Movement. And equally problematically, Breton does not seem to have non-nominative subjects of *any* sort. So we do not have any real support for the parameter on the basis of the crosslinguistic distribution of stylistic fronting.

Let us turn now to (32b), namely, non-nominative subjects. In fact every language that has non-nominative subjects seems to have a different range of properties associated with them. Here are some examples:

(36) Non-nominative subjects in various languages:

a. Bengali (Onishi 2001). Genitive and objective subjects can be antecedents of reflexives, but do not have other subject properties.

b. Gujarati (Mistry 2004). Binding and control tests show that there are true non-nominative subjects.

c. Imbabura Quechua (Hermon 2001). One class of accusative subjects can be the controller in switch reference sentences and the target of subject-object raising. Another class can do this and also take part in subject-subject raising and control. But no accusative subjects (unlike nominative subjects) can trigger subject-verb agreement.

d. Japanese and Korean (Bhaskararao & Subbarao 2004). The dative case-marked noun phrase can trigger honorificity agreement.

e. Kannada. Sridhar 1976 has argued that dative subjects in Kannada are true subjects, but Amritavalli 2004 has arguments that they are not.

f. Kashmiri and Nepali (Bickel 2004). Datives can antecede reflexives, but so can some true objects.

g. Lezgian (Haspelmath 2001). Dative subjects can be antecedents for control and binding and be imperative addressees.

h. Maithili (Bhaskararao & Subbarao 2004) is the only Indo-Aryan language where the non-nominative subject can trigger agreement.

i. Manda (Bhaskararao & Subbarao 2004) is the only Dravidian language where the non-nominative subject can trigger agreement.

j. Tariana (Aikhenvald 2001). There are several non-nominative subject types and they all have different 'subject properties'.

k. Telugu (Subbarao & Bhaskararao 2004). Non-nominative subjects meet binding and control tests for Subjecthood, but fail others.

l. Tsez (Comrie 2004). The tests for non-nominative Subjecthood are ambiguous.

Until deeper analyses of each of these languages is performed, there is no way to determine if any of these languages might share a parameter setting with Icelandic, much less share the other properties said to be predicted by the parameter.

The next feature to examine is the presence or not of null nonreferential subjects, namely, (32a). There are problems of identification here as well. One does not often find discussion of null *anything* in either traditional grammars or in books or articles written by typologists. There are fortunately a couple of exceptions. One is a 1984 article by Johan van der Auwera (van der Auwera 1984). The other is an unpublished 1987 dissertation, written by Gary Gilligan at the University of

Southern California, which is devoted to testing the typological predictions associated with the null-subject parameter.

Van der Auwera and Gilligan did the work to document quite a few languages with respect to this property. (37a–c) gives the results as reported in Gilligan:

(37) The Crosslinguistic Distribution of Null Nonreferential Subjects (Gilligan 1987; based in part on van der Auwera 1984)

a. Null nonreferential subjects: American Sign Language, Arabic, Babungo, Basque, Blackfoot, Bobangi, Burmese, Cape York Creole, Caviteño, Chamorro, Chorote, Duka, Egyptian (Middle), Finnish, Flemish, French (old), Fula, Garo, Georgian, German, Guaymí, Hausa, Hebrew, Hua, Hungarian, Icelandic, Indonesian, Irish, Italian, Lenakel, Luganda, Mandarin, Mundari, Murut, Papiamentu, Portuguese, Russian, Siroi, Spanish, Swahili, Tagalog, Tamazight, Thai, Tondano, Turkana, Turkish, Vietnamese, Yoruba

b. No null nonreferential subjects: English, French (modern), Swedish

c. No data: Alyawarra, Angami, Bhojpuri, Big Nambas, Canela-Kraho, Cherokee, Chuckchi, Cocama, Daga, Dani, Engenni, Ewondo, Fore, Golin, Gonja, Grebo, Guaraní, Heiltsuk, Hixkaryana, Iai, Izi, Japanese, Kamba, Kepelle, Kewa, Kiowa, Kobon, Kwaio, Madi, Malagasy, Malayalam, Mam, Manam, Mixteco, Mwera, Nama, Navajo, Ngandi, Nimboran, Noni, Nupe, Olo, Paamese, Papago, Quechua, Rao, Sakao, São Tomé Creole, Sara-Ngambay, Sawu, Serbo-Croatian, Shona, Somali, Sri, Tibetan, Tigak, Tiwi, Tolkapaya, Warao, Waskia, West Greenlandic, Yebamasa, Yessan-Mayo

As one can see, for over half of the languages in the sample, Gilligan found no data at all on null nonreferential subjects. That is not surprising, given that most published grammars do not discuss such issues. But significantly where he did find data, languages *with* such subjects outnumbered those without by a ratio of 48 to 3. Now what does that say about the parameter that we have been investigating? It certainly does not support it. Several of the features in ISc seem to be pretty rare, such as embedded V2, stylistic inversion, and non-nominative subjects. But if (37a) is anything to go by, null nonreferential subjects are one of the most common features that there are. That fact does not literally *refute* the Holmberg-Platzack parameter. Perhaps other parameters are at work that would somehow lead to null nonreferential subjects. At this stage we simply do not know.

Finally there is (32e): relatively rich subject-verb agreement. As far as subject verb agreement in general is concerned, the best crosslinguistic data that we have is recorded in the *World Atlas of Language Structures* under the heading of 'Verbal Person Marking' (Siewierska 2005: 416–417). Twenty-two languages are in both the Gilligan and the Siewierska sample, twelve of which have both null

nonreferential subjects (NNRS) and subject person marking on the verb (SPMV), and ten of which have NNRS, but not SPMV:

(38) Correlations between Null Non-Thematic Subjects (NNRS) and Subject Person marking on the Verb (SPVM) (compiled from Gilligan 1987 and Siewierska 2005):

a. NNRS and SPMV: Basque, Chamorro, Finnish, Fula, Georgian, Hua, Icelandic, Italian, Mundari, Swahili, Turkana, Turkish

b. NNRS, but not SPMV: Babungo, Burmese, Caviteño, Garo, Hausa, Mandarin, Tagalog, Thai, Vietnamese, Yoruba

In other words, the available data do not support a correlation between NNRS and agreement. But things are much worse than that for the proposed parameter.

The parameter unites NNRS with *relatively rich* subject verb agreement. Since languages with relatively rich agreement are (obviously) a proper subset of those with agreement, it seems reasonable to assume that the agreement manifested by some of the languages in (38a) is not 'relatively rich', resulting in an even weaker crosslinguistic correlation between (32a) and (32e).

3.5 Parameters and processing principles

So where are we now? There appears to be little or no crosslinguistic evidence for the clustering of properties hypothesized on the basis of data from the history of English, French, and Scandinavian. Does that mean the we can say with absolute confidence that the proposed parameters do not exist? No, certainly not. It is logically possible that for all of the offending languages, the clustering really does exist, but it is masked by other processes taking place in those languages. But in order to know if that is the case, we need in depth analyses of all of these languages, analyses that of course do not exist at the present time.

In my view, we can sum up the success of parametric syntax in one sentence:

(39) Parameters work the best where they are needed the least.

By that I mean that where we do find clustering, there is usually a pretty good functional explanation at hand. Are where we do not find the predicted clustering, the functional explanation is much less obvious or entirely nonexistent. So take the Greenbergian correlations, which are real clustering effects. The most robust are listed in (40):

(40) Correlation pairs reported in Dryer (1992) (the 'Greenbergian correlations'):

VO correlate	OV correlate
adposition – NP	NP – adposition
copula verb – predicate	predicate – copula verb

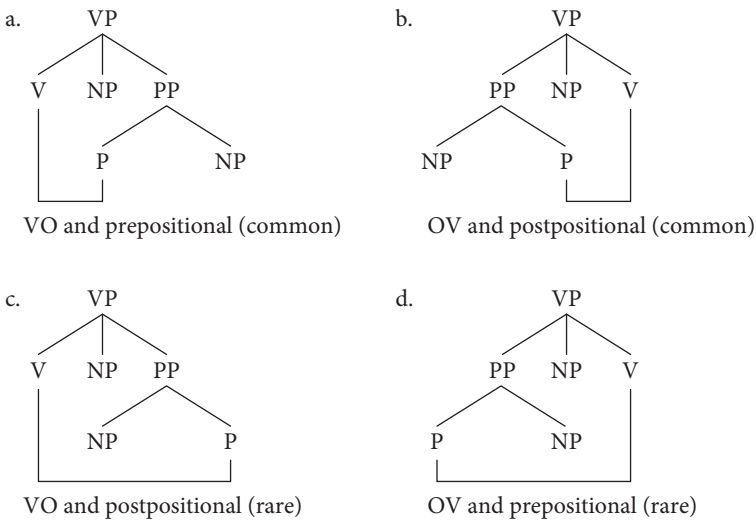
'want' – VP	VP – 'want'
tense/aspect auxiliary verb – VP	VP – tense/aspect auxiliary verb
negative auxiliary – VP	VP – negative auxiliary
complementizer – S	S – complementizer
question particle – S	S – question particle
adverbial subordinator – S	S – adverbial subordinator
article – N'	N' – article
plural word – N'	N' – plural word
noun – genitive	genitive – noun
noun – relative clause	relative clause – noun
adjective – standard of comparison	standard of comparison – adjective
verb – PP	PP – verb
verb – manner adverb	manner adverb – verb

The two most important points to make about the correlations are the following:

(41) Two observations about the Greenbergian correlations:
  a. They are very close to the surface and
  b. There is an adequate processing explanation for why they exist.

To illustrate (41b), we can explain why VO languages tend to have prepositions and OV languages tend to have postpositions without recourse to a parameter (for discussion, see Hawkins 1994). There are four logical possibilities, illustrated in (42a–d): VO and prepositional (42a); OV and postpositional (42b); VO and postpositional (42c); and OV and prepositional (42d):

(42)



In (42a) and (42b), the two common structures, the recognition domain for the VP is just the distance between V and P, crossing over the object NP. But in (42c) and (42d), the uncommon structures, the recognition domain is longer, as

it involves the object of the adposition as well. Since the (c) and (d) structures present more processing difficulties than the (a) and (b) structures, they are rarer crosslinguistically.

In other words there is *no need* for a head parameter. And that is just as well, of course. If there were ever a parameter that resists being tied to a functional category or the lexicon, which has been the standard assumption since Borer (1984), it is the head parameter.

Consider another example. It is well known that OV languages are less likely to have overt *wh*-movement than VO languages:

(43) Percentage of languages with *Wh*-in situ by word order type (Dryer 1991)

V-final	SVO	V-initial
71	42	16

One might be tempted to propose a parameter to capture that generalization. However, that would be the wrong move. The real descriptive generalization is that the closer to the front of the clause the verb is, the more likely that the language will have *wh*-movement. Notice that VSO languages are even *more* likely to have *wh*-movement than SVO languages. Why would this be? There is an interesting functional explanation, first suggested I think in Hawkins (1995). Heads, in general, are the best identifiers of their subcategorized arguments. If one hears the verb *give*, for example, one is primed to expect two associated internal arguments, one representing a recipient and the other an object undergoing transfer. On the other hand, a human NP might or might not be a recipient, and an inanimate NP might or not be an object undergoing transfer.

So if arguments precede their heads, as they do in SOV languages, extra cues are useful to identify their thematic status. That can be accomplished by keeping them contiguous to the head (that is, by restricting their movement possibilities) and/or by endowing them with case marking that uniquely identifies their thematic role or helps to narrow down the possibilities.

On the other hand, a functional explanation for the proposed highly abstract parameters discussed above in the development of English, French, and Scandinavian is remote at best. And, as we have seen, these parameters simply do not appear to exist.[4]

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4. I would like to call the reader's attention to Holmberg (2010), which addresses some of the critical remarks in §3.4 above, as well as providing a general defense of parametric theory. Unfortunately, space limitations prevent me from addressing this paper. See also Boeckx (2011), which provides a minimalist theory-based critique of parameters.

3.6 Parameters and rules

To summarize, we have concluded that grammars are not fuzzy, yet at the same time they are not subject to cataclysmic parametric upheavals that bring in their wake a set of seemingly unrelated changes. What might we conclude then? One possibility that has come up in the last decade is the idea of the 'microparameter'. Instead of a small set of parameters tied to particular languages, we have a much larger set of fine-tuning type changes, possibly just targeting a particular projection and leading to a small observed change. In fact it has been argued by Kayne (2005) that microparameters are much more in tune with the essence of the Minimalist Program than the 'macroparameters' that I have been discussing. Traugott and Trousdale agree, writing:

> Lightfoot … privileges abruptness, understood as saltation, and catastrophic change. … But over time the parameters have become smaller … and even though parametric change is regarded as abrupt, the abruptness can hardly be regarded as 'saltation'. (Traugott & Trousdale 2010: 25)

But given microparameters, the question immediately arises why one would want to invoke the notion 'parameter' at all? As far as I can tell, saying that two closely-related dialects or languages differ in terms of some microparametric setting is just a cumbersome way of saying that one of these dialects or languages has a rule that the other one lacks. To give a concrete example to support this point, consider the discussion of V2 languages in Westergaard (2009). Westergaard presents a very nice analysis showing how different V2 languages differ in terms of their structural properties. In her terminology the differences are 'microparametric' (though phrased more broadly within a cue-based approach to change). But if she had simply said that different V2 languages have different rules, the analysis would have been equally persuasive and a great deal clearer.

Just as the facts of language change support a rule-based analysis over a parameter-based one, they also support the former over a construction-based model. Crucial support comes from where we have the same grammatical item in different constructional contexts. So take the development of periphrastic *do* in English (Kroch 1994), which occurs in at least the following five contexts:

(44) Periphrastic *do* occurs in:
  a. Negative declaratives (*Mary did not work today.*)
  b. Negative questions (*Didn't Mary work today?*)
  c. Affirmative transitive questions (*Did Mary file the report today?*)
  d. Affirmative intransitive questions (*Did Mary work today?*)
  e. Affirmative *wh*-object questions (*Who did Mary see today?*)

In a construction grammar approach, these are all different constructions.

What they have in common is the fact that historically, they did not exist before the 15th century in anything like their present form. If constructions are analytically independent of each other, as they are to at least some degree in construction grammar, then there would be no reason to expect that *do* would appear in each construction with the same frequency over time. But that is exactly what we *do* find. The rate at which the newer pattern with *do* replaced the older pattern without *do* was the same in all contexts. This 'constant rate effect' as Kroch calls it, is precisely what we would expect if a *rule* of *do*-Support was added to the grammar of English. It is little more than a coincidence if change occurs construction-by-construction, as is hypothesized in construction grammar.

4. Conclusion

To conclude briefly, I have argued for a very traditional – one might even say 'conservative' – way of looking at syntactic change. Grammars are systems of discrete rules. Grammatical change can be interpreted first and foremost as rule change. Precisely *why* rules and hence grammars undergo change is a crucial question, but not one that has been addressed in this chapter.

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Language contact, linguistic variability and the construction of local identities*

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This paper focuses on "old" bidialectal and "new" bilingual language contact settings in the Netherlands combining insights from theoretical linguistics and sociolinguistics. It highlights some surprising conditions for language variation, namely the observation that in the bidialectal contact situation when a dialect feature (inalienable possessive dative construction) may disappear from the local dialect(s) it may be picked up as a feature of a new regional standard. In the bilingual contact situation, for some bilinguals the overgeneralization of the common definite determiner indexes "streetwise" identity formation. In sum, contact situations in bidialectal communities may lead to different linguistic outcomes but have similar social meanings whereas in bilingual communities similar linguistic outcomes are only meaningful for some speakers and not for others.

1. Introduction

This paper focuses on the linguistic outcomes of two types of language contact settings in two different geographical areas in the Netherlands. The first type concerns a contact situation between bidialectal speakers of dialect and Dutch in two locations in southern Limburg where dialects are vital. Nowadays, the phenomenon of bidialectalism has increased such that monolingual speakers of dialects have become the exception; that is, for many decades children have acquired Dutch in addition to a dialect. This type of contact setting is already a long-lasting one and has resulted in horizontal (between dialects) and vertical (between dialect and Dutch) convergences and divergences (cf. Auer, Kerswill & Hinskens 2005; Cornips 1994, 1998). The second type concerns bilingual speakers in the

* I would like to thank the anonymous reviewers, Tor Åfarli and the audiences of *Colloquium Language Contact and Change* at NTNU Trondheim (2010) and the workshop *Language Variation and Identity* at FRIAS, Freiburg (2010) and in particular, the discussion of this paper by Peter Auer. I also like to thank FRIAS for my stays as a fellow in 2011 and 2012 that made it possible to write the first and revised versions of this paper.

so-called Randstad area including cities like Amsterdam and Rotterdam, which is the linguistically, politically, economically and culturally dominant part of the Netherlands. The Dutch variety spoken here is considered to represent standard Dutch, i.e. closest to the codified grammar(s) of Dutch.

In contrast to the long-lasting contact situation in Limburg, in the Randstad area recent contact situations emerged due to immigrants entering the Netherlands, induced by large-scale technical and economic developments. These immigrants and their local-born children broadened the number and range of linguistic contact situations. Therefore, I will focus on the process of transmission (*cf.* Labov 2007) as a type of a quite 'new' language contact situation, namely bilingual acquisition by immigrant children who are born in the Netherlands and exposed to Dutch input from birth onwards.

The two areas are presented in Figure 1:



Figure 1. The Randstad area in the western part of the Netherlands (light grey) and the Limburg area in the southern part (dark grey)

The aim of the present work is to show that although variation is constrained by the nature of possible grammars it is driven by social factors (cf. Cornips to appear; Cornips & Corrigan (eds) 2005; Henry 2002). From a Labovian quantitative perspective, social dimensions of speakers may correlate significantly with patterns of language variation revealing whether a syntactic variant is a stereotype, that is, topic of social comment; or a marker, that is, showing systematic social stratification (Labov 1994). From a qualitative perspective, how people speak and the variation they reveal cannot be understood without the wider political, ideological context. According to Eckert (2008, 2012) variation constitutes a robust social semiotic system, potentially expressing the full range of social concerns in a given community, and variation does not simply reflect, but constructs, social meaning, hence is a force in social change. Syntactic variants being stereotypes are recognized as something special by speakers (Labov 2000) and they may get activated in public performances or in otherwise highly stylized uses of local-sounding speech (Eckert 2000; Rampton 1995). Thus, speakers do not simply reflect 'grammars' or 'social categories' but are agents as well. Consequently, which linguistic element(s) will become socially meaningful in the process of language contact is dependent on the individual and societal context in interaction within the wider political, ideological context. The social meaning of variation is an emergent phenomenon; the interpretation and evaluation of linguistic forms take place through interaction in different ways depending on who is using them and who is doing the interpretation.

This paper is organized as follows. Section 2 introduces Limburg and the dative inalienable possession construction, which is argued to involve the functional category D(eterminer) that has to license inalienable possession by gender agreement. Section 3 details that despite the different language contact outcomes between dialect and Dutch in Limburg, these outcomes nevertheless have come to index similar social meanings. Section 4 focuses on the process of transmission in the Randstad area and discusses how similar language contact outcomes are socially meaningful for some speakers and not for others. The linguistic phenomenon discussed in Section 4 is similar to the one in Section 3, namely grammatical gender of the (definite) determiner. Section 5 contains the conclusion.

2. Long-lasting language contact settings between dialect and Dutch in the Limburg area

Unlike other regions in the Netherlands, like Brabant, Holland or Friesland, the province of 'Limburg' has no historical roots predating 1795. Limburg was artificially created as an administrative district by the French Revolutionary forces, later

consolidated in the Kingdom of the Netherlands, where throughout the nineteenth century it remained subject to geopolitical uncertainties (Leerssen 2006). Limburg presents an excellent case for empirical exploration of which linguistic element(s) will become socially meaningful in the process of language contact, and how.

Nowadays, 900.000 people or 75% of the inhabitants in Netherlandic Limburg claim to speak a Limburg dialect (Driessen 2006: 103). Note that the Netherlands, a signatory of the 1992 European Charter for regional Languages or Languages of Minorities, extended minor recognition to the regional languages of Limburg in 1997. In contrast to other dialect-speaking areas in the Netherlands, speaking a Limburgian dialect is not evaluated as a characteristic of lower social status (Driessen 2006), but as a (positive) expression of regional or local loyalty.

In many studies about language use, 'place', i.e. where someone comes from or where someone is, is considered to correlate importantly and in a static way with linguistic variation. However, following Johnstone (2004, 2010) regions are subjectively real but objectively hard to define. Subsequently, the 'traditional' region is replaced by the idea that a region is 'voluntary' and is the result of people's choices about how to divide up the world they experience. This is important when considering Dutch Limburg. Historically, the formation of regional identity in Limburg was a process that went along with the process of Dutch nation-state formation. According to Leerssen (1996), the position of Limburg within the Netherlands should be problematized as the contested outcome of a volatile historical process. Limburg's integration into the Dutch state is of recent date (end of the 19th century), and many linguistic and cultural peculiarities have been maintained as part of a sense of Limburg's peripherality. Knotter (2007) analyses this process as a case of 'negative integration', as a regional Limburg identity is constructed in opposition to Holland (i.e. the rest of the Netherlands). A regional identity could only develop because Limburg as a territory with new national and provincial borders became part of the Netherlands. Nowadays, Limburg is still seen and felt to differ from the rest of the Netherlands in its language and culture.

This paper will show that the oppositions constructed in Limburg between 'self' (Limburg) and 'other' (Holland) are essential to get an insight into how Limburgers divide up their place and how they use linguistic elements that are crucial in the diversity in which these oppositions take shape (cf. Thissen 2013). It appears that the use of linguistic structures such as the dative inalienable possession construction is ideologically associated with specific personas and groups and is important in the processes of selfing and othering (cf. Bucholtz & Hall 2005; Eckert 2008, 2012).

The next subsection introduces the linguistic characteristics of the dative inalienable possession construction.

2.1 Linguistic properties of the dative inalienable possession construction

The Limburg dialects differ from codified Dutch in that the former but not the latter allow for the so-called dative inalienable possession construction in which the referent of the dative object is the possessor of the inalienable body-part(s) denoted by the direct object. In this type of construction, the DP referring to the body-part(s) such as *handen* 'hands', illustrated in (1), is headed by the definite determiner *de* 'the'. The possessive dative construction expressing inalienable possession is abundantly used in the eastern dialect varieties of Dutch, though extremely rare in Dutch (cf. Cornips 1994, 1998, 2006a; Broekhuis & Cornips 1994, 2012) (dial=dialects of Limburg; D = Dutch):

(1) dial /*D *Ik was* $\text{Jan}_{\text{dat.}}$/$\text{hem}_{\text{dat.}}$ *de handen*.
I wash Jan/him the hands
'I am washing Jan's/his hands.'

In Dutch the inalienable possession relation must be expressed by means of a possessive pronoun, namely *zijn* 'his', as illustrated in (2).

(2) D *Ik was* zijn/Jans *handen*.
I wash his/Jan's hands
'I am washing his/Jan's hands.'

The exploration of the geographical distribution of the dative inalienable possession construction, as in (1), was one of the goals within the Syntactic Atlas of the Dutch Dialects (SAND; cf. Barbiers et al. 2005). SAND was a large-scale dialect syntax project conducted between 2000 and 2003 in the Netherlands and the Dutch speaking parts of Belgium and France. The geographical distribution of the dative inalienable possession construction shows a clear-cut east-west distinction in the Netherlands with the exception of the northern part (see Barbiers et al. 2005: 78; Bree 1981; Broekhuis & Cornips 2012).

However, the type of double object construction expressing possession between a dative possessor and the noun phrase denoting a garment instead of a body-part, as illustrated in (3), shows a more restricted geographical distribution as it is attested in Limburg mainly, as illustrated in Figure 2 (Barbiers et al. 2005: 78; Bree 1981; Cornips 1994).

(3) dial /*D *Ik was* $\text{Jan}_{\text{dat.}}$/$\text{hem}_{\text{dat.}}$ *het shirt*.
I wash Jan/him the shirt
'I am washing Jan's/his shirt.'

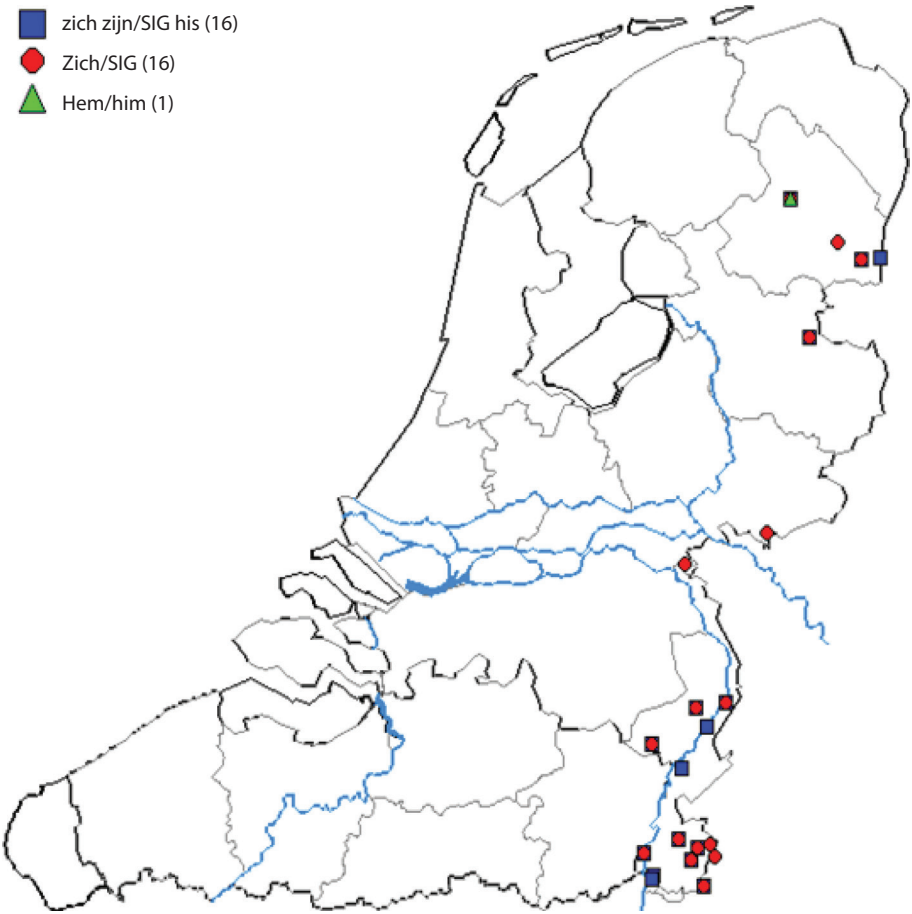


Figure 2. The geographical distribution of the dative alienable possession construction in which the direct object denotes a garment

Vergnaud and Zubizarreta (1992) argue that the determiner D preceding the body-part of dative inalienable possession constructions is not a regular definite determiner but an expletive without denotational content, which has to satisfy a predicational binding relation with the possessor dative phrase. In order for the determiner to be an expletive, the relation between D and NP must be morphologically licensed through agreement between D and its complement. According to Vergnaud and Zubizarreta (1992), if D shows overt person, number and gender agreement, inalienable possession can be expressed between the referent of a dative argument of the verbal predicate and the referent of the relevant NP denoting a body-part. Consequently, they predict that the dative inalienable possession

construction is grammatical if the definite determiner is morphologically variable or ungrammatical if it is not, as in French and English respectively. One may wonder why Vergnaud and Zubizarreta (1992) argue that only overt agreement features on D license inalienable possession. As we will see later both overt and covert agreement may license this construction.

This analysis predicts correctly that the dative inalienable possession construction is grammatical in the Limburg dialects but not in Dutch since the determiner in the former shows rich gender agreement. The Limburg dialects have a three-way grammatical gender distinction, namely masculine, feminine and neuter gender which is morphologically visible on the indefinite determiner, the definite determiner, attributive adjectives (with and without the noun) and possessive pronouns. Examples of the three genders are provided in (4) (*cf.* Cornips 1994; Hinskens & Muysken 1986).

(4)	a.	masculine	***inne***	*sjunn-**e***	mangtel	'a beautiful coat'
	b.	feminine 'strong'	***ing***	*sjun*	books	'a beautiful trouser(s)'
	c.	feminine 'weak'	***ing***	*diek-**e***	books	'a thick trouser(s)'
	d.	neuter	***e***	*sjun*	he:mme	'a beautiful shirt'

In the syntactic component, gender is generally assumed to participate in the operation of abstract agreement and has generally been conceived as an uninterpretable item in a functional projection and as an uninterpretable feature in the phi-set of the nominal category. The first piece of evidence that the dialect must have an uninterpretable gender feature on D is that it (i) it has rich gender agreement and (ii) it shows visible three-way gender morphology on the determiners.

More evidence that the determiner may function as an expletive in the dialect is that a definite determiner obligatorily precedes proper names in the dialects (cf. Vergnaud & Zubizarreta 1992: 636, Footnote 52). The presence of the definite determiner *det* in the Montfort dialect is ungrammatical in Dutch, as illustrated in (5a) and (5b), respectively (Bakkes 1996: 172; Cornips 2006a) D=Dutch, dia=dialect:

(5)	a.	dial	*Det*	Bep	woontj	in	Ech	
	b.	D	(**De*)	*Bep*	*woont*	*in*	*Echt*	
			the	Bep	lives	in	Echt	
			'Bep lives in the village of Echt'					

In contrast to the dialects, Dutch has only a two-way gender distinction: it makes a difference between common and neuter nouns only. Singular definite determiners vary morphologically according to the gender of the noun but this gender distinction is not expressed morphologically on the *in*definite or plural

determiners, which are always *een* and *de*, respectively. Thus, Dutch has poor gender agreement compared to the dialects:

(6) a. *het* boek$_{neuter}$ – de boeken$_{plural}$
the book the books

b. *de* hond$_{common}$ – de honden$_{plural}$
the dog the dogs

c. *een* boek$_{neuter}$ – *een* hond$_{common}$
a book a dog

In the next section, it is shown that although two locations in Limburg, i.e. Montfort and Heerlen, show different language contact settings, the outcomes of these contact situations may nevertheless express similar social meanings. It is put forward that the use of the dative inalienable possession construction indexes 'localness' despite the variety in which it used, namely dialect in Montfort and Dutch in Heerlen. But first, the social stratification of the dative inalienable possession construction will be examined in both places.

3. The social stratification of the dative inalienable possession construction

3.1 The dialect of Montfort

As pointed out in Cornips (2013: 391–392), Bakkes (1996) examined the social distribution of syntactic variants in the local dialect of the village of Montfort in middle Limburg (see Figure 1). He selected 37 male and female subjects divided into three age groups: old (aged 61 to 88 years), middle (aged 44 to 56 years) and young (aged 17 to 28 years). The subjects mostly belong to sets across age groups from the same family, i.e. grandmother – mother- grandchild. The dialect data were collected by means of sociolinguistic interviews. One of the syntactic variants in the Bakkes' study is the dative inalienable possession construction (1996: 172). Bakkes' quantitative analysis (1996: 183) reveals that this type of construction is less frequently produced by the youngest generation than by the older ones:

Table 1. The use of the dative inalienable possession construction in the dialect of Montfort. Taken from Bakkes (1996: 183)

		#Words	Dative inalienable possession	
Old	61 to 88 years	30,682	24	62%
Middle	44 to 56 years	72,686	11	28%
Young	17 to 28 years	91,305	4	10%

Bakkes concludes that these local dialect constructions that are not supported by Dutch – since they are non-existent and ungrammatical in that variety – disappear in the youngest generations. In this respect, the local dialect and Dutch are converging over time. However, the notion of dialect loss entails that a dialect and standard variety, i.e. Dutch, are monolithic and bound objects that are separated from each other. In this perspective, it is downplayed that all speakers in the Limburg area are bilingual; that is, they all speak Dutch, too. In fact, this perspective implies a process of erasure since also the standard variety is highlighted as some abstract idealized entity (Irvine & Gal 2000: 113; Mæhlum 1996; Milroy 2001). To this end, let us consider Dutch that is spoken in the same area as the dialect in question, namely in Heerlen, a city that is located about 50 km south of Montfort (see Figure 1).

3.2 Dutch of Heerlen

The first question to address is whether we expect the dative inalienable possession construction to occur in the spoken Dutch in the same area according to the analysis of Vergnaud and Zubizarreta (1992). Spoken Dutch in Heerlen has been examined carefully, and with respect to grammatical gender, spoken Dutch in Heerlen does not differ from codified Dutch as already presented above in Example (6) (cf. Cornips 1994, 1998). Since Heerlen Dutch is so similar to codified Dutch in this respect, we expect in the view of Vergnaud and Zubizarreta (1992) that the dative alienable possession construction is ungrammatical in Heerlen Dutch too. This is especially so since, unlike the local dialects, the determiner cannot precede proper names in Heerlen Dutch and hence cannot be analysed as an expletive.

Cornips (1994) has examined the social distribution of syntactic variants in Dutch of Heerlen in the southeastern part of Limburg. She has selected a random sample of 67 male speakers. Three speaker variables were taken into account: language background, level of education/occupation and age. The data consist of 33.5 recorded hours of spontaneous speech between two speakers who did not know each other but belonged to the same cell with respect to the independent variables language background, level of education/occupation and age (in-group conversation) and the recordings took place at the speakers' homes. Let us consider the dative inalienable possession construction in Heerlen Dutch. Table 2 shows that, unlike the prediction above, the dative inalienable possession construction is present in *Dutch* spoken in Heerlen (see also Cornips 1998). Table 2 reveals the numbers of speakers using this construction in spontaneous speech. What is very interesting is that the use of the dative inalienable possession construction increases significantly from old to young in *Dutch*, in contrast to Bakkes' study (1996) of the local dialect. In this respect, the spoken Dutch in Heerlen and

codified (national) Dutch are diverging even though the dative inalienable possession construction is ungrammatical in the latter variety:

Table 2. The use of the dative inalienable possession construction in Dutch of Heerlen (Cornips 1994)

	OLD (> 60 YEARS)		YOUNG (20–45 YEARS)	
	abs.	**%**	**abs.**	**%**
#speakers producing inalienable possession	9/30	30	20/37	54

$x^2 = 3.92$, df = 1, $p < .05$

Of course, the interesting question arises: how come that a construction with such a restricted geographical distribution 'disappears' from the local dialect but is 'spreading' throughout spoken Dutch in the same area at the same moment?

3.3 Place as a social construct: Oppositions in Limburg

In order to answer the question raised above, let us now consider Montfort and Heerlen in more detail. Montfort is a small village located in a rural area in Limburg; it had 3,465 inhabitants in 1989 (the period in which the sociolinguistic investigation of Bakkes (1996) took place). The inhabitants are bilingual but the daily or 'unmarked' spoken variety in the private and public domain is the local dialect (cf. Bakkes 1996). In the provincial context, Montfort doesn't differ from other communities in making an opposition between Limburg and Holland. The use of the local dialect is associated with being from Limburg. But, at the local level, thus in the village itself, there is no constructed opposition between Limburg and Holland.

Unlike Montfort, Heerlen is a modern industrial city with 90,000 inhabitants in 1990 (cf. Cornips 1994). Heerlen occupies an exceptional position in Limburg and the Netherlands since it was the centre of the coalmining industry since 1900 (until it closed down in the 1970s). Between 1899 and 1930, the huge, expanding mining industry in the area attracted numerous workers from elsewhere in the Netherlands, as illustrated in Table 3:

Table 3. Number and origin of inhabitants of Heerlen between 1899 and 1930

Year	Number of inhabitants of Heerlen	Born in the province of Limburg	Born outside the province of Limburg
1899	6,312	87.8%	12.1%
1920	33,014	47.8%	51.1%
1930	46,917	45.3%	*54.7%

Dieteren (1962: 47); *22% of whom were born outside the Netherlands

This immigration altered the linguistic uniformity of Heerlen in two important ways: (i) the local-born population who spoke the local dialect almost became a minority and (ii) a new Dutch variety emerged (see Cornips 1994, 1998). Previous studies (Cornips 1994 and references) have shown that how people speak in Heerlen is (i) a kind of Dutch that is different from codified Dutch, and (ii) because Heerlen Dutch, instead of dialect, is heavily stigmatized within Limburg, therefore Heerlen is constructed as different within Limburg. The use of spoken Dutch in Heerlen falls outside the existing order, which is neatly divided into two categories: a language is either a standard one or a dialect. Heerlen Dutch, therefore, may be regarded as an anomaly, as finding itself in the margins (cf. Cornips, De Rooij & Stengs 2012). [1] Montfort, in contrast, falls within the existing order by the overwhelming use of the dialect.

Regional identity formation in Limburg takes place along oppositions between 'the province' and 'Holland', that is to say, between Limburg and the dominant Randstad area. The dialect is associated with Limburg, and Dutch with 'Holland'. In Heerlen, the daily variety at the time of the sociolinguistic study in 1989 was Dutch and its emergence dates back to 1920. Due to Heerlen's exceptional position in the province, oppositions in Limburg itself are constructed between Heerlen versus Limburg in which Limburg is constructed as 'self' and Heerlen as the 'other'. In Limburg there are many more or less denigrating nicknames to denote Dutch spoken in Heerlen and its speakers. These nicknames or stereotypes reinforce social divisions (Eckert 2012): they picture Heerlen as 'Holland' within the Limburg area. To the basis of this perception lies the idea that Heerlen cannot be considered as being part of 'real Limburg'. The nicknames emphasize the Dutchness of the language- or maybe better, its non-Limburgness.

Examples are:

- *In Heerlen is Limburg gestorven* 'Limburg died in Heerlen'
- *Hollanders* 'Dutch people, i.e. western people'
- *Misjmasj* 'mixed language'
- *Hollesj mit knoebele* 'Dutch with lumps'
- *Steenkolennederlands* 'coalmining Dutch'
- *koelpietennederlanders* 'coalminers Dutch' and
- *Huillands* 'a kind of Dutch that makes you cry'.

1. The author was born and raised in Heerlen and is a native speaker of 'Heerlen Dutch'. Since she grew up in this community she is familiar with the oppositions made between Dutch and dialect and the local ideas about Heerlen Dutch. Moreover, she carried out extensive soiolinguistic, Labovian fieldwork in Heerlen during 1989 through 1991 (cf. Cornips 1994). She is also familiar with the language(s) spoken in the village of Montfort.

The nicknames show that we are dealing here with a language 'from the margins'; with a language that falls outside the dominant categories of society. They also visualize the significance of the 'dialect and Dutch normative perspective' from within Limburg on the kind of Dutch that is used in Heerlen.

Thus, the construction of regional identity formation as described for Montfort and Heerlen sheds light on the question of why the dative inalienable possession construction is 'disappearing' from the local dialect in Montfort but is spreading throughout the Dutch variety in Heerlen. Associations between language and identity are rooted in cultural beliefs and values, that is, ideologies about the sorts of people who produce a particular sort of language and the construction of a natural bond between the use of the local dialect or Heerlen Dutch and the people who speak these languages. Constructions such as the double object, and language choice between dialect and Dutch are associated (or have come to be associated) with particular social distinctions and values (Eckert 2008) and may create and reflect 'at-hominess' in the region. In Montfort, speaking dialect as the unmarked code choice is associated with 'being from Limburg'/'being local' whereas in Heerlen in which there is no dialect but only use of Dutch in the public domain, the use of a construction with a very local geographical distribution comes to signal 'we are from here', 'we belong here'. So, it is assumed that both the *dialect* in Montfort and a specific construction in *Dutch* in Heerlen express localness. In Heerlen, the double object construction in social interaction will serve as an indicator of the interlocutors' social standing and regional/local identity. At that point, the dative inalienable possession construction has become a marker (Eckert 2008; Labov 1994).

Of course, it is important to point out that the dative inalienable possession construction may have different grammatical embeddings in the two places and may take part in different styling practices. Thus, the use of the double object construction is not to be seen as being caused by being old in Montfort or young in Heerlen, but indirectly by how these speakers perceive localness versus non-localness and judge others' linguistic behaviour in relation to it, and it is worthwhile to investigate how the way they speak is at least partly constitutive of a local identity. As Jaspers (2008) points out: "The implication is, hence, that sociolinguists should not only describe linguistic practices, but must also investigate how these practices are informed by local beliefs, representations, and ideologies, how the latter attach meaning to particular ways of talking and lead to different styling practices." It might be the case that the double object construction indexes traditional values and authenticity in Montfort but youth and urbanity in Heerlen. This should all be investigated in the future. But in this stage of research, the ongoing outcomes of these language contact situations between dialects and Dutch in Limburg show that they are not homogeneous, stable varieties but rather complex,

variable and diffuse syntheses of dialectal and Dutch features (Cornips 2006a). This is due to the long-lasting contact situation between the dialect and Dutch.

The next question to address is how to analyse the linguistic variation at the individual level, i.e. do individual speakers use both the dative inalienable possession construction and the alternating Dutch (normative) possessive pronoun construction? Following Eckert (2008, 2012), Bucholtz and Hall (2005), Johnstone (2004) and many others, social practices give rise to local and constructed identities, rather than an expressed one. It is this 'agency' that puts a lot of pressure on the restrictions of the grammatical variation space or the boundaries of the grammatical system. Therefore, let's explore how grammar may be affected by this agency.

3.4 How grammar allows for 'agency': The locus of individual variation

The issue of the locus of individual syntactic variation is related to the questions within the successive Generative models about its restrictions and predictions. In the literature, two alternative approaches to this 'choice' are suggested (Cornips 2006b, Muysken 2005). Either, the 'choice' is put outside the grammatical mechanisms (Adger & Smith 2005; Kroch 1989) or it is put inside the grammar by re-introducing optional rules (Henry 2002; Wilson & Henry 1998). Kroch and his associates advocate the first option in claiming that the grammar is a blind, autonomous system and the notion of 'choice' (optionality, variability) is not part of it. Instead, the individual speaker revealing variability has separate or competing grammars. Adger and Smith (2005: 164) also argue that the notion of 'choice' cannot be accounted for within the autonomous grammar but this doesn't imply that individual speakers "have different grammars, per se, but rather a range of lexical items open to them, some of which will have syntactic effects". In their analysis, the notion of 'choice' concerns the level that serves as the input for the autonomous, grammatical system and is, among other things, influenced by discourse factors and social identity. The intriguing question to be asked is which (range of) lexical items (or bundles of features) are most available/accessible/activated to put linguistic variation forward in the process of identity formation. This question is one among the larger set of questions about which empirical domains are more vulnerable to language variation and change and the direction that language change will take.

If there is one issue that has become obvious from the empirical data and its social stratification, it is that the individual variation between the dative inalienable possession and the possessive pronoun construction is problematic for the analysis of Vergnaud and Zubizarreta (1992). The Dutch spoken in Heerlen is, compared to the dialect in Limburg, poor in gender agreement and it has no overt morphological realization of gender agreement features on D, and D is not an expletive. In this respect, Heerlen Dutch is completely similar to codified Dutch, which does

not allow for this type of construction. But if we consider a wider array of construction types in Heerlen Dutch, we find out that the use of the dative inalienable possession construction is not a rare phenomenon. In Heerlen Dutch more kinds of inalienable possession constructions are possible, all of which are considered ungrammatical in codified Dutch as well, and all of which involve the definite determiner preceding an NP denoting a body-part (cf. Broekhuis & Cornips 1994, 2012; Cornips 1994, 1998). Thus, in expressing (in)alienable possession between a determiner and a NP denoting a body-part, Heerlen Dutch is much more similar to the Montfort dialect than to codified Dutch. One way to analyse the individual variation found in the studies by Bakkes (1996) and Cornips (1994) is to argue that in both the dialect and Heerlen Dutch gender is an uninterpretable feature on D and both varieties have 'enough' gender agreement on D to qualify as the relevant licensing agreement. But, the dialect differs from Heerlen Dutch in that the former shows overt gender agreement between the determiner and the noun, and the latter, covert agreement. Taken together, in order to address the issue of how grammar encounters fluidity of language, as manifested in the empirical studies, it is argued that gender is an uninterpretable feature both in Heerlen Dutch and dialect. Individual and societal variation come about due to the way that gender agreement is expressed, namely covertly or overtly. It is for this reason that grammatical gender is eligible for language variation and change in these varieties. This also entails that in contrast to codified Dutch, the Dutch and dialect varieties in Limburg are all part of the same grammar. This can only be the case due to their very intensive and long-lasting contact situation and their typological resemblance.

4. Bilingual acquisition of grammatical gender in the Randstad area

This section focuses on a new type of language contact setting, namely the one that is the result of immigrants entering a new country. The linguistic phenomenon concerns grammatical gender of the Dutch definite determiner as acquired by bilingual children in the Randstad area where Dutch is the spoken variety. I will discuss the idea that similar language contact outcomes, i.e. overgeneralization of the common definite determiner *de* instead of neuter *het*, are socially meaningful for some speakers but not for others (Cornips 2008; Cornips & Hulk 2008).

4.1 Monolingual acquisition of neuter gender

As introduced earlier, Dutch has a two-way gender distinction, distinguishing between common and neuter; this distinction is marked on definite and demonstrative determiners, relative pronouns and attributive adjectives (*cf.* Blom et al. 2008a).

According to Hawkins and Franceschina (2004), D has an uninterpretable, grammatical gender feature, which has to be erased/checked by the lexical gender feature of the noun. We may posit that initially children do not have this uninterpretable gender feature on D in their grammar and a point in their development comes when the uninterpretable gender feature on D is triggered – thereafter their use is target-like. This analysis is consistent with the one in the previous sections.

Experimental results and spontaneous speech as well have revealed that monolingual acquisition of the neuter gender of the Dutch definite determiner is a long-lasting process as children do not acquire a target grammar before the age of six or seven (*cf.* Blom et al. 2008b; Bol & Kuiken 1988). Monolingual children overgeneralise the definite determiner *de* and use it with neuter nouns that require the definite determiner *het* according to codified Dutch. Dutch is unique with respect to its late acquisition of grammatical gender by children since it is an early-acquired phenomenon in Romance language and German, acquired by the age of 2;3 in monolingual Italian and French (Kupisch, Mueller & Cantone 2002) and by the age of 4 in German (Mills 1986).

