

Critical Thinking

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MGM 115

Lecture 1



Lecture 1

Introduction to critical thinking

From Critical Thinking, Bassham and others

Lecture 1

This lecture includes:

- (1) The nature of critical thinking**
- (2) Key critical thinking standards**
- (3) Some major impediments to critical thinking**
- (4) Characteristics of a critical thinker**
- (5) What is an argument**
- (6) How to differentiate between argument and nonargument**

Lecture 1

What is critical Thinking?

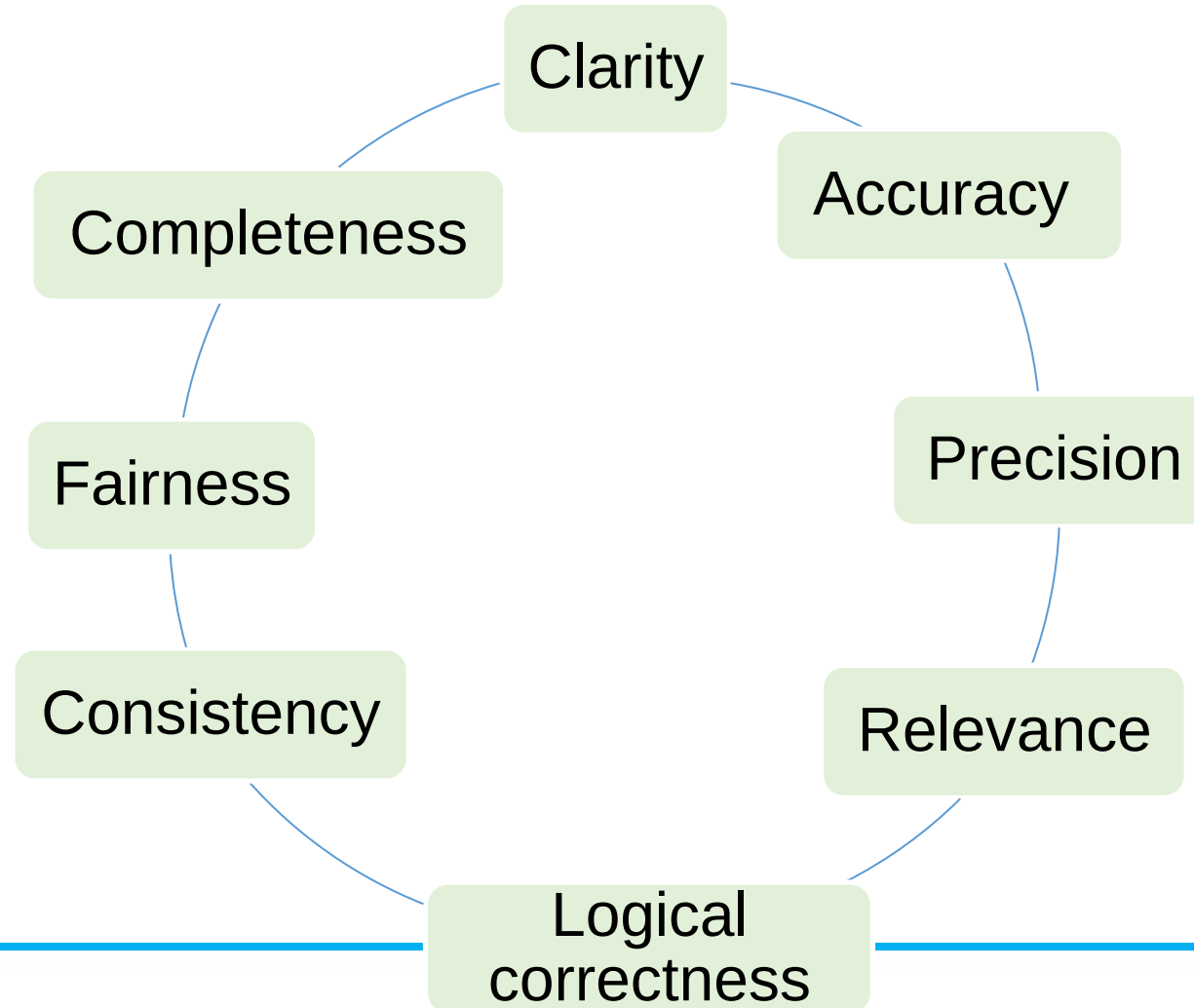
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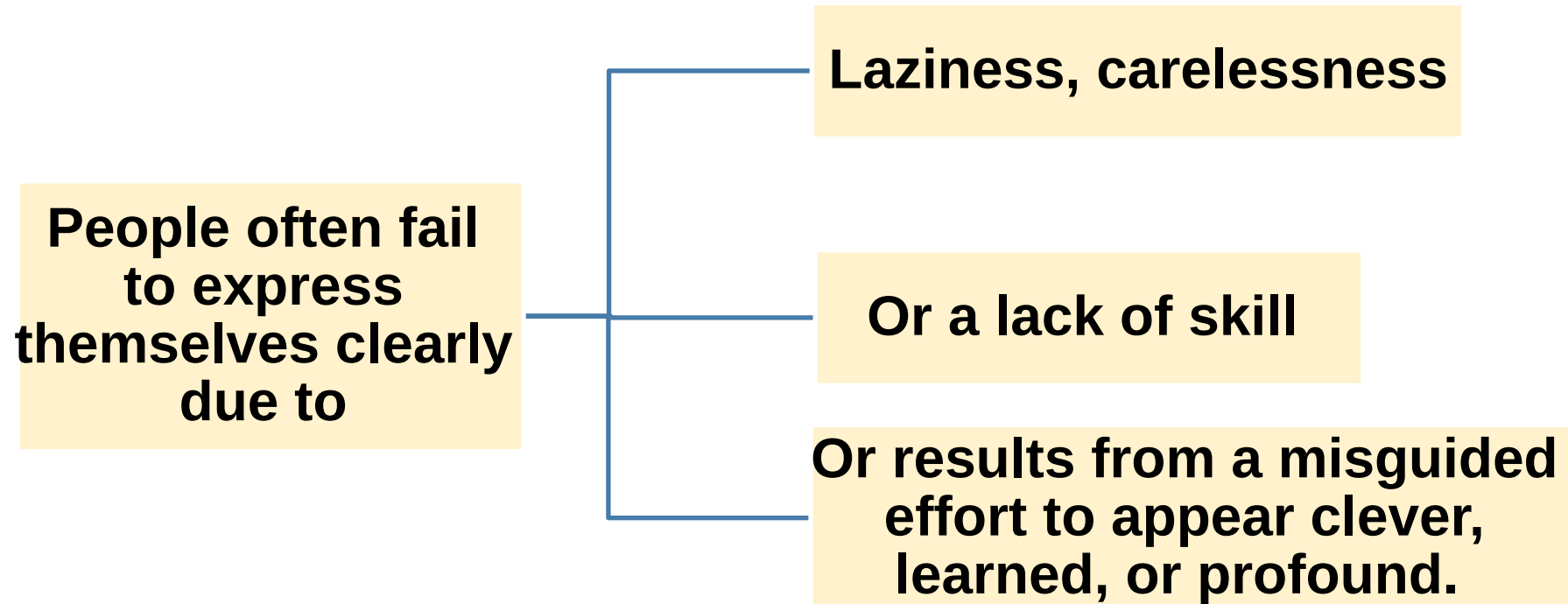
Critical thinking is the general term given to a wide range of cognitive skills and intellectual dispositions needed

