CHAPTER FOUR

4.1. BASIC CONCEPTS OF CRITICAL THINKING

4.1.1. Meaning of Critical Thinking

- Critical thinking can be defined as a wide range of cognitive skills and intellectual dispositions needed to effectively identify, analyze, and evaluate arguments and truth claims.
- Critical means involving or exercising skilled judgment or observation. In this sense, critical thinking means thinking clearly and intelligently.
- More precisely, critical thinking is the general term given to a wide range of cognitive skills and intellectual dispositions needed to effectively identify, analyze, and evaluate arguments and truth claims.
- Moreover, it helps to discover and overcome personal preconceptions and biases; to formulate and present convincing reasons in support of conclusions; and to make reasonable, intelligent decisions about what to believe and what to do.

- Critical thinking is a process or journey that helps us to arrive at the most useful, helpful, and most likely destinations when evaluating claims for scientific truth.
- Critical thinking, thus, is thinking clearly, thinking fairly, thinking rationally, thinking objectively, and thinking independently.
- It is a process that hopefully leads to an impartial investigation of the data and facts that remains not swayed by irrelevant emotions.
- Therefore, the aim of critical thinking is to arrive at well-reasoned, considered, and justifiable conclusions.

The American philosopher**, John Dewey,** has defined critical thinking as an ***active, persistent, and careful consideration*** *of a belief or supposed form of knowledge in the light of the grounds, which support it and the further conclusions to which it tends.* In this definition, there are three main points that we should focus on: *active*, *persistent* and *grounds*.

The first point is that critical thinking as an 'active' process, the kind of thinking in which you just receive ideas and information from other people.

The second point is that critical thinking is persistent and careful consideration. Here, Dewey is contrasting critical thinking with the kind of unreflective thinking we all sometimes engage in.

For example, we sometimes jump to a conclusion or make a quick decision without thinking about it. Of course, sometimes, we may have to do this because we need to decide quickly or the issue is not important enough to warrant careful thought, but we often do it when we ought to stop and think – when we ought to persist a bit.

Edward Glaser defined critical thinking as: *(1) an attitude of being disposed to consider in a thoughtful way the problems and subjects that come within the range of one's experience; (2) knowledge of the methods of logical enquiry and reasoning; and (3) some skill in applying those methods.*

Robert Ennis-defined critical thinking as *reasonable, reflective thinking that is focused on deciding what to believe or do*. Notice that the emphasis on being 'reasonable' and 'reflective' in this definition is similar with the above two definitions. But notice also that Ennis speaks of 'deciding what to . . . do', which was not explicitly mentioned in the above definitions. So decision-making is an important part of critical thinking in Ennis's conception.

Richard Paul: *Critical thinking as a mode of thinking about any subject, content or problem – in which the thinker improves the quality of his or her thinking by skillfully taking charge of the structures inherent in thinking and imposing intellectual standards upon them.* Paul associates critical thinking with *reflecting on thoughts.*

Michael Scriven has defined critical thinking as *skilled and active interpretation and evaluation of observations and communications, information and argumentation.* He argued that critical thinking is an academic competency akin to reading and writing and is of similarly fundamental importance. To be critical, thinking has to meet certain standards, (clarity, relevance, reasonableness and so on), and one may be *more* or *less* skilled at this.

Critical thinking is sometimes referred to as 'critico-creative' thinking. This word is the combination of two words: *critical* and *creative*. There are two related reasons for this. The first is that the term 'critical thinking' is sometimes thought to sound rather negative, as though one's only interest is in adversely criticizing other people's arguments and ideas.

Standards of Critical Thinking

Critical thinking is a disciplined thinking governed by clear intellectual standards. But, not every thinking is critical. To identify a critical thinking from the uncritical, we refer to some standards.

Among the most important of these intellectual standards are ***clarity, precision, accuracy, relevance, consistency, logical correctness, completeness, and fairness.***

1. **Clarity:** refers to clear understanding of concepts and clearly expressing them in a language that is free of obscurity and vagueness.
2. ***Precision:*** Precision is a matter of being exact, accurate and careful. Most ideas are vague and obscures though we think we have precise understanding of them.
3. ***Accuracy:*** Accuracy is about correct information. Critical thinking should care a lot about genuine information. If the ideas and thoughts one processes are not real, then once decision based on wrong and false information will likely to result in distorting realities.

Accuracy is about having and getting true information. There is a well-known saying about computers: “Garbage in, garbage out.” Simply put, this means that if you put bad information into a computer, bad information is exactly what you will get out of it.

4. Relevance: The question of relevance is a question of connections. When there is a discussion or debate, it should focus on relevant ideas and information. That is, only those points that bear on the issue should be raised.

