

Chapter 1

What is critical thinking

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

- effectively identify, analyse, and evaluate arguments and truth claims;
- discover and overcome personal preconceptions and biases;
- formulate and present convincing reasons in support of conclusions;
- make reasonable, intelligent decisions about what to believe and what to do.

Critical thinking standards

Critical thinking is disciplined thinking governed by clear intellectual standards:

- Clarity
- Precision
- Accuracy
- Relevance
- Consistency
- Logical correctness
- Completeness
- Fairness

Clarity: Clarity is very important to understand others and to be understood by others.

- Critical thinkers strive for clarity of language and clarity of thought.

- before we can affectively evaluate a person's argument or claim, we need to understand clearly what he or she is saying

- To achieve our personal goals in life we need:

- ❖ a clear conception of our goals and priorities,
- ❖ a realistic grasp of our abilities,
- ❖ a clear understanding of the problems and opportunities we face.
- ❖ Such self-understanding can be achieved only if we value and pursue clarity of thought.

Obstacles of clarity: people often fail to express themselves clearly due to different factors: laziness, carelessness, a lack of skills, misguided effort to appear clever, learned or profound
As a critical thinker:

(Think clearly - speak clearly - understand others clearly - make others understand you clearly)

Precision:

- Critical thinkers understand the importance of precise thinking in life.
- Precision is secret to success:
 - Precision is important to cut through confusion and uncertainties that surrounded many everyday problems and issues,
 - Precision is important to insist on precise answers to precise questions e.g.:
- what exactly is the problem we are facing?
- What exactly are the alternatives?
- what exactly are the advantages and disadvantages of each alternative?
- only when we habitually seek such precisions are we truly critical thinkers.

Accuracy:

- ❖ accuracy is very important because you are almost guaranteed to make bad decisions if your decisions are based on false information.
- ❖ Bad decisions are based: on false and inadequate information, ignorance exaggerated estimation and false assumptions.
- ❖ Critical thinkers don't merely value the truth; they have a passion for accurate timely information.
- ❖ As consumers, citizens, workers, and parents Critical Thinkers strive to make decisions that are as informed as possible

Relevance:

- ❖ The opposite of relevance is irrelevance.
- ❖ Relevance means staying focused on the relevant ideas and information.
- ❖ Being unfocused by raising irrelevant issues, information, topics distract audience's attention.
- ❖ Distracting attention of audience weaken arguments and debates rather than strengthening them.

Consistency:

- consistency is essential to critical thinking.

- Logically, if a person holds **inconsistent** beliefs at least one of those beliefs must be false.
- Critical thinkers are careful of inconsistency both in their own thinking and in the argument and assertions of others.
- There are **two kinds of inconsistency** that we should avoid:
- **Logical inconsistency**; saying or believing inconsistent things about a particular matter; things which cannot both or all be true.
- **Practical inconsistency**; which involves saying one thing and doing another.

Awareness of inconsistency:

- ❖ Some people are **fully aware** that their words conflict with their deeds.
- ❖ Some people are **not fully aware** that their beliefs/words conflict with their deeds.
- ❖ Critical thinking helps us become aware of such unconscious practical inconsistencies, allowing us to deal with them on conscious and rational basis.
- ❖ critical thinking help us recognise logical inconsistencies and avoid them altogether.

Logical correctness:

- ❖ 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.
- ❖ to think critically we need also to be able to reason from those beliefs to conclusions that logically follow from them.
- ❖ illogical thinking is all too common in human affairs.

Completeness:

- ❖ Completeness means deep and complete thinking compare to shallow and superficial thinking.
- ❖ thinking is better when it is deep rather than shallow thorough rather than superficial.
- ❖ Shallow and superficial thinking can be seen in slipshod criminal investigations, hasty jury deliberations, superficial news stories, sketchy driving directions, snap medical diagnosis

Fairness

- ❖ Fair thinking designates open minded, impartial and free of distorting biases and preconceptions.
- ❖ fairness maybe rather difficult to achieve because 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 interest of their nation or group
- ❖ it is probably realistic to suppose that our thinking could ever be completely free of biases and preconceptions.
- ❖ to some extent we all perceive reality in ways that are powerfully shaped by our individual life experiences and cultural background.
- ❖ but basic fairness basic fair-mindedness is clearly an essential attribute of critical thinking.

critical thinking in the classroom

- Critical thinking plays a vital role throughout the college curriculum.

- University focuses on **higher-order thinking**: the active, intelligent evaluation of ideas and information.
- High school focus on **lower-order thinking**: e.g. memorisation of information, understanding, applying

Critical thinking helps university students:

1- Understanding the argument and beliefs of others.

Critical thinking teaches variety of skills that can significantly improved student's ability to understand the arguments and issues discussed in the textbooks and classes

2- Critically evaluating the arguments and beliefs of others.

Critical thinking teaches a wide range of strategies and skills that can greatly improve the ability and skill to engage in critical evaluation of what student are learning in class.

3-Developing and defending one's on well-supported arguments and beliefs.

Critical thinking teaches a wide range of strategies and skills that can greatly improve the ability and skill to develop student's own arguments on topics or issues relevant to the study and tailor arguments and evidence in a way that convincingly supports the writer's view.

critical thinking in the workplace

Critical thinking aims to improve **generalised thinking and problem-solving skills** that employees need in their workplace.