to effectively identify, analyze, and evaluate arguments and truth claims

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 thinkers not only strive for clarity of language but also seek maximum clarity of thought.

“Garbage in, garbage out.”

Free from errors, mistake or distortion; true, correct.

False information leads to bad decisions.

Critical thinkers don't merely value the truth; they have a passion for accurate, timely information. As consumers, citizens, workers, and parents, they strive to make decisions that are as informed as possible.

- **Cut through the confusions and uncertainties that surround many everyday problems and issues**
- **It is often necessary to insist on precise answers to precise questions:**

What exactly is the problem we're facing?

What exactly are the alternatives?

What exactly are the advantages and disadvantages of each alternative?

- **Only when we habitually seek such precision are we truly critical thinkers.**

A statement can be both clear and accurate,
but not precise.

For example, “Adam is overweight”
How overweight Adam is? one Kg or 300kg

It is important to stay focused on relevant ideas and information.

A favorite debaters' trick is to try to distract an audience's attention by raising an irrelevant issue

Logic tells us that if a person holds inconsistent beliefs, at least one of those beliefs must be false.

Two kinds of inconsistency that we should avoid

Logical inconsistency, which involves saying or believing inconsistent things (i.e., things that cannot both or all be true) about a particular matter.

Ex. Everyone left the room. John is someone who is still in the room.

Practical inconsistency, which involves saying one thing and doing another.

To think logically is to reason correctly—that is, to draw well-founded conclusions from the beliefs we hold.

To think critically we need accurate and well supported beliefs.

In most contexts, we rightly prefer deep and complete thinking to shallow and superficial thinking. Thus, we justly condemn negligent criminal investigations, hasty jury deliberations, superficial news stories, sketchy driving directions, and snap medical diagnoses.

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

Fairness can be very difficult to achieve **because to some extent we all perceive reality in ways that are powerfully shaped by our **individual life experiences** and **cultural backgrounds**.**

But as difficult as it may be to achieve, basic fair-mindedness is clearly an essential attribute of a critical thinker.

Barriers to critical thinking

If critical thinking is so important, Why is it that **uncritical** thinking is so common?

Why is it that so many people—including many highly educated and intelligent people—find critical thinking so difficult?

Barriers to critical thinking

Lack of relevant background information • poor reading skills • bias • prejudice • superstition • egocentrism (self-centered thinking) • sociocentrism (group-centered thinking) • peer pressure • conformism • narrow-mindedness • closed-mindedness • distrust in reason • relativistic thinking • stereotyping • unwarranted assumptions • scapegoating • rationalization • denial • wishful thinking • short-term thinking • selective perception • selective memory • overpowering emotions • self-deception • face-saving • fear of change

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.

Two common forms of egocentrism:

- 1- Self-interested thinking is the tendency to accept and defend beliefs that harmonize with one's self-interest.
Ex. Most factory workers support laws requiring more worker benefits; most factory owners do not
- 2- Self-serving bias is the tendency to overrate oneself—to see oneself as better in some respect than one actually is. We have all known braggarts or know-it-alls who claim to be more talented or knowledgeable than they really are.

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. Social scientists tell us that such thinking is extremely common throughout human history and across cultures.

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.

Unwarranted Assumptions and Stereotypes

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.

Unwarranted assumptions is something taken for granted without good reason. Such assumptions often prevent our seeing things clearly. For example, our attraction for someone might cause us to assume that he or she feels the same way and thus to interpret that person's actions incorrectly.

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 or virtually all members of that group are alike. (i.e. politicians, professors, women.....)

Stereotype comes from hasty generalization, in which one draws a conclusion about a large class of things (in this case, people) from a small sample.

Relativism is the view that truth is a matter of opinion.

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, is true for that person.

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.

What is an argument?

Arguments are composed of one or more **premises** and a **conclusion**.

Premises are statements in an argument offered as evidence or reasons why we should accept another statement, the conclusion.

The conclusion is the statement in an argument that the premises are intended to prove or support.

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What is an argument?

An argument, accordingly, is a group of statements, one or more of which (called the premises) are intended to prove or support another statement (called the conclusion).

A statement is a sentence that can be viewed as either true or false.

First, a sentence may be used to express more than one statement. For example, the grammatical sentence:

Roses are red and violets are blue

expresses two distinct statements (“roses are red” and “violets are blue”). Each of these is a statement because each is capable of standing alone as a declarative sentence.

Second, a statement can sometimes be expressed as a phrase or an incomplete clause, rather than as a complete declarative sentence. Consider the sentence

With mortgage interest rates at thirty-year lows, you owe it to yourself to consider refinancing your home. (radio ad)

Grammatically, this is a single declarative sentence.