5. Consistency

Consistency is about the quality of always behaving in the same way or of having the same opinions or standards. It is easy to see why consistency is essential to critical thinking. Logic tells us that if a person holds inconsistent beliefs, at least one of those beliefs must be false.

There are two kinds of inconsistency that should be avoided. One is ***logical inconsistency,*** which involves saying or believing inconsistent things (i.e., things that cannot both or all be true) about a particular matter. The other is ***practical inconsistency,*** which involves saying one thing and doing another.

6. Logical Correctness: To think logically is to reason correctly; that is, to draw well-founded conclusions from the beliefs held. To think critically, we need accurate and well supported beliefs. But, just as important, we need to be able to reason from those beliefs to conclusions that logically follow from them. Unfortunately, illogical thinking is all too common in human affairs

7. Completeness: In most contexts, we rightly prefer deep and complete thinking to shallow and superficial thinking. Of course, there are times when it is impossible or inappropriate to discuss an issue in depth; no one would expect, for example, a thorough and wide-ranging discussion of the ethics of the right to self- determination in a short newspaper editorial.

8. Fairness

Critical thinking demands that our thinking be fair - that is, open minded, impartial, and free of distorting biases and preconceptions.

Principles of Good Argument

1. The Structural Principle

- The structural principle of a good argument requires that one who argues for or against a position should use an argument that meets the fundamental structural requirements of a well-formed argument.
- Such an argument does not use reasons that contradict each other, that contradict the conclusion, or that explicitly or implicitly assume the truth of the conclusion. Neither does it draw any invalid deductive inferences.
- The first criterion used in determining whether an argument is a good one is the requirement that it be structurally sound. An argument must look and works like an argument.
- In other words, it should be formed in such a way that the conclusion either follows necessarily from its premises, in the case of deductive arguments, or follows probably from its premises, in the case of inductive arguments.

Another structural feature of an argument that could render it fatally flawed would be one whose premises are incompatible with one another.

2. The Relevance Principle

This is the second principle of a good argument that requires that one who presents an argument for or against a position should set forth only reasons whose truth provides some evidence for the truth of the conclusion.

The premises of a good argument must be relevant to the truth or merit of the conclusion.

3. The Acceptability Principle

The third principle of a good argument is the acceptability principle. This principle requires that one who presents an argument for or against a position should provide reasons that are likely to be accepted by a mature, rational person and that meet standard criteria of acceptability. The reasons set forth in support of a conclusion must be acceptable.

4. The Sufficiency Principle

The four principle of a good argument is the sufficiency principle, which requires that one who presents an argument for or against a position should attempt to provide relevant and acceptable reasons of the right kind, that together are sufficient in number and weight to justify the acceptance of the conclusion.

5. The Rebuttal Principle

The quality of providing concomitant defence to the opponents idea.

This principle requires that one who presents an argument for or against a position should include in the argument an effective rebuttal to all anticipated serious criticisms of the argument that may be brought against it or against the position it supports.

Principles of Critical Thinking

1. ***The Fallibility Principle***

This principle requires that each participant in a discussion of a disputed issue should be willing to accept the fact that he or she is fallible, which means that one must acknowledge that one's own initial view may not be the most defensible position on the question.

2. The Truth Seeking Principle

The second principle of a critical thinking is the truth seeking principle. This principle requires that each participant should be committed to the task of earnestly searching for the truth or at least the most defensible position on the issue at stake. Therefore, one should be willing to examine alternative positions seriously, look for insights in the positions of others, and allow other participants to present arguments for or raise objections to any position held on an issue.

3. The Clarity Principle

The clarity principle is the third principle of a critical thinking. It requires that the formulations of all positions, defences, and attacks should be free of any kind of linguistic confusion and clearly separated from other positions and issues.

4. ***The Burden of Proof Principle***

The fourth principle of a critical thinking is the burden of proof principle. This principle requires that the burden of proof for any position usually rests on the participant who sets forth the position. If, and when, an opponent asks, the proponent should provide an argument for that position.

5. *The Principle of Charity*

This is the fifth principle of a critical thinking that requires that if a participant's argument is reformulated by an opponent, it should be carefully expressed in its strongest possible version that is consistent with what is believed to be the original intention of the arguer. If there is any question about that intention or about any implicit part of the argument, the arguer should be given the benefit of any doubt in the reformulation and/or, when possible, given the opportunity to amend it.

6. *The Suspension of Judgment Principle*

The sixth principle of a critical thinking is the suspension of judgment principle. This principle requires that if no position is defended by a good argument, or if two or more positions seem to

7. The Resolution Principle

The last principle of a critical thinking is the resolution principle. This principle requires that an issue should be considered resolved if the argument for one of the alternative positions is a structurally sound, one that uses relevant and acceptable reasons that together provide sufficient grounds to justify the conclusion and that also include an effective rebuttal to all serious criticisms of the argument and/or the position it supports.