Addressing the actuation problem (*cf.* Labov 1972), there is not much evidence in the input in Dutch, in contrast to Italian, French and German. In Dutch, there is no paradigmatic link between the definite and indefinite determiner with respect to grammatical gender (see (6)), there are frequency differences between neuter (25%) and common (75%) nouns and there are hardly any phonological cues on the nouns expressing lexical gender for the two forms of definite determiner (cf. Cornips & Hulk 2008). In light of the sparse evidence for grammatical gender in Dutch and the developmental paths of the children, it is assumed that children start out with *de* as default determiner for definiteness (Roodenburg & Hulk 2008; Cornips & Hulk 2008). Importantly, the late emergence of neuter *het* in contrast to *de* clearly suggests even more that, initially, Dutch children also do not have a gender feature on nouns and determiners, that is to say, they do not classify nouns according to gender. Rather, the child grammar contains a definiteness feature only, and this results in the default production of *de* with all definite nouns (*cf.* also Hulk & Cornips 2010). This accounts for the massive overuse of *de* and the late appearance of *het*. So, in the stages of acquisition, children first have to find out that (i) Dutch has grammatical gender and (ii) to which gender nouns belong. We may posit the hypothesis that a phenomenon which is acquired 'late' in monolingual acquisition, such as grammatical gender in Dutch (*cf.* Unsworth et al. 2011b), is vulnerable to variation and change in language contact situations (Cornips & Hulk 2013). Hence, the loss of grammatical gender took place in contact situations outside the Netherlands, such as during the development of Afrikaans (Ponelis 2005).

4.2 Bilingual acquisition of neuter gender

When monolingual children experience problems in the acquisition of grammatical gender of the definite determiner, we may expect that bilingual children encounter even larger problems. And this is indeed the case (Cornips & Hulk 2010; Unsworth et al. 2011a). Table 4 presents the percentages of Dutch children of Turkish and Moroccan descent using the different definite determiners between 10;5 and 12;11 years. Even at this age, the target-like use of the neuter definite determiner *het* is just above 40% (cf. Cornips et al. 2006):[2]

Table 4. Experimental results for the definite determiner by Dutch children from Moroccan and Turkish descent (n = 24; target in grey)

Age 10;5–12;11		*Definite determiner*	
		de	***het***
Moroccan-Dutch n = 12	**Neuter** Test items	50.69% 73/144	41.67% 60/144
Turkish-Dutch n = 12		47.22% 68/144	42.36% 61/144
Moroccan-Dutch n = 12	**Common** Test items	69.44% 100/144	25.69% 37/144
Turkish-Dutch n = 12		68.06% 98/144	21.53% 31/144

Only if we were to follow these children longitudinally would we be able to conclude that the results in Table 4 display their ultimate attainment. It is important to emphasize that it is only with respect to grammatical gender that these speakers differ from monolingual speakers. From a morphosyntactic perspective, the Moroccan and Turkish adolescents are standard-like regarding other phenomena in Dutch, such as negation, expletive constructions and word order (Cornips 2002).

The Dutch children of Turkish and Moroccan descent who participated in the experiments differ considerably from those who have generally been examined in 'one parent – one language' research. In order to find out whether overgeneralization of *de* is restricted to bilingual child acquirers descending from immigrant communities only, bilingual English-Dutch expatriate children were examined experimentally as well. Table 5 presents the results (cf. Unsworth et al. 2011a):

2. The numbers in the two columns don't add up due to non-responses.

Table 5. Dutch: average percentage of common and neuter nouns produced with target determiner by English-Dutch children (n = 176; target in grey)

English-Dutch children	n	Age of onset Dutch	Age of testing	Common	Neuter
L1 children	30	0	4;3–7;6	96.9%	51.7%
2L1 children	56	0	4;0–7;9	97.7%	36.3%
Early successive children	37	1;0 – 3;10	3;4–17;0	95.5%	22.2%
L2 children	53	4;0 – 10;11	5;11–16.2	96.4%	19.4%

The table shows that the target-like use of the neuter definite determiner *het* is between 19.4% and 36.3% for the bilingual English-Dutch children. Thus, both Moroccan/Turkish immigrant and English expatriate children overuse the definite determiner *de* where Dutch requires neuter *het*. Importantly, this is not simply due to cross-linguistic influence (or so-called interference/substrate effects) from the other language having a gender/noun distinction in its grammar (Moroccan Arabic/Berber) or not (Turkish, English). It is also important to point out that overgeneralization of *de* is a linguistic resource (*cf.* Eckert 2008, 2012) for every bilingual child acquirer and probably also for monolingual children acquiring Dutch in a multilingual context (*cf.* Cornips et al. 2006).[3] In Roodenburg and Hulk (2008, cf. Cornips & Hulk 2008), it is argued that young children, initially, have no gender-specification in their Dutch grammar. They only use the feature 'definite' due to which they choose *de* as a 'default' in their production, using it both with neuter and common, singular and plural words. Eventual target-like production implies that children finally become aware later in their development that a (grammatical) uninterpretable gender feature plays a role in the singular, definite determiner. Subsequently, full specification of the gender feature takes place.

4.3 Overuse of *de* in process of group identification

Although the overgeneralization of the definite determiner *de* constitutes a linguistic resource for every bilingual child acquirer (and even for monolingual acquirers), it only becomes meaningful in a process of specific group identification.

3. This does not hold for bilingual children speaking both a Limburg dialect and Dutch. They acquire grammatical gender in Dutch faster than monolingual Dutch speaking children do (Cornips & Hulk 2006).

First, the English-Dutch children from expatriate families are highly invisible as a group in Dutch society; that is, there is not something like an English/American community or neighbourhood. But, the youngsters of Moroccan and Turkish descent are highly visible in Dutch society: they live in ethnic minority communities in cities and members of Dutch society and ethnic Dutch frequently comment upon them in public discourse. Dutch youngsters use overgeneralization of *de* in the process of stereotyping Moroccan and Turkish youngsters. This single feature of language use suffices to identify someone's membership in a given group. Nortier (2001:19, 24) observes Dutch youngsters – Jeroen and Martje – who use overgeneralization of common gender in the process of stereotyping Moroccan and Turkish youngsters:

Jeroen: tegen wie ben je aan 't praten, tegen wie ben je aan 't praten?
who are you talking to, who are you talking to?

Martje: tegen die ding […]
to that thing

Jeroen: *who are you talking to, who are you talking to?*

Martje: *to that thing* […]

meta: *die* *ding*
that$_{common}$ thing $_{neuter}$

Fragment 2:
Jeroen: Wij even wat inspreken op deze bandje?

Jeroen: *Let's say something on this tape*
meta: *deze* *bandje*
this $_{common}$ tape-DIM $_{neuter}$

Importantly, Nortier and Dorleijn (2008) point out that youngsters of Moroccan descent are developing both linguistic norms and norms of stylistic appropriateness, and overgeneralization of common gender is crucially involved, as is illustrated by the following quotation from a conversation with a Moroccan informant from Rotterdam:

S: Dat is het slechte Nederlands

J: En heeft dat ook een naam?

S: Ja, niet echt, maar 't is in principe dan eh lidwoorden die gebruik je dan expres verkeerd

M: Ja ja die gebruik je dan exprès verkeerd, net als-

S: Ja, dus

J: Die meisje

S: Die huis zeg ik dan. Terwijl ik weet ik bedoel ik weet heus wel dat het dat huis is maar 't staat zo dom als ik dat op straat zeg, als ik zeg

M: Ja

S: Als ik zeg dat huis

M: Ja ja

S: 't Is gewoon die huis. Maar als ik met jullie spreek dan wordt 't gewoon dat huis.

S: That is the bad kind of Dutch.

J: Does it have a name?

S: No, not really, but in principle you uhmm… just use the articles deliberately in the wrong way.

M: Right! So you use them in the wrong way deliberately? Just like-

S: - Yes, like

J: *Die meisje* ('that girl' – *dat* meisje in Dutch)

S: I would say: *Die huis* ('that house' – *dat* huis in Dutch). At the same time I know, I mean, I am very well aware of the fact that it should actually be *het huis*, but it would make a dumb impression if I would say….

M: Yes

S: If I would say *dat huis* out on the street

M: Yes, yes.

S: It is just *die huis*. But when I speak with you two (the authors both Dutch and middle-aged JN/MD) it is just *dat huis*.

"The speaker in the quotation explicitly says that he has to make errors, deviations from the standard norm, in order to be recognized as someone who is hanging out with friends" (cf. Nortier & Dorleijn 2008). This quote suggests that the 'optional' nature that goes with a minority ethnic identity affects its linguistic expression. For the older generation, it was a learner characteristic (cf. Cornips 2008). According to Muysken (1984) and Snow, Van Eeden and Muysken (1981), the Turkish and Moroccan immigrants entering the Netherlands in the 1960s frequently deleted the definite determiner and/or overgeneralized common gender. However, the younger generations born in the Netherlands are able to downplay or to put it forward in the construction of local identity as 'streetwise' (*cf.* Cornips 2008). Consequently, the overgeneralization of *de* cannot be ascribed to bilingual acquisition effects alone, but is governed by ideas of how group membership is imagined linguistically, or in other words the overuse of *de* is a focussed form indexing group membership and, simultaneously, excluding outsiders (LePage & Tabouret-Keller 1985).

4.4 The locus of individual variation

Now the question arises whether the same type of variation concerning overuse of common gender manifested by the use of the definite determiner *de* instead

of *het* is also present with attributive adjectives. In Dutch, attributive adjective agreement require always an *-e* except with nouns that are singular, indefinite and neuter:

(7) a. *een groot huis*$_{neuter}$ / *een grote tafel*$_{common}$
a big house a big table

b. *het grote huis*$_{neuter}$ / *de grote tafel*$_{common}$
the big house the big table

In the experimental studies presented above, the bilingual children show dissimilar development in determiner and adjective agreement. In the Blom et al. (2008b) study, Dutch children of Moroccan and Turkish descent between 3;0 and 8;0 years old produce between 60% and 70% target-like neuter *het* but only between 20% and 30% target-like neuter adjective agreement with indefinite nouns. The older bilingual children in the Cornips et al. (2006) conducted an similar experimental task. These were Dutch children of Moroccan and Turkish between 10;5–12;11 and were found to produce 40.2% target-like neuter *het* but only 26.9% target-like neuter adjective agreement. Apparently, attributive adjective gender agreement is much more vulnerable than determiner agreement. However, the use of non-target adjective agreement, i.e. the use of *-e* with singular, indefinite neuter nouns, is not a topic in public discourse, and it is never overtly commented upon as is the case with the overuse of *de*.

These dissimilar developments in the determiner and adjective domains indicate that bilingual children/youth rely on the two forms of the definite determiner in their identity work. Importantly, then, only the word forms *de* and *het* are selected for the local construction of street-wise identity. This may be accounted for when considering that word forms constitute a 'superficial phenomenon' in contrast to morphological agreement, which is an abstract phenomenon. It is very likely that it is due to the relatively recent language contact situation that speakers are not able (yet) to activate or have access to abstract features such as the gender item.

5. Conclusion

In this paper, two types of language contact outcomes in two different geographical areas in the Netherlands were discussed. The first type concerned 'old' contact situations between dialect and Dutch in southern Limburg that have resulted in horizontal (between dialects) and vertical (between dialect and Dutch) convergences and divergences. The construction of regional identity formation as described for the two locations, Montfort and Heerlen, sheds light on the question of why the dative inalienable possession construction is 'disappearing' from the local dialect

in Montfort but is spreading throughout Dutch in Heerlen. The construction of local identity in Heerlen takes place through the use of Dutch including the dative inalienable possession construction, despite the fact that this type of construction originates from the dialect and despite its incorrectness from a normative Dutch perspective. The construction of local identity in Montfort takes places through the use of the dialect regardless of whether the dialect includes a construction that originally belongs to Dutch. Hence, for everyone in Limburg, dialect is perceived as distinctive from Dutch at all grammatical levels. Taken together, constructions like the dative inalienable possession construction in Heerlen and speaking the dialect as an unmarked choice in Montfort are associated with particular social distinctions and values and may indirectly create and reflect 'at-hominess' and localness in the region.

The ongoing outcomes of language contact situations between dialects and Dutch show that standard and dialect varieties are not homogeneous, stable varieties but rather complex, variable and diffuse syntheses of dialectal and standard features. Due to the long-lasting contact situation between the dialect and Dutch in Limburg, both varieties are in fact part of one grammar. It is argued both the dialect and Heerlen Dutch have 'enough' agreement in D to qualify the relevant licensing agreement. However, in Heerlen Dutch covert gender agreement licenses this type of construction whereas it is overt gender agreement in the dialect.

The second type of language contact situation discussed concerns a 'new' contact situation, namely bilingual children in the Randstad area acquiring grammatical gender of the definite determiner in spoken Dutch. It is shown that although the overgeneralization of *de* constitutes a linguistic resource for every bilingual child acquirer (and even monolingual acquirers), it only becomes meaningful in the indexing and reproduction of a 'streetwise' identity formation. Due to the young contact situation between Dutch and languages such as Moroccan-Arabic/Berber and Turkish, it is argued that these bilingual speakers do not activate or have no access to the uninterpretable gender feature (yet) and rely only on the two forms of the definite determiner (and not abstract inflectional agreement) in their identity work.

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The social side of syntax in multilingual Oslo*

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This chapter is concerned with the social side of syntax, which is crucial for examining mechanisms of contact-induced change. The linguistic feature we shed light upon is violations of the syntactic V2 constraint, which has been observed and described as a feature of multiethnic youth varieties in several European urban areas. Drawing on conversational data from Oslo, Norway, we pursue an intuition that multilingualism may be exploited also at a symbolic level in urban areas. L2 usage may have played a role indirectly, by providing input to the feature pool and as a ground for accommodation strategies. The V2 violations may have developed from interactional accommodation to intentional usage imitating in-group prestigious patterns that index coolness, toughness and "foreignness".

1. Background

The claim that there exists a social side of syntax in Oslo is not new. It may in fact be said to represent the genesis of modern Norwegian urban sociolinguistics. In the 1970s a group of scholars, inspired by William Labov, conducted a study of the correlation between syntactic and demographic features in Oslo within the so-called TAUS project (*Talemålsundersøkelsen i Oslo* 'the spoken language survey in Oslo') (cf. Hanssen et al. 1978). The TAUS studies revealed several differences on what we may call a sociolinguistic *macro-level* in the capital of Norway, as they addressed differences between the traditional eastern working-class areas and the western middle-class areas. The socio-demographic landscape has changed in many ways since the 1970s. The traditional differences between the east and the west are partly lost due to processes of gentrification and to the

* The findings presented in this paper stem from the national sociolinguistic research project UPUS (*Utviklingsprosesser i urbane språkmiljø* 'developmental processes in urban linguistic environments', 2006–2009), funded by the Norwegian National Research Fund and administrated by Professor Brit Mæhlum, University of Trondheim, NTNU. We are grateful to our fellow researchers in the Oslo-part of this project: Finn Aarsæther, Unn Røyneland and Bente Ailin Svendsen, as well as to the adolescents who participated in the study. We would also like to thank two anonymous reviewers for comments on the first draft of this paper.

destandardisation and popularisation processes referred to as demotication, which have been observed in several European standard languages during the last decades (Mattheier 1997; Pedersen 2009). The most obvious change in the socio-demographic landscape of Oslo since the days of the TAUS project, however, is the increasing number of immigrants from non-western countries, and today 'multilingual' is a fitting label in the description of Norway's capital: By 1 January 2012, the immigrant population[1] in Oslo was around 30%, of a population having passed 600 000 inhabitants.[2]

Bearing in mind the history of the Kven and Sami communities in Northern Norway, one may claim that Norway is not unacquainted with the linguistic diversity associated with multilingualism (cf. for instance Bull 1995, 1996, 2006; Lane 2007; Sollid 2005), and parallels as to the linguistic outcome of the language contact situation of prolonged bilingualism in Kven and Sami communities and the language contact scenarios arising in urban multiethnic areas have been observed. Some of the linguistic characteristics which have been described in both of these contact scenarios – for instance in connection with morphological gender – are strikingly similar (Conzett et al. 2011; Opsahl 2009a). It seems, however, that the linguistic complexity that arises in modern urban areas – in some respects – is of a different kind. First of all, the contact scenarios arising in urban areas with high levels of migration involve more than two languages. Second, it seems that youngsters growing up in these areas are able to put contact-induced linguistic variation forward in relation to different practices: The use of some morpho-syntactical features seems to represent an expansion of a stylistic repertoire, as it is restricted to certain situations and actions, serving specific interactional functions (Ganuza 2010; Opsahl & Nistov 2010; Quist 2005, 2008; Wiese 2009).

The linguistic outcome of a language contact situation involving contributions from several minority groups has been described as *multiethnolects* (Clyne 2000; Quist 2000). According to Clyne, multiethnolects function "collectively to express [the speakers'] minority status and/or as a reaction to that status to upgrade it" (Clyne 2000: 87). In modern urban ethnically mixed areas it is not unproblematic to establish a minority/majority distinction in its classical sense. Adolescents without migrant background are also involved in practices where the use of what we will refer to as multiethnolectal features is at play (cf. also Quist & Svendsen (eds.) 2010).

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1. The immigrant population is according to SSB (Statistisk sentralbyrå/Statistics Norway) defined as persons who have immigrated to Norway or are Norwegian-born to immigrant parents.

2. The largest groups are persons with backgrounds from Pakistan (22 034), Sweden (13635), Somalia (12 779), and Poland (12180). ⟨http://www.ssb.no/emner/02/01/10/innvbef/tab-2012-04-26-10.html⟩ (8 January 2012)

The question of how to name the emerging innovative linguistic practices among adolescents in urban multilingual settings in Europe has been subject to much debate. Several labels have been suggested in the literature in addition to the label *multiethnolect,* e.g. *contemporary urban vernacular* (Rampton 2010) and *late modern urban youth style* (Madsen 2011). Although we recognise the fact that choosing labels related to ethnicity may contribute to essentialising groups and their language use (cf. e.g. Cornips & de Rooij 2013; Jaspers 2008;) we have here chosen to use the term *multiethnolectal speech style* as we find this label to be more transparent in reflecting that the linguistic practices at issue are related to language contact situations. We have chosen the term 'style' because we embrace a social constructivist-inspired view of language variation as a means of negotiating identities and social relations (Jørgensen 2003). Linguistic features are *meaningful* elements which interact with other stylistic features (such as clothing, music preferences, posture, etc.) that the individuals can – and must – choose from in everyday life in their creation of identities, boundaries and communities.

2. Scope and goal

The linguistic feature we wish to shed light upon is the XSV word order, or what one within a generativist framework would refer to as the lack of verb movement to C. Norwegian, like other Germanic languages (except English), is a V2 language, constraining the slot of the finite verb to the second position in declarative main clauses, rendering a XVS word order, where 'X' is a topicalised element, 'V' the finite verb and 'S' the subject. Violation of the V2 constraint, also referred to as non-inversion (cf. Ganuza 2010), resulting in XSV word order, has been widely documented and discussed for Norwegian L2 learner data (e.g. Brautaset 1996; Hagen 1992; Johansen 2007; Nistov 1991). Furthermore, XSV word order is also found in language contact scenarios in Norway, giving birth to ethnolects such as Kven-Norwegian in Northern Norway (Sollid 2005; Sollid & Eide 2007a and b).

The violation of the V2 constraint has been observed and described as a feature of multiethnic youth varieties of Swedish, Danish and German, and has been one of the primary foci of the descriptions of grammatical innovations in these settings since Kotsinas' pioneer work on Rinkeby-Swedish – the linguistic practice she described in multicultural suburban Stockholm – in the mid-1980s (e.g. Ganuza 2008, 2010; Kotsinas 1988; Opsahl 2009a; Opsahl & Nistov 2010; Quist 2000; Wiese 2009, 2011).

The present paper has as its main goal to provide further sociolinguistic insight regarding this feature, but in order to shed light on "the total linguistic fact" (Silverstein 1985), and to grasp the complexity of interwoven processes resulting in the use of the XSV word order pattern, it is also necessary to go further into the

linguistic contexts in which the construction is found to occur in our data, in addition to addressing interactional and macro-social factors. Furthermore, we will address a perspective that to some extent has been neglected in previous discussions of this feature, namely the nature of the urban contact scenario in which the XSV construction arises and the mechanisms of language contact that may shed light on the emergence of this construction.

As Thomason (2001:1) points out, although in its simplest definition, language contact is the use of more than one language in the same place at the same time, in its substantive sense, language contact requires some kind of interaction between speakers. This, however, does not require fluent bilingualism or multilingualism, and in this paper we wish to pursue the assumption that multilingualism may exist – and may be exploited – also at a *symbolic* level.

As is well known, the role of social factors in relation to contact-induced variation and change has been subject to debate in the literature (cf. Sankoff 2001; Thomason 2008). This controversy has also been touched upon in relation to discussions of multiethnolects as contact varieties. Kotsinas (2000) has claimed for Rinkeby-Swedish that we may have to do with processes of pidginisation. This has been debated by Fraurud and Bijvoet (2004: 396), who point to the fact that the social conditions are very different in the settings where pidgin languages have arisen than in modern urban multilingual settings. Such a discrepancy does not preclude the fact that different sociolinguistic contact situations may present parallels in linguistic outcomes. XSV word order has – as already mentioned – also been observed in ethnolects of the Kven and Sami communities in Norway. However, we will argue that the XSV patterns in these ethnolects may be seen as a different phenomenon from what we find in modern multiethnolectal speech styles in Oslo.

Although accounts based on language-internal factors linked to typology and universal developmental processes like simplification should be recognized and not overlooked, we have here chosen to dwell on the social side: The main contribution of the present article as pertaining to the field of language contact and change will be to scrutinize one linguistic feature as occurring in social context, thereby allying with those who regard the social side as crucial for examining mechanisms of contact-induced change.

In what follows we will attempt to shed light on the following questions: How can the variation in the use of the XSV pattern as found in our data be accounted for; what is the linguistic nature of this XSV pattern; and what are the social meanings associated with the pattern? Furthermore, we will examine what kind of scenario, mechanisms and underlying processes are involved in the kind of multilingual settings we address here, and how we can account for the emergence and use of the XSV pattern in light of this contact scenario. Our assumption is that there is a social side to the answers to all of these questions.

3. Data: The Oslo-UPUS-corpus

Our data are drawn from the spoken language corpus developed by the UPUS-Oslo-project group. The aim of the project was to explore linguistic practices among adolescents in multilingual settings in Oslo, focusing on the possible emergence of a multiethnolect including analyses of both forms and functions (Aarsæther 2010; Opsahl 2009a, b; Opsahl & Nistov 2010; Svendsen & Røyneland 2008). Data were collected in two city districts where the immigrant population is higher than the average: in the inner city district of Gamle Oslo (Old Oslo), where the immigrant population constitutes 37,4%, and in the suburban city district of Søndre Nordstrand (Southern Nordstrand), where the immigrant population is as high as 49,2%. A majority of people with immigrant backgrounds in these two areas have their origins in Asia, Africa, South and Latin America and Turkey; for the suburban city district of Southern Nordstrand the proportion of inhabitants from these parts of the world is 39%, and for the inner city district of Old Oslo, the proportion is 25%.[3] Most of the young people in our study report that they have friends whose family background originates in more than one of these parts of the world. The areas of Oslo we visited in this study may in some respects be seen as parallel to the traditional eastern working class areas included in the sociolinguistic studies in the 1970s.

A total of 56 adolescents participated in the study. They were between 14 and 21 years of age, and they were all born and raised in Oslo by either Norwegian-born or foreign-born parents. The data consist of video-recorded interviews and conversations between peers. The recordings of the interviews and peer conversations took place – with a few exceptions – at youth clubs in the young peoples' neighbourhoods. There were more boys than girls attending the clubs, and the majority had some sort of minority background, i.e. one or two of their parents were born abroad.

The semi-structured interviews, conducted by one of the researchers, and the peer conversations, which took place without any adult researcher present, were deliberately designed to represent two different speech situations. This makes it possible for us to compare the informants' actual linguistic behaviour in two different settings. Furthermore, it also makes it possible to gain insight regarding the informants' reported speech and meta-linguistic reflections, most commonly expressed during the interviews, compared to their actual linguistic behaviour. The interviews and the peer conversations were transcribed and made available for

3. ⟨http://statbank.ssb.no/statistikkbanken/Default_FR.asp?PXSid=0&nvl=true&PLanguage=0&tilside=selectvarval/define.asp&Tabellid=05752⟩ (8 January 2012)

research through an internet-based interface.[4] We will also include some data from the NoTa-Oslo-corpus; a corpus from 2004–2006 with videotaped recordings of three generations of speakers from different parts of Oslo, 166 informants in total.

4. Findings and analyses

4.1 Overall results – interview and peer conversation

The findings we present here are based on data from 21 informants in the UPUS project, 14 boys and 7 girls. We find reason to point out that not all the adolescents participating in our study used what we have referred to as a multiethnolectal speech style. However, the 21 informants represented in Table 1 below all produced instances of XSV, and Table 1 shows the occurrences of XSV in the two speech situations, the interview and the peer conversation.

Table 1. XSV occurrences in interviews and peer conversations in data from 21 informants

	Interview		**Peer conversation**	
	Available contexts for XVS	**Instances of XSV**	**Available contexts for XVS**	**Instances of XSV**
Two foreign-born parents (*N = 13: 9 boys, 4 girls*)	281	32	127	41
One foreign-born parent (*N = 3: two boys, one girl*)	138	32	114	58
Two Norwegian-born parents (*N = 5: three boys, two girls*)	83	0	57	22
Total (*N = 21: 14 boys, 7 girls*)	509	64 (12,5%)	298	121 (40%)

As can be seen, the absolute number of XSV tokens is doubled in the peer conversations relative to the interviews, and the percentage of instances where XSV tokens are actually used in possible contexts for XSV word order is tripled (12,5% vs. 40%). This is according to our expectations: A research interview with an adult stranger (researcher) is not the kind of situation where one would expect a multiethnolectal, youthful speech style to appear. This is in particular confirmed

4. This interface was developed by Tekstboratoriet ('The Text Laboratory') at the Faculty of Humanities, University of Oslo.

by the fact that among the speakers with two Norwegian-born parents we find no XSV constructions at all in the interview situation.

It should be noted that since the group of informants is relatively small, the danger that some of the results may be partially explained by idiosyncrasies is present. This is especially the case if we turn to one of the boys with one foreign-born parent, "Anders", who has the highest proportions of XSV in both speech situations: As shown in Table 2, he produces 29 tokens in 57 available contexts for XSV occurrences in the interview setting and 49 tokens in 121 available contexts in the peer conversation:

Table 2. Occurrences of XSV with the informant Anders

	Interview		Peer conversation	
	Available contexts for XVS	**Instances of XSV**	**Available contexts for XVS**	**Instances of XSV**
Anders	57	29 (49%)	79	40 (62%)

During the interview Anders reveals that he is very conscious about the way he speaks, and it seems that he is very eager also to show this to the researcher interviewing him. He claims to be a speaker of "the minority's dialect", and Anders may be our closest encounter with an emergent multiethnolectal speech style, which he uses almost regardless of genre or speech situation (cf. also Svendsen & Røyneland 2008). There is, however, a larger proportion of XSV instances in his peer conversation. This tendency is in line with the data from other informants as well, as shown in Table 3.

Table 3. The distribution of XSV when Anders' occurrences are omitted

	Interview		Peer conversation	
	Available contexts for XVS	**Instances of XSV**	**Available contexts for XVS**	**Instances of XSV**
Two foreign-born parents (*N = 13: 9 boys, 4 girls*)	281	32	127	41
One foreign-born parent (*N = 2: one boy, one girl*)	81	3	35	9
Two Norwegian-born parents (*N = 5: three boys, two girls*)	83	0	57	22
Total (*N = 20: 13 boys, 7 girls*)	445	35 (7,8%)	219	72 (32,8%)

Some of the informants have quite a few occurrences of XSV not only in the peer conversation but also in the interview situation. This is, however, not found with the group of informants with two Norwegian-born parents. Bearing in mind that the XSV pattern is widespread among speakers of Norwegian as a second language, some occurrences of XSV could perhaps be ascribed to L2 usage for informants with foreign-born parents. This possibility is also indicated by the fact that there are some other syntactic deviations in the contribution of data from (a few of) these informants. The main tendency, however, is that the informants produce a higher proportion of XSV in the peer conversations, pointing towards the use of XSV as part of an in-group practice associated with a multiethnolectal speech style (Opsahl & Nistov 2010). The same result is found in Ganuza's study of Swedish adolescents in multiethnic areas, where the proportion of XSV patterns decreased when the speech situations were increasingly formal in their character (Ganuza 2008, 2010). This difference between speech situations is also confirmed if we turn to other linguistic traits associated with a multiethnolectal speech style, such as the use of discourse markers like "wolla" ('wallah') which occur far more often in the peer conversations than in the interviews (Opsahl 2009b).

However, the fact that the use of the XSV pattern differs both between speakers and between speech situations should not be ignored, and calls for further comments. For Anders, it seems that factors related to identity constructions and performance in front of the researcher could account for the fact that he also has a high proportion of XSV in the interview situation, and, as already mentioned, for a few of the informants L2 usage may be an issue. But as we will show below, linguistic context also seems to play a role when we try to account for the distributional pattern of XSV found in our data from interviews and peer conversations.

4.2 The linguistic context

The linguistic context for occurrences of XSV is discussed by Freywald et al. (2011) who finds systematicity in the German data on the multiethnolectal speech style "Kiezdeutch" in as far as the pre-field in XSV constructions seems to be confined to adverbial constituents, which is then discussed in relation to new patterns of information structure (cf. also Kern & Selting 2006 and Freywald et al. in press).

Also Ganuza (2008) in her analysis of different constituents occupying the X-slot in the XSV construction in Swedish multiethnolectal speech data confirms the same overall pattern that the topicalized element in the pre-field is an adverbial constituent. The fact that the XSV word order occurs with adverbials in the pre-field is confirmed in our data as well: All X-constituents but one are adverbial. But it should be noted that the grounds for establishing this pattern as systematic are relatively weak, since there are very few non-adverbials in the pre-field altogether in the corpus (cf. Opsahl 2009a).

What we find more intriguing in our data, however, is the fact that the adverbials in the pre-field seem to be of certain types (cf. Opsahl 2009a; Opsahl & Nistov 2010). A great majority of the XSV instances occur with certain adverbs and adverbial sub-clauses, the most frequent ones being the adverb *egentlig* ('actually'), temporal adverbs like *plutselig* ('suddenly') and *etterpå* ('afterwards', 'then') and adverbial conditional sub-clauses, most of them with the subordinator *hvis* ('if'). There are also quite a few starting with the subordinator *når* ('when'), which in addition to its temporal marking, may express a conditional content.

These findings are much in line with Ganuza's results in her Swedish study (Ganuza 2008). She finds the highest proportion of non-inversion after the same type of adverbial clauses and after certain adverbs, especially the connective adverb *sen* ('then'). Hence, there seems to be evidence, both from Sweden and Norway, that the XSV word order pattern – or at least a majority of the occurrences – could be regarded as a construction or recurrent pattern restricted to certain adverbial elements occupying the X-slot. Recent studies point to the fact that this also seems to be the case in German multiethnolectal speech styles (Freywald et al. In press).

The specific patterns of XSV are interesting to investigate further in light of the variation mentioned above, especially when it comes to the occurrences of XSV in the *interview* situation: The most frequent adverbial constituent in the pre-field of the clause found in the interview data turns out to be the adverb *egentlig* ('actually'). The girl "Kadra", for instance, in fact has occurrences of XSV only in the interview situation (3 of 8 available contexts), and in two of these three cases, *egentlig* is occupying the X-slot. Since *egentlig* is the most frequent adverbial constituent occurring in the pre-field in the interview situation, it could be that non-inversion after *egentlig* may have entered into a more commonly used speech style for some of the informants, i.e. the *egentlig SV* pattern is not restricted to a specific in-group linguistic practice. To account for the probability of the spread of this pattern, an account of the linguistic and pragmatic nature and behaviour of *egentlig* is due.

Egentlig may be said to express contrast to a newly realized proposition (cf. Opsahl 2009a: 137). In Norwegian one may have non-inversion after *egentlig* when it occurs in a separate prosodic unit with primary accent, as can be seen in the following utterance from a boy named "Ummar", who participated in the UPUS project:

(1) *Egentlig* (.) *sosser har mer penger da* (.) *egentlig så viser*
Actually (.) poshes have more money then (.) actually so shows
det seg at Østkanten bruker mer penger
it itself that East-end-the use more money
'Actually (.) poshes have more money (.) actually it turns out that the East end use more money'

This could be related to Johansen's (2008) discussion of syntactic transparency as an influencing factor on inversion /non-inversion in Norwegian L2 data. She points to the fact that some constituents that may either be in an extra position followed by SV – and/or as part of the clause requiring VS – provide the learner with unclear input, and render the adverbs occurring in these constructions as candidates for triggering non-inversion, also when they are not in the extra position (cf. Johansen 2008: 60). Hence, such constructions may perhaps also be seen as primary candidates for change. Our observation of *egentlig* followed by non-inversion in the interview situation could be interpreted as pointing in this direction.[5] Another fact which may be said to support Johansen's assumption is that *egentlig* is quite common in a right-dislocated position in spoken Norwegian, as a separate tag, which may lead to ambiguous cases where the extraposed subject is interpreted as the subject of a following clause, introduced by *egentlig*. This phenomenon is illustrated in the two Examples (2) and (3), with data from the NoTa-corpus:

(2) "litt kul film egentlig du burde se den" (NoTa 032)
'quite cool film actually you should see it'

(3) "jeg er glad i å lage mat egentlig jeg liker veldig godt å bake jeg da"
'I am glad in (lit.: like) to make food actually I like very good (lit.: much) to bake I then'

In most cases, this ambiguity is of course resolved by prosodic cues, but on some occasions the flow of speech makes the transitional point between clauses somewhat blurred.

The other most frequent adverbs and types of sub-clauses found occupying the X-slot in the XSV construction in our data (*etterpå* ('then') (4), *plutselig* ('suddenly') (5) and conditional sub-clauses) (6), may – like *egentlig* – also be said to express a pragmatic function where the constituent following the X-slot in the utterance is linked very explicitly to an already-established or highlighted backdrop of propositions and/or events (Opsahl 2009a: 138).

(4) *Etterpå* *den* *dør* (.) *Etterpå* *henne* anmelder *dem*
afterwards it dies afterwards her reports them
'Afterwards it dies. Afterwards she makes a formal complaint.'

5. Yet another point which makes *egentlig* a hot candidate for unclear input and a candidate for triggering XSV is the ambiguity associated with the *scope* of the adverbial in certain nominal phrases, such as the utterance "egentlig alle kan bidra" ('actually everyone may contribute'), which is unproblematic in more standardized Norwegian if *egentlig* modifies the noun 'alle' and not the whole clause.

(5) plutselig du vinner fem tusen du gir meg
'suddenly you win five thousand you give me'

(6) [*Hvis man er på skolen*] [*man*] *skal lære*
if one is at school one shall learn
'If you are in school, you are supposed to learn.'

It is interesting to compare the XSV constructions containing these adverbs to the findings of Kern and Selting (2006), who on the basis of German data discuss adverbials in pre-position used as focusing devices in narratives. Some adverbs seem to be packaged in separate prosodic units (cf. the discussion of *egentlig* above), but when it comes to the adverbs such as *danach* ('after that'), *dann* ('then') and *auf einmal* ('suddenly'), these are also seen as items less clearly separated from the following sentence. Hence, there is a parallel to the most frequent temporal adverbials filling the X-slot in the XSV constructions in our Norwegian data. Closer analysis of prosodic patterns will be needed to make a full comparison of the behaviour of integrated and less integrated items in relation to non-inversion.

There seems, however, to be sufficient evidence from both Norwegian, Swedish and German data that we may have to do with constructions and recurrent patterns more than syntactic operations in a strict sense. Recent studies have also suggested that the XSV constructions may be seen in light of a systematic interaction between weakened grammatical constraints and a more direct realization of information-structural preferences (cf. Freywald et al. in press; Wiese et al. 2009).

Selting and Kern (2009) emphasize the fact that the XSV constructions in their data are not used throughout the speakers' conversations, but only in particular turns and turn-constructional units. This leads us to the next section where we will look further into the social side of the use of these constructions, both from a macro- and micro-perspective.

4.3 The Socio-linguistic context

Although the above analysis suggested that the XSV construction may in part be understood as a result of specific linguistic characteristics associated with the adverbs filling the X-slot, we are still facing the fact that the construction is part of a larger context, also socio-linguistically spoken. As previously mentioned, the XSV construction has been reported as one of the most striking features associated with the multiethnolectal speech styles in Germany, Denmark, Sweden and Norway emerging over the last decades.

There is reason to believe, and there are data supporting the conclusion, that linguistic features like the XSV construction convey different and partly overlapping

social meanings within what Eckert calls the indexical field (Aarsæther & Nistov 2011; Eckert 2008). We have already seen that there is variation in the use of the XSV construction according to speech situation, and we have suggested that this variation may indicate that the construction is part of a speech style typical for an in-group practice. In the present section we will look further into how these patterns are used by the adolescents in interaction, and to what extent this usage can shed additional light on the sociolinguistic variation between east and west in Oslo. As already mentioned, the UPUS data is collected in the eastern parts of Oslo, which socio-demographically may be seen as parallel to traditional working class areas.

4.3.1 *XSV as a sociolinguistic variable*

On a macro level, the XSV construction may be seen as a sociolinguistic variable in a classical sense, as long as we are able to observe correlations between social background factors and the distribution of the XSV pattern. And it is to some extent possible to create such correlations. Opsahl (2012) examines the distribution of XSV patterns following the three adverbials *etterpå, plutselig* and *egentlig* among 48 young speakers from all over Oslo in the NoTa corpus. The XSV patterns do appear, but – as opposed to the findings in the UPUS-corpus – they are restricted to speakers who are first- and second-generation immigrants. One may in other words claim that there in the NoTa corpus exists a correlation between the speakers' minority background and the use of the XSV pattern, thus indicating a possible L2 feature. When confronting the UPUS corpus, on the other hand, a different pattern arises, as we have seen, because we also find several speakers *without* migrant background who use the XSV construction. It should be noted, though, that the two speech corpora are not directly comparable, since the NoTa-conversations, as opposed to the UPUS conversations, are collected with a researcher present during the recordings.

The adolescents participating in the UPUS project are from the eastern parts of Oslo. There are no indications in the NoTa corpus that the XSV feature is present in the speech of adolescents in the western parts of Oslo (unless they have some sort of migrant background). This points towards the possibility that the XSV construction may be seen as an *eastern* feature, socio-geographically speaking, reminiscent of the classical TAUS survey from the 1970s, and the description of syntactic differences between the traditional eastern working class areas and the western middle class areas in Oslo. We have no directly comparable data from the western parts of town – apart from the NoTa-corpus – to confirm this assumption. But the assumption that there exists a connection between the use of the XSV pattern – and other linguistic features associated with a multiethnolectal speech style – and eastern parts of Oslo is also supported by statements

from the adolescents themselves (Aarsæther 2010; Aarsæther & Nistov 2011; Opsahl 2009a). Seen from a sociologists' point of view, Sandberg (2005) suggests that there today exist tight bounds between the eastern parts of Oslo and ethnic minority status. There is obviously a demographic connection present, as we claimed above, due to the fact that the largest proportion of immigrants live in the eastern parts of town, but there is also something else going on: a *symbolic* connection seems to have developed between the east end and "foreignness" (Sandberg 2005: 37). In this light it is not unexpected to find linguistic features connoting "foreignness" among east end speakers, *regardless of their language backgrounds*. Sandberg's analysis is supported by findings in the UPUS data, suggesting that the use of multiethnolectal features is put forward by the youngsters as a means to portray a strong eastern identity, in strong opposition to youngsters from the western parts of Oslo (Aarsæther 2010; Aarsæther & Nistov 2011; Opsahl 2009a), whereas more traditional socio-dialectal differences between the two parts of town seem to be decreasing (Johannessen 2008; Johannessen & Hagen (eds.) 2008; Opsahl & Røyneland 2009).

A classical sociolinguistic approach, establishing correlations between social background factors – such as migrant status or socio-geographical or socio-cultural background – and linguistic features comes short, however, if one wishes to account for all of the variation we observe in our data. In the next section we shall see how the XSV construction may contribute to the establishment of meaning on a micro level as well – in interactional discourse.

4.3.2 *XSV in interaction*

In many cases it is possible to connect the XSV construction to aspects regarding the theme of the conversation and to the interactional activity the speakers are engaged in. The following excerpt from a conversation between two girls, Kine and Linn – both without any kind of migrant background – is illustrative in this respect. Here the two girls discuss their preferences regarding boys, and what their future boyfriends should be like:

(7) 1 Kine: **skal de være norske de må ha brune øyne og brunt hår**.
shall they be Norwegian they must have brown eyes and brown hair.

2 Linn: brune øyne og brunt hår?
brown eyes and brown hair?

3 Kine: mhm.
mhm.

4 Linn: det er så sjpa
that is so sjpa

5 Kine: jeg vet det (.) **ellers de må være utlendinger**
I know that (.) *or else they must be foreigners*

Kine's claim in line 1 makes it clear that boys with a prototypical foreign look ('brown eyes and brown hair') are highly appreciated. Linn chooses the Berber word 'sjpa' (line 4) to support her friend's evaluation. The fact that Kine uses a XSV construction when stating her claim in line 1 may function as a contextualization cue (Gumperz 1982) which opens up the use of a certain code or conversational style. Linn's response, using a loan word from an immigrant language, is highly adequate seen from this perspective, and this – in its turn – prepares the ground for Kine's second XSV pattern in line 5. The excerpt illustrates how various factors come into play in the establishment and use of certain linguistic practices among adolescents (in multiethnic areas): Kine's use of the XSV pattern (line 1 and 5), the use of loan words from immigrant languages, the preference for boys with a prototypical "foreign" look, and the simple fact that two teenage girls discuss boys and negotiate towards full agreement in their preferences and evaluations. The use of the XSV pattern is in other words woven into the establishment of meaning in everyday practices, and may in this respect be seen as having a social side (cf. also Opsahl 2012).

In the next excerpt we see a conversation between two boys, Michael (with mixed parental background) and Olav (with two Norwegian-born parents):

(8) 1 Olav: hva gjør du om jeg vinner en million?
'What do you if I win one million'

2 Michael: wolla jeg skal dele med deg.
'Wallah I shall share with you'

3 Olav: nei hvordan kan skal du dele med meg jeg må dele med deg da,
'no how can shall you share with me I must share with you then'

4 Michael: jeg d- jeg skal dele med deg (.) fitte,
'I d- I shall share with you (.) cunt,'

5 Olav: nei (.) ok greit da **hvis en av oss vinner vi deler halvparten**.
'no (.) ok alright then if one of us win we split half-of-it'

6 Michael: sverg ass ((abbreviation for 'altså')).
'swear really'

7 Olav: skal vi?
'shall we?'

8 Michael: ok.
'ok'

9 Olav: du (.) du lyver du (.) **plutselig du vinner fem tusen** du gir meg
'you (.) you lie you (.) suddenly you win five thousand you give me
ikke ((mor da)) du løper ⟨felles latter⟩
not ((mother then)) you run ⟨simultaneous laughter⟩'

What is striking in this conversation, but not at all unusual, is how the XSV pattern appears in connection with discourse markers like 'wolla' and 'sverg', which are widespread among youth in multiethnic areas (Opsahl 2009b). Further, we see how XSV constructions appear simultaneously with what seems to be an increase in the boys' affective commitment, in sequences where they challenge one another: Olav begins with a challenging question ('what would you do if I won a million?'). In line 2, Michael responds with a new challenge, strengthened by 'wolla', namely to *share* the prize money. He says '*I*'m going to share', not '*you* are going to share', however, and in Olav's response in line 3, he points to this paradoxical element in Michael's utterance. Olav is thus performing a face-threatening act (cf. Brown & Levinson 1978), which Michael parries elegantly by repeating his utterance with an additional 'cunt'.

This 'cunt' may be interpreted both as expressive swearing as part of an admission that something was "wrong" in his utterance, *or* as a direct accusation towards Olav ('you're a cunt because you point to errors in my speech'), *or* as an upgraded repetition of his first utterance ('I want half of your prize money'). This is the point where Olav's first XSV construction appears (line 5). We witness again how the use of a loan word (this time 'wolla') may serve as a contextualization cue opening up a certain register, just like the interplay between 'sjpa' and XSV in the conversation between Kine and Linn. It may also be that Olav's focus on "wrong" linguistic form in his accusation in line 3 is softened by the fact that he himself now chooses a structure which violates "traditional" Norwegian syntactic constraints. We see how Michael's immediate response (line 6) continues in a "toughness" track through the phrase 'sverg ass' (cf. also Opsahl 2012).

The use of multiethnic youth language has on many occasions been described as a means to display "toughness" (cf. e.g. Aarsæther 2010; Hårstad 2010; Madsen 2008, 2011; Nistov & Opsahl 2009; Opsahl 2009b). Furthermore, toughness may be seen as a stance intertwined with a range of partly overlapping social meanings that the multiethnolectal speech style in Oslo may index, i.e. the identity as an east-ender. The re-establishment of oppositions towards west end speakers has been pointed to as one of the motivating factors underlying the adolescents' choice to include multiethnolectal features in their everyday linguistic practices (Aarsæther 2010; Aarsæther & Nistov 2011; Opsahl 2009a; Opsahl & Røyneland 2009).

In the previous section, we saw how a *symbolic* connection between the east end and "foreignness" seems to have developed, and how the use of multiethnolectal features such as the XSV construction makes perfect sense for young east-enders, regardless of parental background, in its ability to index an affiliation towards the eastern parts of Oslo. In this section, we saw how the multiethnolectal features are part of the interactional activity the speakers are engaged in, and how the same complex of symbolic meanings is exploited in their face-to-face negotiations of identities in conversational discourse. It seems clear that the XSV construction is shaped by – and is shaping – the interactional activities which are at play, and that it is not possible to fully account for the XSV constructions in our data without the inclusion of sociolinguistic aspects.

5. The XSV pattern in a language contact perspective

The findings and analyses we have presented so far indicate that the emergence and use of XSV constructions must be seen as a result of a range of multifaceted and complex processes. In this last section we will bring our findings and the previous observations into a discussion of the nature of the urban multilingual setting as a contact scenario, and discuss the XSV pattern in light of mechanisms of language contact. Different mechanisms and scenarios for contact-induced change have been reported in the literature (cf. e.g. Appel & Muysken 1987; Thomason 2001; Thomason & Kaufman 1988). The question is then, what kind of scenario, mechanisms and underlying processes are we dealing with in the kind of multilingual settings we address here, and how can we account for the emergence and use of the XSV pattern in light of this contact scenario? Among the mechanisms for contact-induced language change discussed in the literature (cf. e.g. Appel & Muysken 1987; Thomason & Kaufman 1988), imperfect L2 learning, imitation of prestige language patterns and code-switching will be central to our discussion. We will start by characterizing the language contact situation we are dealing with.