Third, not all sentences are statements, that is, sentences that either assert or deny that something is the case. Here are some examples of sentences that are not statements
Consequently, sentences like these are not parts of arguments :

What time is it? (question)

Hi, Dad! (greeting)

Close the window! (command)

Oh, my goodness! (exclamation)

Please send me your current catalog. (request)

Let's go to Paris for our anniversary. (proposal)

Insert tab A into slot B. (instruction)

Finally, statements can be about subjective matters of personal experience as well as objectively verifiable matters of fact.

For example: I feel a slight twinge in my left knee

This is a statement because it is either true or false (I might be lying, after all), even though other people may have no way of verifying whether I am telling the truth.

Identifying premises and conclusions

In identifying premises and conclusions, we are often helped by indicator words.

Indicator words are words or phrases that provide clues that premises or conclusions are being put forward.

Premise indicators indicate that premises are being offered.
Conclusion indicators indicate that conclusions are being offered.

Some common premise indicators

since	because	for
given that	seeing that	considering that
inasmuch as	as	in view of the fact that
as indicated by	judging from	on account
of		
(i.e. look to pp. 34)		

Some common conclusion indicators

**Therefore
consequently**

thus

hence

So

accordingly

it follows that

for this

reason

that is why

which shows that

wherefore

this implies that

as a result

this suggests that

this being so

Many arguments contain no indicator words at all. Here are two examples:

Cats are smarter than dogs. You can't get eight cats to pull a sled through snow.

the point is to support the claim, "Cats are smarter than dogs,".

Tips on Finding the Conclusion of an Argument

Find the main issue and ask yourself what position the writer or speaker is taking on that issue.

- **Look at the beginning or end of the passage; the conclusion is often (but not always) found in one of those places.**
- **Ask yourself, “What is the writer or speaker trying to prove?” That will be the conclusion.**

Tips on Finding the Conclusion of an Argument

- Try putting the word **therefore** before one of the statements. If it fits, that statement is probably the conclusion.
- Try the “**because**” trick. That is, try to find the most appropriate way to fill in the blanks in the following statement: **The writer or speaker believes (conclusion) because (premise). The conclusion will naturally come before the word because**

What is nonargument?

We encounter arguments everywhere in daily life (school, work, magazine ads, newspaper editorials, in political discussions,.....)

people don't use language only to offer arguments: they also use it to tell jokes, sing songs, recite poetry, express feelings, report events, ask questions, offer explanations, say prayers, give orders.

Distinguish arguments from nonarguments?

Something counts as an argument when

- (1) it is a group of two or more statements**
- (2) one of those statements (**the conclusion**) is claimed or intended to be supported by the others (**the premises**).**

Five types of nonargumentative discourse

Five types of nonargumentative discourse that are sometimes confused with arguments:

- **Reports**
- **Unsupported assertions**
- **Conditional statements**
- **Illustrations**
- **Explanations**

The purpose of a report is simply to convey information about a subject.

Reporting a series of events; their aim is to narrate and inform, not to offer reasons why one statement should be accepted based on others.

Reports about arguments when reporting another person's argument, not endorsing it or putting it forward as his own considers nonargument.

Unsupported assertions are statements about what a speaker or writer happens to believe.

Such statements can be true or false, rational or irrational, but they are parts of arguments only if the speaker or writer claims that they follow from, or support, other claims.

A conditional statement is an if-then statement. Here are two examples:

If it rains, then the picnic will be canceled.

You must speak French if you grew up in Quebec.

Illustrations are intended to provide examples of a claim, rather than prove or support the claim.

Example:

Many wildflowers are edible. For example, daisies and day lilies are delicious in salads.

An explanation tries to show why something is the case, not to prove that it is the case.

Titanic sank because it struck an iceberg.

In this example, for instance, it is clear that the speaker isn't trying to argue that Titanic sank—everybody already knows that it sank. Instead, he is trying to explain why it sank.

Summary of nonargumentative discourse

- **Reports** are statements that are intended simply to convey information about a subject.
- **Unsupported assertions** are statements that indicate what a person believes but don't offer evidence for that belief.
- **Conditional statements** are if-then statements. They claim only that one statement is true if another statement is true.
- **Illustrations** are statements intended to provide examples of a claim, rather than evidence or proof for the claim.
- **Explanations** are statements intended to explain why something is the case, rather than to prove that it is the case.



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