

Lesson 1: Meaning of Critical Thinking

- ❖ Critical means exercising skilled judgment or observation.
- ❖ In this sense, critical thinking means thinking clearly and logically.
- ❖ 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.
- ❖ it helps to discover and overcome personal presumptions 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.

- ❖ However, it does not automatically follow that being intelligent means being able think critically or reason about information in a useful, effective and efficient manner.
- ❖ Being smart and intelligent is not sufficient.
- ❖ Critical thinking is a process that helps us to arrive at the most useful 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 influenced by irrelevant emotions.
- ❖ Therefore, the aim of critical thinking is to arrive at well-reasoned, considered, and justifiable conclusions
- ❖ Read different types of definitions by different scholars from the handout!

Lesson 2: Standards of Critical Thinking

- ❖ Clarity, precision, accuracy, relevance, consistency, logical correctness, completeness, and fairness are some of the most important intellectual standards of critical thinking.
- ❖ Let us discuss these standards in detail.

1. Clarity

- ❖ Clarity refers to clear understanding of concepts and clearly expressing them in a language that is free of obscurity and vagueness
- ❖ Before we can effectively evaluate a person's argument or claim, we need to understand clearly what the person is saying.
- ❖ Clarity demands the use of simple language and easy sentence structure in composing the message
- ❖ You should always choose familiar, short and precise words, instead of complicated or lengthy explanation

2. Precision

- ❖ Precision is a matter of being exact and accurate
- ❖ Most ideas are vague and obscures though we think we have precise understanding of them.
- ❖ To get precise understanding, we should pay close attention to details.

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.
- ❖ Whether an idea is attractive or sophisticated should be abandoned if it is based on false information.
- ❖ Accuracy is about having and getting true information.
- ❖ you are almost guaranteed to make bad decisions if your decisions are based on false information.

4. Relevance

- ❖ 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.
- ❖ Critical thinkers do not collect any information; they focus and carefully choose only the information that has logical relation with the ideas at hand.
- ❖ Issues raised should have logical connection with the question at hand.
- ❖ Two ideas are relevant when they have logical connection.

5. Consistency

- ❖ Consistency is about the quality of always behaving in the same way or of having the same opinions or standards.
- ❖ There are two kinds of inconsistency that should be avoided.
- ❖ One is logical inconsistency, which involves saying or believing inconsistent things 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.
- ❖ 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.

8. Fairness

- ❖ Critical thinking demands that our thinking be fair - that is, open minded, impartial, and free of distorting biases and preconceptions.
- ❖ That can be very difficult to achieve.
- ❖ people are often strongly disposed to resist unfamiliar ideas, to prejudge issues, to stereotype outsiders, and to identify truth with their own self-interest or the interests of their nation or group.
- ❖ Fairness implies the treating of all relevant viewpoints alike without reference to one's own feelings or interests.

Lesson 3: Codes of Intellectual Conduct for Effective Discussion

3.1 Principles of Good Argument

❖ the following are principles of good arguments:

1. The Structural Principle

- ❖ an argument should not use reasons that contradict each other, that contradict 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 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.

- ❖ A good argument should also provide us with reasons to believe that the conclusion deserves our acceptance
- ❖ If those premises are accepted and they lead to the conclusion, it is more likely that the conclusion will also be accepted.
- ❖ Another structural feature of an argument that could render it fatally flawed would be one whose premises are incompatible with one another.
- ❖ The fact that an argument with incompatible premises may yield an absurd result demonstrates that it cannot even function as an argument

2. The Relevance Principle

- ❑ The premises of a good argument must be relevant to the truth of the conclusion.
- ❑ A premise is relevant if its acceptance provides some reason to believe, counts in favor of, or has some bearing on the truth or merit of the conclusion.
- ❑ A premise is irrelevant if its acceptance has no bearing on, provides no evidence for, or has no connection to the truth or merit of the conclusion.

3. 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.
- ❖ A reason is acceptable if it is the kind of claim that a rational person would accept in the face of all the relevant evidence available.

4. The Sufficiency Principle

- ❖ This principle 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.
- ❖ One should ask several questions when applying the sufficiency test to a particular argument.
- ❖ First, are the reasons that are given, enough to drive one to the arguer's proposed conclusion?
- ❖ Second, is the evidence presented flawed by some kind of faulty causal analysis?
- ❖ Finally, is some key or crucial evidence simply missing from the argument that must be included as one of the premises in order for one to accept the argument's conclusion? Answer to these questions will tell us if the premises are sufficient.