5.1 The multilingual friendship network as a contact scenario

All the adolescents participating in our study were born and raised in Norway, most of them in Oslo. The fact that their parental background varies (cf. Table 1) renders different kinds of individual multilingualism, with varying multilingual proficiencies and practices. Some of the young people will speak two or more languages on a daily basis, whereas others may have a mainly monolingual practice of Norwegian with some knowledge of other languages used among friends. Although all our informants were born and raised in Norway, there are also

first-generation immigrants among the adolescents in the peer groups where our informants participate, and hence usage of Norwegian with typical learner language characteristics is also part of the picture. The language contact situation may thus be characterised as a speech community of adolescents surrounded by multilingualism, where there seems to be an atmosphere of acceptance and recognition of multilingualism as a symbolic capital. This is evident in many of the statements from the youngsters in the interviews as well as in a questionnaire they were given, as a response to the questions "what language(s) do you know?" and "what languages do you speak with your friends?".

The girl Kine, one of the participants in the conversation analyzed above, states that she knows Urdu, Norwegian, Spanish, Italian, German, Malawi, Swedish, Danish, Sami and English, and she says that she speaks Norwegian, Somali and Urdu with her friends. Linn reports her knowledge in languages to be in Urdu, Norwegian, English, Italian, Spanish, Somali, Turkish, and that in addition to Norwegian she speaks Urdu and Somali with her friends.

Michael, who participates in the other conversation analysed above, says that his friends speak mother tongues from the whole world, like Kurdish, "Pakistani", Berber, Chinese, Vietnamese, and African languages, and that he himself speaks Norwegian, Spanish, English and Arabic with them. Michael's conversational partner, Olav, says that his friends have a range of different mother tongues, but that he speaks Norwegian with them.

As can be seen, the adolescents list a range of languages as part of their competence, some of which are also listed among the languages they speak with their friends. But there is not a one-to-one-correlation between the languages they "know" and the languages reported to be spoken. The reported knowledge and use of many languages seem to point to the importance of symbolic competence (Kramsch 2006) and the prestige associated with multilingualism and the language practices emerging in the multilingual friendship groups.

5.2 Emergence: Imperfect L2 learning versus intentional change

Thomason (2001) puts forward a major dichotomy between two general modes of contact-induced sociolinguistic change; one in which imperfect learning plays a role (called shift-induced interference) and the other in which imperfect learning is not a significant factor, referred to as borrowing (ibid.: 129). Whereas the mode of imperfect learning seems to play a crucial role in the formation of the ethnolects in the Kven and Sami communities, this does not appear to be the case with the Oslo multiethnolectal speech style, at least not in a direct way.

Language phenomena resulting from language contact situations are often described in terms of one language in some way influencing another language, as speakers transfer elements or constructions from one language to the other, in

what has traditionally been referred to as interference (cf. Thomason & Kaufmann 1988; Thomason 2001). Studies dealing with these phenomena have much in common with transfer studies within SLA research, and there is a vast set of literature on how such transfer can be predicted, and what constraints there are for transfer (interference) to take place.

However, as Thomason (2006) points out there may also be contact-induced phenomena without direct interference. It seems that the XSV construction, as found in the Norwegian spoken among adolescents in multilingual settings in Oslo, could be classified as this kind of phenomenon, i.e. where no foreign material is transferred from one language to another. One type within this category is, according to Thomason, instances of intentional change, e.g. in cases where a group deliberately alters its language to make it more different from neighbouring groups, as a means of underlining in-group identity. Hence, rather than to explain the occurrences of XSV we find in the Oslo multiethnolectal speech style as copying from one language to another as part of imperfect learning, we find Thomason's notion of intentional change a feasible starting point for studying the underlying mechanisms for what is going on.

The kind of intentional change at issue could be related to the type of contact scenario that Appel and Muysken (1987:154) refer to as "imitation of prestige language patterns", in which pattern of a prestige language is imitated. We find this scenario intriguing in order to shed light on the emergence and spread of the XSV pattern as a feature of the multiethnolectal speech style in Oslo. The "prestige language" is here to be understood as the language of the multicultural and multilingual peer group. In the multilingual setting we are talking about, there seems, as previously mentioned, to be prestige and symbolic capital connected to coolness and toughness, which somehow is linked to both "foreignness" and being an eastender. Hence, "imitation of prestige language patterns" could perhaps be seen as an underlying mechanism of what is going on when, e.g. Olav signals toughness in the conversation with Michael (cf. 4.3.2 above). Olav is also reported by other informants to be a "wannabe foreigner".

Appel and Muysken point out that only aspects of grammar that are easily perceived can be imitated. In an account of these mechanisms, the notion of salience (cf. Kerswill & Williams 2002) seems crucial. The saliency of the feature may render it easy to select from the feature pool (Cheshire et al. 2011; Mufwene 2001). Although the definition of salience has been subject to some debate, grammatical features in interactionally prominent positions are listed as one important factor (Kerswill & Williams 2002). The XSV construction could be described as a salient feature in terms of its salient sentential position as well as in terms of its discourse functions indicated in our discussion in 4.2. In other words, the XSV construction may seem to qualify as a salient feature, which is easily selected from

the feature pool and used and spread through the mechanisms of imitation of a prestigious pattern.

Cheshire et al. (2008) explore the role of multiethnic friendship networks and social practices as the motor of dialect change and linguistic innovation in London, and they find that the nature of a speaker's friendship group is a key factor in the diffusion of linguistic innovations. It is discussed why some individuals in particular are sanctioned to use the innovations more than the others, and this is ascribed to the fact that some personalities are better at "brokering" (Eckert 2000), that is, at transferring some element of one practice to another. Anders, who was mentioned as the one who stands out with very high proportions of XSV, both in the peer conversation and the interview, must be said to clearly qualify as a broker. Also Olav, who reports that he participates in different kinds of practices outside the youth club, seems to fit well into the description as a broker; it is reported by others that he is a "wannabe foreigner" and that "he speaks like that all the time". To put it in the words of Mufwene (2001: 151), they may be initial agents of change, "as they propagate linguistic features […] from one community to another".

Unlike what Cheshire et al. (2011: 189) argue when they hold that the emergence of Multicultural London English is best seen as the result of group second language acquisition, we would rather hold that there need not be a *direct* influence of second language acquisition in the emergence of multiethnolectal speech styles in Oslo, but learning of L2 may have played a role *in*directly, in terms of accommodation processes, as we will discuss in the next section of this paper. Furthermore, imperfect learning by first generation immigrants is part of the input in the multilingual surroundings, and thus part of the feature pool from which the adolescents can select features in the formation of their style. The XSV pattern may be said to be a highly salient feature, which can be "deliberately" chosen from the pool, indexing social meanings carrying prestige within the group. The symbolic capital of multilingualism and multiethnic friendship groups seems central in this respect. Below we will briefly comment on how language contact mechanisms may also shed light on the XSV pattern as put into use in interactional discourse.

5.3 From participant oriented to discourse-oriented code switching

Kine, with whom we got acquainted in Example (7) above, presents us with an interesting account of *why* she uses multiethnic features such as the XSV pattern:

> "det er sånn kombinasjon (.) av (..) lissom av (.) mange forskjellige språk (.) det er lissom (..) ja (.) det er sånn (..) lettere sikkert for (.) pakistanere for eksempel da s- (.) å skjønne meg hvis jeg snakker (.) kebabnorsk enn hvis jeg sitter her og (.) lurer på om dem skal være med på (.) t- (.) "ta trikken til Majorstuen" liksom (.) tror jeg."

> 'It's like a combination of many different languages. It's like, yes, it's like probably easier for Pakistanis for instance, to understand me if I speak Kebab Norwegian[6] than it is if I sit here and wonder if they would like to join me like on "the tram to Majorstuen" (changing into a stylized standard speaking voice), I think.'

Kine does not have a minority background. Her positive evaluation of the multiethnolectal features can be seen as an expression of solidarity, which has been pointed out in previous studies as one of the mechanisms which contribute to the creation and establishment of a multiethnolectal speech style (Ganuza 2008; Kotsinas 1988). But this quote may also serve as a backdrop for another interesting point; namely how these features are invented and spread within the speech community.

By borrowing Auer's concepts 'participant oriented' vs. 'discourse oriented' code switching (Auer 1984, 1998) we may reach an understanding of the use and distributive pattern of multiethnolectal features. Code switching, in its traditional sense, involves the use of two different languages. We claim that it is appropriate to treat the multiethnolectal speech style as a "code" or register in its own right. As shown above, there are clear situational contextual assumptions connected to the distribution of the structure in our data. If Kine is right in her account, the use of the 'code', i.e. linguistic features like the XSV construction, is participant-oriented in its origin (cf. Auer 1998: 8), due to the fact that it is the language background of the speakers involved which triggers the use of the feature ("It is easier for Pakistanis for instance, to understand me"). The use of a feature may thus in the first place be part of an accommodative strategy in interaction with L2 speakers of Norwegian.

However, we may easily imagine a scenario where the speakers' language backgrounds are of lesser importance, since the heterogeneity of the youth groups is regarded as the norm rather than as an exception. The use of a linguistic feature may remove itself from the participant-oriented aspect and gain an increased discourse-related meaning by its ability to contribute "to the interactional meaning of a particular utterance" (Auer 1998: 4). The interactional conditions which trigger the use of the features may very well be connected to experiences closely knit with the everyday experiences associated with a multiethnic youth culture,

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6. Kebab Norwegian is a labelling term for the Oslo multiethnolectal speech style, well established in media discourse. This label has, however, far less resonance among the adolescents themselves, and we find very few instances of the use of this term in our data (cf. Aarsæther 2010).

and the analysis of XSV in interactional discourse above showed that this may very well be the case in multilingual Oslo.

It has been pointed out in the literature that code switching may serve as a first step in the establishment of new varieties (cf. Appel & Muysken 1987; Auer 1999; Thomason 2001). Auer presents a typology of multilingual phenomena along a grammaticalisation cline where code switching may develop into language mixture, where mixing is a language of interaction in itself (Auer 1999: 328).

6. Concluding remarks

In this paper we have discussed the XSV word order pattern as a feature characterising a multiethnolectal speech style among adolescents in multilingual settings in Oslo, and we have attempted to shed light on the interwoven linguistic, interactional and social factors that seem to play a role in the emergence of this pattern and its usage.

The analysis and discussion of the linguistic contexts revealed that the XSV construction occurs with certain adverbials in the X-slot, indicating that it may have to do with recurrent patterns rather than individual syntactic operations in a strict sense. The variation of the occurrence of this pattern in the speech of the adolescents was shown to be linked to certain functions at the pragmatic, discursive and/or macro-social level.

When it comes to the question of contact-induced change, we have argued that the emergence of the XSV construction in the contemporary urban context of Oslo, in contrast to some other language contact situations where this construction has been documented (for instance ethnolects in Northern Norway), should not be seen as a direct result of imperfect L2 learning. *Indirectly*, L2 usage may have played a role in providing input to the feature pool and as a ground for accommodation strategies in interaction. We have thus indicated that the XSV construction may have developed from accommodation in interaction with L2 speakers to intentional usage imitating in-group prestigious patterns that index coolness, toughness, "foreignness" and being an east-ender. Hence, the processes underlying the emergence, use and spread of the XSV construction could be described as developing from micro-level convergence to macro-level divergence.

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The expansion of the Preterit in Rioplatense Spanish

Contact induced?

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A major morphosyntactic change has taken place in Spanish spoken in Buenos Aires, Argentina (henceforth Rioplatense). While the Preterit coexisted with a Perfect until the turn of the 20th century, it is shown that this opposition gradually has been erased in the language of young speakers in this sample. Today, the Preterit functions as a perfective which also encompasses current relevance contexts, previously expressed through the Perfect. Such a finding is discussed in the light of grammaticalization theory (e.g. Bybee et al. 1994), which emphasizes how the expansion of a perfect and replacement of the preterit is typical of grammaticalization and of Romance languages in particular. In addition, it is argued that the change did not occur due to contact, neither (1) as the result of contact with speakers of a language with a similar system (Sicilian Italian) nor (2) as a post-contact phenomenon, despite Buenos Aires being a high-contact society at the time of the initiation of the change.

1. Introduction

1.1 The case in question

A major morphosyntactic change has taken place in the Spanish variety spoken in Buenos Aires, Argentina during the last 120 years. At the turn of the 20th century, the Perfect/Preterit distinction was alive in Rioplatense. The distribution of the two resembled e.g. English, in which the Perfect ('have gone') expressed a past with a current relevance component (cf. 1.2), whereas the Preterit ('went') expressed a past lacking such a component.[1]

My data show that the opposition between the two is disappearing in the Rioplatense variety. Through a corpus with interviews of 13 informants, I show

1. Capital letter refers to the language-specific category, following Comrie (1976).

that the Preterit has expanded during the last two generations, almost completely replacing the Perfect in the speech of young and adolescent Rioplatense speakers. The current system is one in which the Preterit has experienced semantic broadening, and now functions as a perfective which also can be used to express current relevance. In Example (1),[2] experientiality, a subfunction of the perfect (cf. 1.2), is thus expressed using the Preterit:

(1) **Fui** a Gualeguaychú
Fu-i *a* *Gualeguaychú*
go-1SG.PRET to Gualeguaychú
'I have been to Gualeguaychú'

Note that the Preterit is also used – in an uncontroversial way – in typical perfective contexts, with specific time reference in the past, as in (2):

(2) Yo **fui** de visita a Gualeguaychú, hace unos 3 años
Yo *fu-i* *de* *visita* *a* *Gualeguaychú* *hace* *unos*
I go-1SG.PRET for visit to Gualeguaychú do-3SG.PRES about
tres *años*
three years
'I went for a visit to Gualeguaychú about three years ago'
www.explorarlo.com/atractivos/haceryver/343/Termas-de-Gualeguaychu/Argentina/Gualeguaychu)

The data presented in this paper suggest that the change is recent – the Perfect was alive in literature at the turn of the 20th century, and we find no evidence for uses of Preterit in current relevance function – as in (1) – in the old texts.[3] The Perfect functioned to indicate a past action with current relevance, whereas the Preterit functioned to indicate a past action without any such flavor, as the following example illustrates:

Perfect: past action with current relevance

(3) ¡Me **han matao** a mi hombre!
me *han* *mat-ado* *a* *mi* *hombre*
me have 3PL.PRES.IND kill-PAST.PTCP to my man
'They have killed my man' (*M'hijo el dotor*: 92)

2. All examples stem from the corpus unless otherwise stated.

3. *M'hijo el dotor* by Florencio Sanchez (1903) and *Martín Fierro* by José Hernández (1872) were selected because they display a language which intentionally deviates from the standard written norm by reflecting distinct forms of spoken language (even though they do so for different periods and social strata).

Preterit: past perfective without current relevance component:

(4) Al principio nos **dejaron** de haraganes criando sebo
al principio nos dejar-on de haraganes
at the beginning us leave-3PL.PRET as loungers
cri-ando sebo
make-PRES.PTCP tallow
'In the beginning they left us like loungers doing nothing' (my translation)
(*Martín Fierro*: 18)

On the basis of these data, I assume that the Perfect *has* existed in Rioplatense (for details, see Fløgstad forthcoming). The finding is concordant with that of Louro (2009). It indicates that the change is relatively novel, and that it has occurred in the span of the past 120 years, which is also suggested in the data (cf. Section 4). This point is also discussed in relation to the question of contact in 5.2.

In addition to discussing the expansion of the Preterit, I will point to an additional finding in the data. All informants have tokens of the adverb *ya* 'already' combined with the Preterit to express current relevance content, and in these phrases, the original semantic content of the adverb – that of temporality – has disappeared. *Ya* does not have an adverbial meaning, but, I will argue, a flavor of current relevance. I will argue that the *ya* + Preterit construction is acquiring a more grammatical status – it is in a process of grammaticalization.

1.2 Brief notes on terminology

The terminology in the present paper is that of Bybee (1985), Bybee et al. (1994) Comrie (1976). In simplified terms, *perfect* (*anterior* in their terminology) here refers to a situation which is temporally preceding a reference point and which has relevance at the reference point, so-called current relevance, and its subfunctions experiential, resultative, recent past and ongoing situation to various degrees reflect this relevance.[4] It does not locate the situation at a definite point in the past, but rather indicates its relevance for the current moment. *Preterit* is used here instead of perfective/simple past (to avoid confusion with the category which is the result of a perfect's expansion; according to Bybee et al. (1994: 85), the resulting category is a perfective/simple past). It describes a situation as being past perfective; having temporal boundaries, and being single, unified and discrete, while its "contrast partner" *imperfective* typically lacks the aforementioned temporal boundaries (Bybee et al. 1994: 83).

4. There is a massive literature on the semantics and diachronics of the perfect, and no consensus as to its semantic status, cf. e.g. Schaden (2009).

2. Background

2.1 Rioplatense: Sociolinguistic context

Rioplatense is a variety of Spanish spoken in parts of Argentina and Uruguay, mainly in the urban centers Buenos Aires and Montevideo. In this paper, it is used to refer to Buenos Aires Spanish only. Rioplatense is known to have idiosyncrasies of lexical (Conde 2011), phonological, prosodic (Pešková et al. 2011; Colantoni & Gurlekian 2004), morphological and syntactical art (Fontanella de Weinberg 1987; Di Tullio & Kailuweit 2011 for overview).

Argentina was colonized in the early 16th century, and the native indigenous population was to a large extent killed by settlers in the area that is now known to be the Río de la Plata-area, and Spanish became the official language of Argentina. The constitution from 1812 promoted immigration "by all possible means", and this induced massive waves of migration to Argentina, and especially to the port capital Buenos Aires. Between 1856 and 1932, Argentina received 6.5 million immigrants. Of these, more than two million were Italian. In 1887, the majority (52.8 %) of Buenos Aires' inhabitants were immigrants. Of them, 32.1% were Italians, 9.2% Spanish, 4.6% French, and the remaining 6.9% were of different nationalities (Armenian, Russian, Polish, English etc.) (Conde 2011: 149).

The Italians (cf. discussion in 5.1) were the great majority. Their adjustment to Argentine society and culture is assumed to have proceeded with relative ease. Cultural and religious consistency between Italians and Argentineans made the immigration easier (Klee & Lynch 2009: 185–186). These immigrants were in fact seen as vital contributors to the development of the society, and their adaptation into Argentinean society was rapid – and so was their shift to the majority language. Three factors are assumed to have contributed to this rapid shift (Klee & Lynch ibid); (1) the lack of uniformity in the immigrants' Italian varieties; immigrants did not speak standard Italian, but different, often mutually unintelligible dialects, and so had no lingua franca (2) the typological proximity to Spanish; it was not a difficult task for them to learn Spanish and (3) pressure from the free and obligatory monolingual education system. The contact situation was intense, but short. I discuss the impact these facts may have had on the structure of Rioplatense in Section 5.

The sociolinguistics of Buenos Aires and its linguistic outcomes have received substantial attention, and two very different varieties have been identified as the linguistic outcome of the intense contact situation: *Lunfardo* and *Cocoliche*. *Lunfardo* is defined as a vocabulary used by many Rioplatense speakers in addition to, or perhaps *in opposition with*, the standard Rioplatense variety (Gobello & Olivieri 2005), resembling a stylistic variety more than a distinct language. While

examples of Lunfardo use with a maximum of inserted Italian lexical items are often quoted in literature, it is unclear whether this use of Lunfardo is actually spontaneous. It does not have a proper syntax, and more than anything reflects the *lexical* impact northern Italian dialects had on the Rioplatense language. Lunfardo is still in use. The literature seems inconclusive, however, when it comes to drawing a line between actual Lunfardo and the Italian impact reflected in the now-standard Rioplatense variety (cf. Conde 2011). *Cocoliche* was a hybrid of Northern Italian and Spanish spoken in the port areas of Buenos Aires around 1900. While Lunfardo was used by immigrants and the native population alike (and today is used by both), Cocoliche was used by Italian immigrants only. Though its resemblance to a pidgin has been discussed, scholars conclude that several factors make Cocoliche *not* so. Whinnom (1971: 197–198) and Bickerton (1976: 171) agree that Cocoliche does not constitute a pidgin as it was too transitory and unstable to be identified as a distinct language. More importantly, Cocoliche shows no signs of grammatical or lexical simplification otherwise associated with pidgins (cf. discussion in 5.2).

2.2 Previous research on Rioplatense

As illustrated by Cocoliche and Lunfardo, the Italian impact on Rioplatense is lexical rather than structural or morphosyntactic (Gobello & Olivieri 2005; Conde 2011). Prosodically, however, Rioplatense is also argued to be influenced by Italian. Its pitch and intonation patterns follow those found in Italian varieties, and the intonation pattern is assumed to resemble southern Italian varieties in particular (Colantoni & Gurlekian 2004; Pešková et al. 2011).

As for the use of Preterit in Rioplatense, Burgos (2004) provides an insightful account of the expansion with special reference to the use of temporal adverbs, and also concludes that the adverb *ya* has a strong tendency to combine with the Preterit. Louro (2009) has an interesting thesis on the same material. Her conclusions coincide to a large extent with those presented here; however, she also points to a gender bias in her sample, finding that the perfect is used more frequently by women than men. Henderson (2010) compares the Argentinean situation with that of Uruguay and Paraguay. Schwenter and Cacoullos (2008) compare Iberian and Mexican data. Squartini and Bertinetto (2000) claim that the Argentinean perfect is used in imperfective contexts only. Fløgstad (2007, Forthcoming) deals with the semantics involved in the expansion. Kany (1945) provides an early description of the prevalence of Preterit in Rioplatense. While all studies to some extent confirm the tendency described in this paper, the data presented here from adolescent informants show that the Perfect is not only becoming *less* frequent, it is no longer in use at all in this age group. It should also be noted that in

an early study, Abeille (1900/2005) surprisingly notes the *opposite* tendency than the one here described for Rioplatense: the frequency of the *Perfect* and its early expansion. This is concordant with my findings from Argentinean theatre plays presented in 1.2, and adds to the evidence that the perfect did indeed exist in Rioplatense around 1900.

2.3 Expanding Preterits in other languages

Elsness (1996) notes notes that the preterit is expanding in American English (as in e.g. '*I never saw that movie*'). Henderson (2010) shows that the Preterit is more frequently used to express current relevance in Paraguayan Spanish than in Uruguayan and Chilean Spanish. This tendency is common to many South American varieties (Kany 1945; Squartini 1998; Torres Cacoullos 2011), as observed in, e.g. Mexican Spanish. The Preterit is also known to prevail over the Perfect in Canarian (Piñero Piñero 2000) and in Galician (Penny 2000). In Italy, the Sicilian variety is known to prefer the Preterit to the Perfect, though in this variety, this is usually explained with the Perfect never having properly developed, i.e. being an archaic trait of this variety. The perfect/preterit distinction behaves differently from most Romance varieties in Portuguese (Squartini 1998), and is also argued to constitute a counterexample to the theory of paths (ibid). It should be noted that it is often claimed that Perfect in Latin American varieties such as Mexican Spanish is used in imperfective contexts only (Squartini & Bertinetto 2000). As we shall see in 4, this is not the case in Rioplatense.

2.4 Grammaticalization theory and source determination

Despite the variation accounted for in the development and distribution of Perfect/Preterit in Romance, the grammaticalization of perfects is assumed to follow steady paths on the view of grammaticalization theory (Bybee et al. 1994). On this view, grammaticalization – the way in which grammar develops out of lexical material – is seen to be regular, shaped by domain-general processes such as categorization, chunking, memory storage, analogy and the ability to make cross-modal associations (Bybee 2010). However, it is also assumed that the *specific* semantic function grammaticalizing constructions will take on in the future can be predicted (Bybee et al. 1994; Heine & Kuteva 2007; Traugott & Dasher 2002; Norde 2009 for critical overview); this is referred to as the *source determination hypothesis*, because it is the source construction which is assumed to determine the way in which the construction will develop. For example, a source construction with possessive meaning is expected to develop to perfect, and eventually generalize to past, as observed in French, where the Latin construction first developed to perfect (*J'ai acheté*), which eventually generalized to past

perfective, making preterit (or *passé simple*) disappear, illustrated in *the perfective path* (Bybee et al. 1994: 105):

> POSSESSIVE CONSTRUCTION > RESULTATIVE > PERFECT > PAST/PAST PERFECTIVE

Similar developments have occurred in languages spoken on the European mainland, but also separately in some genetically unrelated languages, such as Ewe, presumably attesting to common processes of change based on human cognition and linguistic communication (Bybee et al. 1994: 282). As for the perfect specifically, it has been proposed that it expands because the speaker, wishing to convey his/her contribution as more relevant, will use this category more frequently due to its current relevance component (Bybee et al. 1994: 86–87). This will cause a semantic bleaching of this component, and subsequently, a generalization of meaning, typical to grammaticalization.

3. Field and method

3.1 Informants and interviews

The Rioplatense data stem from interviews containing spontaneous speech in the field with informants from two age groups, thus forming an apparent time study. The data were collected in Buenos Aires, Argentina, on two occasions. They stem from interviews with 13 informants. The variable according to which the informants were chosen was that of age, in order to possibly indicate the time span of the change in question. The informants were divided into two age groups, 1: 41–100 (5 informants), and 2: 0–41 (8 informants). They were balanced for gender, were all born and raised in Buenos Aires, and were Spanish-speaking monolinguals. The interviews were semi-structured, in that the informants were led to talk about topics that would generate a use of current relevance contexts. Generally, interviews include narration, which typically calls for past, not perfect, and which would not be relevant to the present case. In order to avoid simple narration, topics would typically include questions about former travels and experiences with relevance in the present, which often generated tokens denoting experiential function, a subfunction of the perfect (cf. 3.2 below). Still, the most efficient way of generating spontaneous and relevant tokens turned out to be to interview more than one informant at a time, as this created a more relaxed context, and often led the informants to ask the interviewer questions, which proved a particularly efficient generator of experiential-tokens, e.g. *Fuiste a Bariloche?* ('Have you been to Bariloche?'). The interviews lasted for one to two hours, and were recorded,

typically in a home or other informal setting. Informants were not made aware of the exact object of the study, but were given the information that its goal was to study the Rioplatense variety as a whole. The interviewer avoided the use of Preterits with current relevance meaning in order not to prime the informants.

3.2 Analysis

The aim of the study is to map the type frequency of the Preterit with perfect function, and to study the occurrences of the Perfect, which are expected to be few. To do this, the definition of the perfect (as "a situation that temporally precedes the moment of speech or another point of reference and has current relevance", cf. Comrie 1976: 53) was employed, and inspired by variationist method[5] (Tagliamonte 2012), past actions expressing such content were identified in the corpus. This way, it was revealed by which means current relevance was expressed; through perfect, preterit, or other constructions. The percentages are calculated in the following way: the total of Preterit and Perfect tokens (with perfect function) in each group is studied as a whole. Then, the percentage expressed with the preterit is calculated. For instance, if the total of tokens of Perfect/Preterit is 100, and the number of Perfects used is ten, then the Preterit is used in 90 % of the cases in this age group, etc. In addition, I analyzed whether the subfunctions of the perfect are to an equal extent expressed through the Preterit. As discussed in 1.2), the perfect can be defined as having four subfunctions: expressing resultative, experiential, ongoing situation and recent past, all of which, to differing extents, include the "proto-meaning" current relevance (cf. Comrie 1976; Bybee 1985; Dahl & Hedin 2000). This analysis was done in order to define whether the change could have started with the expansion of a particular semantic subfunction, as opposed as being independent of these subfunctions. No such pattern was identified – making it less likely that the change had a specific semantic starting point. For details see Fløgstad (2007; Forthcoming).

4. Results

The primary object of study is to account for the expansion of the Preterit in Rioplatense. As we shall see in 4.1, the data strongly suggest that the preterit has gradually expanded in Rioplatense, almost completely replacing the perfect in the

5. The variationist method is a traditional Labovian approach to change, which has seen an uprising in the fields of grammaticalization and Hispanic linguistics (Torres Cacoullos 2011).

language of young and adolescent speakers. The findings also suggest that a periphrastic *ya* + Preterit construction is in the early stages of grammaticalization. I suggest that this construction constitutes a possible reintroduction of the aspectual value previously expressed with a Perfect.

4.1 Preterit and its expansion in numbers

Table 1 shows the distribution of Preterit/Perfect to express current relevance in the two age groups. The use of the Perfect has decreased dramatically, from being used in 39 % of the contexts in age group 1, to only 3 % in age group 2.

Table 1. Distribution of Preterit and Perfect in past with current relevance function

	Age group 1		**Age group 2**	
Preterit	62		150	
Perfect	39		5	
Other	–		–	
Total Preterit	**61%**	**62**	**97%**	**150**
Total Perfect	39%	39	3%	5

These numbers – both those of informants and tokens – are relatively small, and the percentages merely give an indication of the direction of the change. Semantically, however, it is possible to view the first evidence of a change as evidence that the change has actually taken place (Hopper & Traugott 2003: 48); in this case, that the semantic restriction on the Preterit (that it can only be used in past contexts with time specification, cf. 1.2) is no longer active in age group 2 – and that the relaxation of this requirement is observed in all age groups to various extents.

The numbers show two additional tendencies. First, the old and middle-aged informants use both Preterit and Perfect to express the same function, as in the following examples, expressing imperfective function (cf. 2.3):

(6) Persistent situation w/Perfect

Tiene quince hermanos todos **han trabajado** siempre la tierra
tiene quince hermanos todos han trabaj-ado
have fifteen siblings all have-3PL.PRES.IND work-PAST.PTCP
siempre la tierra
always the land
'He has fifteen siblings they have all always been farmers'

(7) Persistent situation w/Preterit

Yo siempre **dije** hay dos cosas que no se deben pagar en este mundo la enseñanza y la salud

yo siempre dij-e hay dos cosas en este mundo que no se deben pagar la enseñanza y la salud

I always say-1.SG.PRET be things that not should pay in this world the school and the health

'I've always said that there are two things in this world that should be free; education and health care'

This phenomenon, *layering* (Hopper & Traugott 2003), occurs as new constructions arise in a language, but the older ones with the same function are not immediately discarded. Here, it is assumed that the expression in (7) is novel. Obviously, such synchronic variation is not synonymous with ongoing change. However, the coexistence of the two constructions in similar semantic contexts decreases drastically in age group 2, and the non-use of the Perfect appears stable in the language of young and adolescent informants. The very sparse Perfect tokens in age group 2 have no semantic pattern and may be interpreted as relics of an archaic use. The gradual decrease in use of Perfect make the data strongly suggest that the Preterit is expanding in Rioplatense Spanish, and supports what we observed in 1.2, namely that the Perfect and the Preterit both existed in Rioplatense ca. 120 years ago. The Rioplatense Preterit is currently a Perfective which also expresses functions generally associated with perfect: experiential, recent past, resultative and persistent situations. It contrasts with an imperfective in the past domain.

Second, in addition to a growing use of preterit in current relevance contexts, the corpus shows the use of the construction *ya* + Preterit in both age groups (cf. also Burgos (2004) and Louro (2009)). While *ya* may convey the original semantic content in other contexts (cf. Example 11), it does not so in the following examples:

(8) When being asked whether she has travelled:

Ya fui a Bolivia
ya *fu-i* *a* *Bolivia*
already go-1SG.PRET to bolivia
'I have been to Bolivia'

(9) Talking about finishing her studies, not earlier than expected:

Lo importante es que **ya** lo **pude** lograr
lo *importante* *es* *que* *ya* *lo* *pud-e* *lograr*
the important is that already it can-1SG.PRET achieve
'What's important is that I have achieved it'

(10) Combined with adverb *ahora* 'now'

Ahora **ya** se me **fue** la bronca casi

ahora	*ya*	*se*	*me*	*fu-e*	*la*	*bronca*	*casi*
now	already	it	me	go-3SG.PRET	the	anger	almost

'Now the anger has almost gone away'

The semantic analysis of the phrases occurring in the data material may suggest the grammaticalization of *ya* + Preterit. Informants from all age groups have tokens of *ya* + Preterit with perfect function. *Ya* still occurs with its original semantic meaning in other constructions, which is not unexpected; grammaticalization is assumed to occur to the lexeme *within a specific construction* (Bybee & Eddington 2006; Hopper & Traugott 2003: xv), as seen in the following example, in which *ya* occurs independently of the Preterit, with lexical meaning:

(11) *Ya* used with original adverbial meaning

El nuevo sitio de Kim Dotcom **ya** tiene más de 500 mil usuarios

el	*Nuevo*	*sitio*	*de*	*Kim*	*Dotcom*	*ya*	*tiene*	*más*
the	new web	site	of	Kim	Dotcom	already	have-3.SG.PRES	more

de	*500*	*mil*	*usuarios*
than	500	thousand	users

'Kim Dotcom's site already has more than 500 thousand users'

⟨http://www.clarin.com⟩ (21 January 2013)

The small number of tokens presented here can only give a possible indication of a future spread. However, it does not seem premature to claim that the construction must have gained some social acceptance as it is used by all informants in the present sample. Whether it catches on and is reproduced by all language users, eventually creating a rule change, remains to be seen. Typologically, it would not be unexpected to find *ya* + Preterit in perfect function. Adverbs meaning 'already' are typologically a common source of perfects. Bybee and Dahl (1989: 68) note that constructions with main verb + particle with an original meaning 'already' are common sources of perfects, such as in Yoruba and Isekiri. Dahl (1985: 129) also notes that the Yoruba perfect marker has derived from an adverb meaning 'already' and suggests that there may be more cases of perfects derived from this kind of source. Frawley (1992: 347) notes that the perfect is formed solely by means of this adverb in many languages. If the grammaticalization of *ya* + Preterit takes on in Rioplatense, a synthesis of the two elements would also be expected, as fusion of elements is a typical consequence of increased frequency (Bybee et al. 1994).

5. Contact?

As observed in 2.4, the expansion of a perfect has been explained by pointing to its current relevance component, which makes the speaker use this form more frequently in order to add relevance to his/her contribution (Bybee et al. 1994: 86). In Rioplatense, however, it is the Preterit which has expanded, and the possibility to express current relevance has been added to its semantic scope. How can this be accounted for? As, e.g. Thomason (2001) notes, contact may be a source of change if it is less likely that the change would occur outside the contact situation. Following predictions made in grammaticalization theory, the expansion of a preterit is indeed unexpected. Therefore, it is relevant to ask whether there are there any factors idiosyncratic to Rioplatense which may account for the expansion. We can in fact identify one such factor: the intense immigration to the area between 1850 and 1920. In 2.1, it was shown that the European immigration to Buenos Aires peaked around the turn of the 20th century, with almost half of the population in Buenos Aires being of non-Argentinean decent. Since this radical change in its demographics appears to coincide with the time span of the change (cf. 2.1), it is pertinent to discuss whether the expansion of the preterit may have been contact induced.

I will refer to two different types of contact in this section. First, I will discuss whether the Preterit's expansion was the product of direct transfer from a variety in which a similar use of preterit existed, in this case Sicilian. Second, I will briefly discuss whether the expansion of the Preterit may have been an indirect simplification as adults – post-threshold learners – learnt Spanish.

5.1 Contact with Sicilian

The Italians made up half of the immigrant population in Buenos Aires, which in 1887 constituted almost half of the *entire population* in Buenos Aires. Southern Italian immigrants made up almost half of the Italian immigrant population (cf. details below). Coincidentally, in Sicilian, the Preterit is used more frequently than in other Italian varieties, and the Perfect is rare (Squartini 1998). Crucially, this is not a novel use in Sicilian. Rather, it is assumed to be an archaic feature and the result of the perfect never properly developing in this variety. We can therefore assume that Sicilian immigrants spoke a variety in which the perfect was highly restricted. Can contact with Sicilian have triggered the use of Preterit in contexts previously restricted to Perfects in Rioplatense?

If a contact-induced change has occurred, it is likely that elements other than the one in question were also transferred from language to language (Thomason 2001). We do find such elements in Rioplatense; lexically and prosodically the

Italian impact is unquestionable, and the intonation pattern is argued to have changes due to contact with Southern Italian varieties specifically (cf. 2.2). This, combined with the fact that the time span of the change seems to coincide with the initiation of the spread, may call for a contact explanation.

Theoretical considerations, however, seem to disfavor a contact hypothesis. The rapid shift to Spanish did not give rise to a long period of bilingualism, usually a prerequisite for structural change (cf., e.g. Thomason 2001; Sankoff 2001: 641–642). In addition, the influence of immigrant language on the language to which immigrants have shifted tends to be restricted. Sankoff (2001: 656) describes how the Norse invasion of England led to morphological changes in the receiving language caused by the newcomers, but notes how this is a rare change, only made possible because of the massive numbers of the newcomers and the intimacy of the contact between them and pre-existing population. Further complicating the picture is the fact that the Rioplatense case does not represent a morphological or syntactic change in itself; rather, it is a change in semantic restrictions, leading to category change. Note that a growing body of research in grammaticalization does point to the fact that grammaticalizing constructions (and thus, changing semantic and functional restrictions on constructions) may spread due to contact (Heine & Kuteva 2005, 2003); however, this process also seems to apply to areas in which long term bilingualism has taken place.

However, the main question may be demographic rather than linguistic: The Italian immigrants came primarily from two parts of Italy: from Piedmont, situated in the North West, and from the south, that is, Sicilia and Calabria (Baily 1999: 62). Before 1900, about 50% of the Italians that emigrated were from the north, but after 1900, the tendency changed and the number of southerners to emigrate increased from about 39% to over 50% of the Italians. It is in fact the Ligurian Italian variety, and especially Genovese, which is argued to have had the most lexical influence on Rioplatense, and which also is assumed to form the lexical base for Lunfardo (cf. 2.1) (Gobello & Olivieri 2005). In Ligurian Italian, the opposite distribution of that in Rioplatense is found: the Perfect has expanded to perfective, as in, e.g. spoken French (Squartini 1998). In addition, Sánchez (1903/1968: 108) in a play imitating Italian immigrant language frequently includes the Perfect, in e.g. *Ha capito* (It. 'Have you understood'), *Ha comprendido* (Sp. 'Have you understood'), perhaps indicating that the Perfect did indeed exist in the immigrant language.

In sum, the typological proximity between Spanish and Italian would facilitate structural change, but the short period of bilingualism (cf. 2.1) would suggest lexical/phonological impact only – which is precisely what we find. I therefore assume that the uncertainty of the demographic data, combined with the short period of

bilingualism, make a contact explanation less likely. What cannot be excluded, however, is the possibility of multiple causation; contact intensifying a change that was likely to occur anyway. This has happened, e.g. in Spanish spoken in Los Angeles, in which a common process towards the loss of the subjunctive category has merely been accentuated by contact with English (Silva-Corvalán 1994).

5.2 Buenos Aires; a high contact society? Categorical simplification as a post-contact phenomenon

In this section, I briefly discuss the Rioplatense data in light of the hypothesis that society structure correlates with linguistic structures, and that distribution of linguistic features is not just areal or random (McWhorther 2011; Trudgill 2011). Trudgill (*ibid*) argues that certain societies and social structures (and thus degree of contact induced change) tend to be associated with certain linguistic structures, even when we are not dealing with processes such as creolization and pidginization. The idea is that non-cultural features of a society correlate with structural (non-lexical) features of a language. Such features defining a society may be community size, density of social networks, social stability vs. instability and degree of contact vs. isolation. Large, unstable communities with dense social networks and a high degree of contact in which contact is short term and/or involves imperfect language learning by adults (the inability to learn certain aspects of the language, those which are "L2-difficult" according to Dahl (2004)), is where change tends to occur rapidly, and where different types of simplification associated with pidginization may occur. The deciding factor is not then the society per se, but rather the presence (or not) of past-threshold learners (McWhorter 2011). Buenos Aires was clearly a high-contact society around 1900, experiencing short term, intense contact. It was *not* a case of long-term contact involving childhood (therefore proficient) bilingualism: as observed in 2.1, the shift from immigrant languages to Spanish was rapid. In addition, the demographic information on the immigrants that entered Buenos Aires and Argentina confirms that a majority of those who arrived were indeed past-threshold learners, adults well past the critical age for language acquisition (Sánchez-Alonso 2000). Immigrants did not only speak languages typologically proximate to Spanish, but also, e.g. Arabic, German, Polish and Russian (cf. 2.1).

These types of situations tend to foster simplification in the form of regularization of irregularities, increases in lexical and morphological transparency and loss of redundancy (syntagmatic and paradigmatic redundancy). The change in the use of Preterit in Rioplatense is indeed a simplification in the banal sense; two categories have been reduced to one. Formally, however, the expansion of the Preterit has more in common with complexification, as it involves irregularization and an

increase in opacity. This is because the Preterit as a category is both more irregular and more opaque than the Perfect, which it replaces; the Perfect is formed with the auxiliary *haber* 'to have' and a past participle of the verb, as opposed to the synthetic Preterit. Changes in this direction are rather associated with small, tightly knit societies in which complexity will be more readily maintained (Trudgill 2011). But while the formal properties of the preterit may be associated with low contact societies, Rioplatense certainly was not (and is not) such a society. More importantly, no other grammatical features of Rioplatense Spanish show signs of simplification due to contact itself (á la pidginization) (cf. 2.1). I therefore assume that it is unlikely that the loss of distinction between Perfect and Preterit in this variety is a post-contact phenomenon, despite Buenos Aires complying with the criteria of being a society in which this type of changes tends to occur.

Preliminary data from Spanish spoken in Montevideo, the capital of Argentina's neighboring country Uruguay, sheds additional light on the question of contact (Fløgstad in preparation). Data from young speakers of Montevideo Spanish suggests that there, the Perfect is used with far more frequency in current relevance contexts than in the language in their neighboring Buenos Aires. This is also suggested in Henderson (2010). However, demographically, the two cities had striking features in common. In 1860, Montevideo consisted of 48 % foreigners (compared to 36 % in Buenos Aires). At this point, 28 % of immigrants were Spanish, 27 % Italian and 22 % French, mainly Basques. These numbers are strikingly similar to those of Buenos Aires 1887 (cf. 2.1). However, we find no expanding Preterit, nor do we find other features that point to structural simplification due to contact. Therefore, the Uruguayan data further adds to the unlikelihood that the expansion in Rioplatense is a post-contact phenomenon. Rather, it adds to the heterogeneous picture of the distribution of Perfect and Preterit in Latin American varieties of Spanish.[6]

6. Conclusion

In the present paper, I have shown that the Rioplatense Preterit gradually has expanded and now functions as a perfective also expressing current relevance

6. Uruguay is a lost case in Latin American contexts, largely ignored by linguists (with exceptions, such as Elizaincin 1981; Henderson 2010; and Klee & Lynch 2009). This lack of literature has led to the misconception that Montevideo Spanish and Buenos Aires Spanish share all features and together constitute Rioplatense. This is not the case, and the preliminary data suggest that Uruguayan Spanish should indeed be treated individually and not as an indistinguishable part of Rioplatense.

readings. In older informants, the Preterit coexists with the Perfect to express similar semantic functions, but the variability decreases in young and adolescent informants, where the Preterit has replaced the Perfect in almost all contexts. In the current system, the Preterit also encompasses current relevance readings in the language of young and adolescent speakers. We have also observed that the distinction is possibly being reintroduced with the adverbial construction *ya* + Preterit, which may be in the process of grammaticalization.

In addition, I have discussed whether the expansion of the Preterit in Rioplatense is likely to have occurred if it were not for direct contact with Sicilian or indirectly, as a post-contact phenomenon. There simply is no linguistic evidence for the latter, even though Buenos Aires appears to have been a high-contact society at the turn of the 20th century. The former, however, is more difficult to discard: the Italian impact on Rioplatense has been substantial, however, neither linguistic data (lexicon/prosody) nor demographic data are conclusive as to which Italian variety has had the most impact on Rioplatense. Assuming such an impact did cause the Preterit to expand, it would still be necessary to explain how an immigrant group was able to pass a feature of their language on to become a general feature of Rioplatense; used by all speakers, irrespective of ethnic and linguistic background.

Rather than suggesting an external explanation, I argue that the expansion of the Preterit should in fact not be viewed as unexpected, and that the data from Rioplatense may shed light on the heterogeneity of the development of Perfects and Preterits in Latin American Spanish. As observed in 2.2, the expansion of a Preterit is not uncommon in Romance languages, especially those spoken in South and Central America, as well as in peripheral parts of Europe. Schwenter and Cacoullos, (2010: 19) symptomatically call the use of the Perfect a "notorious locus of dialect variation in Spanish", in sharp contrast to the homogeneous picture presented in the source determination theory. The crucial question, on my view, is thus to account for the steps in which the possibility to express current relevance is added to the Preterit's semantic scope. This – the addition of specific semantic components over time – appears to be a recurrent development in Romance.

Abbreviations used in glosses

1, 2, 3	first, second, third person
PL	plural
PRES	present
PRET	preterit
PTCP	participle
SG	singular

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Constructing diasystems

Grammatical organisation in bilingual groups

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From a global and historical perspective, multilingualism or at least multilectalism is the rule rather than the exception. However, linguistic theory continues to focus on the idea of a prototypically coherent, static, and monolingual language system. A more realistic approach can set out from the notion of 'diasystems', i.e. linguistic systems including more than one variety. Apart from being theoretical constructs, diasystems are also an important component of multilectal speakers' linguistic knowledge. Within a usage-based construction grammar approach, this paper argues that multilectal speakers (re-) organise their grammars by generalisation over individual constructions and across language boundaries. Therefore, the multilectal system can be modelled as an inventory of constructions that are partly language-specific and partly unspecified for language.

1. The status of multilingualism in grammatical theory

As is well known, multilingualism is widespread in the world's societies and speech communities, whereas the relatively homogeneous linguistic situation in the nation states of Europe has to be considered a historical exception (cf. Lüdi 1996: 233ff.). If we assume that even multi*lect*alism (i.e. the command and use of different dialects or varieties rather than sharply distinct languages by individuals or societies) is to be regarded as a form of multilingualism, then it is safe to say that multilingualism is indeed ubiquitous, and monolingualism, strictly speaking, is unattested.[1] While speakers may not be multilingual in a narrow

1. One can even argue that a certain degree of social (and, as a consequence, individual) multilingualism is in fact inevitable, since even small communities tend to differentiate between different varieties used in different situational or social contexts. As a consequence, it is totally unthinkable that a speaker should use only one variety of a single language, provided normal

sense that requires "native-like control" of several languages (*sensu* Bloomfield 1965 [1933]: 56), virtually everyone is capable of communicating efficiently and adequately in a range of different languages or varieties, according to their communicative needs (cf. Oksaar 1980: 43; Grosjean 2008: 22ff.). The most widespread form of language contact is societal multilingualism, i.e. multilingualism within a speaker group, with a polyglossic distribution of the various languages or varieties across different communicative domains and speakers communicating with each other in a (to some degree) multilingual mode (Grosjean 2001). Therefore, most multilingual individuals – and most speakers in general – are part of, and engage in, a multilingual communicative community in which the use of different languages/varieties is subject to social conventions.