Characteristics of Critical Thinking

Basic Traits of Critical Thinkers

A critical thinker simply is a person who exhibit some feature of critical thinking. There are some dispositions and attitudes, skills and abilities, habits and values that every critical person should manifest.

Critical thinkers:

- ✓ Are honest with themselves, acknowledging what they don't know, recognizing their limitations, and being watchful of their own errors.
- ✓ Regard problems and controversial issues as exciting challenges.
- ✓ Strive for understanding, keep curiosity alive, remain patient with complexity, and are ready to invest time to overcome confusion.
- ✓ Base judgments on evidence rather than personal preferences, deferring judgment whenever evidence is insufficient. They revise judgments when new evidence reveals error.
- ✓ Are interested in other people's ideas and so are willing to read and listen attentively, even when they tend to disagree with the other person.
- ✓ Recognize that extreme views (whether conservative or liberal) are seldom correct, so they avoid them, practice fair-mindedness, and seek a balance view.
- ✓ Practice restraint, controlling their feelings rather than being controlled by them, and thinking before acting.

Basic Traits of Uncritical Thinkers

We have in the previous section that every critical person manifests some dispositions and attitudes, skills and abilities, habits and values. What about the uncritical thinker? In this section, we will see some traits of uncritical thinkers.

Uncritical thinkers:

- ✓ Pretend they know more than they do, ignore their limitations, and assume their views are error-free.
- ✓ Regard problems and controversial issues as nuisances or threats to their ego.
- ✓ Are inpatient with complexity and thus would rather remain confused than make the effort to understand.
- ✓ Base judgments on first impressions and gut reactions. They are unconcerned about the amount or quality of evidence and cling to their views steadfastly.
- ✓ Are preoccupied with themselves and their own opinions, and so are unwilling to pay attention to others' views. At the first sign of disagreement, they tend to think, "How can I refute this?"

- ✓ Ignore the need for balance and give preference to views that support their established views.
- ✓ Tend to follow their feelings a

Let us now compare and contrasts the key intellectual traits of critical thinkers with the relevant traits of uncritical thinkers:

First, *critical thinkers* have a passionate drive for clarity, precision, accuracy, and other critical thinking standards while ***uncritical thinkers*** often think in ways that are unclear, imprecise, and inaccurate. In addition to this, critical thinkers are sensitive to ways in which critical thinking can be skewed by egocentrism, sociocentrism, wishful thinking, and other impediments, while uncritical thinkers often fall prey to egocentrism, sociocentrism, relativistic thinking, unwarranted assumptions, and wishful thinking.

Second, critical thinkers are skilled at understanding, analyzing, and evaluating arguments and viewpoints whereas uncritical thinkers often misunderstand or evaluate unfairly arguments and viewpoints. Moreover, critical thinkers reason logically, draw appropriate conclusions from evidence and data, while uncritical thinkers are illogical, and draw unsupported conclusions from these sources.

Third, critical thinkers are intellectually honest with themselves, acknowledging what they do not know and recognizing their limitations while uncritical thinkers pretend they know more than they do and ignore their limitations. Furthermore, critical thinkers listen open-mindedly to opposing points of view, welcome criticisms of beliefs and assumptions, whereas uncritical thinkers are closed-minded, and resist criticisms of beliefs and assumptions.

Fourth, critical thinkers base their beliefs on facts and evidence rather than on personal preferences or self-interests, while uncritical thinkers often base beliefs on mere personal preferences or self-interests. Again, critical thinkers are aware of the biases and preconceptions that shape the way they perceive the world, whereas uncritical thinkers lack awareness of their own biases and preconceptions.

Fifth, critical thinkers think independently and are not afraid to disagree with group opinion whereas uncritical thinkers tend to engage in "groupthink" uncritically following the beliefs and values of the crowd. Moreover, critical thinkers have the intellectual courage to face and assess nd act impulsively.

Finally yet importantly, critical thinkers pursue truth, are curious about a wide range of issues and have the intellectual perseverance to pursue insights or truths despite obstacles or difficulties whereas uncritical thinkers are often relatively indifferent to truth and lack curiosity, tend not to persevere when they encounter intellectual obstacles or difficulties.

Barriers to Critical Thinking

One of the most powerful barriers to critical thinking is egocentrism. Even highly educated and intelligent people are prey to egocentrism. Egocentrism is the tendency to see reality as centered on oneself. Egocentrics are selfish, self-absorbed people who view their interests, ideas, and values as superior to everyone else's.

All of us are affected to some degree by egocentric biases. Egocentrism can manifest itself in a variety of ways. Two common forms this are *self-interested thinking* and *the superiority bias*.

Self-interested thinking is the tendency to accept and defend beliefs that harmonize with one's self-interest. Almost no one is immune to self-interested thinking. There are a number of facts, which supported this idea.