5. The Rebuttal Principle

- ❖ 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.
- ❖ An argument cannot be a good one if it does not anticipate and effectively refute (to prove something false or incorrect) or blunt the force of the most serious criticisms against it and the position that it supports.

3.2 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.
- ❖ To employ the fallibility principle in a discussion is consciously to accept the fact that you are fallible, that is, that your present view may be wrong or not the most defensible view on the matter in dispute.

- ❖ If you refuse to accept your own fallibility, you are, in effect, saying that you are not willing to change your mind, even if you hear a better argument.

2. 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, and allow other participants to present arguments for or raise objections to any position held on an issue

3. The Clarity Principle

- ❖ the formulations of all positions, defenses, and attacks should be free of any kind of linguistic confusion and clearly separated from other positions and issues.
- ❖ Any successful discussion of an issue must be carried on in language that all the parties involved can understand.
- ❖ Even if what we have to say is perfectly clear to ourselves, others may not be able to understand us.
- ❖ A position or a criticism that is expressed in confusing, vague, ambiguous, or contradictory language will not reach those toward whom it is directed

4. 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.
- ❖ if the claimant is asked “Why?” or “How do you know that is true?” he or she is logically obligated to produce reasons on behalf of the claim.

5. The Principle of Charity

- ❖ This principle 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.
- ❖ the speaker's argument must be interpreted in the most rational way possible before subjecting it to evaluation
- ❖ The argument of the writer or the speaker should not be wrongly interpreted for the purpose of easily attacking it

6. The Suspension of Judgment Principle

- ❖ if two or more positions seem to be defended with equal strength, one should, in most cases, suspend judgment about the issue.
- ❖ Suspension of judgment requires that you have to avoid making decision(temporarily) about the issue until you get relevant information
- ❖ If suitable evidence is so lacking that one has no good basis for making a decision either way, it may be quite appropriate to suspend judgment on the matter and wait until there is more of a basis for decision.

7. 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.
- ❖ Unless one can demonstrate that the argument has not met these conditions more successfully, one is obligated to accept its conclusion and consider the issue to be settled.
- ❖ If the argument is subsequently found by any participant to be flawed in a way that raises new doubts about the merit of the position it supports, one is obligated to reopen the issue for further consideration and resolution.

Lesson 4: Characteristics of Critical Thinking

4.1 Basic Traits of Critical Thinkers

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.

4.2 Basic 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 annoyances or threats to their ego.
- ✓ Are impatient 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 and act impulsively.

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 tilted 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 fairly ideas that challenge even their most basic beliefs whereas uncritical thinkers fear and resist ideas that challenge their basic beliefs.
- ✓ Finally, 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.

Lesson 5: Barriers to Critical Thinking

Let us examine in detail five impediments that play role in hindering critical thinking:

1. egocentrism,
2. Socio-centrism,
3. unwarranted assumptions,
4. relativistic thinking, and
5. wishful thinking

1. 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.
- ✓ For example, most doctors support legislation making it more difficult for them to be sued for malpractice because they do not want to punish for mistakes committed in the workplace.

- ✓ Most university professors strongly support tenure, paid sabbaticals, low teaching loads, and a strong faculty voice in university governance because these will promote their interest.
- ✓ Most factory workers support laws requiring advance notice of plant closings; most factory owners do not
- ✓ Self-interested thinking is a major obstacle to critical thinking.
- ✓ Everyone finds it tempting at times to reason that “this benefits me, therefore it must be good”; but from a critical thinking standpoint, such “reasoning” is a sham.
- ✓ Implicit in such thinking is the assumption that “What is most important is what I want and need.”
- ✓ Critical thinking demands that we revere truth - even superiority bias (also known as illusory superiority or the better-than average effect) is the tendency to overrate oneself - to see oneself as better in some respect than one actually is.