Despite its ubiquity, multilingualism has a strangely peripheral status in linguistic and particularly grammatical theory:

a. none of the most influential frameworks in grammatical theory takes multilingualism or intralingual variation as its point of departure;
b. most of them have severe difficulties handling multilingual phenomena;
c. as a rule, the importance of contact and variation is neglected or ignored.

Structuralist and generative approaches, for example, are essentially monolingual in that they assume one single coherent, static, ideally variation-free language system as the object of linguistic analysis, largely in the tradition of the structuralist *système où tout se tient*. As a consequence, individual or social multilingualism can ultimately only be accounted for by assuming a (high) number of coexisting systems (or, in generative terminology, grammars).[2] According to the mainstream tradition, monolingual systems can interfere with each other and, in the long run, possibly influence and change one another, but language systems are never seen as inherently multilingual (or even variable) themselves.

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communicative conditions. – 'Multilingual[ism]' is used so as to include 'multilectal[ism]' throughout this paper, and may therefore refer both to different languages and to different varieties of a language.

2. There are, of course, various attempts to integrate intralingual variation within, say, a generative framework (such as the work by Adger 2006). However, such approaches are not widely recognised, and the assumption of multiple grammars as a necessary prerequisite for modelling multilingualism can still be regarded as standard (cf., for instance, Roeper's [1999] notion of 'universal bilingualism', or Eide & Sollid's [2011] generative account of syntactic variation in Norwegian; such attempts are criticised by, among others, Croft [2000: 51f.] and Durrell [2004: 198f.]).

Of course, abstraction, generalisation and (to some degree) simplification are necessary ingredients in any scientific model, depending on its scope and objective. It is, however, unfortunate that this abstraction in the case of mainstream linguistic theory even affects an essential feature of human language – as represented by the world's speech communities – if not indeed of the human language faculty.

This paper presents an alternative approach that regards multilingualism as an integral part of the grammatical system, with particular reference to the community of Low German-High German bilinguals in Northern Germany, with a focus on the varieties spoken in Hamburg and its environs. Section 2 outlines the proposed diasystematic approach, and Section 3 illustrates this model by discussing two case studies on morphosyntactic features of Low and High German varieties, leading to the final conclusion in Section 4.

2. Diasystematic Construction Grammar

If multilingual phenomena are not to be excluded *a priori* from the core of the language system and thus the domain of grammatical theory, then how to include them? Although contact linguists and variationists have, at different times, discussed various aspects of related questions, I would claim that there has not been any successful attempt to actually integrate multilingualism as a basic feature into a coherent system of grammatical description. Weinreich (1964 [1953]: 9f.), for instance, already hints at the possibility of bilingual speakers treating two (lexical) items in two languages as different realisations of one single, but compound linguistic sign (in the Saussurean sense) representing only one (lexical) concept. From this perspective, then, there are at least some structures that can be conceptualised as parts of a common system, possibly depending on the individual multilingual speakers' type of competence. Similarly, but from a different theoretical perspective, some have argued in favour of 'polylectal' or even 'panlectal' grammars (cf. Honeybone 2011: 157ff.), i.e. grammatical systems that encompass more than one variety or indeed all varieties of a given language (derived from a common underlying system). Recently, much attention has been paid to the notion of 'linguistic repertoires' (cf., for instance, Matras 2009: 308f.), i.e. sets of structural elements (from different languages) from which an individual multilingual speaker chooses the ones that are appropriate in a given communicative context.

Such approaches address problems regarding the individual competence of multilingual speakers or the possible (i.e. formally describable) interconnections between different varieties. However, none of them relates directly to 'language systems' in the sense of social conventions. This aspect, however, is crucial, given that societal multilingualism (rather than multilingualism in isolated individuals)

is the rule in the world's communities, and that in multilingual groups the use of different languages is generally governed by linguistic conventions.

The approach I have proposed elsewhere (Höder 2012), Diasystematic Construction Grammar (DCxG), is based on this idea. The grammatical description of a language system in a multilingual environment – i.e. the socially conventionalised set of all structural elements shared by a specific speaker group as well as cognitively stored and processed by the individual speakers – must include structures of all languages or varieties involved, and the social establishment and individual acquisition of such a system must be inherently multilingual. This approach can be formalised within a construction grammar (CxG) framework. Work on CxG theory has, until now, largely focused on monolingual grammars, but particularly approaches such as Goldberg's (1995, 2006) Cognitive Construction Grammar or, most notably, Croft's (2001) Radical Construction Grammar can convincingly adapt to the idea of multilingual structures.[3] The following ideas, which are relevant to the integration of multilingual structures, are generally agreed upon in CxG theory:

a. constructions are linguistic elements that pair form with meaning (i.e. lexical meaning or grammatical function); any grammar can be described as an inventory of such constructions, covering all levels of the language system, including syntax, morphology, lexicon, and more;
b. some constructions are lexically or phonologically filled (such as words or morphs), while others are partially filled (for example in inflectional paradigms) and yet others are maximally schematic (such as syntactic or prosodic constructions);
c. constructions with different degrees of schematicity are interconnected through inheritance links within a constructional network, reflecting the fact that some constructions are productive and rule-based, while others are not predictable from more abstract structures;

3. There is still an expansion of CxG thinking beyond its traditional scope (the synchronic syntax-lexicon continuum) into, for example, the fields of diachronic change (cf. Traugott 2003; Diewald 2006, 2007; Noël 2007; Bergs & Diewald 2008; Hilpert 2008, 2011), linguistic interaction (cf. Östman 2005; Günthner & Imo 2006; Wide 2009), variability (cf. Leino & Östman 2008), and language acquisition (Tomasello 2005). However, there are only few works on language contact within a CxG framework (cf. Pietsch [2010] on Irish English).

d. speakers acquire schematic constructions on the basis of the available input, via processes of abstraction, generalisation, and categorisation in order to achieve a cognitively economic representation.[4]

In Höder (2012), I have argued that there is no *a priori* reason why these usage-based processes should be sensitive to (let alone be blocked by) language boundaries in multilingual environments. From a CxG perspective, one should rather expect them to involve all linguistic structures the speakers are exposed to, independently of their belonging to one language or the other. Furthermore, one should expect that the establishment and acquisition of multilingual constructions is limited only by the possibilities of formal and/or functional categorisation. Cross-linguistic categorisation is thus tantamount to the contact linguistic notion of 'interlingual identification' (Weinreich 1964: 7), i.e. the establishment of functional or formal equivalence between elements of different languages by multilingual speakers. This process eventually allows for the construction of linguistic 'diasystems', consisting of interconnected language-specific constructions and language-unspecific 'diaconstructions'.[5] Note that while interlingual categorisation is motivated by functional and/or formal similarity, its actual results are far from self-evident, as the relevant criteria can be quite different and often even conflicting (phonic, semantic, morphosyntactic, pragmatic, frequential, or other criteria). Therefore, the establishment of diaconstructions is arbitrary to some degree and (at least in part) depending on social conventionalisation.[6]

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4. The idea of schematic constructions as constituting an economic representation of linguistic knowledge does not, however, preclude the additional storage of (fully or to some degree) predictable patterns as constructions under certain conditions, most notably high frequency (cf. Goldberg 2006: 5).

5. The term 'diasystem' was introduced by Weinreich (1954: 390) in his strictly structuralist approach to dialectology in order to account for regular correspondences between different structures in closely related dialects, mostly in the domain of phonology. It is, however, easily extensible so as to apply to other systematic cross-linguistic correspondences as well. See Höder (2012) for further details and the terminology applied here.

6. This can be exemplified by the existence and diachronic change of, say, phonological and morphological substitution rules in multilingual communities, which are active in, for instance, the integration of Standard German loanwords in Low German and *vice versa* (for examples cf. Höder 2012: 245f.).

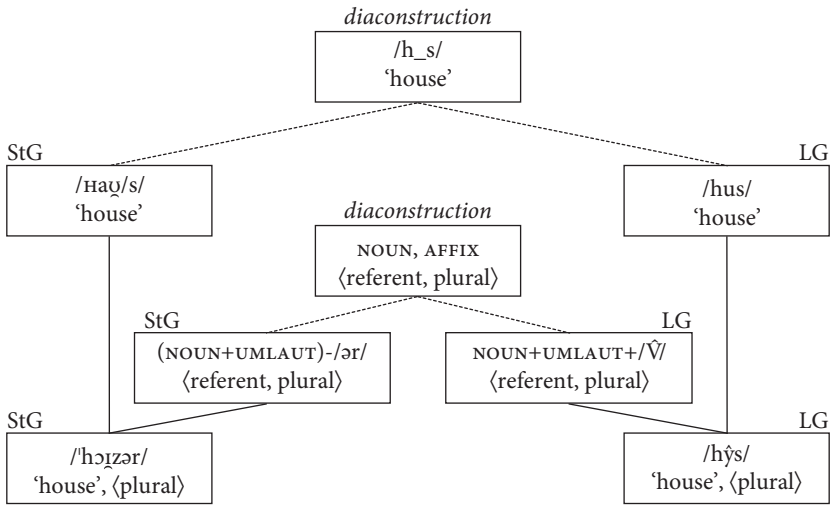


Figure 1. Diasystematic network (StG, LG 'house'; singular, plural)[7]

Diasystematic networks (as shown in Figure 1) consist of both language-specific constructions (primarily lexically and phonologically filled constructions) and constructions unspecified for language (more schematic ones). The Standard German (StG) and Low German (LG) lexemes for 'house' are linked via at least one diaconstruction which does three things:

a. it establishes a semantically identical lexical concept 'house' for both languages, which is not self-evident typologically;
b. it assigns this concept to the schematic phonological form /h_s/;[8]

7. Notational conventions: Lexical meanings are marked by inverted commas ('house'), grammatical meanings by angle brackets (⟨plural⟩). Square brackets ([…]) indicate the form of a construction, with schematic components in small capitals (e.g. AFFIX), lexically filled components in italics (*Haus*), components filled with a paradigmatic form in italic small capitals (*Haus*), phonologically filled parts between slashes (/hus/). An underscore (_) indicates an unspecified component. Numerical indexes represent the linear order of elements, with a hyphen (–) marking adjacency and three dots (…) signalling discontinuity. A plus sign (+) marks non-segmentability.

8. Furthermore I assume a 'diaphonemic' construction linking the two stem vowels (/u~aʊ̯/). This diaphoneme reflects the regular correspondence between the two vowels in very many cognates in the respective languages, as a diachronic consequence of the Early Modern High German Diphthongisation (/uː/ > /aʊ̯/) which has not affected Low German. Synchronically, it is productive in the occasional formation of (hypercorrect) forms like LG *Ruum* /rum/ 'room', corresponding to StG *Raum* /raʊ̯m/, instead of genuine LG *Stuuv* /stûf/. The constructional interpretation of phonological elements is, however, a bit more difficult (and perhaps controversial) and will not be explained in detail here.

c. it defines some morphological properties of the corresponding lexemes, viz. word class (noun) and gender (neuter), which in turn presupposes a pre-existing interlingual equivalence between the respective morphological categories.

The plural forms are also connected through a schematic diaconstruction which specifies that plural is expressed by adding an affix, although the actual affixes in this case are language-specific and represent typologically different strategies: StG has umlaut (/aʊ̯/~/ɔɪ̯/) and an additional suffix (/ər/), whereas (Hamburg) LG has umlaut (/u/~/y/) and a suprafix (i.e. a prosodic modification, /V/~/V̂/; cf. Höder 2010: 14ff.; Rubba 2001: 680). These affixes are captured by idiosyncratic, i.e. language-specific, constructions. This example illustrates that, from a DCxG perspective, there is no such thing as a monolingual language system, and that monolingual and overarching structures are interdependent, as there is a division of labour between diasystematic and idiosyncratic constructions.

As constructions in a CxG sense are defined as elements combining form and meaning, the question remains how to interpret language-specificity within a diasystematic approach. In Höder (2012), I have argued that language-specificity can be modelled as being part of the meaning of a construction. In multilingual communities, particular languages are typically associated with certain pragmatic functions or domains (by social convention). Idiosyncratic constructions, then, carry pragmatic meaning, whereas diasystematic constructions are functionally more schematic in this respect. In shorthand notation, this pragmatic restriction to certain communicative contexts can be written as $\langle C_{glottonym} \rangle$, e.g. $\langle C_{StG} \rangle$ or $\langle C_{LG} \rangle$.

3. Diasystematic networks in Low and High German

3.1 Background

While Middle Low German has a famous past as the prestigious language of the Hanseatic League, today's Low German constitutes a continuum of de-standardised and relatively diverse dialects under the roof of Standard German. As a result of a successive and still ongoing language shift towards High German (HG), LG is now mostly restricted to domains of everyday life (although there are attempts to [re-]vitalise the language). About 14% of the population in the traditional LG-speaking area claim to be active speakers (Möller 2008: 33), mostly in the North LG dialects of Schleswig-Holstein, Hamburg, Bremen and northern Lower Saxony. All speakers are bilingual in High German, though not necessarily Standard German, but rather a regional variety called North High German

(NoHG) throughout this paper (cf. Möhn 2003; Höder 2011b). NoHG is a language shift variety that emerged when the majority of the LG-speaking population started to acquire and use HG as an L2 in the middle of the 20th century; it is today the L1 variety of most North Germans, although some of its features are typically associated with a low socio-economic status. While the speakers of today's NoHG need not be bilingual, I claim that its grammatical structure still reflects a simplification of the bilingual language system within the original bilingual speaker group. As the following sections will illustrate, NoHG grammar is based on an expansion of the diasystematic links between LG and HG, which minimises the number of idiosyncrasies and maximises the number of constructions that are unspecified for language. This can be exemplified by some of the numerous differences between NoHG and StG structures.

3.2 Demonstrative pronominal adverbs

Both HG and LG possess a class of constructions in which uninflected particles rather than inflected pronominal forms are used to refer to nouns. These constructions are known as pronominal adverbs and consist of a pro-particle and a preposition (for a comprehensive overview, including German dialects, cf. Fleischer 2002). The most well-known case is the Demonstrative Pronominal Adverb Construction[9] as in Examples (1) and (2):

(1) a. StG
Ich weiß davon *nichts*.
I know.IND.PRS.1SG DEMPART-of nothing

b. LG
Ik weet dor *nix* vun.
I know.PRS.1SG DEMPART nothing of
'I don't know anything about that.'

(2) a. StG
Darüber *müsst* *ihr* *nachdenken*.
DEMPART-about must.IND.PRS.2PL you think

b. LG
Dor *mööt* *ji* över *nadenken*.
DEMPART must-PRS.PL you about think
'You have to think about that.'

The StG and the LG constructions are functionally identical in that (a) they are used to express deictic, anaphoric or, less frequently, cataphoric reference, (b) they are restricted to inanimate referents, and (c) they can occur in any prepositional

9. Specific construction labels are indicated by capitalisation.

context, including both adverbial prepositional phrases and obligatory prepositional arguments. Formally, they are less similar. The basic morphological structure is isomorphic; a demonstrative particle (DemPart; homophonous with a deictic adverb: local/temporal *da* 'there, then' in StG, local *dor* 'there' in LG) is followed by a preposition. In StG, there is allomorphic variation in the DemPart, as prevocalic *dar-* contrasts with preconsonantal *da-*; in LG, the DemPart is invariably *dor*.

The largest difference, however, is related to morpheme order: In StG, the DemPart and the preposition are always adjacent to each other and form a single phonological word (ω), with resyllabification across the morpheme boundary wherever possible (*darüber* [daː.ryː.bɐ]). The LG construction, in contrast, is in principle discontinuous, with the DemPart and the preposition in different topological fields (e.g. the pre-finite *Vorfeld* or the post-finite *Mittelfeld* in V2 clauses). Even in cases where the two components stand adjacent to each other (primarily in clauses with few constituents), they remain separate phonological words, with no resyllabification taking place (e.g. *dor över* [doɐ̯ ʔøːvɐ]).[10]

The form of the StG construction can thus be summarised as [(*da/dar*$_1$-PREP$_2$)$_\omega$], its LG counterpart as [*dor*$_1$…PREP$_2$], whereas the function is identical (⟨preposition, demonstrative pro(inanimate referent)⟩). A diasystematic link between the two constructions could be described as a diaconstruction [DemPart$_1$, PREP$_2$], which specifies the relative order of the two components but is neutral as to adjacency/discontinuity and allomorphy. These features have to be accounted for by the corresponding language-specific constructions, as shown in Figure 2:

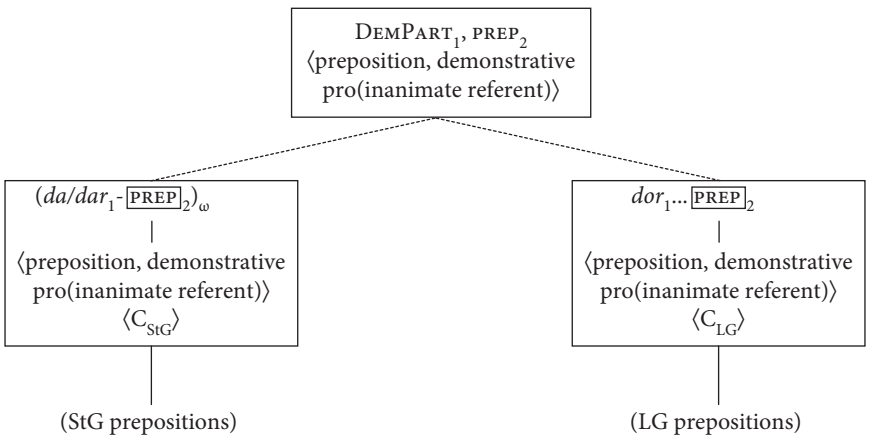


Figure 2. Demonstrative Pronominal Adverb Constructions (StG, LG)

10. For the role of the phonological word in LG phonology and its relation to resyllabification processes see Höder (forthc.).

The NoHG Demonstrative Pronominal Adverb Construction, in contrast, is completely isomorphic with the LG one while being filled lexically (and phonologically) with StG material, as found in examples such as the following:[11]

(3) *Ich weiß* da *nix* von.
I know.PRS.1SG DEMPART nothing of
'I don't know anything about that.'

(4) Da *müsst* *ihr* über *nachdenken*.
DEMPART must-PRS.2PL you about think
'You have to think about that.'

From the perspective of the individual language systems, this construction would be analysed as the outcome of interlingual transfer, i.e. a syntactic calque, resulting in an intermediate construction. However, a diasystematic analysis shows that, in a bilingual language system (cf. Figure 3), the proportion of necessary language-specific information as compared to the StG/LG system is reduced.

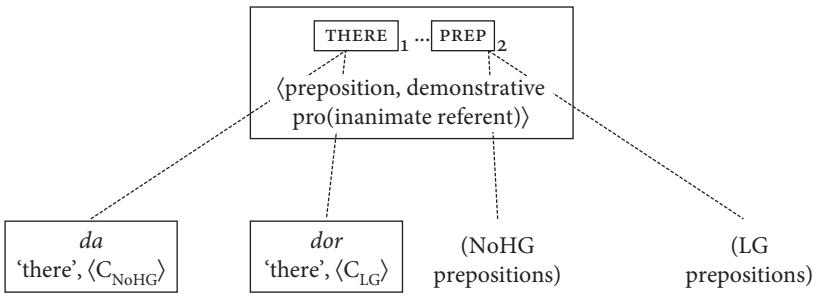


Figure 3. Demonstrative Pronominal Adverb Constructions (NoHG, LG)

The diasystematic construction ([THERE$_1$…PREP$_2$]) (a) relates the form of the DEMPART to the local adverb ('there'), (b) rules out morphophonological allomorphy (**da/dar-*) and (c) specifies discontinuity, whereas the two language-specific constructions only specify the lexical filling of the schematic [THERE]-constructions and the prepositions. (Note that these are the same language-specific constructions that are needed in *any* context where a [THERE]-construction or a preposition is used.) The NoHG/LG constructional network thus constitutes a more economic, simplified system and reduces the bilingual speakers', as Weinreich (1964: 8) phrases it, "linguistic burden".

11. In today's NoHG, the vocalic onset in the preposition in Pronominal Adverb Constructions is socially stigmatised, and many prefer an allomorphic variant [*dr*-PREP], hence *da müsst ihr drüber nachdenken* (cf. Höder 2011b: 121ff.). This reflects a later development without any direct connection to the original contact between LG and HG.

3.3 Aspectual pseudo-coordination

Unlike most other Germanic languages, StG lacks explicit grammatical aspect markers corresponding to, say, the English Progressive Construction (cf. Höder 2011a: 175ff. on the distribution within Germanic). In LG, aspect can optionally be marked by several constructions. Examples (5) and (6) illustrate one class of such constructions that I refer to as Aspectual Pseudo-Coordination:

(5) *Mien Vadder* is bi un backt *Koken*.
my father be.PRS.3SG at and bake-PRS.3SG cake
'My father is baking cake.'

(6) *Un denn* gaht *se* bi un maakt *Kaffe*.
and then go-PRS.PL they at and make-PRS.PL coffee
'And then they start making/proceed to make coffee.'

The rather impressionistic label 'pseudo-coordination' reflects the fact that these constructions consist of two verbs that are coordinated by an AND-conjunction but do not encode two separate events. Rather, the first verb expresses an aspectual modification of the second one. These constructions are always monoclausal (with the obligatorily identical subject being expressed only once, cf. **se gaht bi un se maakt Kaffe*) and show additional features of further grammaticalisation such as the restriction of clausal negation to the first verb (*se gaht nich bi un maakt Kaffe* 'they don't start making coffee').

Progressive Pseudo-Coordination, as shown in Example (5), can be described in short as [*BI WESEN*$_1$, *un*$_2$, VERB$_3$ ⟨progressive, event⟩], Inchoative Pseudo-Coordination as in (6) represents a construction [*BIGAHN*$_1$, *un*$_2$, VERB$_3$ ⟨inchoative, event⟩].[12] Both are instantiations of a more schematic Aspectual Pseudo-Coordination Construction [ASPVERB$_1$, *un*$_2$, VERB$_3$ ⟨aspect, event⟩], as shown in Figure 4.

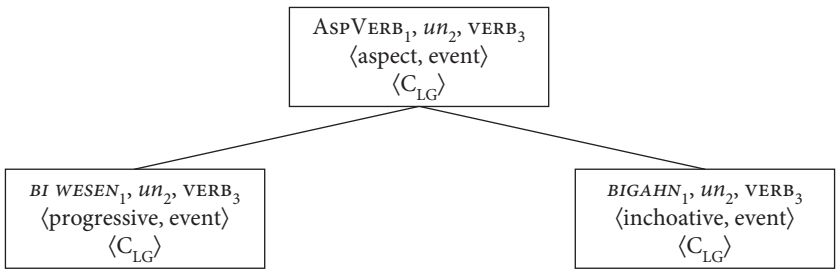


Figure 4. Aspectual Pseudo-Coordination Constructions (LG)

12. *Bi wesen* and *bigahn* are the respective infinitives, both verbs (literally 'to be at', 'to go at') belong to the class of separable prefix verbs.

Low-status NoHG has a type of constructions which is identical in function and isomorphic in form to this class in LG, differing only in the HG lexical filling and the application of HG inflectional morphology:

(7) *Und denn* gehen *sie* bei und machen *Kaffe.*
and then go-IND.PRS.3PL they at and make-IND.PRS.3PL coffee
'And then they start making/proceed to make coffee.'

In some cases, this even results in the formation of specifically NoHG prefix verbs such as *beigehen* 'to start/proceed', which exhibit a morpheme-by-morpheme equivalence to their LG counterparts while not existing in StG. These forms easily fit into a diasystematic LG/NoHG network in which all aspectual constructions are represented by schematic language-unspecific structures (such as [ASPVERB$_1$, AND$_2$, VERB$_3$ ⟨aspect, event⟩] or [*AT GO*$_1$, AND$_2$, VERB$_3$ ⟨inchoative, event⟩]), whereas language-specific constructions are only needed to account for the lexical form of the individual morphemes (Figure 5).

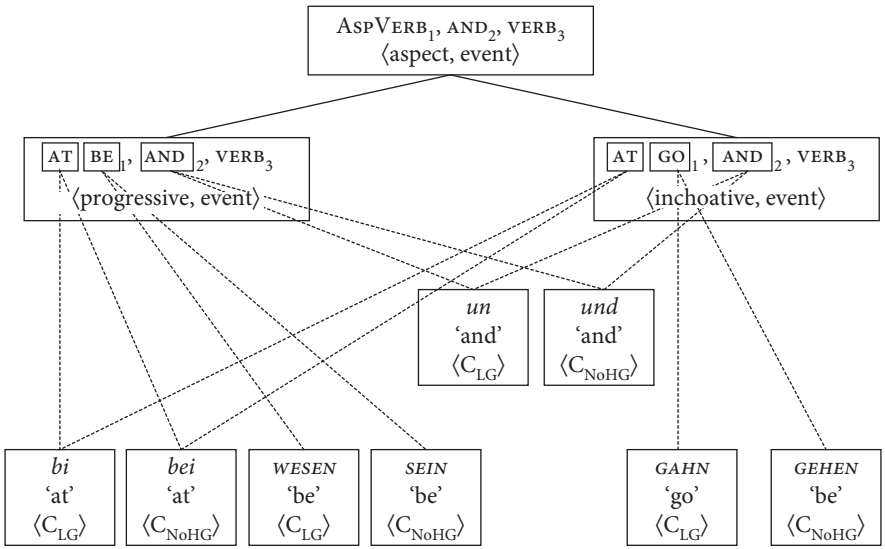


Figure 5. Aspectual Pseudo-Coordination Constructions (LG, NoHG)

In fact, almost all constructions involved in Aspectual Pseudo-Coordination – not only the ones actually encoding aspectuality – represent lexical or grammatical concepts that are unspecified for language and can be filled with either LG or NoHG material, depending on the pragmatic context.[13] For instance, the

13. The exception is verbal inflectional morphology, as LG and NoHG have (in part) different inflectional categories. For instance, NoHG distinguishes between 2nd person plural

schematic construction [GO] corresponds to LG *gahn* and NoHG *gehen* not only in Aspectual Pseudo-Coordination, but in most constructional environments.

4. Conclusion

Bilingual systems such as the ones illustrated in Section 3 do not cover all linguistic structures in High German and Low German, but it is obvious that diasystematic links can be established between large proportions of the individual language systems. From a cognitive perspective, constructing diasystematic networks implies a reduction of the total amount of information that a bilingual speaker's linguistic knowledge must include – a simplification, that is, of the overall bilingual system as compared to the maintenance of two separate monolingual systems. The diachronic development that led to the emergence of North High German can be described as 'pro-diasystematic change', i.e. a massive expansion of common structures at the expense of idiosyncratic ones, which in many cases results in a near-perfect construction-per-construction equivalence between NoHG and LG.[14]

Admittedly, this language contact situation involves two languages that already were very similar from the beginning anyway. Initial similarity is not, however, a prerequisite for the construction of diasystems or pro-diasystematic change. A DCxG approach has been applied to the medieval contact between Latin and Old Swedish and contact-induced changes in Written Old Swedish (Höder 2012); these languages are typologically less similar. And even studies in areal linguistics that focus on language contact between typologically very different languages note that 'morpheme-per-morpheme intertranslatability' (Aikhenvald 2007: 28ff.) – in other words, diasystematic constructional equivalence – is a likely outcome of intense multilingualism. From a DCxG perspective, such cases have to be regarded as the result of a long-term process in which groups of multilingual speakers organise and re-organise their linguistic knowledge in terms of diasystematic networks, by generalising over individual constructions, irrespectively of language boundaries and not categorically hindered by typological differences.

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forms and non-2nd person plural forms (as does StG), whereas LG lacks person distinction in the plural; NoHG has a subjunctive mood (at least in some frequent verbs), while LG does not; most verbs in NoHG (as in StG) mark the preterite with a dental suffix, LG does not possess concatenative tense affixes.

14. Of course, various other mechanisms do play a role in pro-diasystematic change as well – most notably the lexical and phonological form of the constructions is determined by sociolinguistic factors such as prestige or social dominance, and some innovations may also show traces of massive L2 acquisition during the language shift from LG to NoHG (for examples cf. Höder 2011: 132f.).

One final remark concerning the notions of 'language' and 'variety': of course, these are merely traditional terms used for convenience in the discussion of multilingual or multilectal situations. DCxG sees the language system as inherently multilingual: constructions can but need not be language-specific because they may but need not be restricted to more or less specific communicative contexts. Thus, from a DCxG perspective, 'language A' and 'language B' refer to different, but overlapping subsets of the diasystematic constructicon, and these subsets are defined by the co-occurrence of constructions in similar communicative contexts. Some constructions exclusively belong to A or B, in particular the lexically and/or phonologically filled ones, while many (if not most) constructions are unspecific.

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Syntactic frames and single-word code-switching

A case study of Mandarin Chinese – Norwegian bilingualism

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Mainstream core grammar theory, still to some extent relying on the idealized speaker in a homogeneous speech community, is ill equipped to handle different kinds of periphery data, like code-switching data and other types of language mixing data. In this paper, we defend a model of grammar that we argue is able to handle different types of both core and periphery data. Empirically, we focus on single-word code-switching data obtained from a small corpus of the Chinese production of a bilingual Mandarin Chinese – Norwegian child. We develop the beginnings of a generative frame model of grammar exploiting insights both from late insertion neo-constructional models and from code-switching theories assuming a matrix – embedded language asymmetry. We will be paying special attention to the lexicon – syntax interface.

1. Introduction

It is common in science to make simplifying assumptions and ignore many fuzzy properties of the empirical data in order to obtain a general and elegant theory or analysis. This kind of idealization is a typical characteristic of generative linguistics, too, where a major aim has been and still is understood as giving an account of the language of an idealized speaker – hearer in a homogeneous speech community (cf. Chomsky 1965: 3). Such an account is typically given in terms of what is often called a core grammar, i.e. a grammar that ignores exceptions, mixing and other linguistic idiosyncracies. Such deviating phenomena are counted as periphery phenomena not to be accounted for by the core grammar (cf. Chomsky 1981: 7 ff.).

The mixing of different languages in the speech of one individual, for example as in various types of code-switching, is found in all speech communities and individuals, and has been the subject of much investigation in e.g. sociolinguistics

and language acquisition research. However, less attention has been paid to such periphery phenomena within the generative paradigm, probably because these phenomena would not be easily accounted for in a streamlined core grammar. Thus, Chomsky (1991:42) remarks that beside the core language phenomena, the mind of the speaker "contains a 'periphery' of marked exceptions such as idioms, irregular verbs and the like, and involves a mixture of systems resulting from the diversity of languages ('dialects' or 'idiolects') that coexist in any real human community," which "lie far beyond our current understanding".

In short, core grammars are not designed to accommodate idiosyncratic periphery data. In fact, as noted by Culicover and Jackendoff (2005:25), "[the] 'periphery' tends to become a tempting dumping ground for any irregularity one's theory cannot at the moment explain." Culicover & Jackendoff argue that the core – periphery distinction is both unreal and counterproductive as a research heuristic, and they argue that it should be replaced by a model of grammar designed to cover both core and periphery phenomena. This is also the basic approach of the present paper. Although we will not follow Culicover and Jackendoff in their particular assumption as to how grammar should be construed and organized, we still assume that there is no principled difference between so-called periphery data and core data, and that both kinds of data are equally important, and therefore we assume as a research heuristic that a model of grammar should accommodate both kinds of data equally well. Actually, the so-called periphery data can often be more interesting than core data, since periphery data may show us more clearly the borderline between what is possible and what is impossible in language, and in that capacity periphery data may be particularly revealing as to the nature of the structure and organization of the internalized grammar.

Poplack (2004) contends that the assumption that bilingual syntax can be explained by general principles of monolingual grammar has not been substantiated. However, we suspect that the reason for this is that the main theories of grammar have not taken code-switching and other contact data sufficiently into account as an empirical base for the development of the framework in the first place. In this paper, we will defend a model of grammar, still fledgling, which we hope can eventually be developed into a more robust model or framework that is able to handle many different types of core and periphery data, i.e. both monolingual and bilingual data. After all, in a parsimonious approach one should expect that both monolingual and bilingual production should be constrained by the same basic principles.

Given the limited space available in this article, our aim is quite modest for the time being. We will sketch a model of grammar of the type that we think is required, and we will test this model against a small set of periphery data of the single-word code-switching type. Single-word code-switching should be carefully

distinguished from the kind of 'mixing' involved in the use of established loanwords. Single-word code-switching is a variety of intra-sentential code-switching involving spontaneous lexical borrowing, i.e. a type of on-the-spot lexical borrowing (*nonce borrowing*) where an individual speaker spontaneously picks a lexical item from the mental lexicon of language B that he masters, where this item is not established as a lexical item of his language A that is used for the occasion. A loanword, on the other hand, is a lexical item originally taken from language B that has eventually been established as a member of the mental lexicon of language A. Notice that there is a discussion whether or not single-word code-switching exists at all, but here we will assume that the notion of single-word code-switching is well founded, see Myers-Scotton (1993, 2002), Åfarli (2013) for discussion and motivation, see also Poplack (2004).

In single-word code-switching, the syntactic structures of one of the languages involved are used, and this language is called the host or matrix language. Thus, the host/matrix language provides the syntactic structures or frames that are used, whereas some of the lexical items are inserted into those frames from a guest or embedded language (see Myers-Scotton 1993, 2002). In our approach, we will seek to model the notions of host/matrix language and guest/embedded language in a generative syntax style grammar, paying particular attention to the way the lexicon – syntax interface should be organised. Empirically, the present paper is a case study of Mandarin Chinese – Norwegian bilingualism, where we study a bilingual child who sometimes uses Norwegian words when speaking Mandarin Chinese.

The paper is organized as follows. Section 2 outlines the model of grammar that we want to defend, and some general evidence for that model is discussed. Section 3 presents and discusses the Mandarin Chinese – Norwegian bilingual data and shows how the model can accommodate these data. Section 4 concludes the paper.

2. Outline of a model of grammar

The grammar model that we are going to defend belongs to a family of models of grammar that are often called neo-constructional models (see e.g. van Hout 1996; Borer 2005; Åfarli 2007; Ramchand 2008; Lohndal 2012; Nygård 2013; Marantz 2013). Also, the Distributed Morphology framework (Halle & Marantz 1993; Harley & Noyer 1999) may be taken to belong to this family. Notice that the neo-constructional models are generative models, and should be distinguished from (non-generative) models in construction grammar (e.g. Goldberg 1995; Croft 2001). The property of neo-constructional models that is most important for our purposes is separationism, i.e. the assumption that syntactic structure is generated

independently of the words that fill the structure, to put it simply. Thus, the model of grammar that we are going to defend is a separationist model. Embracing separationism, we assume that the grammar generates syntactico-semantic frames and that lexical insertion takes place subsequently. In other words, we assume late lexical insertion.

As for our assumptions about phrase structure, we take a traditional stand, i.e. we assume a basic phrase structural template with head, complement, and specifier, and with possible adjunctions allowed to these basic structures. To be slightly more specific, we assume that the basic operation is a merger of head and complement, and that the existence of a designated specifier position is motivated by the displacement property (of phrases). Thus, every time a head – complement relation is established, a (possible) specifier position is generated to facilitate displacement. We assume that adjunction is reserved for the base generation of phrasal non-arguments (adverbials). Specifically, we assume that movement does not involve adjunction, but substitution into head and specifier positions.

Concerning the actual clausal projections that we assume, we again take a fairly traditional stand. We assume a C-projection and a T-projection headed by abstract operators (see e.g. Rizzi 1997; Kitahara 1997: 8–9; Chomsky 2002: 123), but given our separationist stand, we assume designated open slots (marked with the symbol "¤") for insertion (i.e. substitution) of lexical material, see Nygård (2013: 154 ff.). Instead of vP, we assume a predication phrase (PrP) in all clauses (Bowers 1993; Åfarli & Eide 2000), headed by a predication operator in the Pr head, again with a designated open slot for substitution of lexical material. A proposition cannot be formed unless the predication operator and its Pr-projection are present. As for the verb phrase, we do *not* assume an articulated decomposition structure with various event-related heads (as do e.g. Borer 2005 and Ramchand 2008). We just assume a VP with an abstract V head. Thus, the basic phrase structure of the syntactico-semantic frame of a full clause is as shown in (1).

(1) $[_{CP}$ ¤ $[_{C'}$ $[_{C}$ ¤$]$ $[_{TP}$ ¤ $[_{T'}$ $[_{T}$ ¤$]$ $[_{PrP}$ ¤ $[_{Pr'}$ $[_{Pr}$ ¤$]$ $[_{VP}$ $[_{V}$ ¤$]$ ¤ $]$ $]]$ $]]$ $]]$

Given late lexical insertion, we assume that the V head of the verb phrase is an abstract prototypical 'verb' with an open position where a lexical item (root or stem) is inserted. This is similar to the analysis proposed in e.g. Marantz (1997) or Pylkkänen (2008), where a given root is turned into a verb by being inserted in the complement position of a verbal functional head "v" and then raised to that v. However, we want to adopt a version of this type of analysis where a lexical item is directly inserted into a designated open slot in the V head. As for the abstract prototypical verbs heading the VP, we assume that they are very few in number universally, and that each heads a VP-frame corresponding to a basic

argument structure type. For instance, Åfarli (2007) argues that there are exactly five different basic VP-frames in Norwegian, each corresponding to a prototypical verbal head. The five frames found in Norwegian will be described in some detail below, but first we will give some motivation for this particular approach to the analysis of the VP.

Given our assumptions, a root becomes a verb by being inserted in V. That means that we assume an impoverished lexicon (which is common in neo-constructional approaches) in which lexical items do not contain information about parts of speech or argument structure. Rather, the lexical root becomes a verb with a certain argument structure by being inserted in the V head of one of the five VP-frames. Thus, the syntax that we assume is definitely *not* lexically driven. Interestingly, this stand is also becoming more common in generative syntax outside the initial neo-constructional camp, see e.g. Platzack (2012), Lohndal (2012), and Marantz (2013).

One important question is how the syntactico-semantic frame, i.e. the pre-lexical insertion structure, is generated in the first place. We do not have the space to go into this here, but we tentatively assume that it is formed by composing elements from a very small pool of abstract functional elements (operators) taken from a special "functional lexicon", which also includes the abstract proto-verbs. Further investigation belongs to future work, but see Nygård (2013) for a study of the generation and use of syntactic frames in the analysis of discourse ellipsis phenomena.

Is there any evidence that this is the way the lexicon – syntax interface is organized? Late lexical insertion and the claim that syntax is not lexically driven, but generated independently of the words that fill it, is defended by all proponents of neo-constructional analyses to some degree, see e.g. Borer (2005) for a particularly vigorous defense of these claims. Consider one piece of evidence, having to do with the lexical flexibility predicted by this model, taken from Åfarli (2007). (2a) shows the title of an article by the philosopher David Kaplan (in *The Journal of Philosophy*, Vol. 76, pp. 716–729). (2a) may be paraphrased as (2b, c). The general meaning here is that Kaplan uses an analysis developed by Russell to deal with a problem formulated by Frege and Church.

(2) a. *How to Russell a Frege-Church*
b. *David Kaplan* Russells *a Frege-Church*
c. *David Kaplan* Russelled *a Frege-Church*

As can be seen from this example, the proper name *Russell* is used as a transitive verb effortlessly. How is that possible? According to standard lexically driven analyses, the transitive verb *Russell* should be listed in the lexicon as a verb with

an argument structure specifying an external role and an internal role. Since all proper names (and all nouns, for that matter) can in principle be used as verbs in similar ways (see e.g. Clark & Clark 1979), the standard assumption that syntax is lexically driven amounts to a kind of *reductio ad absurdum* argument, since it would clearly be uneconomical to assume that all nouns are separately listed as verbs in the lexicon.

This example supports the claim that the verbal properties are not projected from the lexicon, but rather that they are imposed by the syntax, i.e. acquired in the syntax. Thus, the sort of lexical flexibility illustrated by (2) is an effect of the syntactic bootstrapping (cf. Gleitman 1990) implied by the model that we assume, whereby any item inserted in a V position becomes a verb. Accordingly, any lexical item (root, stem), e.g. the proper name *Russell*, can in principle become a verb, thus accounting in a straightforward manner for the lexical creativity in examples like (2). The same mechanism readily accounts for the possibility of single-word code-switching, as we shall see later.

Another, but related piece of evidence for a separationist model is what we will call argument structure flexibility. Here we will draw on the basic VP-frames mentioned previously. VP-frames are basic ingredients in all languages. They can be thought of as a particular kind of recurring syntactic patterns, and our claim is that all verbal clauses in a language can be reduced to one of these basic recurring patterns. Here, we will describe the five VP-frames found in Norwegian one by one (cf. Åfarli 2007), briefly commenting on each as we proceed. In each case, we show just the structure from PrP and down.

The first pattern is given by the *intransitive* VP-frame that is shown in (3a). Recall that the symbol "¤" marks the designated open slots that are subsequently to be instantiated by lexical material. In (3b), the frame is instantiated as a clause containing an intransitive verb, or rather, the relevant lexical item is an intransitive verb by virtue of being inserted in the verbal slot in an intransitive frame. In this and in the subsequent examples, the verb raises obligatorily to Pr and is substituted into the designated open slot associated with the predication operator heading the Pr-projection.

(3) a. …[$_{PrP}$ ¤ [$_{Pr'}$ [$_{Pr}$ ¤] [$_{VP}$ [$_{V}$ ¤]]]]
b. …[$_{PrP}$ *babyen* [$_{Pr'}$ [$_{Pr}$ *sparkar*] [$_{VP}$ [$_{V}$ ~~*sparkar*~~]]]]
baby-the kicks
'The baby kicks'

The next frame is called a *transitive* frame, since it accommodates clauses with transitive verbs, as can be seen in the example in (4). Notice, like before, that the lexical item in question becomes a transitive verb by being inserted in the transitive VP-frame.

(4) a. …[$_{PrP}$ ¤ [$_{Pr'}$ [$_{Pr}$ ¤] [$_{VP}$ [$_{V}$ ¤] ¤]]]
b. …[$_{PrP}$ *Ola* [$_{Pr'}$ [$_{Pr}$ *sparkar*] [$_{VP}$ [$_{V}$ ~~*sparkar*~~] *ballen*]]]
Ola kicks ball-the
'Ola kicks the ball.'

The third VP-frame is *ditransitive*, shown in (5).

(5) a. …[$_{PrP}$ ¤ [$_{Pr'}$ [$_{Pr}$ ¤] [$_{VP}$ ¤ [$_{V'}$ [$_{V}$ ¤] ¤]]]]
b. …[$_{PrP}$ *Kari* [$_{Pr'}$ [$_{Pr}$ *sparkar*] [$_{VP}$ *Ola* [$_{V'}$ [$_{V}$ ~~*sparkar*~~] *ballen*]]]]
Kari kicks Ola ball-the
'Kari kicks the ball to Ola.'

The fourth frame is the *resultative* frame, which can be seen as a minor mutation of the transitive frame, i.e. with the lower DP in the transitive frame substituted for by a resultative-propositional PrP (i.e. a small clause). The resultative VP-frame is shown in (6).

(6) a. …[$_{PrP}$ ¤ [$_{Pr'}$ [$_{Pr}$ ¤] [$_{VP}$ [$_{V}$ ¤] [$_{PrP}$ ¤ [$_{Pr'}$ [$_{Pr}$ ¤] [$_{XP}$ ¤]]]]]]
b. …[$_{PrP}$ *Kari* [$_{Pr'}$ [$_{Pr}$ *sparkar*] [$_{VP}$ [$_{V}$ ~~*sparkar*~~] [$_{PrP}$ *ballen*
Kari kicks ball-the
[$_{Pr'}$ [$_{Pr}$ ¤] [$_{XP}$ *fillete*]]]]]
tattered
'Kari kicks the ball to pieces.'

The last type is the *ditransitive-resultative* VP-frame, which again can be seen as a mutation of an earlier frame, this time of the ditransitive frame with the lower DP substituted for by a resultative-propositional PrP. The ditransitive-resultative frame is shown in (7). A peculiarity with this frame is that it has obligatory inalienable possession interpretation. Thus, in the example given, the stomach must be interpreted as Ola's stomach.

(7) a. …[$_{PrP}$ ¤ [$_{Pr'}$ [$_{Pr}$ ¤] [$_{VP}$ ¤ [$_{V'}$ [$_{V}$ ¤] [$_{PrP}$ ¤ [$_{Pr'}$ [$_{Pr}$ ¤] [$_{XP}$ ¤]]]]]]]
b. …[$_{PrP}$ *Kari* [$_{Pr'}$[$_{Pr}$ *sparkar*] [$_{VP}$ *Ola* [$_{V'}$[$_{V}$ ~~*sparkar*~~]
Kari kicks Ola
[$_{PrP}$ *ballen* [$_{Pr'}$[$_{Pr}$ ¤] [$_{XP}$ *i magen*]]]]]]]
ball-the in stomach-the
'Kari kicks the ball into Ola's stomach'

VP-frames (and their higher functional structure) are generated prior to lexical insertion, with subsequent late lexical insertion. Thus, the lexical verb that is inserted acquires its argument structure by being inserted into a given VP-frame. Crucially, the same verb is used in all five frames given above. This implies that the verbal item is flexible in terms of which frame it can occur in. This is typical, so it is rather the rule than the exception that a given lexical item that becomes

a verb may occur in more than one frame, and it is not uncommon that a given item may occur in all five frames, as in the examples just given. Thus, argument structure cannot be derived from purported lexical-semantic properties of each particular verb, in which case we would expect each particular verb to head only one VP-frame (the one that corresponds to its lexical-semantic content). Rather, argument structure must be derived from the syntactic frames. The argument structure flexibility exemplified by the Norwegian examples discussed above lends further support to our separationist model (cf. arguments to the same effect in e.g. Goldberg 1995, and Borer 2005).

A question that we cannot go pursue for reasons of space, has to do with possible restrictions on argument structure flexibility, i.e. the seeming resistance that some verbs show against being used in a particular VP-frame. Borer (2005) goes far in suggesting that this problem is something that should not be given a structural explanation (because it has to do with convention and habits of speech), but see Åfarli (2007) for an analysis of this problem based on a notion of harmony/disharmony between the semantics of the frame and the inherent conceptual content of the verb.