Sociocentrism

The second powerful barrier that paralyze the critical thinking ability of most people including intellectuals is sociocentrism. It is group-centered thinking. Just as egocentrism can hinder rational thinking by focusing excessively on the self, so sociocentrism can hinder rational thinking by focusing excessively on the group. Sociocentrism can distort critical thinking in many ways. Two of the most important are group bias and conformism.

Group bias is the tendency to see one's own group (nation, tribe, sect, peer group, and the like) as being inherently better than others. Most people absorb group bias unconsciously, usually from early childhood.

Conformism refers to our tendency to follow the crowd - that is, to conform (often unthinkingly) to authority or to group standards of conduct and belief. The desire to belong, to be part of the in-group, can be among the most powerful of human motivations. This desire can seriously cripple our powers of critical reasoning and decision-making.

3. Unwarranted Assumptions and Stereotypes

The third factor that impedes critical thinking is unwarranted assumptions and stereotype. An assumption is something we take for granted - something we believe to be true without any proof or conclusive evidence. Almost everything we think and do is based on assumptions. If the weather report calls for rain, we take an umbrella because we assume that the meteorologist is not lying, that the report is based on a scientific analysis of weather patterns, that the instruments are accurate, and so forth. There may be no proof that any of this is true, but we realize that it is wiser to take the umbrella than to insist that the weather bureau provide exhaustive evidence to justify its prediction.

Relativistic Thinking

One of the strongest challenges to critical thinking is relativistic thinking. Relativism is the view that truth is a matter of opinion. There are two popular forms of relativism: *subjectivism* and *cultural relativism*. Subjectivism is the view that truth is a matter of individual opinion.

Subjectivism is the view that truth is a matter of individual opinion. According to subjectivism, whatever an individual believes is true, *is* true for that person, and there is no such thing as “objective” or “absolute” truth, i.e., truth that exists independent of what anyone believes.

For example, suppose Abdella believes that abortion is wrong and Obang believes that abortion is not always wrong. According to subjectivism, abortion is always wrong for Abdella and not always wrong for Obang. Both beliefs are true – *for* them. And truth for one individual or another is the only kind of truth there is.

The other common form of relativism is cultural relativism. This is the view that truth is a matter of social or cultural opinion. In other words, cultural relativism is the view that what is true for person A is what person A's culture or society believes is true. Drinking wine, for example, is widely considered to be wrong in Iran but is not generally considered to be wrong in France. According to cultural relativism, therefore, drinking wine is immoral in Iran but is morally permissible in France. Thus, for the cultural relativist, just as for the subjectivist, there is no objective or absolute standard of truth. What is true is whatever most people in a society or culture believe to be true.

By far the most common form of relativism is *moral relativism*. Like relativism generally, moral relativism comes in two major forms: *moral subjectivism* and *cultural moral relativism*. Moral subjectivism is the view that what is morally right and good for an individual, A, is whatever A believes is morally right and good.

5. Wishful Thinking

Wishful thinking refers to a state of believing something not because you had good evidence for it but simply because you wished it were true.

Throughout human history, reason has done battle with wishful thinking and has usually come out the loser. People fear the unknown and invent comforting myths to render the universe less hostile and more predictable.

Benefits of Critical Thinking

Critical Thinking: Skills and Dispositions

Critical thinking teaches you how to raise and identify fundamental questions and problems in the community.

It will teach you to reformulate these problems clearly and precisely.

It will teach you how to gather and assess relevant information, develop reasoned conclusions and solutions, testing them against relevant criterion and standards.

It teaches you how to be open minded to alternative system of thought, recognize and assess your own assumptions, implications

Critical thinking is what university is all about. University is not only about teaching students with facts. It's about teaching students to think- think critically.

Critical Thinking in the Classroom

When they first enter university, students are sometimes surprised to discover that university education seem less interested in how beliefs are acquired than they are in whether those beliefs can withstand critical scrutiny. The question is not much about what you know, but how you acquire what you know and whether your ideas stands critical examination.

In university, the focus is on higher-order thinking: the active, intelligent evaluation of ideas and information. For this reason critical thinking plays a vital role in universities. In a critical thinking chapter, students learn a variety of skills that can greatly improve their classroom performance. These skills include:

- Understanding the arguments and beliefs of others
- Critically evaluating those arguments and beliefs
- Developing and defending one's own well-supported arguments and beliefs
- First, critical thinking can help us avoid making foolish personal decisions.
- Second, critical thinking plays a vital role in promoting democratic processes. In democracy, it is the people who have the ultimate say over who governs and for what purposes. Citizens should vote, should evaluate different public policies, and collectively determine their fate and et cetera.

- Third, critical thinking is worth studying for its own sake, simply for the personal enrichment it can bring to our lives. One of the most basic truths of the human condition is that most people, most of the time, believe what they are told.