2. Sociocentrism

- ✓ 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.
- ✓ Conversely, we find it easy to look with suspicion or disfavor on those we regard as "outsiders"

- ✓ Most people absorb group bias unconsciously, usually from early childhood.
- ✓ It is common, for example, for people to grow up thinking that their society's beliefs, institutions, and values are better than those of other societies.
- ✓ Clearly, this kind of "mine-is-better" thinking lies at the root of a great deal of human conflict, intolerance, and oppression.
- ✓ 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.
- ✓ Authority moves us.
- ✓ We are impressed, influenced, and intimidated by authority, so much so that, under the right conditions, we abandon our own values, beliefs, and judgments, even doubt our own immediate experience.
- ✓ As critical thinkers, we need to be aware of the seductive power of peer pressure and reliance on authority and develop habits of independent thinking to combat them

3. Unwarranted Assumptions and Stereotypes

- ❑ An assumption is something we believe to be true without any proof or conclusive evidence.
- ❑ 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
- ❑ You go to class at the scheduled time because you assume that class is being held at its normal hour and in its same place
- ❑ You don't call the professor to ask if class is being held
- ❑ Such assumptions are warranted, which means that we have good reason to hold them

- ❑ Unwarranted assumptions, however, are unreasonable.
- ❑ An unwarranted assumption is something taken for granted without good reason.
- ❑ One of the most common types of unwarranted assumptions is a stereotype.
- ❑ When we form an opinion of someone that is based not on his or her individual qualities but, rather, on his or her membership in a particular group, we are assuming that all members of that group are alike.
- ❑ Because people are not identical, no matter what race or other similarities they share, stereotypical conceptions will often be false or misleading.
- ❑ Typically, stereotypes are arrived at through a process known as hasty generalization, in which one draws a conclusion about a large class of things from a small sample.

4. Relativistic Thinking

- ❑ Relativism is the view that truth is a matter of opinion.
- ❑ There are two forms of relativism: subjectivism and cultural relativism.
- ❑ Subjectivism is the view that truth is a matter of individual opinion.
- ❑ According to subjectivism, whatever an individual believes is true, and there is no such thing as “objective” or “absolute” truth.
- ❑ 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.

- ❖ Cultural relativism is the view that truth is a matter of social or cultural opinion.
- ❖ 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.
- ❖ Thus, if Ahmed believes that premarital sex is always wrong, and Eden believes that it is not always wrong; according to moral subjectivism, premarital sex is always wrong for Ahmed and is not always wrong for Eden.

- ❖ The other major form of moral relativism is cultural moral relativism, the view that what is morally right and good for an individual, A, is whatever A's society or culture believes is morally right and good.
- ❖ Thus, according to cultural moral relativism, if culture A believes that polygamy is wrong, and culture B believes that polygamy is right, then polygamy is wrong for culture A and right for culture B.
- ❖ There are two major reasons people seem to find it so attractive. One has to do with the nature of moral disagreement and the other concerns the value of tolerance.

- ❖ Another reason people find cultural moral relativism attractive is that it seems to support the value of tolerance.
- ❖ Throughout history, terrible wars, persecutions, and acts of religious and cultural imperialism have been perpetrated by people who firmly believed in the absolute righteousness of their moral beliefs and practices.
- ❖ Cultural moral relativism seems to imply that we must be tolerant of other cultures' moral beliefs and values.
- ❖ If culture A believes that polygamy is wrong, and culture B believes that it is right, then culture A must agree that polygamy is right for culture B, no matter how offensive the practice may be to culture A.

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.

Lesson 6: 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 and practical consequences, how to communicate effectively with others in figuring out solutions to complex problems.
- ❖ Let us consider, more specifically, what you can expect to gain from a course in critical thinking

Critical Thinking in the Classroom

- ❖ 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

Critical Thinking in Life

- ❖ Let us look briefly at three ways in which this is the case critical thinking is valuable in many contexts outside the classroom
- ❖ 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

- ❖ It is vital, therefore, that citizens' decisions be as informed and as rational as possible.
- ❖ Many of today's most serious societal problems - environmental destruction, poverty, ethnic conflicts, decaying the morality of societies, high level of corruption , violating basic human rights, displacement, to mention just a few - have largely been caused by poor critical thinking
- ❖ Third, critical thinking is worth studying 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.
- ❖ Throughout most of recorded history, people accepted without question that the earth was the centre of the universe, that slavery was just, and that women are inferior to men.
- Critical thinking can help free us from the unexamined assumptions and biases of our society.
- In short, critical thinking allows us to lead self-directed, “examined” lives.
- Such personal liberation is the ultimate goal of education.