The evidence adduced above from lexical creativity and argument structure flexibility has to do with what we could call core phenomena of language (even though such phenomena haven't received much attention in mainstream generative work until quite recently). They have to do with the normal workings of one particular language, without any language mixing or switching being involved. We will now show that the same separationist model that is motivated by these "core" phenomena seems to be just what is needed to handle a common type of language contact phenomenon involving "periphery" code-switching type data.

3. Mandarin Chinese – Norwegian single-word code-switching

We will now demonstrate the usefulness of our model for the analysis of spontaneous single-word code-switching involved in language mixing. To repeat, in single-word code-switching an individual speaker spontaneously picks a lexical item from the mental lexicon of language B (the guest or embedded language) and inserts it into the syntactic frame of language A (the host or matrix language).

We will use data from a six-year-old Chinese child who is growing up in Norway. The Mandarin Chinese – Norwegian bilingual child under study, a boy named Lele, was born into a Chinese immigrant family in Trondheim, Norway. He was first-born, and until he was at the age 5;11, he was the only child in the family. Both his parents are native speakers of Mandarin Chinese, and immigrated to Norway in their late twenty years of age. At the time of recording, they had

good knowledge of English and Norwegian, but the language of communication between the parents was Mandarin. Lele is a so-called second generation immigrant, and like many other second generation immigrants, his input conditions are situation-bound: Mandarin Chinese at home and Norwegian in the wider community. His Mandarin input is mainly from his parents, who were committed to speaking Mandarin with their children. The parents played no role in Lele's Norwegian development, though. His Norwegian input is mainly from the daycare center and subsequently from the school. Lele started to attend the daycare center on a full-day basis (8 hours a day, five days a week) when he was 15 months old. Before that age, his Mandarin input was dominant. After he started attending daycare, his Norwegian input increased and soon became the dominant one.

Lele spoke Mandarin Chinese to his parents and other Chinese-speaking people, and he spoke Norwegian to Norwegian-speaking people. As most Chinese-speaking people around him spoke some Norwegian as well, he might occasionally embed some Norwegian words into his Chinese speech. However, no Norwegian-speaking people around him spoke Mandarin Chinese, so he did not embed Chinese into his Norwegian speech. Lele was perceived as a competent speaker of Norwegian, with not much difference from his monolingual Norwegian peers, by the native Norwegian speakers (e.g. his caretakers in the daycare center, his neighbors, and the parents of his Norwegian friends). He was also perceived as a competent speaker of Mandarin by the Mandarin-speaking people who knew him. His Norwegian production data and Mandarin production data show that he had essentially the same type of abstract linguistic system as his peers (cf. Jin & Eide 2011; Jin 2010). Nevertheless, we believe his Norwegian is slightly dominant, based on the following observations: First, he had longer average exposure to Norwegian than Chinese after attending the Norwegian daycare, and secondly he sometimes had difficulty retrieving Chinese words, but never had difficulty retrieving Norwegian words.

Production data from Lele were collected at Lele's home both in a Mandarin language context and in a Norwegian language context from age 5; 11 until age 6; 11. The interactions in Mandarin consisted of conversations between Lele and his parents. The interactions in Norwegian consisted of conversations between Lele and his Norwegian friends, who were his peers. They were recorded with audio equipment in spontaneous interaction. The Chinese corpus, from which the data in the present study are drawn, contains 7 audio recordings which is 4 hours and 51 minutes long, and has a total of 2147 complete and clear sentences. The Chinese production data indicates that he was indeed a competent speaker of Chinese. The use of Norwegian words in matrix Chinese was not at all frequent.

It is known from other studies of single-word code-switching that words borrowed into a matrix language are practically without exception uninflected lexical

items, with the inflection belonging to the matrix language (Myers-Scotton 1993, 2002; Kamwangamalu 1997). Åfarli (2013) gives the pattern in (8) for the inflection of verbs in early varieties of American Norwegian, the immigrant language spoken by Norwegian immigrants to the USA and their descendants from c. 1850 and onwards. This is a variety of Norwegian in which borrowing from English is relatively common (see Haugen 1953; Hjelde 1992).

(8) a. $\text{stem}_{\text{NORW}}$-$\text{tense}_{\text{NORW}}$
b. stem_{ENG}-$\text{tense}_{\text{NORW}}$
c. *$\text{stem}_{\text{NORW}}$-$\text{tense}_{\text{ENG}}$
d. *stem_{ENG}-$\text{tense}_{\text{ENG}}$

As can be seen from this pattern, both Norwegian and English stems can occur with Norwegian tense inflection, whereas neither Norwegian nor English stems can occur with English tense inflection. In short, English inflections do not occur even though English stems may occur quite frequently. The pattern in (8b), with an English stem borrowed into American Norwegian, is illustrated in (9) (from Haugen 1953). Here the stem is clearly English (*settle*) whereas the inflectional tense affix (*-a*) is clearly Norwegian.

(9) *Då dæ kåm ti detti landi, då setla dæ på…*
when they came to this country-the, then settled they on…
'When they came to this country, they settled on…'

In terms of the model sketched in the previous section, the pattern in (8) indicates that inflection is a property of the matrix language frame. Therefore, the simplest analysis is one where the matrix language determines the syntactico-semantic frame, including the functional properties of the frame (i.e. the abstract operators heading the functional projections, including the T-projection), whereas appropriate lexical items (roots/stems) are taken into that frame and are inserted into the empty slots in the relevant V positions. Thus, the inflectional affixes are the morpho-syntactic spell-outs of the matrix language operators and must belong to the matrix language, whereas the lexical roots/stems can come from any lexicon, in particular from a lexicon belonging to another language, as is the case in single-word code-switching. See Åfarli (2013) for a more detailed analysis of verbs in American Norwegian along these lines. Also, see Myers-Scotton (1993, 2002) for numerous examples from various languages that inflections (almost) invariably belong to the matrix language in cases where the root/stem comes from a guest language.

We will assume a similar type of analysis for the Mandarin Chinese – Norwegian bilingual data produced by Lele, but whereas there is a clear asymmetry between English and Norwegian in the American Norwegian case, in that Norwegian is clearly the "stronger" language since Norwegian is the L1 of the

speakers and English is their often quite fragile L2, Norwegian and Mandarin Chinese in the case at hand are basically equal in strength, both being reasonably considered as the L1s of the child in question. Thus, in this particular bilingual case, there are two reasons why it should be likely that *complete inflected forms* could be borrowed from Norwegian, if it is at all possible to borrow complete inflected forms in principle. First, Mandarin Chinese, being an isolating language, has no (or extremely few) inflected words at all, so Norwegian inflected forms that are borrowed would have no competition from Chinese inflections. Second, this child is bilingual and masters Norwegian inflection completely, so there is no lack of knowledge of the inflectional properties of the guest language. In contrast, in the American Norwegian case, one could imagine as a possible explanation for the lack of English inflections on the verbs that there is a lack of knowledge of the English inflectional paradigms rather than any principled structural inaccessibility to the inflectional properties of the guest language (as we would wish to argue).

Importantly, in spite of the favorable conditions for the borrowing of inflections in the Mandarin Chinese – Norwegian case, still it turns out that Norwegian words borrowed into Lele's Chinese are *uninflected* forms. The data in (10), with noun phrases as direct objects, illustrate this.

(10) a. *Da na ge ball*
hit that-GE ball
'Hit that ball.'

b. **Da na ge ball-en*
hit that-GE ball-DEF-SG
'Hit that ball.'

c. **Da na xie ball-ene*
hit those ball-DEF-PL
'Hit that ball.'

In cases where a Norwegian noun (here: *ball* 'ball') is borrowed into the Lele's Chinese, it occurs without any inflection, as in (10a), even though Norwegian agreement inflection would have been natural in the context, as in (10b, c). (The suffix *-en* is the Norwegian sg, def suffix for this masculine noun, and the suffix *-ene* is the Norwegian pl, def suffix.) However, data like the ones in (10b, c) are not attested in our corpus. This fact clearly indicates that the inflections of the guest/embedded language are not available in the matrix language, in principle.

A corresponding pattern is found with the single-word code-switching of verbs, see the data in (11) and (12):

(11) *Xiao meimei bæsje le*
little sister poop LE
'My younger sister has pooped.'

(12) *Wo-de baba jintian bu jobbe*
I-POSS daddy today not work
'My daddy does not work today.'

Notice in particular that examples like (13) and (14), where Norwegian tense inflection is borrowed along with the Norwegian stem, are *not* attested. (Notice that *-et* is the past tense suffix and *-r* is the present tense suffix in Norwegian for the two verbs involved, respectively.)

(13) **Xiao meimei bæsje-et le*
little sister poop-PRET LE
'My younger sister has pooped.'

(14) **Wo-de baba jintian bu jobbe-r*
I-POSS daddy today not work-PRES
'My daddy does not work today.'

Actually, in (11) and (12), it is the infinitival forms of the Norwegian verbs that are used, not the bare roots/stems. This is also observed in the borrowing of Norwegian verbs in Turkish light verb constructions in Turkish – Norwegian code-switching, see Türker (2000: 89 ff.). Also, a similar observation is made in Kamwangamalu (1997: 47) concerning French verbs that are code-switched into African languages. This clearly indicates that it is the infinitival form that is listed in the lexicon, not the bare stem, and probably this is the case universally. Notice, by the way, that English infinitival stems borrowed into American Norwegian, actually get the Norwegian infinitival affix (normally *-e*) added, which indicates that the infinitival property is both a functional property of the frame (a possible value of T), and a property of the encyclopedic entry that is listed in the lexicon. As far as we can see, this double "existence" of the infinitival property should cause no serious problems for the analysis, although it raises a question about what counts as a lexical item (root, stem, listeme), which we will not go into here. No doubt, the status of the infinitival affix clearly deserves further investigation both generally and in the context of the model that we propose. Still, what is significant for present purposes is that present and past tense inflectional affixes from the guest/embedded language are never used, even though the lexical item is taken from the guest/embedded language (Norwegian in the examples above).

Now, to analyse the Mandarin Chinese – Norwegian data in our model, recall first that Mandarin Chinese is the host/matrix language, and Norwegian is the guest/embedded language in the Chinese production of Lele. Thus, the lexical items may belong to the host/matrix language (Mandarin Chinese) or the guest/embedded language (Norwegian), but the functional morphology invariably belongs to the matrix/host language (Mandarin Chinese). In e.g. (11) above, the perfective aspectual particle *le* belongs to the functional morphology, whereas the

borrowed lexeme is the main verb *bæsje* 'poop' which, we assume following the approach described above, is inserted into the open slot in the V position of the Chinese matrix language frame.

We will now sketch a derivation, step by step, to illustrate our analysis. We will use (11) as our example, repeated below. As for the syntactic analysis of Chinese aspectual particles, see e.g. Xu (1997) and Huang, Li and Li (2009).

(11) *Xiao meimei bæsje le*
little sister poop LE
'My younger sister has pooped.'

The first step is the formation of an intransitive frame in Chinese, see (15) (the structure is shown just from AspP and down). Notice that the inflectional aspectual property is already spelled out at this step (signaled by the aspectual marker *le*), since it is part of the matrix frame.

(15) $[_{\text{AspP}}\ ¤\ [_{\text{Asp'}}\ \ [_{\text{Asp⟨perf⟩}}\ ¤+le\ ]\ [_{\text{PrP}}\ ¤\ [_{\text{Pr'}}\ \ [_{\text{Pr}}\ ¤\ ]\ \ \ [_{\text{VP}}\ [_{\text{V}}\ ¤\ ]]\ ]]\ ]]$

The next step consists of the insertion of lexical items or content words into the intransitive frame (in **bold**), see (16). This is the late lexical insertion stage.

(16) $[_{\text{AspP}}\ ¤\ [_{\text{Asp'}}\ [_{\text{Asp⟨perf⟩}}\ ¤+le\ ]\ [_{\text{PrP}}\ \textbf{xiao meimei}\ [_{\text{Pr'}}\ [_{\text{Pr}}\ ¤\ ]\ [_{\text{VP}}\ [_{\text{V}}\ \textbf{bæsje}\ ]]\ ]]\ ]]$

Notice that whereas the lexical item that becomes the verb is picked from the lexicon and inserted in the V-position, the DP *xiao meimei* 'little sister' is formed as a DP in the syntax by items picked from the lexicon. We assume that the formation of the DP takes place in a separate work-space, and that the DP is inserted into its specifier position by a generalized transformation.

The last step in the syntactic derivation consists of syntactic processes (like movement), as indicated in (17), where the verb has moved from V to Pr to its empty slot under Asp, and the DP subject has moved to the specifier position of AspP.

(17) $[_{\text{AspP}}\ \textbf{xiao meimei}_{\ j}\ [_{\text{Asp'}}\ [_{\text{Asp⟨perf⟩}}\ \textbf{bæsje}_{i}\ +le\ ]\ [_{\text{PrP}}\ t_{j}\ [_{\text{Pr'}}\ [_{\text{Pr}}\ t_{\ i}\ ]\ [_{\text{VP}}\ [_{\text{V}}\ t_{\ i}\ ]]\ ]]\ ]]$

Notice that potential additional functional structure is not taken into account here, as it is not essential for our point.

Next, consider adjectives that are used as verbs. It is well known that some adjectives behave as intransitive verbs in Mandarin Chinese. Thus, aspectual markers (e.g. *le*) can be attached both to verbs and adjectives in Chinese, and an adjective can function as the predicate of the clause without the support of the copula (*shi* 'be'). Given our analysis, it is predicted that Norwegian adjectives can be used as verbs, like in Chinese, which means that Norwegian adjectives may be inserted into Mandarin Chinese VP-frames to get the verbal properties of the matrix language. This is exactly what we find, as illustrated by the example in (18).

(18) *Women liang ge forelsket le*
I-PL two GE in-love LE
'We two are in love.'

Here the Norwegian participal adjective form *forelsket* 'be-in-love' is inserted in the intransitive Mandarin Chinese VP-frame, and what we otherwise know as an adjective becomes a verb. Notice that *ge* is a classifier that is part of the subject noun phrase.

Also, consider the example in (19) where the Norwegian noun *ferie* 'vacation' is code-switched into Chinese and is used as a verb.

(19) *Ta ferie le*
he vacation LE
'He is on vacation.'

This is possibly modeled on the corresponding Chinese verb *xiu jia*, meaning 'take off' or 'taking off'. Notice that *xiu jia* can be used both as a verb and a noun in Chinese, without changing its form. This is a common process in Chinese, but not in Norwegian. We speculate that the code-switching here occurred in the following process: When Lele had the abstract concept of 'xiu jia', and searched his mental lexicon for it, the corresponding Norwegian word *ferie*, which is highly frequent, first popped up due to its meaning association with the nominal *xiu jia*. Then *ferie* was inserted into the relevant verbal slot of the syntactic frame. Thus, a code-switched Norwegian noun becomes a verb by being inserted in the V slot in the intransitive Mandarin Chinese VP-frame (cf. the *Russell* example shown in (1) where a proper noun was similarly turned into a transitive verb).

The intermediate step of the derivation of (19) is sketched in (20).

(20) $[_{\text{AspP}}$ ¤ $[_{\text{Asp'}}$ $[_{\text{Asp⟨perf⟩}}$ ¤+*le*] $[_{\text{PrP}}$ **ta** $[_{\text{Pr'}}$ $[_{\text{Pr}}$ ¤] $[_{\text{VP}}$ $[_{\text{V}}$ **ferie**]]]]]]

To sum up, the data discussed above suggest that the child under consideration used a full-fledged Mandarin Chinese syntactico-semantic matrix frame in his Chinese speech, although Norwegian words were code-switched occasionally. Also, the data suggest that inflectional properties belong to the matrix frame, not to the spontaneously borrowed word.

4. Conclusion

The patterns displayed in the Mandarin Chinese – Norwegian bilingual case are fully consistent with the patterns displayed in the American Norwegian case, and the patterns are accounted for by the same type of separationist model, namely the model outlined in Section 2. Moreover, the very same model also accounts

for cases of lexical creativity and argument structure flexibility in monolingual contexts. None of these facts are easily explained in the lexically driven grammar models of mainstream syntactic theory (outside of the constructional or neo-constructional family of grammar models), as indicated in Section 2. Thus, it seems to us to be a promising hypothesis that a model of grammar that accommodates both "core" type data and "periphery" type data should be a separationist model with late lexical insertion along the lines that we have suggested.

As already suggested, the model that we have argued for is still fledgling, and many problems remain to be solved, e.g. how the syntactico-semantic frames are generated in the first place (Section 2), or how to handle the infinitival suffix (Section 3), but at least we are confident that our model is a promising starting point for the development of a model of grammar that is equally well suited to accommodate both "core" data and "periphery" data, as well as both monolingual and bilingual data.

Acknowledgements

An earlier version of this paper was presented at the International Symposium on Bilingualism 8, 15–18 June 2011, University of Oslo (see Åfarli & Jin 2011). Many thanks to the audience there for useful comments. Also, many thanks to three anonymous reviewers for the present volume for very useful comments and suggestions.

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Norwegian discourse ellipses in the left periphery – interacting structural and semantic restrictions

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In Norwegian discourse ellipses, elements in the left edge of the clause are most frequently elided. Yet, a topic drop analysis is argued to be empirically too narrow, since occasionally the whole C-domain is silent. I propose an analysis which combines semantic and structural restrictions: Ellipsis must obey the semantic recoverability condition. On the structural side, the whole C-domain can be unrealized only when all the elements are part of the same Agree-relation. If the constituent in (spec,CP) is not part of this agreement system, e.g. if the object is topicalized, ellipsis of the whole domain is illicit. Ellipsis of only (spec,CP) is possible in any case, given that the semantic identity criteria are fulfilled.

1. Introduction

This article deals with so-called discourse ellipses. Ellipses can generally be defined as the non-expression of sentence elements. By discourse ellipses I mean cases in which the elision is discourse triggered and most often optional.[1] A characteristic of Norwegian discourse ellipses is that it is mostly sentence-initial elements that are unrealized:[2]

(1) ~~*Jeg*~~ *har spist fisk til middag.*
Ɨ have eaten fish for dinner
'I had fish for dinner.'

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1. Discourse ellipsis is not a language-specific phenomenon, yet languages may obviously display distinct restrictions.

2. The data in this article are partly taken from spoken corpora. Some example sentences are construed, and in that case, acceptability has been checked with informants. The elided elements are marked with a strikethrough. This is only a notation, since obviously, it is impossible to state conclusively which element that has been elided.

(2) *Fisk, ja? ~~Det~~ spiste jeg til middag.*
Fish, yes? ~~That~~ ate I for dinner
'Fish? I had it for dinner.'

These ellipsis types are not usually considered to be a part of core grammar, Norwegian being a V2 language where (spec, CP) must be filled in all declarative clauses, and where all finite clauses are required to have a subject. The sentences in (1)–(2) appear to represent counterevidence to these assumptions. In (1), the subject is elided, and in (2), the topicalized object is dropped, i.e. (spec, CP) is empty. Both (1) and (2) are V1. Despite these apparent violations of the general norm, such discourse ellipses are frequently attested in spontaneous speech, as well as in other "hybrid" registers such as sms, e-mails, online chats, Facebook updates, interviews and headlines. In such cases, contextual factors impinge upon the syntax, forcing it to adapt to their demands. The question is how to analyse and interpret this interplay.

In the generative literature, the phenomenon in (1)–(2), in which a constituent in (spec,CP) is silent, is labelled topic drop (Huang 1984; Cardinaletti 1990; Sigurðsson 1989; Rizzi 1994). Contrary to null arguments in pro-drop languages, topic drop in Germanic is restricted to (spec,CP) in main clauses. It is ruled out in subordinate clauses (3) and in cases where (spec,CP) is occupied by another constituent (4):

(3) **Jeg vet at ~~Viktor~~ liker fisk til middag.*
I know that ~~Viktor~~ likes fish for dinner
'I know that Viktor likes fish for dinner.'

(4) **Til middag liker ~~Viktor~~ fisk.*
for dinner likes ~~Viktor~~ fish
'For dinner Viktor likes fish.'

Generative research in this field has focused primarily on two aspects: argument drop and the position (spec,CP). However, data from spontaneous speech show that this empirical fundament is too narrow:

(5) *~~Det~~ ~~er~~ mulig at de kommer.*
~~it~~ ~~is~~ possible that they come
'It is possible that they will come.'

(6) *~~Har~~ ~~du~~ vært på kino i det siste?*
~~have~~ ~~you~~ been to cinema in the last
'Have you been to the cinema lately?'

(7) *~~Jeg~~ ~~er~~ klar til å dra!*
~~I~~ ~~am~~ ready for to leave
'I am ready to leave!'

Not only referential arguments, but also expletives, can be omitted (5). In addition, not only arguments alone, but also non-main finite verbs, more specifically auxiliaries and copula verbs, are frequently left out together with a fronted subject (as in (6) and (7)).

Hence, the phenomenon of discourse ellipsis is more complex than assumed in the topic drop family of analyses. A broader empirical focus is needed, and consequently also an alternative analysis. An overall goal of this article is to pin down the licensing conditions on these ellipses. What kinds of elements can be non-realized, from which positions and under which restrictions? It will become clear that neither a purely semantic nor a structural analysis is sufficient, but rather that discourse ellipses are governed by interplaying restrictions. I therefore propose an approach which incorporates both semantic identity conditions and structural licensing conditions.

2. Ellipsis as economy – The principle of recoverability

The following question is naïve but fundamental: Why is it that we cannot elide everything? How come we need to utter anything at all? The answer is obvious, of course. When we communicate, we seek to convey a certain chunk of information to the person we are talking to. Since people cannot communicate through telepathy, they must make use of instantiated lexical elements to get their message through. Yet, in ellipses, words and phrases which ought to be obligatorily represented in the linguistic signal have gone missing. According to Merchant (2001: 1), this is possible because the phenomenon of ellipsis is "parasitic on redundancy". It utilizes the fact that some information is superfluous in certain contexts.

Ellipsis is often explained by economy. Yet, there will always be a conflict between the speaker's "least effort" principles on one hand and the requirement that the utterance must be interpretable for the recipient on the other. In ellipses, speaker's and hearer's economy are combined so that this is only possible in cases where the recipient can easily reconstruct the missing parts. Hence, ellipsis exploits the redundancies of the system, but yet not at the expense of usability and comprehensibility. This insight is incorporated into the principle of recoverability, which dictates that any elided semantic content must somehow be recoverable. The overall meaning of the sentence must remain unaltered. Hence, the parts of the utterance which are not identified by other means cannot be elided.

In its original formulation (Chomsky 1964, 1965), the principle of recoverability was understood as a sentence-internal condition. Yet, later, it was expanded to cover sentence external recoverability also, so that elided elements can be

recoverable from outside the sentence, either by an instantiated lexical item or from the non-linguistic context: "Referents for syntactically elided categories can be recovered from the linguistic context (…), the extralinguistic context (…), or one's world knowledge in conjunction with the semantics of the overt categories (…)" (McShane 2005: 16). Contextual prominence thus facilitates the possibility of letting a constituent remain silent. From this one could be led to believe that discourse ellipses are conditioned exclusively by communicative and pragmatic principles, and moreover that if only the semantic content of a proposition is sufficiently identified, this would correctly rule out unacceptable ellipses and include the acceptable ones.

However, recoverability conditions alone do not provide an exhaustive explanation of the data. There are two main arguments for this. Firstly, dropping of topicalized expletive subjects and copula verbs is highly frequent in spontaneous speech. Characteristic of these elements is that they are purely formal constituents, placeholders in the syntax which make no semantic contributions to the sentence. Hence, one can hardly claim that they are implied by context. Consequently, the fact that these elements are often elided is at first sight a challenge to the recoverability condition as an explanation for discourse ellipses.[3] Yet, one could claim that these items do not need to be recovered in the first place, precisely since they do not contribute semantically to the sentence in any case. Crystal (2008) defines recoverability as a condition specifying that only elements which do not have semantic content can be deleted. If this interpretation is adopted, ellipsis of expletives and copula verbs is expected. These elements are semantically light and thus have no need to be recovered.

Still, secondly, if discourse ellipses were conditioned only by recoverability, then it would be expected that elements in any position of the clause could be non-realized, as long as they were semantically identified. Yet, clearly, this is not the case:

(8) #*Jeg spiste ~~meg~~ mett på dessert.*
I ate me full on dessert
'I was full from eating dessert.'

(9) *A: Skal du se den nye Harry Potter-filmen?*
shall you see the new Harry Potter-movie

3. Cardinaletti (1990) argues that in German, expletive subjects cannot be non-realized exactly for this reason. They are non-referential and hence not contextually recoverable. Yet, as the data clearly demonstrate, this is not the case for spoken Norwegian, and according to Mörnsjö (2002), neither is it for spoken Swedish.

B: #*Den ~~har~~ jeg allerede sett.*
it have I already seen
'Are you going to see the latest Harry Potter movie? I have already seen it.'

These examples are infelicitous even though the silent constituents are semantically fully recoverable, which shows that there must be additional restrictions governing the ellipses.

We can thus conclude that the principle of recoverability does not fully explain the case of discourse ellipses, and that the licensing is also structure-sensitive to a certain degree, since ellipsis is not possible from all positions of the clause. Yet, importantly, it is not my aim to reject the principle of recoverability. Rather, I propose that additional kinds of explanations are required.

The distinction between structural and semantic restrictions on ellipses is commonly accepted, and is referred to as the distinction between licensing and recoverability or identity (Rizzi 1986; Lobeck 1995; Merchant 2001; McShane 2005 among others). Merchant (2001:2) points out that if recoverability was the only relevant explanation for ellipses, then one should expect that the restrictions on possible ellipsis would be precisely the same in all languages. But, on the contrary, languages differ radically in how these redundancies are allowed to be reduced by the grammar. Moreover, these differences are systematic and language- and structure-specific. Thus, the possibility of ellipsis "cannot solely be attributed to general principles of information redundancy, and must be encoded in some way in the grammar" (Merchant 2001:2).

3. General characteristics of the C-domain

Norwegian discourse ellipses display a structural asymmetry in that omissions are by far the most frequent in the left periphery of the clause. The most typical discourse ellipses involve non-instantiated positions in the C-domain. More specifically, it seems to be the case that discourse ellipsis targets the top of the structure downwards:

(10) ~~*Vi*~~ *giftet oss i juli.*
~~we~~ married ourselves in July
'We got married in July.'

(11) *A: Har du sett den nye Harry Potter-filmen?*
have you seen the new Harry Potter movie
B: ~~*Den*~~ *så jeg forrige uke.*
~~It~~ saw I last week
'Have you seen the latest Harry Potter movie? I saw it last week.'

(12) ~~*Har*~~ ~~*du*~~ *lyst til å dra på hytta?*
~~have~~ ~~you~~ desire to go to cabin-the
'Would you like to go to the cabin?'

In light of this asymmetry, it is urgent to pin down what precisely characterises this domain. Chomsky (2002: 113–114) describes the semantics of the C-domain as being discourse-related; including information about clause typing, the new/given distinction, topichood and specificity. This domain thus functions as an interface between syntactic structure and context. This double function is implemented in Rizzi's (1997) proposal to split CP into at least two projections; ForceP pointing outwards to the discourse or to a higher clause, and FinP, facing inwards to the I-domain, relating to tense and mood. The discourse relevance of the C-domain is also manifest in the analysis of null arguments found in Sigurðsson and Maling (2010) and Sigurðsson (2011), where the insight that the C-domain is an interface between sentence structure and context is implemented in a model where CP contains silent but syntactically active context-linkers (CLn).

Considering that the elided elements tend to be given and activated in the context, it is not surprising that the discourse related C-domain is vulnerable to ellipsis. Yet, clearly, the picture is more complex. We have already seen that certain elided elements, i.e. expletives and copula verbs, cannot be characterized as discourse-active or recoverable. Furthermore, since the C-domain is established as inherently discourse-related, a possible prediction could be that any element situated in this domain could potentially be non-realized. In other words, one could expect that discourse ellipsis would apply blindly to this domain. Yet, it is not the case that any element in the C-domain can be elided in any context. There appears to be both more fine-grained pragmatic and structural restrictions governing these processes. We will first turn to the pragmatic side of the matter, when we discuss ellipses from (spec,CP) in more detail. Thereafter, the structural side of the matter will be discussed.

4. Topic and focus in (spec,CP)

Following Rizzi (1997) and Radford (2004) I propose that the constituents found in (spec, CP) in declarative main clauses can be of two main types;[4] on the one hand topics which represent given, activated information, and on the other hand focus constituents which introduce new information into the discourse. Reinhart

4. It is not relevant for my purposes to assume a split CP. Hence, topic and focus will not target different projections in the C-domain, but they will compete for the same position, i.e. (spec,CP) can host either a topic or a focus element, but not both.

(1981: 56) argues that sentence topics must not necessarily be situated in (spec,CP). She gives the following example:

(13) Max saw Rosa yesterday.

The point is that this sentence could be the answer to different questions, and that this determines which constituent becomes the topic. If (13) is the answer to "Who did Max see yesterday?", then Max is the obvious topic. But if it is the answer to "Has anybody seen Rosa yesterday?", then Rosa and not Max would be the topic.[5] Note that the same pattern applies also to the parallel Norwegian sentences:

(14) *A:* *Hvem var det Max så i går?*
who was it Max saw yesterday

B: *Max*$_{TOP}$ *så Rosa*$_{FOC}$ *i går.*
Max saw Rosa yesterday
'Who did Max see yesterday? Max saw Rosa yesterday.'

(15) *A:* *Var det noen som så Rosa i går?*
was it somebody who saw Rosa yesterday

B: *Max*$_{FOC}$ *så Rosa*$_{TOP}$ *i går.*
Max saw Rosa yesterday
'Did anybody see Rosa yesterday? Max saw Rosa yesterday.'

This pattern is relevant for defining licensing restrictions on discourse ellipses, since it appears that discourse ellipses are only licit when the element occupying (spec,CP) is a topic, and not a focused element. Hence, an empty (spec,CP) would only be possible in (14), not in (15). Thus, generally, fronted focus elements cannot be dropped in the same way as topics. This is demonstrated in the following examples:

(16) *A:* *Hva skal jeg gjøre med denne gamle stolen?*
what shall I do with this old chair

B: ~~*Den gamle stolen/Den*~~$_{TOP}$ *kan du sende på loppis.*
~~that old chair/that~~ can you send to flea market
'What should I do with this old chair? That one you can send to a flea market.'

(17) *A:* *Alt dette skrotet, hva skal jeg gjøre med det?*
all this garbage what shall I do with it

B: ~~**Den gamle stolen*~~$_{FOC}$ *kan du sende på loppis.*
that old chair can you send to flea market
'All this garbage, what should I do with it? That old chair, you can send to the flea market.'

5. Obviously, the intonation would also be different in the two cases.

This pattern follows the logic of the recoverability condition, in that constituents expressing discourse-novel information (focus elements) may not be silent, whereas constituents expressing discourse-given information (topics) are more easily elided.

If topics can be located outside of (spec,CP), it is legitimate to ask whether ellipsis can also occur in such cases. I propose that examples of this are occasionally attested, although not frequently. They represent exceptional cases, and moreover, they require a specific context where the elided elements are made particularly discourse-prominent, either by being mentioned explicitly in a previous utterance (18) or alternatively through pointing or other gesture types:[6]

(18) *A:* *Har dere fått tak i billetter til juleforestillinga?*
have you got hold of tickets to Christmas show-the
B: *Ja, Kari kjøpte ~~billetter~~ i går.*
Yes, Kari bought ~~tickets~~ yesterday
'Did you get tickets to the Christmas show? Yes, Kari bought tickets yesterday.'

Hence, if an element is sufficiently activated in the context, it can be silent despite not being structurally licensed (i.e. not being located in the left periphery). Discourse-related licensing conditions (recoverability) do in these cases overrule structural licensing conditions (delete from the top of the clause and downwards). The fact that such medial discourse ellipses even occur shows the strong influence of semantic licensing conditions.[7]

A more general conclusion that can be drawn from this observation is that a purely structural explanation of discourse ellipsis in the C-domain is not sufficient. Concluding that elements can freely be elided from (spec,CP) would be misleading, since the information-structural status of the element is equally decisive. We can therefore conclude that both types of restrictions, semantic identity conditions as well as structural licensing conditions, are necessary to provide an exhaustive account of the data.

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6. Interestingly, Jouitteau (2004) argues that in Atlantic French, a language which generally requires an overt subject, the subject position can alternatively be filled by an ostensive sound or gesture; i.e. movements of the upper body and facial expressions can fulfil the subject requirement (EPP).

7. Note also that in utterances with gestures replacing linguistic content, it seems plausible that a gesture can actually represent novel as well as given information. The very act of pointing turns it into given information, and one might argue for such cases that the gesture really *is* the linguistic signal, or at least that the gesture fills the place of the linguistic constituent. In that case the sentence would really no longer be elliptical. Thanks to an anonymous reviewer for pointing this out. This issue touches upon the more general issue of givenness, and more specifically that there are degrees of givenness, which has been discussed in the literature (Prince 1981; Gundel 1974 among others).

To sum up so far, I propose that the general pattern in Norwegian is that elements in the C-domain are more easily elided than elements elsewhere in the clause. Silent elements in the specifier of C are particularly frequent. Yet, elements which represent new information (focused elements) cannot be elided from this position, because they are not semantically recoverable. Moreover, elements which are not located in the C-domain are harder to omit, yet can occasionally be attested, in specific contexts. Both of these cases are explained by semantic recoverability. In the next section I will describe an opposite case, namely a robust empirical pattern showing that ellipses in the C-domain may be ill-formed even when the recoverability condition is fulfilled. This pattern requires a structural explanation.

5. Structural restrictions in the left periphery

As seen, a finite auxiliary can be non-realized if the fronted subject is also phonologically null.[8] In addition, a fronted subject can be omitted on its own. Crucially however, if the subject is realized, then the auxiliary cannot be silent:[9]

(19) *~~Jeg~~ ~~har~~ / ~~Jeg~~ har /*Jeg ~~har~~ bodd ett år i Mexico.*
I have lived one year in Mexico
'I have lived a year in Mexico.'

A tentative generalization which could be drawn from this observation is that it is possible to omit only the first constituent in the string, or alternatively the first and second constituent together. However, leaving out only constituent no.2 when no.1 is phonologically realized is not acceptable. This would imply an analysis in which deletion is linear and occurs from left to right.[10]

However, this conclusion must be rejected since sentences in which the subject is not the fronted constituent display a different licensing pattern. In sentences with topicalized direct objects, the object in (spec,CP) can also be omitted by itself, and moreover, the auxiliary cannot be omitted if the object in (spec,CP) is

8. One might of course argue that in yes/no questions, finite auxiliaries may be elided despite there being no null subject in (spec,CP). Moreover, if the subject is in these cases in T, discourse ellipses would target not only the C-domain, but also the T-domain, contrary to what we see in declaratives. See Nygård (2012) for a more elaborate discussion of ellipsis in yes/no questions, where it is argued that discourse ellipsis is in all cases restricted to the C-domain.

9. The same restriction applies to expletive subjects and copula verbs, as well as to referential subjects and copula verbs. Yet, for purposes of presentation, I will limit myself to perfective auxiliaries.

10. See Napoli (1982) for a linear deletion account.

phonologically realized. Yet, importantly, omitting a topicalized object together with a finite auxiliary in C is not possible:

(20) *A:* *Har du lyst på en is?*
have you desire for an ice cream

B: *~~Is~~ har /*Is ~~har~~ / *~~Is har~~ jeg allerede spist i dag.*
Ice cream have I already eaten today.
'Would you like an ice cream? I have already eaten one today.'

The general pattern thus seems to be that it is acceptable to elide a fronted subject, or alternatively both the subject and a finite auxiliary. Yet, if an object is topicalized, it can only be omitted on its own, not together with an auxiliary.

The empirical pattern displayed thus reveals a striking difference between subject initial and non-subject initial discourse ellipses. For Germanic, it has been proposed (Travis 1984; Zwart 1997) that in subject-initial clauses in general, the CP layer is truncated, contrary to what we see in non-subject initial clauses. The motivation for such an assumption is that in subject-initial main clauses, movement to CP is vacuous, i.e. the C-domain reduplicates the T-domain. In non-subject initial clauses, this is not the case. Travis (1984) and Zwart (1997) thus postulate a structural asymmetry between subject-initial and non-subject initial clauses. Given the attested asymmetries in the discourse ellipses, this does at first sight appear to be a promising path. Under this analysis it would be possible in subject-initial ellipses to non-realize both T and (spec,TP), Yet, in non-subject initial ellipses, the analysis would predict that only (spec,CP) could stay silent, not the whole CP. The empirical difference attested then boils down to the fact that the elements involved occupy distinct structural positions.

Still, it is my claim that a full CP-TP analysis is to be preferred for both clause types. Firstly, since only the specifier can be silent in both cases, this analysis would force the assumption of two topic-like positions, one for subjects and one for objects. This seems counterintuitive and inelegant. Moreover, dismissing CP in subject-initial clauses makes it less clear how to account for V2, since the verb would have to occupy distinct positions in the different clause types. Last, CP is important in order to correctly account for the distribution of sentence adverbials (SA), which follow the finite verb in main clauses, but precede it in subordinate clauses:

(21) *Du vet at jeg aldri drikker kaffe.*
you know that I never drink coffee
'You know I never drink coffee.'

(22) *Jeg drikker aldri kaffe.*
I drink never coffee
'I never drink coffee.'

Assuming that the SA is adjoined to TP, this distribution is difficult to explain without assuming a CP layer for subject-initial main clauses, since without it, the

finite verb could not move across the SA, because there would be no available landing site for it. Hence, the distribution of SA cannot be predicted under this analysis.

I therefore conclude that the truncated CP-analysis must be rejected, and rather propose to analyse the attested empirical patterns in light of the tight relation between the C-domain and the T-domain as it has been described by, e.g. Chomsky (2001). In minimalist models it is commonly assumed that CP and vP are the phases of the clause, and that TP is a derived phase. T has no Agree or tense features in the lexicon; it inherits these features from C (Chomsky 2007, 2008; Richards 2007).[11] Importantly, this feature inheritance relation implies that an agreement relation is established between C and T. My main hypothesis is that in ellipses where the subject occupies (spec,CP), the agreement relation between C and T is extended to this position, with the consequence that the whole agreement domain (i.e. the whole CP) can be silent. Yet, in non-subject initial ellipses, this agreement relation does not include (spec,CP), and thus ellipsis of the whole C-domain is not licensed.

In what follows, I will apply this overarching analysis to explain the attested empirical pattern, summarized in the sentences below:

(23) ~~*Jeg*~~ *har* / ~~*Jeg*~~ ~~*har*~~ *drukket morgenkaffen allerede.*
~~I~~ have / ~~I~~ ~~have~~ drunk morning coffee-the already
'I have already had my morning coffee.'

(24) ~~*Morgenkaffen*~~ *har* / *~~*Morgenkaffen*~~ ~~*har*~~ *jeg*
~~morning coffee-the~~ have / *~~morning coffee-the~~ ~~have~~ I
drukket allerede.
drunk already.
'I have already had my morning coffee.'

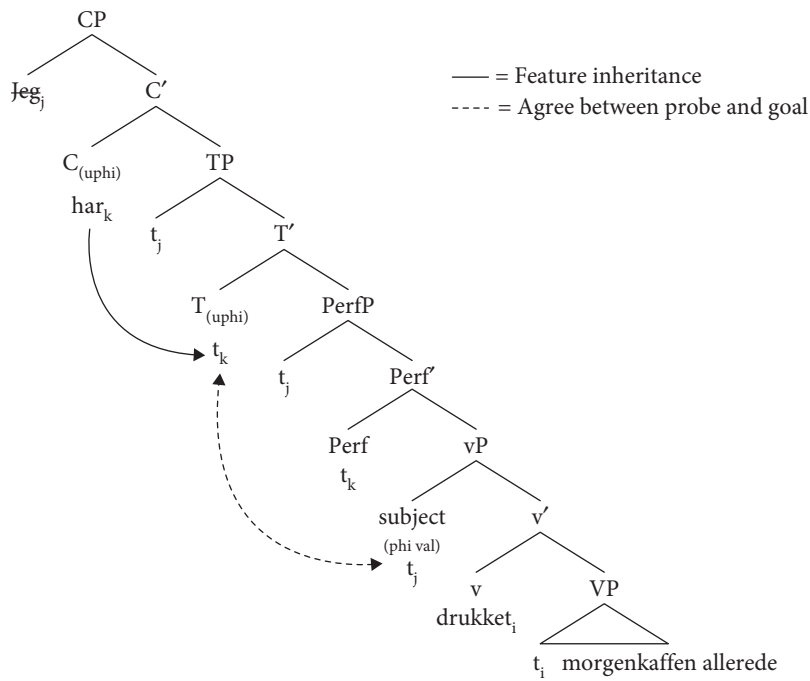
I will discuss each of these examples types in turn, considering both the semantic identity and the structural licensing aspects. Firstly, look at the example of subject drop (23). Most important for our purposes is the part of the analysis which involves TP and CP. T inherits its unvalued agreement and tense features from C. The subject in (spec,vP) then enters into an Agree relation with T, and thus the features of T are valued. As a consequence, the same values are transferred also to C, from which T originally inherited the same features. The subject, in turn, moves from (spec,vP) through (spec,PerfP)[12] and (spec,TP) and in this case all the

11. One issue which remains unanswered under this analysis is the inherent content of the T-projection. If tense and agreement features are originally merged in C, is T then only merged as a radically empty head which is only a recipient of features? Chomsky (2007: 20) discusses this and proposes that Tense may be a property of T, but that it receives only some residual interpretation unless selected by C. I will not pursue this issue here.

12. I have chosen the label PerfP for the projection of the auxiliary, to unambiguously indicate that this is a projection of a perfective auxiliary. An alternative label would be vP_{aux}.

way up to (spec,CP). An Agree relation will consequently be established between C and (spec,CP), as an extension of the agreement relation between the subject and the verb. Importantly, in this case, the features of the subject thus influence all positions in the C–T complex, including (spec,CP), either through Agree (head positions) or by movement (specifier positions).

(25)



Structurally, this ellipsis type is licensed because it involves the left edge of the clause, more specifically (spec,CP), which is an inherently discourse related position vulnerable to ellipsis. Moreover, discourse ellipsis targets the top of the structure, hence (spec,CP) is the first possible position available. As for the semantic side of the matter, the elided subject is recoverable from the sentence-external context, so there is no linguistic trace of the subject within the sentence boundaries. The subject is defined as a pragmatic topic, representing given information, and hence, the ellipsis is semantically well formed.

Sentences where both the topicalized subject and the finite auxiliary are silent receive a parallel derivation, with the one difference that the auxiliary in C is also non-realized. Thus, in sentences with topicalized subjects, the whole CP-TP complex can be phonologically uninstantiated.

Firstly, note that both the silent constituents are semantically identified. The subject is sentence-externally recoverable, and furthermore, it is a sentence topic representing given information. The perfective auxiliary, on the other hand, is

recoverable sentence-internally, through the verbal participle. The assumption is that perfective auxiliaries only contribute perfectivity, which is also expressed on the verbal participle. Hence, the auxiliary is fully identified through the participle, and is therefore easily elided.[13] A silent main verb in the same position is rarely attested. This can probably be explained by recoverability. A main verb is semantically strong, and moreover constitutes the very nucleus of the argument structure. An auxiliary, on the other hand, is a grammatical formative contributing no meaning to the sentence. Yet, despite this, ellipsis of main verbs may occasionally occur, in cases where the context is such that the verb in question is made discourse-prominent.[14]

(26) A: *Har du spist noe?*
'Have you eaten anything?'
B: ~~*Jeg*~~ ~~*spiste*~~ *kjøttkaker til middag.*
I ~~ate~~ meatballs for dinner
'I had meatballs for dinner.'

Structurally, the null realisation of both CP and TP is by assumption possible since both the constituents in question are part of the same agreement relation, namely the one that is established between the C- and the T-projections. To recapitulate, T inherits unvalued phi-features from C. These features are valued by the subject in (spec,vP), and then expand all the way up to C. Crucially, when the subject moves to (spec,CP), the features of the subject are also transferred into this position. Apparently, this facilitates the non-instantiation of this whole chunk of related and agreeing structure.

The overall assumption is thus that the whole C/T complex can be silent when the subject occupies (spec,CP), because the whole domain will then be part of the same agreement relation. Hence, when the subject is in (spec,CP), one can either omit only this subject (spec,CP being an A'-position) or alternatively the subject and a semantically recoverable auxiliary in C. Crucially though, sentences with

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13. In this respect perfective auxiliaries are distinct from modal auxiliaries:

~~Jeg har~~ truffet ham på byen./*~~Jeg vil/kan/skal/må~~ treffe ham på byen.

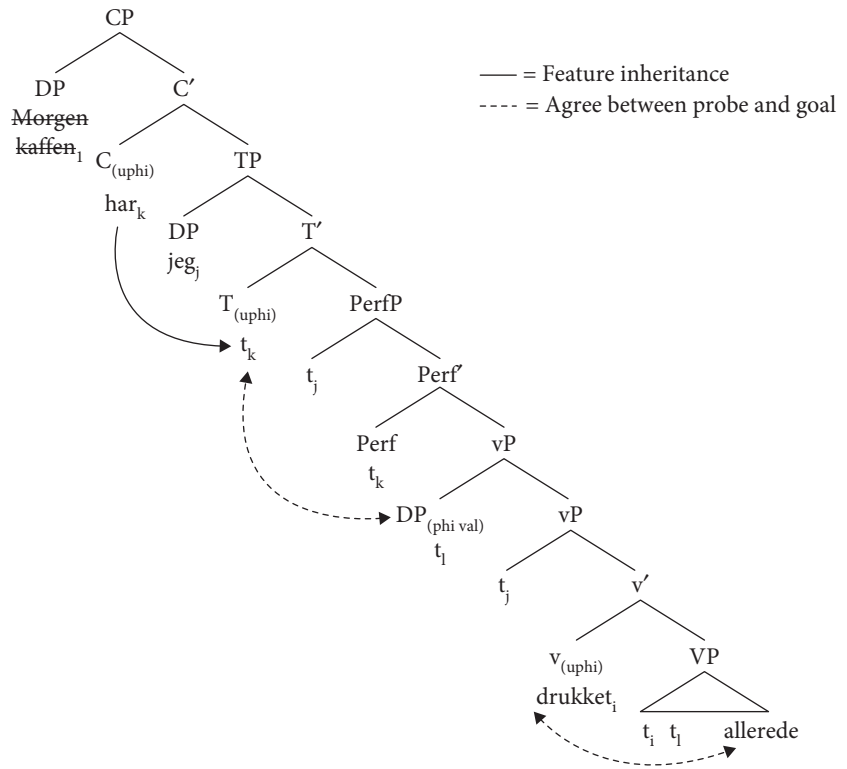
This difference can be ascribed to recoverability. Contrary to perfective auxiliaries, modal auxiliaries contribute independent semantic content, and thus they are more easily elided. Moreover, a modal is not unambiguously recoverable from the following infinitive, also contrary to the perfective auxiliary.

14. However, note that in such cases, it is no longer obvious that the fragment at hand is really an elliptical remnant of a full-fledged sentence. It may alternatively be interpreted as a non-sentential fragment. Fragments of this kind are discussed in Merchant (2004) and Progovac et al. (2006), among others.

a topicalized object in (spec,CP) display radically different restrictions. As illustrated in example 24, it is not possible to omit the finite auxiliary together with a topicalized object.

Assuming the model introduced, I propose the following analysis for the sentence in (24), which displays topic drop of non-subjects:

(27)



The silent object is semantically identified because the object is a sentence topic which represents given information. The semantic content of the object is thus recoverable, also in this case sentence-externally, since there is no linguistic trace of the object within the sentence boundaries. On the structural side, it is in this case the object that moves to (spec,CP), from where it undergoes topic drop. The reason that this is possible is of course that (spec,CP) is not occupied by another constituent.[15]

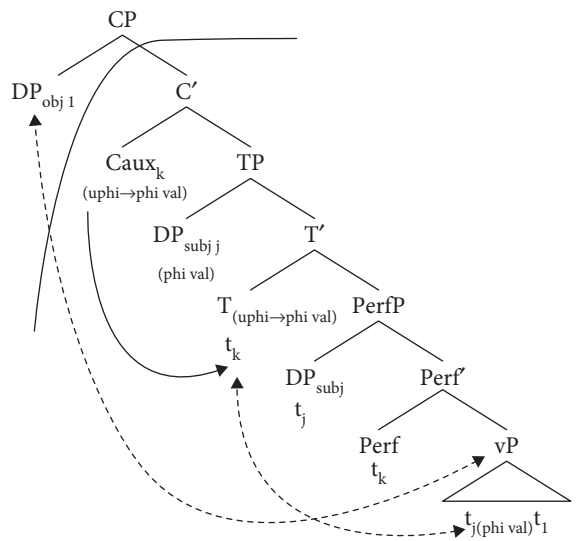
As we have seen, in a subject-initial sentence, ellipsis of the subject alone or both subject and auxiliary is possible. However, in non-subject initial sentences,

15. This is in line with the Empty Left Edge Condition, proposed by Sigurðsson and Maling (2010): 'The left edge of a clause containing a silent referential argument must be phonetically empty (in language or construction X)'.

only (spec,CP) can be silent; ellipsis of both a fronted object and a finite auxiliary is unacceptable. Note that in (27) there is nothing on the semantic side of this sentence that would predict the ellipsis to be unacceptable. Both the elided object and auxiliary are semantically recoverable. The object is a topic, given in the context, and hence sentence-externally identified, whereas the perfective auxiliary is recoverable through the verbal participle. Despite this, the ellipsis is illicit.

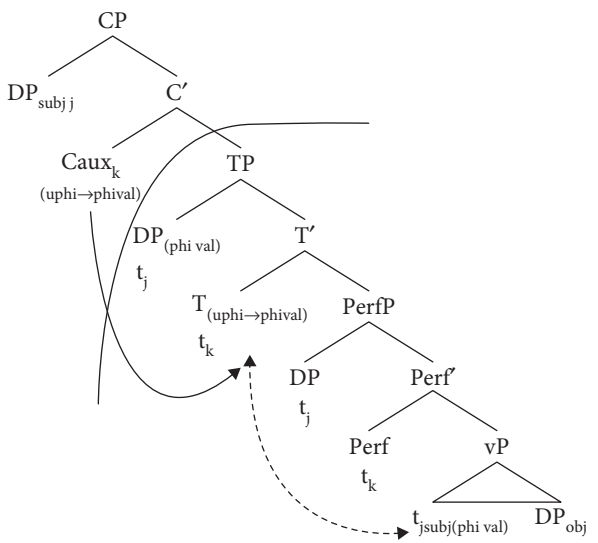
The answer is found on the structural side of the matter. As we have seen, the object originates within the VP, where an Agree relation is established between the unvalued phi-features in v and the object in situ. The object then moves to the outer (spec,vP) and further up to (spec,CP). Parallel to the analysis in (25), T probes the subject in (spec,vP) and hence the features in T and consequently also C are valued. Hence, the subject and verb are connected through a mutual agreement relation, and they instantiate the positions of the C/T domain which by movement or agreement are made part of this relation, i.e. T and C as well as (spec,T). However, in (27), the fronted object is crucially not part of this related chunk of elements. The object is A'-moved directly from (spec,vP) to (spec,CP), without involving any intermediate positions. Hence, in (27) the topic is not part of the same agreement system as the remaining C–T complex, and the result of this is that you can leave only (spec,CP) uninstantiated, but not the whole C–T complex. The analysis proposed is that this ellipsis type is impossible because (spec,CP) is in this case not part of the same agreement relation as the remaining C/T domain, i.e. the relation established between the subject and the verb. The topicalized object agrees with v, further down in the sentence structure.

(28)



More generally, it appears to be the case that it is possible to non-realize elements starting from the top of the structure, and then continuing downwards as long as the elements in question belong to the same agree relation. As soon as the omission mechanism encounters an element belonging to an agree relation other than the constituent situated in (spec,CP), ellipsis is no longer possible. In sentences where an object is fronted in (spec,CP), the fronted object causes a rupture in the agreement chain, and the consequence of this is that only this object can be uninstantiated. Thus, the boundary between agreement domains is drawn between (spec,CP) and C, as illustrated in the structure above. However, as shown above, in subject-initial ellipsis, the parallel agreement domain also comprises (spec,CP), i.e. the whole CP and the whole TP, since the subject and the finite auxiliary fill all the relevant positions. Thus, in that case, the boundary for possible non-realization is drawn further down, below the C-position:

(29)



From these analyses we can conclude that the restrictions on discourse ellipses in the left periphery may be summed up in the following principle:[16]

16. The analysis proposed in this section relies on general properties of V2 and of the C–T connection. It would therefore be expected that the empirical patterns attested are the same in other V2 languages with topic drop. It is beyond the scope of this chapter to investigate this in depth, but note that at least Swedish appears to follow the same restrictions. Whether this pattern holds also for other V2 languages is left open for further research.

> When all elements in the C–T complex are part of the same Agreement relation, then all these elements can be phonologically unrealized. If the constituent in (spec,CP) is not part of this agreement system, ellipsis of the whole domain is not possible. Ellipsis of only (spec,CP) is possible in any case, given that the semantic identity criteria are fulfilled.

6. Interacting structural and semantic restrictions

We have seen that any elided element must be semantically recoverable, unless the element does not contribute semantically in the first place, as is the case for expletive subjects. On the other hand, I have shown that ellipses are also structurally restricted. They target the top of the structure, and moreover appear to be sensitive to syntactic agreement. We may thus conclude that in general, discourse ellipses are governed both by interacting semantic criteria related to recoverability, and structural licensing conditions. Importantly, in some cases, structural restrictions are overruled when the element in question is highly discourse-prominent. Yet, we have also seen an example of the opposite situation, namely ellipses which are semantically licensed, but structurally not, due to sensitivity to syntactic agreement.

The grammar of discourse ellipses can be seen as a kind of contextual adaptation. Ellipsis is only possible in the right context. The apparent fragmentary character of these strings may lead to the impression that syntax is partly destroyed, and that context has a strong direct impact on grammar, leading to a flexibility of the syntactic expression. However, the analysis outlined here shows that on the contrary, narrow syntax is not affected. Rather, the underlying structure stays intact, as the licensing restrictions concern only the level of phonological realization, and not the underlying structure. Hence, the grammar of discourse ellipses is best characterized as an interface phenomenon. It governs the interplay between structural and semantic restrictions on instantiation, but only on the level of instantiation. The apparent destruction or flexibility of syntax is thus refuted.

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Corpora

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Norsk talespråkskorpus – Oslodelen, Tekstlaboratoriet, ILN, Universitetet i Oslo. ⟨http://www.tekstlab.uio.no/nota/oslo/index.html⟩

The Myth of Creole "Exceptionalism"

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Recently claims that the universalist approach to creole languages treats them as "exceptional" are misconceived. The only thing "exceptional" about creoles is the sociohistorical context within which creoles originated. Creoles utilize the same processes that are deployed during "normal" language acquisition: children form sentences according to inborn algorithms, then adjust the results to conform to structures encountered in input. "Normal" and creole-forming situations differ only in that in the latter, with reduced input, less adjustment is required. Since the same strategies apply wherever input falls below optimal, it is unsurprising that similar phenomena occur in "ordinary" language change and creolization. However, in creolization changes are simultaneous, and exact patterns of change repeat across multiple languages, while changes elsewhere are stochastic.

1. Introduction

It has been claimed that a universalist approach to creoles requires them to be treated as "exceptional" languages, somehow involving processes different from those of "normal" linguistic change (DeGraff 2003, 2006; but see DeGraff 1999). In contrast, other theories of creole genesis are claimed to bring them into line with general linguistic studies, and make it possible to incorporate them into existing theories of linguistic change (sometimes misleadingly described as "language evolution", Mufwene 2001).

However, claims of this nature simply reverse the real facts of language. Far from promoting a view of creoles as in any way "exceptional", the universalist approach (as its name should surely suggest) serves to integrate creoles with other languages in a unified theory encompassing acquisition, change and evolution as well as creolization. Suggestions to the contrary show a complete misunderstanding of what has been proposed as a biological program for language. The proposal that there exists such a program (Bickerton 1981, 1984, etc.) has never portrayed it as if it were some kind of linguistic parachute to be deployed only where the child encounters drastically reduced, deformed, or contradictory input. To the contrary, the bioprogram simply represents that part of syntax and semantics which is innately specified (see Appendix A for details) and which is therefore directly accessible to *all*

children, regardless of the quality of the input they receive. The syntactic component of the bioprogram is unchangeable and universal, but it can be (and invariably is – indeed has to be, since it does not specify things like serial order) added to by particular languages, in ways that are vulnerable to change. The semantic component is a default system and hence subject to modification by experience.

2. Creolization and linguistic change

It is therefore worth asking what factors have contributed to the myth that a universalist approach treats creoles as "exceptional" languages. It has often been pointed out (e.g. by DeGraff 2003) that any of the changes found in creolization can also be found in cases of "normal" diachronic change, and that consequently there is "no precise and operational structural litmus test, and no coherent theoretical tools for deciding, on the one hand, where the 'innovations' of language change qua 'normal transmission' end, and, on the other hand, where the 'drastic mismatches' of creolization qua 'abnormal transmission' begin" (ibid., 399–400). But, given the assumptions described in the previous section, this is exactly what the bioprogram predicts. Changes similar to those of creolization are likely to occur when any factors prejudicial to faithful transmission (e.g. conquest or extensive bilingualism, for instance) occur.

To understand the significance of creolization it is important to examine, not the particular changes themselves, but the temporal clustering of those changes and their relationship to changes in other languages. In non-creole language change, changes tend to be spread over a relatively lengthy time period; in creolization, changes cluster within a very few years. In non-creole language change, different languages change in different ways; in creolization, languages typically undergo a similar set of changes.

One change typical of creolization is the adoption of a single verb for both existence and possession. In the following examples, two superstrates (English and Portuguese) have different verbs for *there is* and *have*, while only one (French) has the same verb:

(1) English: "There was a woman who had a daughter"
(2) Portuguese: "Havia uma mulher que teve uma filha"
(3) French: "Il y avait une femme qui a eu une fille"

However, regardless of either their superstrates or their (very different) sets of substrates, creoles invariably express these meanings with different verbs:

(4) Guyanese (E.): dem *get* wan uman we *get* gyal-pikni
(5) Hawaii C.E. (E): *get* wan wahine shi *get* wan data

(6) Haitian (Fr): *gê* youn fâm ki *gê* youn piti-fi

(7) Sao Tomense (Ptg.): *te* ua mwala ku *te* mina-mosa

Another typical change is the replacement of monomorphemic question-words by bimorphemic ones (or occasionally trimorphemic ones, see (13) below), which select a single superstrate question word, usually *who* or *what*, and follow it with a noun indicating the semantic area of the question. Thus questions relating to persons use forms such as the following:

(8) Sranan (E): suma < osuma < who-someone

(9) Haitian (F): ki moun < qui monde < who-world (person)

Similar results are found for "why" questions:

(10) Seselwa (Fr): ki-fer < qui-faire. who-make

(11) Guyanese (E): wa-mek < what make

(12) Saramaccan (E/Ptg): andimbei < what make

(13) Papiamentu (Ptg): pakiko < para qui cosa < for who thing

and for "where" questions:

(14) Seselwa (Fr): ki-ladrwa < qui-l'endroit, < "who place"

(15) Sranan (E): o-pe < "who place"

(16) Haitian (Fr): ki-kote < qui-coté, "who side"

A more extreme and far-reaching change involves systems of tense, mood and aspect. Typically, the entire superstrate system (characterized to a greater or lesser degree by verbal inflection) is replaced by a system of preverbal free morphemes (and combinations thereof) arranged in a tense-modality-aspect sequence. Systems may be virtually identical even in creoles that are completely unrelated to one another, for example those of Saramaccan (in Suriname) and Fa d'Ambu (from the island of Annobon off the coast of West Africa):

Table 1. TMA systems of Saramaccan and Fa d'Ambu (from Bakker et al. 1995).

	Saramaccan	**Fa d'Ambu**
–anterior	zero	zero
+anterior	bi	bi
+irrealis	o	ske
–punctual	ta	xa
+anterior+irrealis	bi-o	bi-ske
+anterior–punctual	bi-ta	bi-xa
+irrealis–punctual	o-ta	ske-xa
+anterior+irrealis–punctual	bi-o-ta	bi-ske-xa

If space permitted, many similar examples of identical changes in unrelated cases of creolization could be cited. While there might indeed be no change in creolization that has not been catalogued somewhere in the histories of non-creole languages, there are no known cases outside of creolization where such large numbers of apparently unrelated changes take place at the same time in the same language, and where those same changes are found across a range of languages that have undergone the same kinds of sociohistorical expeience.

3. Types of language change

It may help us to understand the nature of change in creolization if we consider the difference between two types of change, INTRAgenerational changes and INTERgenerational changes. An intragenerational change is one that occurs mostly among adults, and may be due to a wide variety of factors: bi- or multilingualism, bi- or multidialectalism, adult innovations, asymmetrical prestige relationships, and drift, including the spread over time of changes that were originally intergenerational (the latter constitute changes in E-language rather than I-language, in terms of Chomsky 1986). An intergenerational change takes place when generation 2 receives input that is in some way (too sparse, too ambiguous, too confusing…) difficult or impossible to incorporate into the grammar of generation 2. In other words, it involves reanalysis, hence is a change in I-language.

It follows that intergenerational changes will be predictable (given knowledge of the nature of the input that prompted them) and will be linguistically motivated by characteristics of that input, i.e. they are repair strategies. Intragenerational changes, on the other hand, will tend to be irregular, unpredictable, and linguistically unmotivated (in that, unlike intergenerational changes, they will be motivated not by efforts to repair deficiencies in input but rather will stem from non-linguistic factors such as relative prestige). They will constitute selections from a variable linguistic menu, rather than replacements of things "missing" from that menu.

Intergenerational change is a phenomenon of language acquisition under any circumstances. Children (re)create language through a series of processes. First they simply learn words until they have sufficient words to activate the algorithms for phrase construction and clause construction described in Appendix A. Then they begin to put those words together according to their innate algorithms. If their input consisted of an early-stage pidgin, children find relatively little counterevidence to the product of these algorithms, and a creole language ensues. If that input consisted of homogeneous data from an established language, they will find quite substantial counterevidence, and will gradually adjust their language

to accommodate that counterevidence. If that input was diverse or confused. however, they will be obliged to employ some repair strategies (though seldom as often or as suddenly as in creolization contexts) whereupon one will find language change of the kind seen in the transition from Old to Middle English, or from Latin to the Romance languages.

For instance, when tense inflections wear away through phonological change or other causes, they will be replaced by free morphemes, e.g. Latin and Anglo-Saxon tense forms by *avoir/ etre* or *have*. (Similarly, E. *Ved/had Ved* is replaced by E. Creole *bin V*). Similarly, when words are lost they will be recreated using the same means as Creoles do: e.g. "both": L. *ambo, -ae, -o*; Sp. *ambos*; Fr. *tous les deux*, It. *tutti e due*, Guy. *aal tu.* In other words, language changes can best be seen as lying upon a continuum, where there will inevitably be overlaps (in types of change, not in their degree of clustering or shared directionality). At one extreme of the continuum we find intergenerational changes only of the kinds that may be found in modern-day Japan or the American Mid-West. At the other we find intergenerational changes such as must have taken place in seventeenth-century Suriname.

It follows too that there will be a continuum of creoles (not to be confused with the creole continuum, DeCamp 1971).

4. The continuum of creoles and its pidgin origins

Bickerton (1984) proposed a focus on more radical creoles as giving potential insights on the nature of universal grammar. Unfortunately the proposal sought to deal with these as a discrete subset of creole languages (see Singler 1990 for a critical treatment of this proposal). In fact, and just as foregoing sections suggest, a continuum of creoles exists (at one extreme of which, as deGraff suggested, it may be difficult to distinguish creoles from non-creoles merely on the basis of structural features). This continuum extends from Saramaccan and the other Suriname creoles to creoles like Bajan (Barbados) or Reunionais that differ relatively little from their superstrates, and may even in some respects overlap with some non-creole dialects of those superstrates.

The position that any given creole holds on the continuum is determined by the quality of the antecedent pidgin (or whatever else constitutes primary linguistic data for the first creole generation). If input consists largely of an early-stage pidgin, the creole will fall nearer to the Saramaccan end of the continuum. If however input contains a more developed version of the pidgin, or more features from either substrate or superstrate, the creole will fall nearer the Reunionais end of the continuum.

Recently some writers have suggested that the creole cycle does not contain a pidgin phase (DeGraff 2003; Mather 2006; Ansaldo & Matthews 2007). The only coherent argument for this is the undisputed fact that in the earliest years of most if not all creole colonies, European and non-European speakers were roughly similar in numbers, and under such conditions the latter would surely have acquired some workable second-language version of whatever European language was dominant in the colony in question. In other words, the earliest common language of the typical creole colony would have been something closer to, rather than further from, the dominant European language than the ultimate creole. The latter would then have been produced through a progressive "basilectalization" of this contact language, a process of imperfect learning by successive cohorts of non-Europeans that would take the new language farther and farther from is original target.

This argument is effective only against those who assume that an unstructured pidgin was the first contact language in creole colonies. While this may have been a tacit assumption in earlier studies, it was never specifically defended, and has been untenable ever since Baker & Corne (1982) described the demographics of the Indian Ocean creoles. It is now apparent that creoles result from the operation of market forces (Bickerton 2006) and that pidginization took place only when early immigrants, who may well have had a more superstrate-like contact language at the beginning of the plantation cycle, were swamped by the vast numbers of newcomers who arrived early in the expansion period of that cycle – often several decades after the original settlement of the colony. Empirical evidence that an original contact language may be completely destabilized by such expansion is provided by Roberts' treatment of Pidgin Hawaiian (Roberts 1995, 2004), which had achieved the status of a stabilized and expanding pidgin in the years preceding the expansion phase in Hawaii, only to decline into a structureless mix of English and Hawaiian (with other languages) as soon as that expansion began.

For that matter, the very nature of creolization itself argues against any "basilectalization" account. The kinds of change illustrated in Section 2 above are most likely to have occurred if those changes were abrupt, occurred simultaneously, and were driven by a single specific mechanism. It is highly unlikely that a process such as gradual basilectalization, necessarily operating over a protracted period, and subject to a variety of contingencies, both linguistic and non-linguistic (the latter including unpredictable variations in demographic proportions of new to experienced speakers, among many others) would have produced such uniform results across an array of unrelated languages.

The only scenario consistent with all the facts is one in which most creole colonies began with a contact language more closely related to the superstrate, but which either dissolved or remained as a mesolect among a relative handful of privileged workers, while a sudden and rapid increase of naïve speakers made a

structureless pidgin the only viable means of communication in the vast majority of interactions, regardless of speaker background or knowledge.

Variation along the creole continuum would follow inevitably from variation in the original pidgin, which would incorporate varying amounts of material from the superstrate language and, to a perhaps lesser extent, from one or more of the substrate languages. Call this a variation in the richness of the pidgin, a richer pidgin containing more of such fragments, a poorer one containing less. The more impoverished the pidgin, the more radical (different from antecedent languages, approaching more closely the bare specifications of the bioprogram) the resulting creole would be. The richer the pidgin, the further the resulting creole would be from those specifications, and the closer to some pre-existing language, generally the superstrate.

This clearly shows that the continuum of creoles is simply one end of a much longer continuum, one that represents the extent to which, and the rapidity with which, languages change over time. If Saramaccan remains at one end of this second continuum, a language such as Spanish, which has changed relatively little over the last several hundred years, is today close to the opposite end. But Spanish of the pre-mediaeval period would be closer to the creole end. For significant intra-generational change, whether creole or non-creole, is simply a result of innately-driven repair strategies operating on input that, for whatever reason, is less than optimal for transmission purposes. Creoles are not exceptional languages, and the forces that created them were not exceptional either – merely much stronger and more active than normal in tropical colonial societies over a period from the 17th to the 19th century.

Why has this not been more apparent? Certain ways of thinking about creole languages – ways that, ironically, really do result in treating creole languages as exceptional – have prevented creolists from seeing what should surely have been obvious.

5. Creoles as "contact languages"

Creole languages have frequently been described as "contact languages" – languages primarily characterized by the fact that they seem to incorporate features from two or more languages. This term has replaced an earlier description – "mixed languages" – which was equally misleading but has nowadays been relegated to languages like Michif or Media Lengua that really consist of clearly separable components from different languages (Arends et al. 1995).

It is true that creoles arose in situations where different linguistic groups were in contact. But the term avoids consideration of the fact that it is not the languages

themselves that are, in any meaningful sense, "in contact". Rather it is the people themselves who are in contact with one another. And the last thing those people are concerned with is creating a new language out of bits of their old ones.

What people in a contact situation are primarily concerned with is simply communicating with one another across daunting intelligibility gaps. To communicate (as shown in Roberts' unpublished but massive collection of raw data from the pidgin phase in Hawaii) they employ a variety of strategies: using any of the words from their interlocutor's language that they may have picked up, replacing these words with words of roughly equivalent meaning from their own or anyone else's language that they may happen to know, omitting words where meaning or intent are clear from context, stringing together whatever words work in a given situation without employing the grammar of any language, resorting to sign or gesture where words fail, and so on. The early-stage pidgins that characterize creole-forming situations are the natural result of such operations (Bickerton 1999). However, certain inescapable facts – such as, that words from the superstrate are likeliest to be known by a majority of speakers – will eventually lead to the superstrate becoming the major supplier of vocabulary, making descriptions such as "Pidgin English", "Pidgin French", etc. sound plausible, and leading to discussion – as if it was a substantive process – of "the pidginization of language(s)", leading naturally to "the creolization of language(s)" (Hymes 1971).

Blurring the distinction between pidgins and creoles leads inevitably to the conclusion that adults, rather than children, could play a major role in the creation of creoles by means of mixing substrate structures (which they control natively, naturally) with superstrate structures – an archetypical "languages in contact" scenario. Despite the fact that Roberts (1998) showed clearly that children, rather than adults, supplied typical creole structures in Hawaii, the only situation for which we have data on both the pidgin and creole phases, the current consensus (DeGraff 1999; Mather 2006) is that adults were the true innovators, and that children merely regularized adult innovations. Hopefully, once it is realized that creoles are not, in any useful sense, "contact languages", it will become apparent that children, with their more direct access to universals of language, must necessarily be the true creators of creole languages.

6. Creoles as anything BUT "exceptional languages"

Creoles may be, and indeed are, of more interest than other types of language because they afford closer access to what are truly "the roots of language": those algorithms, laid down in the course of human evolution, that provide syntactic structure, and those semantic preferences, laid down in the course of both human and pre-human evolution, yielding distinctions that must somehow be expressed

in the most basic of languages. Both are described below in Appendix A. The result of these algorithms and preferences is not to produce some narrowly definable subclass of languages (creoles) but rather to provide infrastructure without which the acquisition of any kind of language would be impossible, and to ensure the maintenance of humanity's single most important capacity even in cases where intergenerational transmission may have been compromised in some way. In other words, the hypothesis of a language-specific biological program, far from isolating creoles in some kind of linguistic ghetto, unites them with other languages by showing that creoles and other languages are all produced in the same way – by children adjusting their inbuilt programs to fit that primary linguistic data they encounter – and that creoles differ only in the extent to which they have recourse to those programs. Conversely, to describe creoles as "mixed languages" or "contact languages" places them in a kind of linguistic ghetto along with really non-typical languages like Michif or the Media Lengua. Acceptance of bioprogram theory alone makes possible a single framework within which a comprehensive theory of creolization, language change, language acquisition and language evolution can be developed.

APPENDIX A

A BIOLOGICAL PROGRAM FOR LANGUAGE

Syntactic component

1.0 Phrase Algorithm
(i) Select noun
(ii) Attach modifier to noun
(iii) Attach modifier to noun + modifier(s)
Modifier: any word. phrase or clause

2.0 Clause algorithm
(i) Select verb
(ii) Select arguments for verb selected
(iii) Attach argument to verb
(iv) Attach argument to verb + argument(s)
Argument = any phrase or clause
Sequence of attachment: Recipient > < Patient > Other > Agent

3.0 Direction of attachment
Direction is random without input data. With input data, select direction on basis of data, separately for each category of modifier or argument.

Semantic component

Categories requiring grammatical marking, and their default values:

Category	Default value	Marker
Time (Tense)	Relative past (anterior)	free, pre-verbal
Reality status	Irrealis (future, conditional)	ditto
Action type	Non-punctual	ditto
	{known to hearer	free, phrase-external
Identity	{unknown to hearer	ditto
	(undetermined/unique	null
Purpose	intended	free, clause-external
Factivity	+ factive	ditto or null

Execution of program by children

(i) Learn words.
(ii) Attach words according to phrase and clause algorithms.
(iii) Compare results with input data.
(iv) If algorithm product and input data do not conflict, do nothing.
(v) If algorithm product and input data conflict, adapt product to fit data.

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Some notes on bare noun phrases in Haitian Creole and in Gungbe

A transatlantic Sprachbund perspective*

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This paper discusses noun phrases in Haitian Creole (HC), a French-derived Creole, and in Gungbe, a Gbe language. These languages exhibit "bare noun phrases" (BNPs) in a wider range of positions than in French, English and the other most commonly studied Romance and Germanic languages. Studies on the formation of HC show that many of the creators of the earliest Creole varieties in 17th-century Saint-Domingue were native speakers of Niger-Congo languages including Gbe language. We believe that by close analysis of specific domains of the Creole (e.g. BNPs) and by comparing these patterns to their analogues in the languages in contact during the emergence of the Creole, we can better understand how Universal Grammar regulates the emergence of new varieties out of language contact.

1. Introduction

This paper discusses noun phrases in Haitian Creole, a French-derived Creole, and in Gungbe, a Gbe language of the Kwa family. Our discussion of these two languages is motivated by two related interests: one synchronic

* The names of the co-authors are listed in alphabetical order. This chapter is the outcome of ongoing and long-term collaboration. We bear equal responsibility for both the strengths and shortcomings in this paper. Heartfelt thanks are due to Lisa Cheng, Yves Dejean, Jacques Pierre, Rynt Sybesma and audiences at the following meetings: Semantics of Underrepresented Languages (MIT 2009), Diachronic Generative Syntax (Campinas 2010), Language Contact and Language Change (Trondheim 2010) and the Bantu, Chinese, Romance Nouns and Noun Phrases Network Final Conference (Leiden 2010). We are also grateful for participants in a seminar that we organized together at MIT in Spring 2008. Part of this research was supported by Aboh's 2011–2012 fellowship at the Netherlands Institute for Advanced Study in the Humanities and Social Sciences. We are also grateful to the editors for inviting us to contribute to this volume.

(micro-comparative syntax), the other diachronic (contact-induced language change). With regard to the first, we adopt Richard Kayne's perspective on comparative syntax, a perspective that seeks to uncover properties of Universal Grammar (UG) by conducting detailed comparisons of closely related languages. One may reasonably doubt that Gungbe and Haitian Creole are as closely related as, say, the dialects of certain Romance languages in Kayne's studies. Yet, the diachronic link between Gungbe and Haitian Creole suggests that such an enterprise can be successfully carried out on these two languages as well. Research on the formation of Haitian Creole, as well as historical studies of the settlement of Saint-Domingue (Haiti's former name as a French colony), show that many of the creators of the earliest Creole varieties in 17th-century Saint-Domingue were native speakers of Niger-Congo languages including the Gbe subgroup of the Kwa languages spoken along the Bight of Benin. This brings us to our second interest, namely the emergence of new speech varieties in the midst of language contact. We believe that by close analysis of very specific domains of these new languages and by comparing patterns in these domains to their analogues in the languages in contact during their formative period (the so-called "superstrate" and "substrate" languages), we may come to better understand how UG regulates the emergence of new varieties out of language contact. In our case, a micro-comparative analysis of a specific syntactic domain in Haitian Creole, building on what we can learn from French and from Gungbe, may help us discover some fundamental properties of UG and how these properties constrain the development of new varieties that appear to combine certain properties of different languages.

This paper deals with the noun phrase in Haitian Creole and in Gungbe. Our choice is guided by the following properties of Haitian Creole and Gungbe noun phrases, properties that represent a puzzle for linguistic theory and for studies of language contact:

1. Unlike French and most Romance languages, Haitian Creole and Gungbe display "Bare Noun Phrases" (BNPs) in *all* argument positions. Such BNPs may include modifying expressions (e.g. adjectives, numeral, relative clauses) but they exclude overt functional heads (comparable to, e.g. *a*/*the* in English and *un(e)*/*le(la)* in French).
2. Besides BNPs, Haitian Creole and Gungbe also exhibit nominal expressions with overt functional heads whose glosses approximate the above-mentioned articles in French and English. We refer to these as "Determined Noun Phrases" (DNPs).

3. BNPs and DNPs occur in similar positions in Haitian Creole and Gungbe, sometimes with similar interpretation (e.g. as specific definites). This is obviously different from what is known of Germanic and Romance where BNPs and DNPs contrast with respect to their distribution and interpretation (cf. Longobardi 1994; Chierchia 1998).
4. Haitian Creole and Gungbe show noteworthy differences in the use and interpretation of overt functional heads in their respective noun phrases.

Assuming current theories of the syntax-semantics of noun phrases, it is not immediately clear:

1. How to explain the relatively wide distribution of BNPs in Haitian Creole and Gungbe?
2. How to explain the semantics of these BNPs on principled grounds?
3. How to explain the similarities and differences between Haitian Creole and Gungbe noun phrases on principled grounds?

The goal of this paper is to start developing answers to the first two questions. Then, as a first stab at question 3, we explore, at the end of the paper, the implications of our answers for theories of language change and language creation. Section 2 presents some general properties of BNPs and their distribution in the two languages. Section 3 sets BNPs in Haitian Creole and Gungbe in a broader typological context and shows that the distribution of BNPs in Haitian Creole and Gungbe forms a superset of their distribution in more frequently studied languages (e.g. Romance, Germanic, Sinitic). Building on this, Section 4 discusses the structure of BNPs and proposes that they are full determiner phrases (i.e. DPs in the sense of Abney 1987; Szabolcsi 1994; Longobardi 1994; Cherchia 1998; Aboh 2002, 2004a, b, etc.). The assumption there is that NPs are predicates and can provide arguments only if they are introduced by a category converter (or "type shifter") traditionally labeled as D. Given this assumption, the fact that Haitian Creole and Gungbe seem to involve both overt and covert determiners (i.e. overt and covert D^0 heads) leads us in Section 4 to look into the function and structural properties of these determiners. Section 5 examines the distribution and interpretation of other overt determiners in Haitian Creole and Gungbe. Section 6 sketches the implications of our observations for issues of language creation and language change and concludes this paper, which we hope can serve as advert for more comprehensive work on a larger set of comparative and diachronic issues implicating Gungbe and Haitian Creole.

2. Some properties of BNPs in Haitian Creole and Gungbe

As we mentioned above, Haitian Creole and Gungbe allow BNPs in all argument positions with various interpretations to which we now turn:[1]

BNPs can be used anaphorically to previously introduced DNPs. Such BNPs are interpreted as definite: In the following Haitian Creole example, *wosiyòl* 'nightingale' is first introduced as a specific indefinite *yon bèl wosiyòl* 'a pretty nightingale'. This referent is resumed in the following sentence as the definite BNP *wosiyòl* (in bold font in the example). [2, 3]

(1) *Bouki te marye ak yon bèl wosiyòl.* [Haitian Creole]
B. ANT marry with a pretty nightingale
Wosiyòl *te renmen kowosòl.*
Nightingale ANT love soursop
'Bouki was married to a beautiful nightingale, the nightingale loved soursop.'
#'Bouki was married to a beautiful nightingale, a nightingale loved soursop.'

A similar situation is found in Gungbe as illustrated by the following example where '*àvún ɖàxó ɖé* 'a big dog' is resumed by just *àvún* 'dog'.

(2) *Àgɔ̀sú xò àvún ɖàxó ɖé bɔ̀* ***àvún*** [Gungbe]
Agosu buy dog big DET AND dog

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1. Except where indicated, the HC data is from Michel DeGraff (a native speaker of the Port-au-Prince variety of the language) and the Gungbe data is from Enoch O. Aboh (a native speaker of the Porto-Novo variety of the language). Our native-speaker intuitions have been checked against those of other speakers of the corresponding dialects.

2. We use the following a-theoretical abbreviations: ANT: Anterior; CL: Classifier; COORD: Coordination; DEM: Demonstrative; EXCL: Exclamation Marker; FEM: Feminine; FUT: Future; SG: Singular; PL: Plural; HAB: Habitual; Num: Number; NEG: Negation; PREP: Preposition; REL: Relative Clause Marker; SFP: Sentence Final Particle; TOP: Topic marker.

3. The BNP upon second mention is represented here in bold face. Joseph (1988:102f, 258ff) provides additional examples of definite BNPs in *reprise anaphorique*, alongside other instances of definite BNPs. Such examples of specific definite BNPs contradict Zribi-Hertz and Glaude's (2007:280) claim that BNPs in HC are "default nominals" which can only be associated with a "nonspatialised construal of the referent" (i.e. "they take up whatever semantic interpretations are not available for overt determiners"). The data in this paper show that BNPs in HC can have, inter alia, specific definite (i.e. "spatialized") construal on a par with noun phrases with overt determiners.

wá *ɖù* *ví* *étɔ̀n.*
EVENT eat child POSS

'Agosu bought a certain big dog and the/this dog eventually bite his child.'
#'Agosu bought a certain big dog and a(nother) dog eventually bite his child.'

As indicated by the infelicitous interpretations, upon second mention *wosiyòl* in (1) or *àvún* in (2) cannot refer to an indefinite bird or dog in this stretch of discourse. Haitian Creole and Gungbe are not unique in exhibiting such resumptive definite BNPs in argument positions. Similar facts are commonly observed in many other Atlantic creoles and in Kwa languages.[4] What is remarkable in the context of this discussion is that we observe a distinct pattern in Romance and Germanic: nouns that are introduced as indefinite upon first mention must typically take a definite or demonstrative article upon second mention. This is illustrated by the English contrast in (3). Observe that the ungrammatical example (3a) is equivalent to the grammatical examples in Haitian Creole (1) and Gungbe (2).

(3) a. **I bought a bottle of wine this morning but wine turned out to be a mixture of vinegar, water and probably some spirit.*
b. *I bought a bottle of wine this morning but this/the wine turned out to be a mixture of vinegar, water and probably some spirit.*

Furthermore, in a narrative context as illustrated in (4) in English, the specific indefinite DNP *a cat* followed by a definite specific BNP *cat* sounds strange to our English-speaking consultants:

(4) *Mickey Mouse married a cat. #(The)* ***Cat*** *was a princess.*

However, when used as proper names or as titles for characters in tales, BNPs generally occur freely in argument positions cross-linguistically. In these contexts, such BNPs are usually capitalized in written texts. Consider, for example, the use of *Goat*, *Cat* and *Dog* in the following passage from the English translation of the

4. Very loosely speaking, BNPs in Brazilian Portuguese, Seychelles Creole, Réunionais and Lesser Antillean Creole (see, e.g. Munn & Schmitt 2004; Déprez 2007a; Chaudenson 2007 and Gadelii 2007, respectively) and in Jamaican Patwa, Sranan and Berbice Dutch (see, e.g. Stewart 2007; Bruyn 2007 and Kouwenberg 2007, respectively) make them more similar to their counterparts in HC and Gungbe than to the more familiar members of Romance and Germanic as studied by (e.g.) Longobardi 1994ff.

Haitian tale *The Education of Goat* (Thoby-Marcelin & Marcelin 1971: 15f, bold font added for clarity):

(5) It happened in the days of yore … **Cat**, who was good friends with **Goat**, was teaching him how to climb trees … **Goat** made some appreciable progress every day … **Cat** was satisfied … one fine morning the master came upon his pupil in the company of **Dog**, the hereditary enemy of the cat family, and he was teaching **Dog** how to climb trees …

Haitian Creole and Gungbe further differ from English and French in allowing specific definite BNPs with inanimate referents.[5] The use of *machin* in (6a) or *hún* in (6b) seems quite unlike the proper-name use of the BNPs in (5). Indeed, animacy is not a necessary condition for the definite specific reading of BNPs in Haitian Creole and Gungbe.

(6) a. *Bouki achte yon bèl machin. Men,* ***machin*** *tonbe*
B. buy a nice car but car fall
bay Bouki pwoblèm. [Haitian C]
get Bouki trouble
'Bouki bought a nice car, but the car started to give trouble to Bouki.'

b. *Àgɔ̀sú xò hún yɔ̀yɔ́ bɔ̀* ***hún*** *wá nyín tùklá.* [Gungbe]
Agosu buy car new AND car EVENT become problem
'Agosu bought a new car and the/this car became a problem.'

The data in (1) to (6) raise the question of whether Haitian Creole and Gungbe involve definite articles comparable to those found in Romance and Germanic. One would expect such definite articles to occur upon second mention of a newly introduced referent (as in 3b). Though we postpone the discussion of such elements in Haitian Creole and Gungbe until Section 4, one key fact about the specific definite BNPs in (1), (2) and (6) is that their anaphoric use is quite widespread and they are found in environments where specific definite DNPs occur. Witness the Haitian Creole example (7) adapted from Joseph (1988: 102f) where the second mention of the referent is via a BNP even though the previously mentioned antecedent is already a specific definite involving the determiner *la* comparable to articles in Romance and Germanic (compare (1), (6) and (7)):[6]

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5. In English and French, such BNPs are allowed in coordinated noun phrases only (Heycock & Zamparelli 2003; Roodenburg 2004)

6. The HC definite determiner *la* has allomorphs *a, lan, nan* and *an,* with the respective pronunciations [a], [lã], [nã] and [ã] which are determined by the phonological environment, as in: *chat la* 'the cat', *bra a* 'the arm', *dans lan* 'the danse,' *machin nan* 'the car', *dan an* 'the tooth'. The French etymon is the deictic locative adverbial and discourse particle *là* in Spoken French

(7) *Chwal la te lage. Asefi te al chache l toupatou … Men,*
Horse DET ANT escape Asefi ANT go look.for 3SG everywhere but
chwal gen tan tounen nan poto pandan Asefi te pati.
horse have time return in pole while Asefi ANT leave
'The horse had escaped. Asefi had gone to look for it all over, but the horse already returned to the pole while Asefi was gone.

Three inter-related observations are in order vis-à-vis (7):

a. The BNP *chwal* is anaphoric on a DNP that is overtly marked for "definiteness."
b. That such "definiteness" markers can be left out on the second mention of the referent may suggest that they are *not* garden-varieties "definite articles" after all: a challenge to current formal theories of determiners.
c. The facts in (6)–(7) present a challenge to Chierchia's (1998) "Blocking Principle" which precludes a covert determiner with a certain type-shifting semantics (e.g. type shifting from non-referential predicate to referential argument) if the language has an overt determiner with the same semantics (but see Longobardi 1994ff for one alternative).

These data point to the possibility that the rule governing the distribution of BNPs in Haitian Creole and Gungbe might be different from those regulating BNPs in Romance and Germanic. As we show in Section 4.3, a possible distinction between Haitian Creole and Gungbe versus Germanic and Romance is that BNPs in the former seem to involve a full DP structure headed by a null D though this null D does not seem specified for any feature such as definite, indefinite or generic, as we now show.

BNPs in Haitian Creole *and Gungbe can receive generic (including kind-level) interpretation*: The discussion in the previous paragraphs suggests that BNPs can receive their referential interpretation from their antecedent in the linguistic context. The following examples indicate that BNPs can also be interpreted as generic in the appropriate context.

(8) a. *Wosiyòl manje kowosòl.* [Haitian Creole]
nightingale eat soursop
'Nightingales eat soursop.'

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as in *T'as vu ce chat-là là* 'Did you see that cat there, yeah?' (with the first *là* as locational deictic adverbial and the second *là* as discourse particle). HC also has a deictic locative adverbial *la* which, unlike the determiner, does not have allomorphs: *Chat la la* 'The cat is there' (literally: 'Cat the there'); see Fattier 1998, 2000 for further discussion, including observations on earlier varieties and on dialectal variations.

b. *Àlwɛ́ nɔ̀ ɖù vávò.* [Gungbe]
nightingale HAB eat pepper
'Nightingales eat pepper.'

Put together, these facts suggest that the interpretation of BNPs depends on an appropriate antecedent which is either present in the linguistic context or in the discourse context. This description seems supported by the following examples where it appears that:

BNPs can be indefinite, plural and count-denoting or indefinite and mass-denoting – as illustrated by the HC and Gungbe nouns for *people* and *cholera* in the following examples:

(9) a. *Moun te pran kolera.* [Haitian Creole]
person ANT catch cholera
'People caught cholera.'
'There were people who caught cholera'
*'A person/someone caught cholera'

b. *Gbètɔ́ bɛ́ kòlérá tàun xwè ɖé wá yì mɛ̀.* [Gungbe]
People catch cholera a.lot. year that come go in
'People caught cholera a lot last year.'
'Many people caught cholera last year.'
*'A person/someone caught cholera last year.'

The BNPs *moun* and *gbètɔ́* in (9) denote plural referents. Such BNPs denote a plural set of individuals, not an undividuated mass (e.g. a group or a crowd). These nouns can be marked by a number marker as in (10).

(10) a. *Moun yo te pè vote.* [Haitian Creole]
person DET.PL ANT afraid vote
'The people were afraid of voting.'

b. *Gbètɔ́ lɛ́ wá àgɔ́ cè tɛ̀mɛ̀ tàùn.* [Gungbe]
people PL come party my place very
'(The) people really came to my party.'

Though we give to both HC *yo* and Gungbe *lɛ́* the label "number marker," their semantics seem different. To wit the translations in (10) where Gungbe *gbètɔ́ lɛ́,* unlike HC *moun yo*, can receive an indefinite interpretation.[7] We revisit this distinction in Section 5.1 below.

7. This is unlike Lefebvre's (1998: 84) report about Fongbe (a closely related Eastern Gbe language) that "[a] noun followed by the plural marker alone is always interpreted as [+ definite]. It can never be interpreted as [– definite]."

BNPs can be indefinite, non-specific and mass-denoting: The data discussed thus far may be interpreted as indicating that Haitian Creole and Gungbe do not formally distinguish between count and mass nouns. Are the various bare nouns in the previous examples comparable to bare mass nouns in other languages (cf. Chierchia 1998)? The answer is no: Haitian Creole and Gungbe do distinguish between count and mass nouns. In the following examples, the nouns 'water' *dlo* (Haitian Creole) and *sìn* (Gungbe) do not take the number marker when they are interpreted as mass nouns. This is unlike the Haitian Creole and Gungbe count nouns for 'people', *moun* and *gbètɔ́* in (10).

(11) a. *Mwen vle dlo (*yo).* [Haitian Creole]

b. *Ùn jró sìn (*lɛ́).* [Gungbe]
I want water PL
'I want water.'
#'I want the waters (unless understood as types or quantities of water).'

BNPs in Haitian Creole and Gungbe can be indefinite, non-specific and unmarked for number: In the sentences in (12), the count noun for 'house', Haitian Creole *kay* and Gungbe *xwé*, can be interpreted either in singular or plural depending on context (e.g. whether John is a wealthy person; see Joseph 1988: 104f for related comments).

(12) a. *Jan achte kay.* [Haitian Creole]

b. *Ján xɔ̀ xwé* [Gungbe]
John buy house
'John bought a house/houses.'

In (13) the object DP can only be interpreted as denoting a specific definite and plural referent. Witness the number marker *yo* in Haitian Creole and *lɛ́* in Gungbe.[8]

(13) a. *Jan achte kay yo.* [Haitian Creole]

b. *Ján xɔ̀ xwé lɛ́.* [Gungbe]
John buy house PL
'John bought the houses.'

All the examples discussed thus far show that BNPs can be used in all argument positions with various interpretations.

BNPs can also be used as predicates: This is indicated by example (14), where it appears that Haitian Creole and Gungbe only differ with regard to the obligatory presence of a copula in the latter but not in the former.[9]

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8. We return to the discussion of the number marker in Gungbe (and HC) in Section 5.1.

9. We also find *Mwen se doktè* and *Mwen se yon doktè* in HC, both with the copula *se*, but with subtle differences in semantics (see DeGraff 1998, 1995, 2008 for related facts and references).

(14) a. *Mwen doktè.* [Haitian Creole]
b. *Ùn nyín dòtó.* [Gungbe]
I COP doctor
'I am a doctor.'

Summarizing, the discussion shows that BNPs in Haitian Creole and Gungbe can occur in all argument positions, where they can be interpreted as definite or indefinite, specific or non-specific, or generic – depending on context. BNPs are not specified for number though they are sensitive to the count vs. mass distinction. Finally, BNPs can be used as predicates. Put together, these facts confirm our observation in Section 1 that the positions where BNPs occur in Haitian Creole and Gungbe form a superset of those where BNPs occur in the most studied languages (e.g. Germanic, Romance).

3. A cross-linguistic sample of BNPs

Haitian Creole and Gungbe are not unique in displaying BNPs in a wide range of argument positions. Actually, the facts just discussed remind us of similar patterns in Sinitic languages where BNPs may occur in argument positions, as indicated by the following examples from Mandarin Chinese. According to Cheng and Sybesma (1999:510) object BNPs as in (15) can be interpreted as definite, indefinite or generic.

(15) a. *Hufei mai shu qu le.* [Mandarin Chinese]
Hufei buy book go SFP
'Hufei went to buy book/books.'
b *Hufei he wan le tang.*
Hufei drink finish LE soup
'Hufei finished the soup.'
c. *Wo xihuan gou.*
I like dog
'I like dogs.'

It seems however that the comparison stops here. First, Haitian Creole and Gungbe do not have any element that could be formally equated with the classifiers of Mandarin Chinese. Second, BNPs in preverbal position show a semantic restriction in Mandarin Chinese that is absent in Haitian Creole and Gungbe. According to Cheng and Sybesma (1999:510), preverbal BNPs can be interpreted as definite or generic *but not as indefinite*. Consider the following examples:

(16) a. *Gou yao guo malu.* [Mandarin Chinese]
dog want cross road
'The dog wants to cross the road.' (Not: 'Some dog(s) want(s) to cross the road.')

b. *Gou jintian tebie tinghua.*
dog today very obedient
'The dog(s) was/were very obedient today' (and not: 'Some dog(s) was/were…')

c. *Gou ai chi rou.*
dog love eat meat
'Dogs love to eat meat.' (Not: 'Some dog(s) love to eat meat.')

Cheng and Sybesma's (1999) description suggests that the interpretation of the BNPs in (16) is not sensitive to the semantics of the verb and the aspect markers or adverbs it co-occurs with. Indeed the ban on indefinite BNPs in subject position in Mandarin Chinese persists even when the predicate is telic as in (17) (Sybesma, p.c., 5/12/09):

(17) a. *Gou guo-le malu.* [Mandarin Chinese]
dog cross-LE road
'The dog crossed the road.' (Not: A dog crossed the road.')

b. *Gou guo-wan-le malu.*
Dog cross-finish-LE road
'The dog finished crossing the road.' (Not: A dog finished crossing the road.')

BNPs in Mandarin Chinese thus exhibit a sharp preverbal versus postverbal asymmetry whereby indefinite BNPs occur postverbally only. In other words, BNPs in subject position are *never* interpreted as indefinites.

While no such asymmetry exists in Haitian Creole and Gungbe, these languages display an interesting interplay between the interpretation of the BNP and that of the predicate they occur with. The next section discusses such examples from Haitian Creole only, but the same contrasts can be constructed for Gungbe as well.

3.1 A stative-vs-eventive contrast in Haitian Creole and Gungbe

Unlike Mandarin Chinese, Haitian Creole and Gungbe do allow indefinite BNPs in subject position, but these BNPs seem restricted to eventive predicates. Compare, for instance, (16c) in Mandarin Chinese and (18) in Haitian Creole: In (18) with a *stative* predicate, the BNP in Haitian Creole is on a par with the BNP in Mandarin Chinese to the extent that it resists an indefinite interpretation.

(18) *Chen renmen manje vyann.* [Haitian Creole]
dog like eat meat
'{The dog | Dogs} love(s) to eat meat.' (Not: Some dog(s) love(s) to eat meat)

But in (19) with an eventive predicate, the BNP *chen* in subject position, unlike its counterpart in Mandarin Chinese, can receive an indefinite interpretation ('some

dog(s)'), alongside a specific definite interpretation ('the dog'). But the generic reading is excluded.

(19) *Chen antre nan kay la.* [Haitian Creole]
dog enter in house the
'{The dog | Some dog(s)} has/have entered the house.'

As for the definite specific reading of *chen* in both (18) and (19), it obtains in the appropriate context – for example, if there is a unique prominent dog in the extra-linguistic context (cf. Joseph 1988: 261f) or in a story-telling context when there is a preceding sentence that introduces *yon chen* 'a dog', as a character in the story (see discussion in Section 2 above). But now, consider example (20a), the Haitian Creole counterparts of the Mandarin Chinese example in (16a). This sentence allows the definite specific reading for the BNP but disallows both the generic and indefinite readings. The same holds true of example (20b), the Haitian Creole counterpart of the Mandarin Chinese sentence in (16b). However, the sentences under (20c) and (20d) indicate that generic BNPs are not categorically excluded in subject position. In these examples, the generic interpretation seems licensed by, the adverb *toujou* 'always' in (20c) and the modal *ka* 'can' in (20d).

(20) a. *Chen vle travèse wout la.* [Haitian Creole]
Dog want cross road the
'The dog/dogs wants/want to cross the road.'
(not: {Dogs | Some dog(s)} want(s) to cross the road')

b. *Chen trè obeyisan jodi a.*
Dog very obedient today DET
'The dog/dogs is/are very obedient today.'
(not: {Dogs | Some dog(s)} is/are very obedient today')

c. *Chen toujou vle travèse wout.*
Dog always want cross road
'{The dog | Dogs} always want(s) to cross roads.'
(not: Some dog/dogs always wants/want to cross the road')

d. *Chen ka travèse wout.*
Dog can cross road
'{The dog | Dogs} can cross roads.' (Not: Some dog(s) can cross the road').

What we observe here is that, unlike Mandarin Chinese, BNPs in Haitian Creole – and in Gungbe as well – can occur in all argument positions and their interpretation as indefinite is not restricted to post-verbal position. Instead, the

interpretation of BNPs in Haitian Creole and in Gungbe seems to reflect sentence-internal context (e.g. aktionsart) as well as discourse context (e.g. shared knowledge).

3.2 Haitian Creole and Gungbe in the context of 'bare noun' languages

Recapitulating various observations in works by Longobardi (1994, 2001), Chierchia (1998), Cheng & Sybesma (1999), Heycock & Zamparelli (2003), Roodenburgh (2004), Aboh (2002, 2004a, b, 2006), Déprez (2004), the following generalization emerges:

a. **French:** BNPs cannot occur in argument positions, except in certain prepositional and coordination structures (e.g. *Chiens et chats avaient tous l'air très sales* 'Dogs and cats all look very dirty'; Heycock & Zamparelli 2003: 449).
b. **English:** BNPs headed by mass nouns and plural nouns can occur in argument positions. Such BNPs are typically interpreted as indefinites or generic. Specific definite BNPs are found, like in French, in certain prepositional and coordination structures (e.g. *Forks and knives were equally dirty*; Heycock & Zamparelli 2003: 448).
c. **Sinitic:** BNPs are possible in all argument positions but their interpretation varies. Postverbal BNPs can be interpreted as (in)definite or generic depending on the language (e.g. Mandarin Chinese vs. Cantonese), but preverbal BNPs cannot receive an indefinite reading.
d. **Haitian Creole and Gungbe:** BNPs are possible in all argument positions. Their surface distribution vis-à-vis the verb does not induce any interpretive restriction (e.g. unlike in MCH, there is no general ban on indefinite BNPs in subject position). BNPs display distributional and interpretive properties similar to those of DNPs. Note though that the interpretation of BNPs is sensitive to the lexical semantics and aspectual properties of the predicate they are associated with.
e. All the languages in (a) to (d) display a count versus mass distinction.

It is clear from this description that BNPs in Haitian Creole and Gungbe differ from BNPs in the most commonly studied varieties of Romance, Germanic and Sinitic. Indeed, Haitian Creole and Gungbe BNPs can occur in the same syntactic positions, and can receive the same specific definite interpretation, as full DNPs. This observation leaves us with a paradox that cannot be easily accommodated by current theories of bare nouns. For instance, we cannot straightforwardly invoke Chierchia's (1998) "Nominal Mapping Parameter" because Haitian Creole and Gungbe manifest neither number inflection, nor classifiers – two properties that Chierchia takes to be necessary for languages with BNPs as

arguments. These facts from Haitian Creole and Gungbe also present a challenge for theories that have been offered in response to Chierchia 1998 (e.g. Munn & Schmitt 2004).[10]

4. What is the structure of BNPs in Haitian Creole and Gungbe?

The paradox just observed has already been addressed in the literature. Here, we briefly present two alternative approaches that have been recently proposed to account for the wide distribution of BNPs in Jamaican Creole (Stewart 2007, 2011) and in Haitian Creole (Déprez 2004) and we point to issues motivating our own analysis in Section 4.3.[11]

4.1 Are BNPs simply Cl(assifier)Ps or Num(ber)Ps?

Can we follow Cheng and Sybesma (1999: 518ff) and propose that BNPs are not just NPs, but include at least a Classifier Phrase (ClP)? If so, we could suggest that BNPs in Haitian Creole and Gungbe involve a ClP whose head is covert. Accordingly, interpretive differences between Haitian Creole/Gungbe and Sinitic could further be linked to the (different) licensing conditions of this null classifier in Haitian Creole and Gungbe. A crucial aspect of Stewart's (2007, 2011) analysis is the observation that BNPs in Jamaican Creole (JC) distinguish between count versus mass though number morphology is absent. Comparing Jamaican Creole to Mandarin Chinese, Stewart (2007: 390) argues that:[12]

> "In [Jamaican Creole] there is no overt classifier system, yet individuation clearly occurs without such marking. I suggest, therefore, that the projection whose job is to individuate in JC is the Classifier Phrase (ClP), but that its head is not phonetically realized".

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10. If one assumes Munn and Schmitt's (2004) Free-Agr/Number parameterization for the syntax and semantics of noun phrases, HC and Gungbe would fall alongside English vis-à-vis the relevant D- and Agr-related dimensions: (i) HC and Gungbe, like English, have "weak" D: there's no evidence for N-to-D movement and expletive articles; (ii) HC and Gungbe, like English, fuse Agr and Num in DP: like in English, NPs in HC and Gungbe show no productive agreement. Yet HC and Gungbe do not behave like English in the relevant aspects: for example, both languages, unlike English, have specific definite BNPs.

11. This section only mentions the main points in these approaches that are relevant for the discussion. We refer the interested reader to the corresponding papers for a detailed discussion. Further discussion on the function, morphosyntax and semantics of BNPs in Creoles can be found in Baptista & Guéron 2007; Bobyleva 2011; Guillemin 2011 and references cited there.

12. See also Stewart (2011: 375–376)

In terms of our discussion here, this would mean that BNPs in Jamaican Creole, Haitian Creole, and Gungbe have the structural representation in (21) on a par with Sinitic (Stewart 2011: 377):

(21) [ClP [Cl [NP.…]]

Under this view therefore, BNPs in these languages do not project a DP and are thus typologically comparable to Sinitic languages modulo the (c)overtness of their classifiers.

4.2 Déprez's (2004) plural parameter

Alternatively, Déprez (2004) hypothesizes a "plural parameter" in order to account for the differences between Haitian Creole (and, by our implication, Gungbe) on the one hand and both Sinitic and the most commonly studied varieties of Romance and Germanic. In this analysis, the "plural parameter" distinguishes between +PL languages where the noun phrase necessarily involves a Number Phrase (i.e. NumP) which contains a counter (i.e. a measure function) versus -PL languages where NumP only projects when needed and does not necessarily perform the counter function. In terms of Déprez (2004: 870), languages like Haitian Creole (and by implication Gungbe) are -PL languages since number in these languages is marked optionally as schematized by the structure below:

(22) […(NumP) [NP.…]]

One common logical conclusion of Stewart's (2007, 2011) and Déprez's (2004) analyses is that noun phrases in languages like Haitian Creole and Gungbe do not necessarily project up to DPs in order to be used as arguments. For Stewart, languages such as JC – and by our own extrapolation, Haitian Creole and Gungbe – are like Sinitic and, thus, minimally allow ClPs as arguments (though their classifier system is never pronounced), while for Déprez they optionally allow NPs, NumPs and DPs in argument positions.

4.3 BNPs are DPs

We will now consider some empirical facts that challenge these approaches to BNPs in Haitian Creole and Gungbe. As we suggested previously, BNPs in these languages can receive specific definite readings and be associated with various modifiers that do not affect their distributions. Let's consider these two facts in turn, along with some of their theoretical implications.

Recall that the BNPs such as *wosiyòl* 'nightingale', *machin* 'car', *chwal* 'horse', etc. in the anaphoric patterns in (1)–(7) all receive specific definite readings. And these BNPs are unambiguously specified for (singular) number as well,

contradicting Déprez's empirical predictions regarding number specification for BNPs in Haitian Creole.[13]

Similarly, in Gungbe certain nominal modifiers (e.g. ordinals, restrictive relative clauses) make the BNP definite and specified for number. This also entails that these BNPs involve some specification for number even in absence of any morphological marking, again contra the predictions of Déprez (2004). In the following examples, the BNP *yòvózèn* in (23a) is interpreted as indefinite singular/plural, while the modified noun in (23b) is necessarily singular and definite.

(23) a. *Súrù ɖù yòvózèn sɔ̀.* [Gungbe]
Suru eat orange yesterday
'Suru ate orange yesterday.'

b. *Súrù ɖù yòvózèn títán sɔ̀.*
Suru eat orange first yesterday
'Suru ate the first orange/*oranges yesterday.'

Gungbe and Haitian Creole differ in this context.

(24) a. *Bouki manje zoranj yè.* [Haitian Creole]
Bouki eat orange yesterday
'Bouki ate a piece of orange/an orange/oranges yesterday.'

b. *Bouki manje premye zoranj *(la/yo) yè.*
Bouki eat first orange DET.SG/DET.PL yesterday
'Bouki ate the first orange(s) yesterday.'

In (24b) the Haitian Creole ordinal DNP, like its Gungbe counterpart in (23b), is interpreted as definite specific, but unlike the BNP in Gungbe, the ordinal DNP in (24b) necessitates either *la* or *yo*.[14]

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13. Furthermore, Déprez's (2007a: 332ff) "Generalization 2" (i.e. "Bare nouns allow regular definite readings only in languages that lack lexical definite determiners"), like Chierchia's "Nominal Mapping Parameter," incorrectly rules out the existence of lexical definite determiners in HC and Gungbe: as amply documented here, both these languages manifest specific definite BNPs *and* lexical definite determiners.

14. There is speaker variation with regard to the co-occurrence of *la* and *yo*. While *la-yo* sequences are ungrammatical in the variety spoken by DeGraff, one finds such sequences in the literature (e.g. Lefebvre 1998: 85). Such sequences are also mentioned in earlier records, as illustrated by the following examples form Ducœurjoly (1803).

(i) a. *Zozo la yo va bientôt volé.* [Ducœurjoly 1803: 336]
bird DET PL will soon fly
'These/the birds will soon fly away.'

b. *Mo voir zhomme la yo.* [Ducœurjoly 1803: 324]
1SG see man DET PL
'I saw the/these men.'

Haitian Creole and Gungbe display relative clauses that modify BNPs, as in (25). Again the interpretation differs in Haitian Creole and Gungbe, but the common factor in these examples is that a purely generic reading of the BNP subject is excluded in both languages while a non-specific definite reading is favored – assuming that, although the situation itself is generic (in the "characterizing" sense), the participants themselves are definite, as suggested in the English translation.

(25) a. *Moun ki pa travay p ap touche.* [Haitian Creole]
People REL NEG work NEG FUT earn
'Those people who don't work won't get paid.'

b. *Àlwɛ́ ɖé mí wlé ɖù vávò.* [Gungbe]
nightingale REL 1PL catch eat pepper
'The nightingale that we caught ate pepper.'

What these data show is that the BNPs just discussed must have enough structure to accommodate nominal modifiers including the restrictive relative clause (cf. Longobardi 1994: 619). Indeed, adopting Kayne's (1994) complementation analysis to relative clauses, Aboh (2005) argues that noun phrases in Gungbe (including relative clauses) minimally involve the structure in (26a) where NumP is embedded within a D-layer. Under this view, both the D and the Num head are covert in BNPs. (26b) represents the order of merge of modifiers within the DP system Aboh 2004a, b, 2007; Cinque 2010).

(26) a. [DP [D [NumP [Num…. [CP/NP]]]]]

b. Determiner>Number>Demonstrative>Numeral>Adjective>Noun

c. *òxwé ɖàxó àwè éhè lɔ́ lɛ́* [Gungbe]
house big two DEM DET PL
'these two big houses'

That Ducœrjoly uses the spelling *là* for certain DNPs in early Creole (e.g. *cale là* 'the hold'; *piece là yo* 'the pieces' 1803: 360,309) is further evidence that HC *la* may have historically originated in the French locative adverbial *là*. There is also contemporary evidence that, in certain dialects where *la yo* has been noted, the *la* in the *la yo* may be a deictic locational adverbial, not the determiner (cf. Note 6). To wit the following contrast in such dialects: *chen an* 'the dog' vs. *chen la yo* 'the dogs there' vs. **chen an yo* 'the dogs'. For these particular dialects, the ungrammatical example **chen an yo* suggests that the *la* in *chen la yo* is the locational adverbial, not the determiner – the latter's allomorph *an* is excluded in that context. One such dialect is spoken by Jacques Pierre, a speaker of the Cap Haïtien dialect of HC, and we thank Jacques for this observation. Fattier (1998, 2000) and Zribi-Hertz and Glaude (2007) note other dialects where the *la* in *la yo* does undergo the allomorphy that is expected of the determiner *la*. So these dialects have sequences as in *chen an yo* 'the dogs'. We do not discuss such variations here as they do not seem to bear on the conclusions of this paper.

d. *de gwo kay sa yo* [Haitian Creole]
two big house DEM DET.PL
'these two big houses'

Structure (26) therefore suggests that BNPs in Gungbe and Haitian Creole are full DPs. Given this conclusion, the question arises whether D hosts a null determiner or whether the noun raises to D in these languages (as has been proposed for instance by Longobardi (1994, 2001) for certain bare nouns in Romance and Germanic).

A classical diagnostic used for N-raising in the literature is the position of the noun relatively to modifiers (e.g. adjectives) commonly analyzed as maximal projections in the specifier position within the functional domain of N. Under such a view, certain Romance N-Adj sequences are analyzed as N-raising instances where the noun raises to a position higher than the adjective (cf. Longobardi 1994; Cinque 1994). Keeping to this rationale, and assuming the order of merge of modifiers as depicted in (26b), Aboh (2002, 2004a, b, 2006) argues that what raises in Gungbe is not the noun head, but the NP, which pied-pipes the modifiers on its way to [spec DP] leading to what he refers to as 'snowballing' movement. The conclusion then is that D in Gungbe is licensed by snowballing movement of NP to [spec DP] (see also Cinque 2010). Many examples in this paper (e.g. (26c)) lend support to this view as they show that what appears to the left of the determiner and the number marker is the noun head N followed by its modifier in the mirror image of the order of merge in (26b). The details of this analysis are not relevant to the present paper and the reader is referred to Aboh's previous work for further discussion. What matters here, however, is the analysis whereby D does project in Gungbe BNPs.

As for Haitian Creole, much of Aboh's (2002, 2004a) approach to Gungbe can be extended to this language. Indeed, Haitian Creole can also be shown to have snowballing movement within the nominal projection, thus deriving the possibility of N-Adj sequences as in French (e.g. *machin lèd yo* 'these ugly cars' – literally: 'car ugly the.PL') and the fact that the noun together with its modifiers can occur to the left of the determiner as in (24b) or to the left of demonstrative and number marker as in (26c) (cf. Déprez 2007b: 299f for such a Spec-to-Spec derivation up to [Spec DP]). However, unlike Gungbe, Haitian Creole does allow adjectives and other modifiers (e.g. cardinal numbers) in *pre*-nominal position as in (26d). Therefore, Haitian Creole does not have the generalized snowballing movement that one finds in Gungbe whereby all nominal modifiers end up in *post*-nominal position. In the following section we further discuss the distribution and interpretation of the determiner and number marker in Gungbe and Haitian Creole.

In terms of the proposed analysis therefore, the facts discussed here indicate that BNPs in Haitian Creole and Gungbe involve full DPs whose head contains a null morpheme D and appears necessary for argument status à la Longobardi (1994). The licensing of this null D requires generalized pied-piping of NP thus leading to sequences where NP occurs to the left of nominal-domain functional heads such as demonstratives, number makers and definite/specificity markers. We thus assume that Haitian Creole and Gungbe BNPs involve a null D. Since the corresponding BNPs with null determiners can be interpreted as specific definite and occur in the same positions as DNPs (i.e. noun phrases with overt functional heads that encode definiteness), the question arises whether Haitian Creole and Gungbe display determiner-like elements which, even though they encode definiteness, must be distinguished from Romance- and Germanic-type articles with similar functions.

5. Overt functional heads in Haitian Creole and Gungbe noun phrases

As mentioned previously, Haitian Creole and Gungbe display overt functional heads that occur postnominally as *la* and *lɔ́*, respectively.

(27) a. *Patriyòt la kouri.* [Haitian Creole]
Patriot DET.SG run
'The patriot (in question) has run away.'

b. *Ví lɔ́ hɔ̀n.* [Gungbe]
child DET run.away
'The child (in question) has run away.'

These DNPs occur in all the syntactic contexts described in previous sections for BNPs. We will therefore assume that they display the structure (26a) in both languages. However, the semantic properties of these DNPs are not always parallel across Haitian Creole and Gungbe. Accordingly, we will discuss them separately.

5.1 *lɔ́* and *lɛ́* in Gungbe

5.1.1 *lɔ́ in Gungbe*

Aboh (2002, 2004a, b, 2005, 2006) provides extensive discussion of this marker. Here, we can only give a sketch of the distribution and semantics of this marker. Though BNPs and DNPs have the same distribution, they exhibit a sharp semantic distinction in Gungbe. While BNPs can be (in)definite or generic depending on context, DNPs can only be interpreted as specific (and never as generic). Consider the following two invented scenarios. Context: The Queen of Holland went

to the G20 meeting, but when she wanted to talk, her prime minister refused to let her give her speech.

(28) ***Àxɔ̀sì Òlándù tɔ̀n*** *wá G20 àmɔ́n ɖě* ***àxɔ̀sì lɔ́*** *jró ná*
Queen Holland POSS came G20 but REL queen DET want PREP
ɖɔ̀ xó prèmié mìnìs gbɛ́.
say word prime minister refuse
'The Queen of Holland went to G20, but when the Queen (question/this Queen) wanted to give a speech, the prime minister refused.'

Observe that upon first mention, "the Queen of Holland" is a BNP though it is definite (i.e. it denotes a familiar and unique referent). Word order aside, the translation shows that such a BNP, with a postnominal *of* phrase, is impossible in English. To wit: **Queen of Holland*. The same holds of *the Prime Minister*, which is understood here as the prime minister of Holland. Yet, in the follow up sentence, *àxɔ̀sì* 'queen' occurs with the post-nominal functional head *lɔ́* and the sequence *àxɔ̀sì lɔ́* can be understood as 'the Queen in question' or 'this (very) Queen'. Data of this sort could be taken to suggest that *lɔ́* is a (necessary) marker of emphasis.[15] However, this view is not tenable: even in contexts where a referent is prominent enough to require a definite determiner in English, Gungbe nouns may still occur as bare. Compare the following sentence to its English equivalent. Here we see that the associative noun phrase *hɔ̀n* 'door'(i.e. the door of the taxi) appears bare in Gungbe while it takes a determiner in English.

(29) *Ǔn ɖó tàksí tè bɔ̀ ʃòfɛ̀ lɔ́ jètè bò wá*
1SG make taxi stand COORD$_1$ driver DET get.down COORD$_2$ come
hùn hɔ̀n ná mì, má mɔ̀ nú mɔ́nkɔ̀tɔ̀ kpɔ́n!
open door for 1SG 1SG.NEG see thing like.that never
'I stopped a taxi, the driver got down and opened the door for me. I never saw anything like that.'

Similarly, the Gungbe marker is not required with uniquely existing entities like 'the sun' or 'the moon', which occur as BNPs. In the following sentence, the first conjunct is a general statement. In this case, 'sun' occurs as a BNP as opposed to the second conjunct where the speaker is referring to the sun as it appears at the moment of speech:

(30) *Hwè má hùn égbè àmɔ́n sɔ̀ yà hwè lɔ́ hùn tàùn!*
sun NEG open today but yesterday TOP sun DET open very
'The sun is not shinning, but as for yesterday, the/that sun did really shine!'

15. A similar view can be found in Ajiboye (2005) who suggests that nominal markers in Yoruba (Kwa) are saliency markers.

In addition, *lɔ́* can occur with elements that can be interpreted as definite even in absence of *lɔ́*. As the following examples show, proper names and pronouns are two such elements. Example (31b) illustrates co-occurrence with a proper name.

(31) a. *Aimé Césaire dɔ̀ xó kpó Sarkozi kpó.*
Aimé Césaire say word COORD Sarkozy COORD
'Aimé Césaire talked with Sarkozy.'

b. *Bé mì kà sè dɔ̀ Aimé Césaire lɔ́ kú?*
but 1PL at.least hear that Aimé Césaire DET die
'But did you at least hear that Aimé Césaire died?'

In example (32) the marker co-occurs with a personal strong pronoun (see Aboh 2004a for discussion).

(32) *Mì lɛ́ lɔ́ núdònù díndín ná hù mì.*
2PL PL DET underneath.of.thing searching FUT kill 2PL
'As for you (all) curiosity will kill you.'

The above facts suggest that, in addition to being interpreted as specific definite, an NP-*lɔ́* singles out a discourse referent that is "noteworthy" (i.e. worthy of note in a given discourse, as in Ionin (2006: 188)). In other words, not only does a NP-*lɔ́* phrase refer to a referent that is unique and familiar, but it also picks a referent about which there is "something noteworthy" which the speaker wants to communicate to the addressee (see Ionin 2006 for details on "noteworthiness" in the case of indefinite *this* in English).[16] Informally speaking, *lɔ́* expresses the speaker's intention to comment on a definite referent that is familiar and unique. It therefore embeds two dimensions: the speaker's intention, and a presupposition about the addressee. Accordingly, our analysis of NP- *lɔ́* phrases assumes that such phrases only pick up referents that are necessarily known to *both* speaker and addressee (see Aboh 2006) – this is unlike Ionin's specific indefinite *this*. Given this property, a generic expression in French and English that is marked with the definite determiner as in (33a) must occur as a BNP in Gungbe as in (33b).

(33) a. *Le poisson est bon pour la santé.*
the fish is good for the health
'Fish is good for (one's) health.'

b. *Hwèví (*lɔ́) nyɔ́n ná làmɛ̀ (*lɔ́).*
fish DET good for body DET
'Fish is good for (one's) body/health.'

16. In many West-African French varieties, NP- *lɔ́* expressions are often translated as *le/la NP en question* 'the NP in question'.

Because the Gungbe marker *lɔ́* is sensitive to definite specific and noteworthy referents only, the language displays another marker *ɖé*, which marks indefinite specific as in (34).

(34) *Ùn wlé àgásá ɖàxó yù ɖé.*
1SG catch crab big black DET
'I caught a (certain) big black crab.'

Space limitations prevent us from discussing the properties of this marker in any great detail, but the generalization is that, contrary to *lɔ́* which marks nominal phrases that pick a unique and familiar discourse referent that the speaker assumes is noteworthy, the specific indefinite marker *ɖé* is more like Ionin's (2006) specific indefinite *this*, and does not require such a commitment. Put differently, *ɖé* does not seem to require any presupposition about the addressee's knowledge of the referent. Following Aboh (2004b) we propose that *lɔ́* and *ɖé* should not be equated to the sort of articles that are found in, e.g. Romance and Germanic, but that they should rather be analyzed as DP internal topic markers.[17]

5.1.2 *Lɛ́ in Gungbe*

In previous examples (e.g. (13b) and (32)) Gungbe manifests a number marker that encodes plurality and can co-occur with other determiners. Consider (35):

(35) a. *Ján xɔ̀ **wémà lɛ́**.* [Gungbe]
John buy book PL
'John bought the books.'

b. *Ján xɔ̀ wémà lɛ́ kpɔ́.* [Gungbe]
John buy book PL many
'John bought many books.'

c. ***Còmɛ̀ lɛ́** sù kpɔ́ tò yòvótòmɛ̀.*
unemployed PL abound a.lot in Europe
'There are many unemployed people in Europe.'

It appears from the examples in (35) that the Gungbe number marker *lɛ́* may mark both definite referents as in (35a) and indefinite referents as in (35b, c).[18] In (35b–c), where the number marker *lé* marks an object or subject noun phrase, the indefinite interpretation is forced by the presence of the adverb *kpɔ́* which can be translated here as 'many'. These examples clearly indicate that the different readings of *lɛ́* are not linked to any subject-versus-object asymmetry. Instead,

17. The specific definite marker *lɔ́* and specific indefinite marker *ɖé* are mutually exclusive, and the specific indefinite marker cannot occur with pronouns (see Aboh 2004a).

18. HC and Gungbe differ in this respect and we hope to return to this issue in future work.

it appears that the interpretation of the number marker in terms of definiteness is sensitive to scope properties of quantifiers or adverbs within the clause. This characterization is further supported by the example in (36a) in the context of a discussion about the attitudes of taxi-moto drivers. The example in (36b) corresponds to a situation where the speaker comments on a *Súrù's* decision to leave his goat unattended in the bush.

(36) a. ***Zémìjàn*** ***lɛ́*** *má nɔ̀ sí mɛ̀ ɖé.*
Taxi.moto.driver PL NEG HAB respect person IND
'Taxi-moto drivers (in general) do not respect anyone.'

b. *Súrù jó gbɔ́ étɔ̀n dó núkàmɛ̀,* ***mɛ̀*** ***lɛ́*** *ná*
Suru leave goat his at bush people PL FUT
fin-ì trólóló.
steal-3SG immediately
'Suru left his goat in the bush, people will steal it immediately.'

These two examples in (36), unlike the one in (35a), clearly lack a definite reading. These facts further indicate that the seemingly definite reading assigned to the number marker *lɛ́* in other contexts (e.g. 35a) results from certain constraints to be further investigated. What appears clearly from this discussion though is that the Gungbe number marker cannot be analyzed as simple expression of definite plural. If this were the case, the following example where *lɛ́* co-occurs with the indefinite specific maker *ɖé* would be unexpected.

(37) *Zémìjàn ɖé lɛ́ má nɔ̀ sí mɛ̀.*
Taxi.moto.driver DET PL NEG HAB respect person
'Some taxi-moto drivers are not respectful.'

Similarly, the number marker can co-occur with the definite specificity marker *lɔ́* in which case the whole noun phrase is interpreted as definite specific.

(38) *Ùn wlé àgásá lɔ́ lɛ́.*
1SG catch crab DET PL
'I caught the crabs (in question).'

Clearly, the contrast between (37) and (38) indicates that the number marker *lɛ́* does not unambiguously assign any definite reading by itself. Given this, further study is needed before we understand how definiteness comes about in example (35a) and we hope to return to this issue in future work.

Summarizing, though it is tempting to equate the Gungbe nominal-domain functional heads *lɔ́* and *ɖé* to their (apparent) (in)definite counterparts in, say, French and English, these Gungbe elements are more akin to discourse markers comparable to topic (and emphatic/focus) markers. This hunch is supported

by the fact that the specific definite marker *lɔ́* (like its Haitian equivalent *la*) also occurs at the clausal level where it indicates that the corresponding proposition, or some part thereof, is already familiar to both speaker and addressee (cf. Lefebvre 1998; Aboh 2004a, 2006).

5.2 *la* in Haitian Creole

Like Gungbe *lɔ́*, the Haitian Creole functional head *la* occurs postnominally where it gives rise to a definite and singular-number interpretation,[19] as in (27), repeated here as (39) for convenience.[20]

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19. We disagree with Zribi-Hertz and Glaude's (2007) claim that the HC article *la* does not require number specification. These authors use examples such as *ze a* 'the egg' to argue that such DNPs are unspecified for number, as in the following example

(i) *Pòl ap achte ze a.*
Paul fut buy egg the
'Paul will buy the (single) egg-item.'
'Paul will buy the egg-material.' (i.e. that unspecified quantity of egg produce which is needed for some purpose or other'

But it seems to us that *la* is singular with the singularity being ambiguous as to the unit of counting: one single egg vs. one given amount of egg (as specified in a recipe, say). Such ambiguity seems most common with ingredients for recipe, and may be lexically determined. To wit the contrast between (ii) and (iii) below:

(ii) *Mwen bezwen yon douzèn ze pou mwen fè gato.*
1SG need a dozen egg for 1SG make cake
Tanpri, al chache ze a/yo pou mwen
Please, go seek egg DET.SG/DET.PL for me
'I need a dozen eggs to bake a cake. Please go fetch it/them for me'

(iii) *Mwen bezwen yon douzèn traktè/travayè pou mwen bati kay.*
1SG need a dozen tractor/worker for 1SG make kay
*Tanpri, al chache traktè/travayè yo/*a pou mwen*
Please, go seek worker DET.SG/DET.PL for me
'I need a dozen tractors/workers to build homes. Please go fetch the tractor*(s)/worker*(s) for me'

As far as we can tell, Zribi-Hertz and Glaude's (2007) analysis cannot account for the contrast in (ii)–(iii): *traktè a* and *travayè a* in (iii), like *ze a* in (ii), should be able to enter a structure unspecified for number, contrary to fact.

20. One may be tempted to relate the distribution and semantics of HC *la* to that of its French etymon, namely the adverb *là*. We won't do so here, but suffice it to note that many of the uses of HC *la*, as discussed here, have no counterparts in French constructions with *là* (also see Notes 7 and 15).

(39) *Patriyòt la kouri.*
Patriot DET.SG run
'The patriot (in question) has run away.'

However, *la* in Haitian Creole differs from Gungbe *lɔ́* in various respects. One dimension where Haitian Creole *la* and Gungbe *lɔ́* part company concerns the (im)possibility of referential vs. attributive uses: In the example in (40a), which is inspired from English examples in Heim (1991), the DNP headed by *la* manifests, alongside the referential (specific definite) reading, an attributive reading (the "whoever that is" variable reading that refers to no candidate in particular). The latter reading is similar to certain readings that are possible for French DNPs headed by *le, la* or *les*. This attributive (or variable) reading is forced when the sentence starts with an adjunct phrase such as *apre chak eleksyon* 'after each election.'[21] Such attributive interpretation does not obtain for Gungbe DNPs with *lɔ́*. In Gungbe the sentence in (40b) can be uttered in a situation where it is traditionally the case that reporters always want to interview the winner, whoever that is (attributing reading). On the other hand, (40c) will be used in a context where both speaker and hearer know exactly who the new winner is (specific definite reading), but they prefer to not pronounce her name.

(40) a. *Jounalis la vle kestyonnen kandida ki genyen *(an).*
reporter DET want question candidate who win DET
'The reporter wants to question the candidate who has won (i.e. Barack Obama).'
'The reporter wants to question whichever candidate has won (i.e. whoever that is).'

b. *Jùnàlís lɔ́ jró ná kàn xó bíɔ́ mɛ̀ xè ɖù lòtó.*
reporter DET want to inquire word ask person who win lottery
'The reporter wants to question the person who won the lottery (whoever that is).'

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21. These observations about attributive uses of DNPs with *la* in Haitian Creole disconfirm Zribi-Hertz and Glaude's (2007:276) claim that HC *la* is not open to variable reading. One additional example of such variable reading is found in the Kreyòl version of the 1987 Constitution of Haiti. All the DNPs in the example below are used attributively.

Lalwa mande pou yo fè ***moun yo akize a*** *konnen li gen dwa pran avoka depi* ***kòz la*** *kòmanse, jistan* ***jijman an*** *fini nèt*
Law requires for 3PL make person 3PL accuse DET know 3SG have right take lawyer since trial DET begin until trial DET end completely
'The law requires that the accused be informed that they have the right to a lawyer from the beginning to the end of the trial.'

c. *Jùnàlís lɔ́ jró ná kàn xó bíɔ́ mɛ̀ xè ɖù*
reporter DET want to inquire word ask person who win
lòtó lɔ́.
lottery DET
'The reporter wants to question that specific person who won the lottery.'

At first approximation it seems as if *la* as a "definite" article can be *non*-referential similarly to French definite determiners (e.g. *la* in *Ils cherchent la cambrioleuse* "They are looking for the she-burglar" in a context where no one knows who that she-burglar is). Gungbe counterpart *lɔ́* cannot be used in such contexts.

Another difference between *la* and *lɔ́* is that *la,* unlike *lɔ́*, cannot be used with proper names. Compare the following Haitian Creole examples to the Gungbe ones in (31) and (32).

(41) *Aimé Césaire pale ak Sarkozy. Men, mwen tande*
Aimé Césaire speak with Sarkozy but 1SG hear
*Aimé Césaire (*la) mouri.*
Aimé Césaire DET.SG die
'Aimé Césaire spoke with Sarkozy, but I just heard that the Aimé Césaire in question died.'

Haitian Creole *la* cannot co-occur with personal pronouns either.

(42) **Yo-menm la, yo te chape nan goudougoudou a.*
3PL-EMPH DET.SG 3SG ANT escape in earthquake DET.SG
'As for them, they escaped from the earthquake.'

(Note that the utterance in (42) would be grammatical with *la* as the location adverb "there" as in "Those who are over there, they escaped from the earthquake"; cf. Notes 6, 14 and 21.)

Now we show that the semantics of Haitian Creole *la* is not identical to that of the French definite article *le*/*la*/*les*. One striking difference is that Haitian Creole *la*, unlike French *le*/*la*/*les*, cannot be used in generic contexts (Joseph 1988: Chapter 5). In this respect, Haitian Creole *la* is similar to Gungbe *lɔ́*.

(43) *Le poisson est bon pour la santé.* [French]
the.MASC.SG fish is good for the.FM.SG health
'Fish is good for (one's) health.'

(44) *Hwèví (*lɔ́) nyɔ́ ná lànmè.*
fish (*DET.SG) good for body
'Fish is good for (one's) health.'

(45) *Pwason* (**an*) *bon pou sante.*
fish (*DET.SG) good for health
'Fish is good for (one's) health.'

Another property that likens Haitian Creole *la* and Gungbe *lɔ́*, and differentiates both from French *le*/*la*/*les*, is the fact that the former, unlike the latter, co-occur with demonstratives:

(46) a. *òxwé ɖàxó éhè lɔ́* [Gungbe]
house big DEM DET
'this big house'

b. *gwo kay sa a* [Haitian Creole]
big house DEM DET.SG
'this big house'

c. (**la*) *cette* (**la*) *grande maison* [French]
DET.FM.SG DEM.FM.SG DET.FM.SG big house
'this big house'

d. *cette grande maison là* [French]
DEM.FM.SG big house there
'this big house over there'

Yet, as (46d) shows, the French deictic locational adverbial does occur in the right position to qualify as the etymon of the Haitian Creole determiner *la*.

How about DNPs with *la* vs. specific definite BNPs? To what degree do these two types of noun phrases overlap in their semantics? There are at least three differences to highlight.

Firstly, recall from (40a) that DNPs with *la* can be assigned an attributive (or variable) interpretation. This is not possible with BNPs.

Secondly, BNPs in Haitian Creole, on a par with noun phrases with demonstrative articles, cannot be used in certain bridging contexts (as in (47b)), though the definite determiner is grammatical in such contexts (see (48b).[22]

(47) a. *Mwen te achte yon machin tou nèf…*
1SG ANT buy a car all new
'I bought a brand-new car.'

b. **… Mezanmi o! Volan* (*sa a*) *te kwochi.*
Friends EXCL steering-wheel this/that ANT crooked
'…And lo and behold! The/*That steering-wheel was crooked.'

22. Gungbe shows *somewhat* similar patterns, but the contrast in Gungbe is not as sharp as the ones in HC. More work is needed in order to better describe, compare and analyze the relevant contrasts in the two languages.

(48) a. *Mwen te achte yon machin tou nèf…*
1SG ANT buy a car all new
'I bought a brand-new car.'

b. *… Mezanmi o! Volan an te kwochi.*
friends EXCL steering-wheel the ANT crooked
'…And lo and behold! The/*That steering-wheel was crooked.'

The third, and last, difference can be seen in a subtle contrast between (49b) and (49c) below, which are two possible continuations of (49a):

(49) a. *Bouki te marye ak yon bèl wosiyòl…*
Bouki ANT marry with a pretty nightingale
'Bouki was married to a beautiful nightingale.'

b. *Wosiyòl te renmen kowosòl.*
Nightingale ANT like soursop
'The nightingale loved soursop.'

c. *Wosiyòl la te renmen kowosòl*
nightingale DET.SG ANT like soursop
'The nightingale (in question) loved soursop.'

The contrast is subtle and somewhat hard to explain. But as they compare (49b) with (49c) Haitian Creole native speakers often respond that the expression *wosiyòl* in (49b) is more "vivid" than *wosiyòl la* in (49c). It's as if *wosiyòl* in (49b) is the name of a character in a play (somewhat on a par with capitalized animal names in English tales, as *Dog* in (5)) whereas *wosiyòl la* in (49c) is 'just' a noun phrase that describes that character.

Whence the extra "vividness" of *wosiyòl* in (49b)? To answer this question, we'll borrow some analytical tools from Wolter's (2004) analysis of demonstratives, and argue that the null D in BNPs such as *wosiyòl* in (49b) is a covert demonstrative. In Walter's analysis, demonstratives have two arguments: "the NP complement, which contributes a domain, and a second argument, which identifies the unique referent within the domain." In the case of *wosiyòl* in (49b), the first argument is the NP *wosiyòl* and the second argument is implicit. This is on a par with (50a) from Wolter (2004) where the second argument of *that* in (50a), unlike the second argument of *that* in (50b), is implicit:

(50) a. *That hero will inherit half the kingdom.*
b. *That hero who kills the dragon will inherit half the kingdom.*

As explained by Wolter, "In the case of deictic demonstratives accompanied by a demonstration [as in (50a)], it makes sense to think of the second argument as something that is literally supplied by an *extralinguistic act.* The implicit second argument of a deictic or anaphoric demonstrative is the property of being

identical to a salient element of the context" (my emphasis). This "extralinguistic act" (a pointing toward "a salient element of the context") is thus the source of the vividness observed in (49b) as compared to (49c).

By the same token, this analysis would then explain why specific definite BNPs are infelicitous both in bridging contexts and in attributive readings: this exclusion of BNPs from such contexts now becomes expected since DNPs with demonstrative determiners are also excluded from these contexts. This commonality between specific BNPs and DNPs with demonstrative determiners thus gives extra support to our analysis of specific definite BNPs as headed by a covert demonstrative.

5.3 Recapitulation and implications of our micro Trans-Atlantic Sprachbund comparisons

BNPs in Haitian Creole and in Gungbe show striking morphosyntactic and interpretive similarities, as illustrated in Sections 2 to 4. Both languages display BNPs that do not fall in the familiar typologies described in the literature so far:

i. They don't show morphological number on N.
ii. They don't have a classifier system.
iii. They make count versus mass distinction.
iv. They allow (in)definite, (non)specific and generic readings for their BNPs.
v. They have BNPs that occur in all positions, in a way comparable to DNPs in other languages.
vi. They have DP-internal markers that express number, specificity, definiteness, noteworthiness.

The facts presented in Sections 5.1 and 5.2 further indicate that these languages display certain noteworthy differences when it comes to the use and interpretation of overt functional heads in their respective nominal domains. Here, Haitian Creole exhibits properties that intersect both those of the Gungbe functional head *lɔ́* and those of the French definite articles *le, la, les*.

In analyzing these facts, we argue that if the operation of type shifting from a nominal predicate to an argument is performed in syntax by a functional category (e.g. D^0), then that category seems active in BNPs in these languages. This would mean that such BNPs in these languages always project up to (at least) DP. If so, then there may not be any 'parameter' strictly *internal* to the noun phrase that can explain these facts and allow us to understand the BNP-related differences between Haitian Creole/Gungbe and the most commonly studied varieties of Romance/Germanic. In Aboh and DeGraff (in preparation) we elaborate on the analysis sketched in Section 5.2 above whereby the null D in Haitian Creole and Gungbe BNPs with specific definite interpretation functions like a demonstrative

(à la Wolter), then we consider the discourse properties of the Haitian Creole/Gungbe determiners and we relate their NP-level distribution to their clause-level distribution. More broadly, we hypothesize that the same 'parameter' that allows Haitian Creole and Gungbe to manifest bare sentences (e.g. sentences anchored in time without over tense markers) also allows them to manifest bare noun phrases (i.e. specific definite noun phrases – that is, noun phrases anchored in discourse – without overt determiners). We further observed that the functional heads *la* (Haitian Creole) and *lɔ́* (Gungbe) are more akin to discourse markers rather than their counterparts in French or English.

To recapitulate, the data in (40)–(42) suggest that Haitian Creole *la*, is not a replica of Gungbe *lɔ́* or the French definite determiners *le*/*la*/*les*. Instead, *la* seems to take on usages that overlap with the usages of determiners in both Gungbe and French. We now consider the consequences of our findings for issues of language contact.

6. Implications for language-contact theoretical issues?

The facts and analyses in this paper suggest that Haitian Creole is very much like Gungbe when it comes to the interpretation and distribution of BNPs. With regard to the use of functional heads in the nominal domain, however, Haitian Creole displays a mix of properties: some similar to Gungbe, and others similar to French. There is evidence from history, ethnography and anthropology that Haitian Creole and much else in Haitian culture emerged from the contact between, inter alios, speakers of Gbe (Kwa) varieties and speakers of French varieties (Singler 1996). It thus seems reasonable to conclude that the Haitian Creole has inherited:

i. DP-related properties from the Gbe substrate – some of these properties (e.g. *post*-nominal determiners) distinguish DPs in both Haitian Creole and Gbe from DPs in French where determiners are *pre*-nominal
ii. DP-related properties from French – some of these properties (e.g. the occurrence of both *pre*- and *post*-nominal adjectives) set Gungbe and French apart but are found in both Haitian Creole and French (Gungbe allows *post*-nominal adjectives only; see DeGraff 2002 for discussion).

Clearly the morphosyntactic properties of DPs in Haitian Creole overlap with the properties of DPs in Gbe and in Romance. Given this characterization, an immediate conclusion is that Haitian Creole could not have developed from the relexification process proposed by Lefebvre (1998) whereby "substratum speakers rely on relexification to create a new lexicon, and on the principles and parametric values of their own grammar to establish the grammatical properties of the new

language they are creating" (p. 394). In other words, this hypothesis would predict that Haitian Creole grammar is, by and large, isomorphic to the grammars of the Gbe substratum. However, what the discussion here suggests is that Haitian Creole grammar cannot be taken to reflect the principles and parametric values of *any* of the substrate and superstrate languages considered *individually* (also see DeGraff 2002, 2005, 2009).

Similarly, the observations in this paper, especially the systematic correspondences between Haitian Creole and Gbe and between Haitian Creole and French, suggest that Haitian Creole could not have been created *ab ovo* by children faced with a structureless 'macaronic' pidgin input as proposed by Bickerton (1999). The intricate morphosyntactic and semantic properties that Haitian Creole inherited from both French and Gbe, as documented in this paper, would not have survived the hypothetical pidgin stage postulated by Bickerton. Furthermore, the similarities (and differences) between Haitian Creole and its source languages seem comparable to those that arise in the comparison of closely related languages. It thus seems unlikely that Haitian Creole emerged from a Language Bioprogram operating with exceptionally impoverished PLD.

In a related vein, the aforementioned correspondences between Haitian Creole and its major source languages, as revealed in this paper, show how important it is to dig deeper and carefully, beyond superficial patterns, into abstract properties of grammar (in our case here, the morphosyntax and semantics of noun phrases) before making overarching claims about, say, putative Creolization-specific processes or some exceptional "Creole typology."

With this in mind, we take the observed Haitian Creole-Gbe and Haitian Creole-French correspondences seriously and we assume, following DeGraff (2002: 391) and DeGraff (2009), that the process commonly referred to as "creolization" ultimately reduces to an L2A-L1A cascade in the history of French in colonial Haiti where the (substrate- and superstrate-influenced) output of second-language acquisition by Gbe speakers with French as target language played a key role in defining the primary linguistic data (PLD) in subsequent instances of first-language acquisition. Put in the context of Mufwene's (2001, 2003, 2005) views on language change as implemented in Aboh's (2006, 2009) theory of hybridization, this would mean that the developing "I-Creoles" in colonial Haiti were seeded, not by a Bickertonian pidgin with extraordinarily impoverished grammar, but by relatively *rich* (i.e. heterogeneous) PLD.

Because the French-derived patterns in the PLD of the early Creole speakers were influenced by speakers of full-fledged and mutually distinct native languages, it necessarily expressed a combination of distinct features (i.e. features from different languages such as, e.g., French and Gbe). But heterogeneous patterns that convey distinct and potentially incompatible features for the linguist

would, presumably, not cause any pause to children creating their idiolects with such PLD as input. Children usually do not pause to ask whether determiners in their language can be used for referential readings only (as in Gungbe) or for both referential and attribute readings (as in French and Haitian Creole). Therefore, no matter the heterogeneity in the features underlying the PLD in colonial Haiti, the native speakers of the emergent Creoles used these data to create idiolects which, by definition, were fully UG-compatible linguistic systems. These "I-Creoles" eventually yielded a coherent and stable system of norms that in turn came to define the communal ("E"-)language of the new "Creole" community.

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Coding in time

On the historical character of linguistic knowledge*

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In this paper, I argue that linguistics is a historical science in more than one sense: Not only is the object, language, embedded in time, but so is the study of it. This has consequences for our conception of language change. A central result of previous sociolinguistic analyses of spoken Copenhagen Danish, starting with Brink & Lund 1975, is that during the latter half of the 19th century the common European low back vowel (a) was differentiated in the Copenhagen speech community into at least four different vowel qualities all of them bearing both linguistic and sociolinguistic information. I present evidence from an unbroken chain of Copenhagen informants ranging from birth years 1905 until 1962–71. Various sections of this sample have been studied by different researchers using auditory classification of variants, and the total sample has been coded once more by the LANCHART centre. The analysis shows that auditory coding reveals the same patterns of differences between sociologically characterized groups but the relative figures classified as belonging to the various variants diverge quite dramatically and seem to be dependent on the age of the coder and the point in time at which the coding takes place. I suggest explanations for these facts and discuss whether this is a problem for the validity of sociolinguistic research or perhaps an inescapable condition for research within the language sciences.

1. Introduction

Linguistics is a science. Sciences produce, more or less certain, knowledge. In this paper we shall take a look at the conditions for producing certain knowledge within the field of linguistics. We start by presenting the results from two studies of the same phenomenon, in this case a vowel variation in spoken Copenhagen

* The research reported on in this paper was made possible by a generous grant (DNRF 63) from the Danish National Research Foundation to the author 2005–2015.

Danish and proceed to present the results of two studies of the same data separated by more than thirty years. Throughout, focus is on what knowledge is produced, how it is produced, and how certain it is.

2. The J. Normann Jørgensen study and the variable (a)

In 1980 J. Normann Jørgensen published a study of a number of features of spoken Danish. His intention was to replicate the results from a previous study by Lars Brink and Jørn Lund published as Brink & Lund 1975. In their 1975 study Brink and Lund show that the linguistic situation in Denmark may best be understood if we take as our point of departure that the linguistic norm for spoken Danish nationwide is a form of the language spoken in the capital of Denmark, Copenhagen. Copenhagen houses two different sets of forms labeled by Brink and Lund H and L (High and Low respectively). Since Brink and Lund's study is far too complex to replicate in its entirety and since we shall only be dealing with a tiny fraction of their results I shall limit myself to telling the tale of the variables we are interested in, the (a) variables in Copenhagen speech.

2.1 The history of Danish (a)

Since letters tend to obscure variation beneath the phonological surface we have great difficulties in getting at historical variation which only concerns the realization of a phoneme which has an obvious graphematic counterpart. This is the case for the variable (a) in Danish. However, at the beginning of the 19th century a very astute phonetician, J.H. Bredsdorff[1] proposed a writing system which would be tailored to depict the sounds of Danish (Bredsdorff 1817). In this first attempt at a phonetic transcription system tailored especially for Danish there is only one (a). Bredsdorff even transcribes two distinct styles of (Copenhagen) Danish in his pamphlet (conversational style vs. public speaking) and in both these specimina we have examples of words which undoubtedly also at that time had a long (a:), and examples of the contexts of the short (a) which were soon to manifest a split (Gregersen 2010: 57f). We may thus be reasonably sure that the baseline at the turn of the 19th Century is that Danish had only one a-quality. The precise quality of this (a) would be hard to guess at if it were not the case that the very same Bredsdorff in another paper where he compares the major European languages as to sound systems, identifies the Danish (a) with the common European one, i.e.

1. On Bredsdorff as a historical linguist: Andersen 1982.

the back rounded vowel that we found and still find in contemporary Italian and French [ɑ] (Bredsdorff 1833: 94).

The first mention we have of a change in the realization of the Danish (a) is by the Swedish linguist Rydquist (1800–1877). The observation concerns the long (a:). Rydquist notes that the Copenhagen long (a:) is difficult for a Swede to pronounce since it differs from the long Swedish (a:). It seems to be more fronted and somewhat higher, it tends towards Swedish (ä), says Rydquist. There is no mention of any short (a) pronunciation having the same quality. What happens next and presumably quite rapidly, i.e. in the course of less than a hundred years is a complicated series of splits and raisings. Summarizing the existing descriptions (cf. Gregersen 2010) and omitting details such as r-influences, we may state the development roughly as follows:

> *Initial state*: only one [ɑ]
>
> *Middle of the 19th Century*: Long (a:) in Copenhagen is raised to [a:].
>
> *During the second half of the 19th century*: Short (a) before the glide (j) is raised to the same quality as the long (a:)
>
> *At the end of the century, i.e. around 1900* the system undergoes a further split: The long (a:) moves further up to [æ:] while the short (a) undergoes a split dependent on the following context. One short (a) has more or less the same quality as the long (a:). This is found before alveolars, syllable boundaries and nil. The old quality is, however, preserved before velars and labials. Brink and Lund now show that at the turn of the century the two social dialects in Copenhagen differentiate further: The Working Class use the original back [ɑ] but raise the front [æ] even further to an [ɛ]. Thus the two phonetically extreme variants [ɛ] and [ɑ] became characteristics of Working Class Copenhagen speech. In contrast, the Middle Class used the more open variant of the alveolar pair [æ] in front of alveolars, nil and syllable boundaries and preferred the [a] before velars and labials thus diminishing the contrast between the two variants – in phonetic terms (Brink & Lund 1975; Gregersen 2010; Holmberg et al. 1991; Jørgensen 1980). I have attempted to describe the logic in Figure 1 but I am not certain that we have evidence as to the exact timing of these processes apart from the initial state (around 1820) and the end state (around 1920).

In this paper I will only discuss the fronted and raised variants, i.e. the variable (a) before alveolar Cs and nil, that is the two variants inside the oval in Figure 1.

2.2 The design of the Jørgensen 1980 study

As noted above, J. Normann Jørgensen set out to replicate the results from the Brink & Lund 1975 study. This intention may obscure the difference between the studies, though. What Brink and Lund had shown was that Copenhagen speech

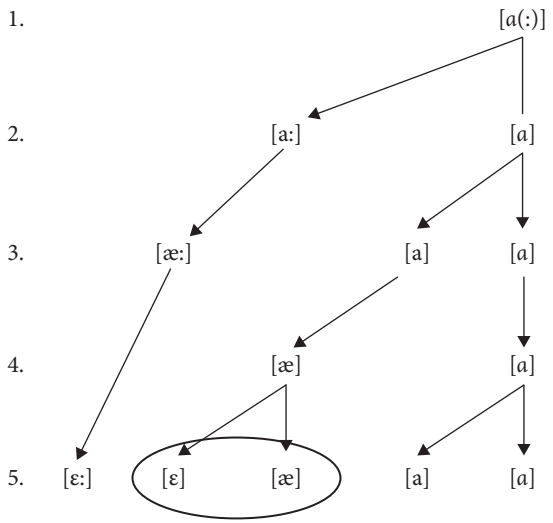


Figure 1. The many splits of the common (a) since the beginning of the 19th century. First the long (a:) moved forward (2), then the short (a) before (j) followed suit (3) and the two short (a)s were then split according to context while the long (a:) moved upwards (4) and finally the long (a:) moved even further upwards and the context sensitive short (a)s were split in two variants each, the upper one being more or less identical to the long (a:) while the lowest and most back one is identical to the vowel quality preserved in r-influenced contexts like 'arm' (Eng. *arm*) (5). In this study I am only concerned with the two variants of short (a) within the oval

could be characterized as consisting of two distinct systems, an H and an L system. The method used in their two volume book is not quantitative, i.e. we do not in Brink & Lund 1975 get a variationist study of (a). Thus J. Normann Jørgensen is strictly speaking reformulating the Brink and Lund results as a quantitative hypothesis to be tested by a regular (and very early) variationist study of (a). This is why he chose the design given below with H meaning High (aka MC) and L meaning Low (aka WC).

J. Normann Jørgensen collected his data by performing interviews with persons selected randomly from a list of 2000 individuals residing in three of the Copenhagen districts (boroughs or communes), viz. Copenhagen proper, Frederiksberg and Gentofte. He selected only persons who, based on what they told him about their social background, could be classified as belonging to either the WC or the MC, and he only talked briefly with them in order not to take too much of their time and used only 3 minutes of each recording for his analysis excluding the first minutes for reasons of possible nervousness (Jørgensen 1980: 68 and 72). The recordings were carried out in 1974–75 and it has to be born in mind that being recorded was not as usual then as it is now.

Table 1. The J. Normann Jørgensen design without supplements

Born	1905				1920				1935				1950			
Gender	m		f		m		f		m		f		m		f	
SCS	H	L	H	L	H	L	H	L	H	L	H	L	H	L	H	L
Number	2	5	3	4	1	6	3	4	3	4	1	6	3	4	3	4
Total 1	7		7		7		7		7		7		7		7	
Total 2	14				14				14				14			

Normann Jørgensen included in his study also a data set which had a different origin. This was a data set collected by Mette Mortensen some years before (1970–71) for a different purpose. The design of the Mette Mortensen study features more informants than J. Normann Jørgensen had interviewed, and they were also interviewed in a different way, i.e. the interviewer focused on a theme which was supposed to be a hot topic for the two respective age groups in her study. The data of the Mette Mortensen study which were added to the design shown above in Table 1, may be seen from Table 2:

Table 2. The supplementary data from the Mette Mortensen recordings

Born	1915				1945			
Gender	m		f		m		f	
SCS	H	L	H	L	H	L	H	L
Number	5	6	6	6	6	7	3	6
Total 1	11		12		13		9	
Total 2	23				22			

A comparison of the two tables above reveals that the Mette Mortensen data have much more numerous representations in the cells than the Jørgensen data. This should be born in mind during the analysis below.

2.3 The results of the J. Normann Jørgensen study: What do we know about the short (a)?

Jørgensen reports his results as aggregated percentages for the four groups in a specific data set: WC men and women and MC men and women. He reports them as percentages and as graphs showing the developments in apparent time. Figure 2 give the original results as they were given in the paper but converted to ε-percentages:

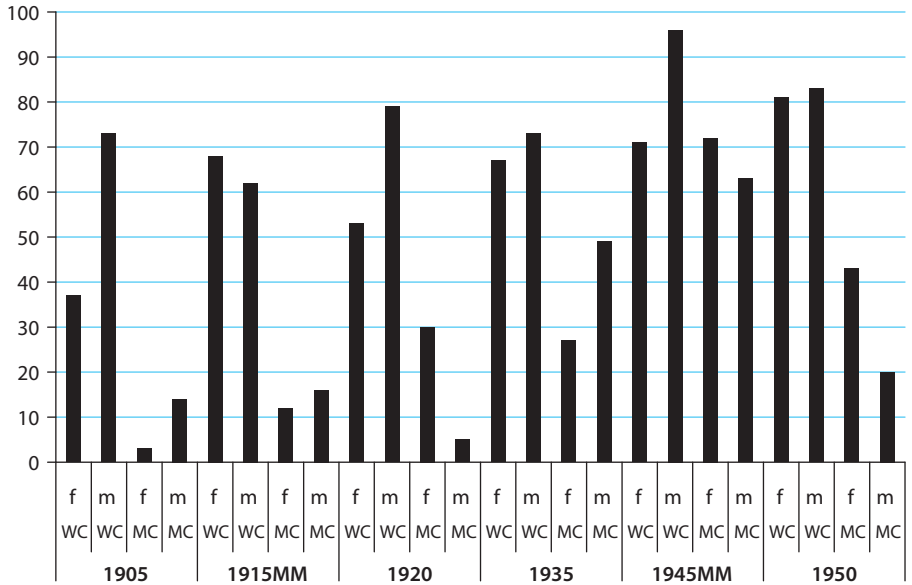


Figure 2. The Normann Jørgensen data transformed into a diagram showing the development in apparent time from (individuals born in) 1905 till (individuals born in) 1950 distributed in groups according to gender and class affiliation. The columns show percentages of [ɛ] qualities. MM indicate the Mette Mortensen data. Note the 1950 columns. (After Jørgensen 1980: 82)

The Figure is hard to grasp as it is but when it is simplified the development is reasonably clear, cf. Figure 3:

Apart from the 1950 figures, the generalization is obvious: A change led by the WC is taken up by the MC and about to be completed. As noted above, there are more individuals in the cells in the 1915 and 1945 data and the 1945 data in particular show that the WC figures of raising are close to the ceiling. But what about the 1950 figures? They seem to indicate that the variational pattern is not so obviously directed towards going to completion. We shall come back to that below.

3. Another look at (a): The Copenhagen Study in Urban Sociolinguistics (1991)

3.1 Introduction: Generations

In 1986–89 Inge Lise Pedersen and I jointly directed the Copenhagen Study in Urban Sociolinguistics (Gregersen & Pedersen 1991). A team of three field workers interviewed 83 native Copenhageners, predominantly based in the old navy neighborhood of Nyboder. In the report on the project we use the concept of

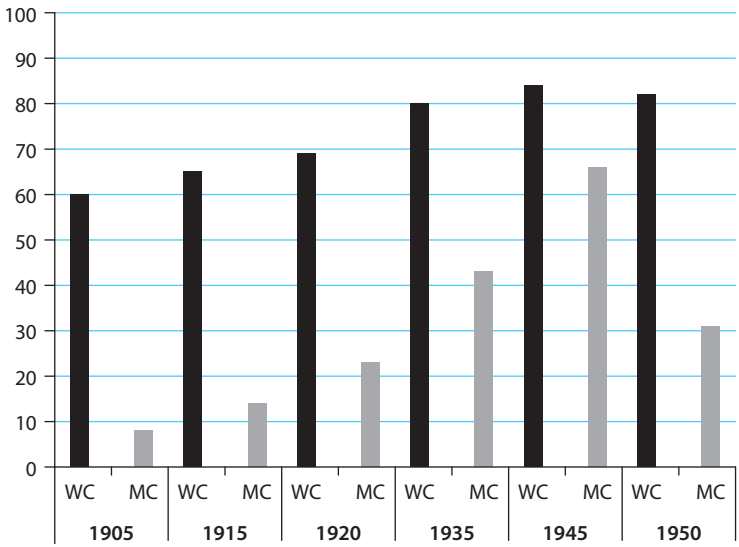


Figure 3. Simplified version of Figure 2 showing the [ɛ] percentages according to class affiliation only

generation instead of using birth year as in principle a continuous variable. We suggested that age, whatever else it is, is *not* continuous but rather has to be seen as discrete entities, i.e. life sections, such as youth, settling phase, settled phase and old age (Eckert 1997). The conventions used here to refer to these life phases, or rather the people in them, i.e. *generations*, are the following: Generation 1: born between 1945 and 1963 (the Jørgensen data for individuals born 1950 are comparable to this generation), and generation 2, born between 1965 and 1973. The Mette Mortensen data for the oldest group form a Generation 0: born 1915. The Mette Mortensen data were however not included in the Copenhagen Study.

Table 3. Design of the Holmberg et al. 1991 study of phonetic variation in the Copenhagen data, Generations 1 (G1) and 2 (G2)

Born	**1945–63 = G1**				**1965–73 = G2**			
Gender	**m**		**f**		**m**		**f**	
SCS	**MC**	**WC**	**MC**	**WC**	**MC**	**WC**	**MC**	**WC**
Number	4	5	4	5	2	4	2	5
Total 1	9		9		6		7	
Total 2	18				13			

The Copenhagen Study in Urban Sociolinguistics also included a study of vowel variables, viz. Holmberg et al. 1991. One of the variables studied is precisely the short raised (a).

3.2 The variants and the coding

In the Holmberg study we recognized 5 variants of short (a) with the most raised being identified with IPA cardinal vowel 3, i.e. [ɛ] and the next to most raised variant as an [æ]. So far, so good! But we added a third variant, because we thought that some Middle Class individuals would use this more open, slightly archaic, variant (and it turned out to be correct, some of them did!).[2] As with the Jørgensen study, we used auditory coding but there are important differences of procedure between the two studies. Jørgensen coded all the occurrences of (the very frequent) variable (a) during approximately 3 minutes from each informant. In contrast Henrik Holmberg (who coded 20 of the 31 informants) and Inge Lise Pedersen (who coded the rest) coded all occurrences in 20 minutes of talk from each informant. This was close to a mission impossible to carry out for all of the 6 x 4 informants from Generation 1 and the 5 x 4 informants from Generation 2 and in fact we only have analyses for 31 of the informants (cf. Table 3). Thus only for the Generation 1 informants we have results for almost all the recorded individuals. In total, Holmberg and Pedersen coded: in Generation 1: 5 WC women and 5 WC men; 4 MC women and 4 MC men; and in Generation 2: 5 WC women and 4 WC men and 2 MC women and 2 MC men.

3.3 The selection of passages according to style

The Copenhagen Study in Urban Sociolinguistics had as one of its main objectives to operationalize the Labovian concept of style (Labov 1972; Albris 1991). Style was as that time seen as a concept which would differentiate between at the one end *vernacular usage* and, at the other end by informants' attention to speech leading to highly monitored attempts to produce items within a consciously preferred way of speaking, i.e. a *formal style*. The particular operationalization of style chosen is not relevant, what matters here, is that this was taken as the basis for selection of passages to code. Accordingly, we selected a number of passages from the interviews that had been classified by the style analyst as belonging to either

2. This is apparent from the fact that some of the informants in the Holmberg study have a value higher than 2 (meaning that they must have had at least one instance of a variant 3). The most conspicuous of these informants is a young MC woman who has 2.13 as her index score meaning that she has more low variants than raised ones.

casual or non-casual style and coded all and only the occurrences of the variables in those passages (Albris 1991; Holmberg et al. 1991: 109).

For the short (a) variable this meant a massive amount of coding. Around 10.800 occurrences of this variable alone had to be classified into at least three categories by a coder. A huge job! The up sides to this procedure were first that it is probably true that no person is able to code that many occurrences without developing some consistent coding technique (op.cit.109f), and secondly, that since the data were selected from the passages which featured maximally different styles, one obvious research question could be asked and answered: Did the short (a) manifestations vary with style? The answer for this particular variable was: yes (Holmberg et al. 1991: 120ff) and intriguingly: It did *not* vary with social class.

This is surprising. The Jørgensen study with recordings from 1974 and 1975 and the Brink and Lund study of 1975 based on a huge and diverse material both agree that the short (a) is a class sensitive variable, arguably the emblem of class differences in Copenhagen speech. But only little more than 20 years later Holmberg et al. document that the raised (a) does not vary significantly with class. There are at least two possibilities: Either we have witnessed a drastic change completed in a very brief span of time reducing an erstwhile WC shibboleth to a style sensitive variant equally used by both social classes. The slight shift in the Jørgensen 1950 figures where the trend reverts, may be taken as an indication that this was about to happen. Or the difference between the results of the Jørgensen study and the Copenhagen study might be due to different methodologies or even coding practices. In the LANCHART study (Gregersen 2009) we undertook a new study of old data from both the Jørgensen (the Mette Mortensen recordings) and the Copenhagen data (from both Generations 1 and 2) in order to provide a principled basis for an answer.

4. The LANCHART study

4.1 Design and coding practices

The LANCHART study is a panel study of language change in real time designed to address issues identified by Labov in the first part of his monumental trilogy on 'The Principles of Linguistic Change' (1994):

> We thus have two firm bodies of evidence on the stability of phonological systems. One set, consisting of trend studies, shows that variables operating at high levels of social awareness are modified throughout a speaker's lifetime, with consistent age-grading in the community. The other set, including community, family, and individual studies, shows that the phonological categories that underlie the surface variation remain stable. Between these two, is a vast array of data

> concerning the phonetic realizations of vowel systems, which show quantitative and qualitative differences across generations. These indicate that generational change rather than communal change is the basic model for sound change. As the panel studies based on reinterviews of the same subjects proceed, we will be able to state with more certainty, how much age-grading is present in these records. From present indications, apparent-time studies may understate the actual rate of sound change, since older speakers show a limited tendency toward communal change, participating to a small extent in the change taking place around them.
>
> (Labov 1994: 111f)

In panel studies of changes in real time I have suggested (Gregersen 2009) that we use the convention of designating the original study as the S1 and the replication at a later point in time as the S2. In the case of the LANCHART study, the S1 was the above mentioned Copenhagen study with recordings from 1987–88. The LANCHART S2 recorded the same informants in 2006–2007. We succeeded in retrieving and re-recording 24 of the Generation 1 informants from the S1, and 18 from Generation 2, cf. Table 4.

Table 4. Design of the LANCHART replication of the original Copenhagen Study. Note that there are more informants in almost all cells

Born	**1945–63 = G1**				**1965–73 = G2**			
Gender	**m**		**f**		**m**		**f**	
SCS	**MC**	**WC**	**MC**	**WC**	**MC**	**WC**	**MC**	**WC**
Number	6	6	6	6	5	5	4	4
Total 1	12		12		10		8	
Total 2	24				18			

Out of this total of 42 informants, 25 were also analyzed in the Holmberg study (6 of the original Holmberg informants were unavailable for re-recording). The LANCHART project analyzed both the S1 recordings and the S2 recordings (the re-recordings) in exactly the same way. But there is still an important difference in coding practice: The Holmberg conclusions have been reached on the basis of 31 informants' more than 10.000 occurrences whereas the LANCHART results are based on a mean of 40 instances per person making the total data base for this particular variable close to 3400 instances.

In the LANCHART study of short (a) we thus had to adopt a much less time consuming approach to coding and control the selection of occurrences to be coded by other means than the style analysis. This was due to the enormous amount of data not only from Copenhagen but from 5 other sites as well (Gregersen 2009). The LANCHART study used trained student assistants to code the material and

followed the convention of having two different coders code independently and having a third, the checker, resolve any discrepancies between the annotations. In principle only 2 different variants, corresponding to IPA [ɛ] and [æ], were used, but it turned out that this decision was somewhat modified by the coders. The coders were, in fact, allowed to use an in-between notation when they were sure the segment at hand was neither a clear example of IPA [ɛ] nor an example of [æ]. Finally, we selected passages from both the S1 recordings and the S2 recordings on the basis of a new extended discourse context analysis instead of the style analysis (Gregersen, Beck Nielsen & Thøgersen 2009; Gregersen & Barner-Rasmussen 2011): Only passages coded as Exchange of Information by the Discourse Context Analysis coders were coded for phonetic variation.[3]

4.2 Results

The first eye-opener was the sheer amount of raised (a)s, i.e. the IPA [ɛ] variant. There were extremely few on average, witness Figures 4–5 below:

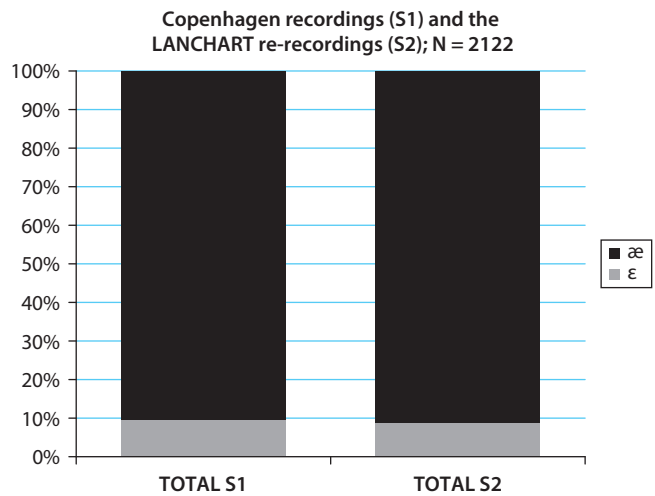


Figure 4. The LANCHART coding of Generation 1 in real time (S1: 1987–88; S2: 2006–07)

The average occurrence of the raised variant is approximately 10%. With such low figures we may discuss whether the variant is still functioning, i.e. whether there is still in the Copenhagen speech community a sociolinguistic variable short

3. In another study, Gregersen and Barner-Rasmussen 2011, we have documented that the (a) variable is indeed style sensitive, in that it varies with discourse context.

(a) before alveolar, syllable boundaries and nil having two variants. Nevalainen, Raumolin-Brunberg & Mannila 2011 suggest taking 15 percent as the limit both at the initial stage and at the final stage (85% occurrence) for a variant to be participating in a change. If we adopt the same convention here, this would effectively mean that the raised short (a) had disappeared from the Copenhagen speech community as a sociolinguistic variable already by 1987–88. For reasons which will become clearer below, we do not follow Nevalainen, Raumolin-Brunberg & Mannila 2011 who in any case are concerned with morpho-syntactic changes in historical written material.

In Figure 5 we have performed the same operation as in Figure 4 above, for the Generation 2 informants. We were, however, here forced to include an in-between variant since this variant was just as frequent as the clearly raised one:

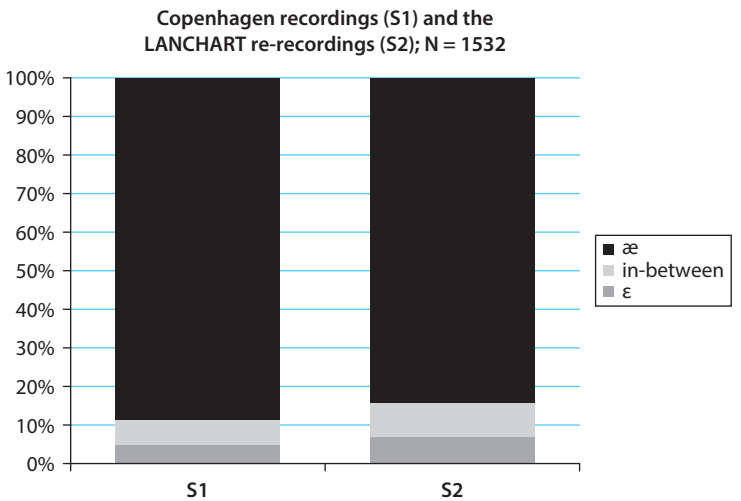


Figure 5. The LANCHART coding of Generation 2 in real time (S1: 1987–88; S2: 2006–07)

The first figure (Figure 4) lends tremendous support to the apparent time paradigm since nothing seems to have changed at all in Generation 1 in real time. It is not quite the same with Figure 5. Actually the difference between S1 and S2 is just significant at p=0.0493 (Chi square, two-tailed). A closer look at the groups making up Generations 1 and 2 would, however, further modify the first impression that nothing had happened much as it would show that behind the picture of no difference in real time, lies a complex pattern of highly significant differences in real time. Labov's suspicion that age grading is a factor is e.g. corroborated by the change in the young WC women from Generation 2 who had no raised (a)s at all when they were interviewed in the S1 but had acquired a mean of 16% in the S2 (the change is highly significant ($p<0.0001$)). We refrain from this closer look here, however, since our concern is with the relationship to the Jørgensen data.

If we take a look at class and simply plot in the relevant percentages in the diagram given as Figure 3 above, the results look like this:

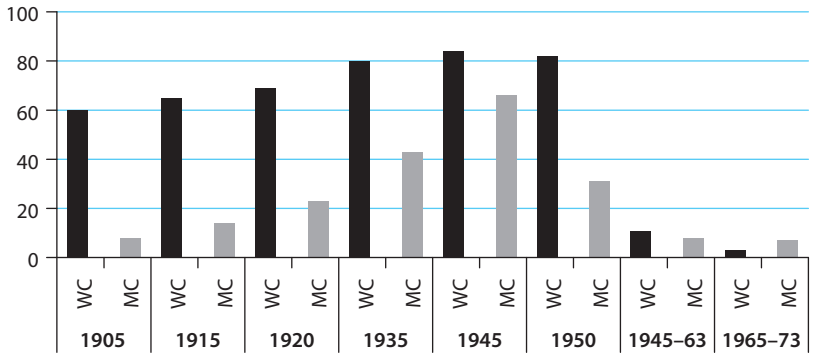


Figure 6. The LANCHART recoding of the Copenhagen 1987–88 data fitted in with the Jørgensen data from 1974–75, coded 1977–78. Note in particular that the next to last data set from the Generation 1 ought to be equivalent to the Jørgensen data set with informants born 1950. It most certainly is not. Columns show ε-percentages

The data from the Copenhagen Study simply do not square with the Jørgensen results. This may be due to a number of factors: The informants were selected in different ways and interviewed in different ways. The time of recording is different by a decade (1974–75 vs. 1987–88). Finally, the coding practices might differ either because the variant values were used differently or because they were perceived differently. To dig deeper as to why there is such a discrepancy between two otherwise equivalent data sets, we undertook in 2010 a new coding of the Mette Mortensen data which, as the reader will remember, are included in the Jørgensen study. If the discrepancy is in fact due to differences in coding practices between the Jørgensen and the LANCHART practice, this would surface immediately since here we are coding exactly the same recordings.

We could not manage with only two variants in the coding of material from the Copenhagen Generation 2, cf. Figure 5 above. This turned out also to be the case with the Mette Mortensen data set. Thus we are confronted with a new problem: If we count the two raised variants as one, we in some sense doctor the data. On the other hand, if we treat them as two separate variants we have to be sure that the variants have social meaning and psychological reality both of them. I have chosen everywhere to count the two raised variants as one, viz. as an indication that there is something else than the standard variant in the data. This is equivalent to seeing the in-between variant as a raised variant, a solution which seems to me to make sense both in relation to the coding process and in relation to the speech community which has a stereotype of only one raised (actually it is called 'flat') (a).

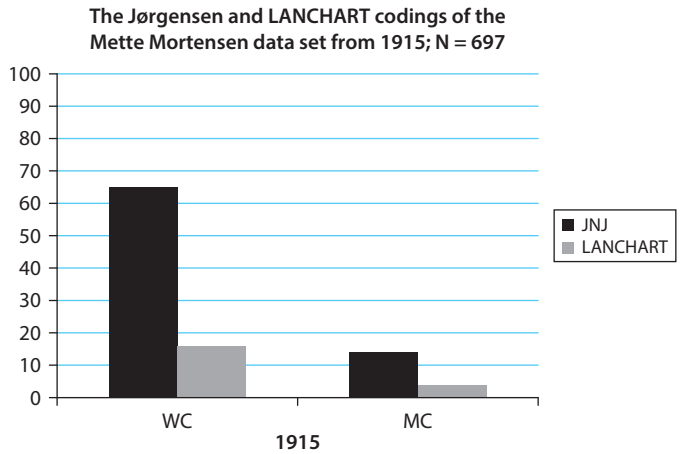


Figure 7. The ε-percentages of the original J. Normann Jørgensen (JNJ) 1980 study of the Mette Mortensen data set with informants born 1915 compared with the recodings in 2010 of the same data set. The N of 697 occurrences is valid for the LANCHART recoding only. The Class difference in the LANCHART coding is significant at $p<0.0001$ (Chi square without Yates' correction, two-tailed). The Class difference in the original study cannot be computed since we only have percentages, not raw numbers, but it is clearly highly significant as well

There is no doubt here that the coding practices differ and that that is the basis for the discrepancy. The results agree that there is a significant difference between the classes as to the use of the [ɛ] variant but they strongly disagree as to the level of use. The JNJ coding has a figure for the MC which is 4 times higher than that of the LANCHART coding, and for the WC the difference is even higher. Clearly, this discrepancy is intolerable if we think that we as practitioners of the linguistic science ought to be able to produce certain knowledge.

In order to get a closer look I have looked at the various subgroups and added the data set from 1945 in Figure 8 below:

The patterning of subgroups in the data seems to agree only in saying that MC males born 1945 have more [ɛ]s than those born in 1915 ($p=0.0014$ (Chi square with Yates' correction, two-tailed)) and that in general there is less difference among the subgroups in the 1945 data set than was the case in the 1915 data set. This may be seen rather clearly from Figure 9 below:

5. Time is on our side

We are faced with a challenge. We want to know what the truth of the matter is, and yet it seems that the harder we look, the harder it gets. What *is* the truth about the (a) variable in Copenhagen speech?

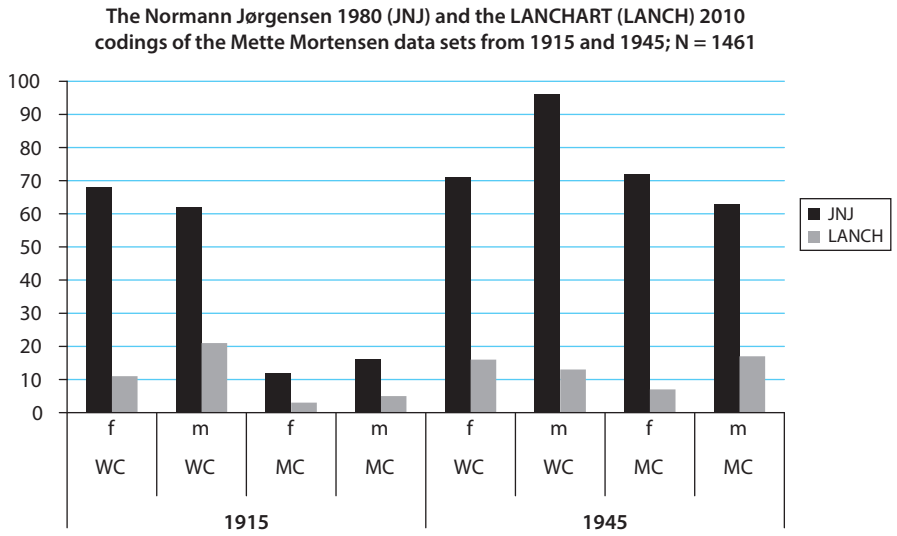


Figure 8. The ε-percentages of the original J. Normann Jørgensen (JNJ) 1980 study of the Mette Mortensen data set with informants born 1915 and 1945 compared with the recodings in 2010 of the same data sets. The N of 1461 is only valid for the LANCHART codings since we do not have raw figures for the original 1980 coding, only percentages

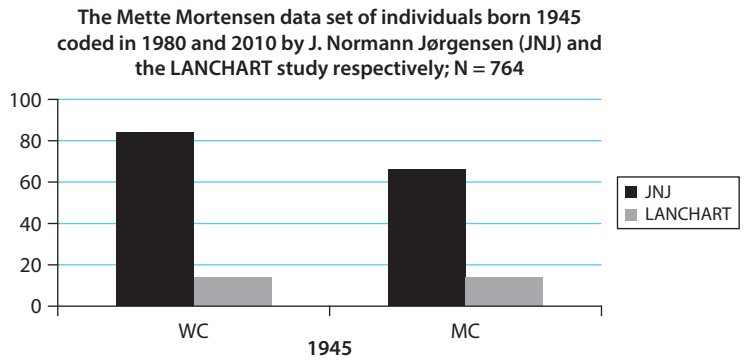


Figure 9. Class in the 1945 Mette Mortensen data set as coded by Normann Jørgensen and the LANCHART project. Columns show ε-percentages. There is no class difference in the LANCHART coding at all, the ε-percentage is the same in both cases, viz. 14

Time is of the essence. First we have the difference in the time of recording: Recordings were made in 1970–71 by Mette Mortensen with people who were born in 1915. They were then in their middle 50s. She also collected recordings with people born in 1945. They were thus in their 20s at the time of recording. This is the usual set up for a study adhering to the apparent time idea. The recordings were processed some years later (in 1977–78) by a coder who had not collected

precisely these data but other data with informants from a broader range of birth years. When he coded the material J. Normann Jørgensen was himself in his middle 20s. The coder is thus a member of the same age cohort as the younger group he is coding (informants born in 1935, 1945 and 1950), while the older group of informants (born 1905, 1915 and 1920) would be the age of his parents or even older.

In the case of Henrik Holmberg, the coder was born in 1945. He belonged to the age group he coded as Generation 1 while the Generation 2 informants would be a younger group for him. In many of the cases he had also conducted the interviews which were coded, himself.

Finally, for the LANCHART coders, most of them would be a generation (or two) younger than the Copenhagen informants they coded. And as to the Mette Mortensen informants born in 1915, we may safely say that they would be perceived by the LANCHART coders as being historical in the sense that they would be the age of grand-grandparents for the coders. Informants born in 1945 would be the age of their parents or even grandparents. The coders in the LANCHART study thus processed what was to all intents and purposes historical material when they processed the Mette Mortensen data and the Copenhagen S1 recordings. The question is obviously what this means. Are we as coders liable to transpose the norms of our own day and age onto the material we code, irrespective of the objective anchors which were in all cases the same, viz. the cardinal vowel 3?

6. Acknowledging historicity while still avoiding radical (historical) relativism

The sociolinguistic study of the vowel variable (a) covers almost a century, viz. from individuals born in 1905 and to informants born in the 1990s (Generation 3, not reported on here). This means that it has become part of historical linguistics. On the one hand this is a tremendous advantage since the problem has always been how to infer from studies performed in late modernity what sound changes would have been like in societies which were very different (a version of the hypothesis of uniformity, cf. Gregersen 2010 with references). On the other hand, precisely as one version of the hypothesis of uniformity, we should be aware that the society which individuals born 1905 lived in, no longer exists and in a sense vanished a long time ago. It is becoming ever more apparent that the various types of language study represent so many responses to changing societal conditions. In this case, the society which gave rise to the H and L systems studied by Brink and Lund was the industrial city of Copenhagen with its massive population density and its highly sociologically structured geography. This society created and upheld the class distinctions between the blue collar manual workers and the white collars,

and the concomitant linguistic distinctions became experienced and learned by members of the speech community as systems of stereotypes. The particular pronunciation of the short (a) as an [ɛ] became a marker of the – typically male – blue collar worker along with other semiotic signs (such as e.g. the blue collar itself!).

In the society in which our LANCHART coders live, manual jobs are becoming scarce and many of them are placed in the service sector and taken care of by a new proletariat mainly consisting of immigrants. Class distinctions are now based more on education and have by no means vanished but they have changed. And so have their linguistic expression.

In a very thorough analysis of the Danish phonological system Nina Grønnum shows that the traditional structural analysis of the Danish vowels can no longer be upheld (Grønnum 1996). From our point of view it is crucial that she presents clear evidence of a great divide between the older and the younger generation precisely as to the vowel system. This generation gap is evident everywhere in our data as well, in particular as a divide between the generation of coders and researchers who are born before say 1980, and the coders of the LANCHART study who are all of them born later. For the older group of coders and interviewers, the four way distinction between short (a)s (predominantly) meant class. It had a definite connotation and triggered the stereotypes generated by experiences with individuals who speak like that, dress like that, behave like that etc. (Preston 2009). This means that Jørgensen was close to stating the obvious when he documented the pattern seen in Figure 3 above whereas Holmberg was astonished by his own results. Not so with the young coders.

The reason for that is simple, I submit: (a) has actually, i.e. in the speech community around us, lost its semiotic connection to class.[4] The studies agree in this respect whether it is the Copenhagen Study (coded by Holmberg and Pedersen, eminent representatives of the older generation) or the LANCHART study (coded by members of the younger group). The variable (a) has not lost its function in the speech community, since it differentiates Discourse contexts (Gregersen & Barner-Rasmussen 2011), but it no longer calls forth stereotypes of blue collar workers, for one thing because they are no longer there, especially in Copenhagen. Copenhagen is the prototypical post-modern community within the borders of Denmark.

4. I want to be quite precise here: We have anecdotal evidence that (a) and a lot of the old class variables may still be highly relevant to characterizing the speech of the low lower classes, i.e. individuals without any connection to the labour market. What I mean by saying that it is irrelevant, is thus that it no longer separates lower educated wage-earners from higher educated ones.

We may thus be witnessing a communal change in the ascription of social meaning to (a). If that is the case, two questions arise: When and why?

The first question is rather easily answered but the lack of hard linguistic evidence is of course a worry. We have to infer the process of linguistic change from the historical processes that we know about: Lots of commentators note that the Danish society changed a lot *during the 1970s and early 80s*. Let me point to three very significant societal developments and then hypothesize about their linguistic repercussions:

- *The general level of education has risen significantly* during the period from 1960 and till now. In 1965 5.380 men and 4.165 women completed a gymnasium (A-level) degree. In 2005 the corresponding numbers were 14.119 and 19.046 respectively which also indicates another trend, i.e. that the women are leading the race for higher education (Danmarks Statistik 2008: 9).
- *The distribution of jobs has changed significantly* so that the number of employed in agriculture decreased from 23% (of those in jobs at the time) in 1948 to only 3% in 2007 (ibid.). The employment in the service sector shows the exact opposite development: only 6.7% of those in jobs in 1948 were employed in the service sector; the corresponding figure for 2007 is 28.4%.
- Many of these service employees are women and this has called for and was furthered by *the institutionalization of the socialization of children*. In 2007 almost 71% of the women were working and more than 80% of the children were in an institution (Danmarks Statistik 2008: 10f).
- Finally, *communication possibilities have exploded* with the development of globalized media coverage and availability for communication has grown substantially with mobile phones and smart phones. The Danish media researcher Stig Hjarvard has coined the appropriate expression of 'the sociable society' as a label for the present (Hjarvard 2003). It is possible, indeed close to impossible not to, remain in contact with your network all the time you are awake.

The linguistic consequences of the development depicted by giving such statistics, is obviously speculative but it is nevertheless important to give some thought to the possible mediation between societal change and linguistic change (Trudgill 2011; Lodge 2004). If we have discovered a linguistic change which is strong enough to determine the (codings of) linguistic facts we must theorize about how this was shaped by the historical processes.

The importance of education for the history of a language is well-known and has never been overlooked (Fennell 2001: 185; Skautrup 1956). Education is in fact all about language. Teaching is languaging in a specific way and thus makes a specific register available to pupils and students. Education also inculcates norms and ideologies, some of them specific to language (Kristiansen 1990). The change

towards service jobs and the intensification of communication both point the same way: There are simply more types of situations where linguistic variables may make a difference. Add to this that the institutionalization of upbringing of children will make contacts with peers more important than contacts with grown-ups and you have the recipe for a society with age grading and great divides between the old and the young.

Statistics ordered in nice time slices seem to paint the picture of a gradual development and that may very well be true for the historical processes, but what I am arguing is that the mental change, the change in world view that brought us up to date as to these gradual developments, happened during a very brief span of years around the decade of the 70s. This was the period when people started changing their language for ideological reasons, MC people talking like WC people; this was the period when gender inequalities were brought to the fore, and this was the period when democratization of the old society based on privileges was a constant theme. I suggest that this resulted in a communal change (Labov 1994: 83) in speech norms and ideology and that this change is reflected in the drastic shift of the status of the variable (a).

To summarize: The results are not in conflict IFF we accept that the coders use different yardsticks and that the reason for this may be found in the changing status of the (a). The group of researchers who have worked on the short (a) are all of them born at a time when the short (a) was still a WC shibboleth. Most of them participated in one way or the other in the communal change in the 70s. The young LANCHART coders, in contrast, do not remember the time when the short (a) was a WC marker. And the reason for this is that this is no longer the case.

We might speculate why the coders find (so many) significant differences among subgroups at all if the short (a) is no longer class specific. My answer would be that the two variants of the short (a) we have been concerned with, have other functions now, some of which have to do with genres and other intra-individual differences (Gregersen & Barner-Rasmussen 2011) even though (or because?) the relative frequency is so low. The low frequency is no problem for the sociolinguistic monitor, it can easily handle low frequency variation (Labov et al. 2011).

We have looked at the historical nature of linguistic data. Not only are the results dependent on time and have to be explained as such, the very nature of the data is historical. This is why it will not do simply to skip auditory coding and adopt acoustic measurements as the royal road to truth. One obvious problem would be that the recording equipment itself has undergone significant change during the period from 1971 till the present, a feature often commented upon by the transcribers of the old data. They could simply hear that these recordings were old before they even started listening to what was said and how. Time is not only on our side, it is a fundamental condition for the humanities.

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The aim of this book is to investigate and attain new insights on how and to what extent the wider sociolinguistic context of language use and contact impinges on formal grammatical structures. The papers contained in the book approach this important problem from various points of view by focusing on language evolution and change, on multilingualism, language mixing and dialect variation, on spoken language, and on creole languages. Given the theoretical perspectives, methodological focus, and analyses, the book will be of interest to theoretical linguists as well as sociolinguists, from undergraduate students to researchers.

ISBN 978 90 272 5919 6

JOHN BENJAMINS PUBLISHING COMPANY