Nowadays employers are looking not for employees with highly specialized career skills because such skills can be learned on the job.

Employers look for employees with good **thinking and communication skills**, quick learners who can **solve problems, think creatively, gather and analyse information, draw appropriate conclusions from data, communicate their ideas clearly and effectively.**

critical thinking in life

Critical thinking is valuable in life.

1. Critical thinking can help in decision-making and avoiding making foolish personal decisions about different aspects of life e.g. consumer purchase, relationships, personal behaviour.
2. Critical thinking can help us avoid making mistakes by teaching us to think about important life decisions more carefully, clearly and logically.
3. Critical thinking plays vital role in promoting democratic processes at political level, social level, and family level.
4. Critical thinking is worth studying for its own sake simply for the personal enrichment it can bring to our lives. Critical thinking allows us to lead self-directed and examined lives.

Egocentrism:

Egocentrism is the tendency to see reality as centered on oneself.

Egocentrics are selfish, self-absorbed who view their interests, ideas and values as the superior to everyone else.

All of us are affected to some degree by egocentric bias.

There are two common forms of egocentrism: self interested thinking and self serving-bias

Self-interested thinking: is the tendency to accept and defend beliefs that harmonise with one's self-interested thinking.

- It is likely that self-interest plays at least some role in shaping the respective attitudes and beliefs.
- People sometimes reason that this benefits me therefore it must be good and also people reason that what is most important is what want and need Almost no one is immune to self-interested thinking.
- Self interested thinking is a major obstacle to critical thinking.
- Critical thinking condemns such special pleading. It demands that we weigh evidence and arguments objectively and impartially. ultimately it demands that we reverse trust-even when it hurts

Self-surfing bias:

Self-surfing bias is the tendency to over rate oneself; to see oneself as better in some respects than one actually is.

- Self-serving bias is an extremely common trait.
- It is important to be able to look honestly at our personal strengths and weaknesses.
- We want to set high personal goals but not goals that are widely unrealistic.
- Self-confidence grounded in genuine accomplishment is an important element of success.
- Overconfidence is an obstacle to genuine personal and intellectual growth.

Sociocentrism:

- Sociocentrism is a group-centred thinking.
- Sociocentrism can hinder rational thinking by focusing excessively on the group.

- Two most important ways that sociocentrism can distort critical thinking: **Group Bias** and **Conformism**.

Group bias: is the tendency to see one's own group i.e. nation, tribe, sect etc. as being inherently better than others.

- Such thinking is extremely common throughout human history and across cultures.
- Most people absorb group bias unconsciously, usually from early childhood.
- Most people outgrow such childish group bias, a few managed to outgrow them completely
- Group bias thinking lies at the root of a great deal of human conflict, intolerance and oppression.

Conformism:

Conformism refers to our tendency to follow the crowd; that is confirmed, often unthinkingly to authority or to group standards of conduct and believe.

- The desire to be part of the ingroup can be among the most powerful of human motivation.
- Authority moves us.
- We are impressed, influenced, and intimidated by authorities, so much so that, hinder the right conditions, we abandon our own values, beliefs and judgements, even doubt our own immediate sensory 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 that.**

Unwarranted assumptions and stereotypes:

An assumption is something we take for granted, something we believe to be true without any proof or conclusive evidence.

assumptions is a daily activity.

- Many of our daily actions are based on assumptions we have drawn from the patterns in our experience.
- Almost everything we think and do is based on assumptions.
 - |'going to a scheduled class is based on assumptions.
 - rain prediction reported in weather broadcasting makes us assume that it will rain

Assumptions are either: **warranted** or **unwarranted**.

warranted assumptions are based upon good reasons and lead to warranted assumptions and good results actions, believes, stand points etc.

- e.g. You go to class at the scheduled time because you assume that the class being held at its normal hour and in its same place.

unwarranted assumptions

- ✓ Unwarranted assumption is something taken for granted without good reason.
- ✓ Unwarranted assumption are unreasonable.
- ✓ Unwarranted assumptions often prevent us from seeing things clearly

for example, our attention for someone might cause us to assume that he or she feels the same way and thus to interpret that person's actions incorrectly.

Stereotypes:

unwarranted assumptions take the form of stereotypes.

- stereotypes are generalizations about a group of people in which identical characteristics are assigned to all or virtually all members of the group often without regarding to whether such attributions are accurate.
- 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.
- When we stereotype, we assume that individual people have all been the same; so that all politicians are alike, all Muslims are alike, all Americans and Europeans are alike, all professors are alike, all women are alike and so forth.
- because people are not identical no matter what race or other similarities, they share stereotypical conceptions will often be false or misleading.

Stereotypes:

- **hasty generalization** is the process through which stereotypes are arrived at-one draws a conclusion about a large class of things from a small sample.

- For example, if one of our teachers is arrogant then we might jump to the conclusion that all the teachers are arrogant.

Often the media e.g. advertisements, the news, movies etc. encourage stereotyping by the way they portray groups of people.

if we are conscious of flower tendency to stereotype, we can take measures to end.

Assumptions we need to become most conscious of are not the ones that lead to our routine behaviours such as carrying an umbrella or going to class but the ones on which we base our more important attitudes, actions and decisions.

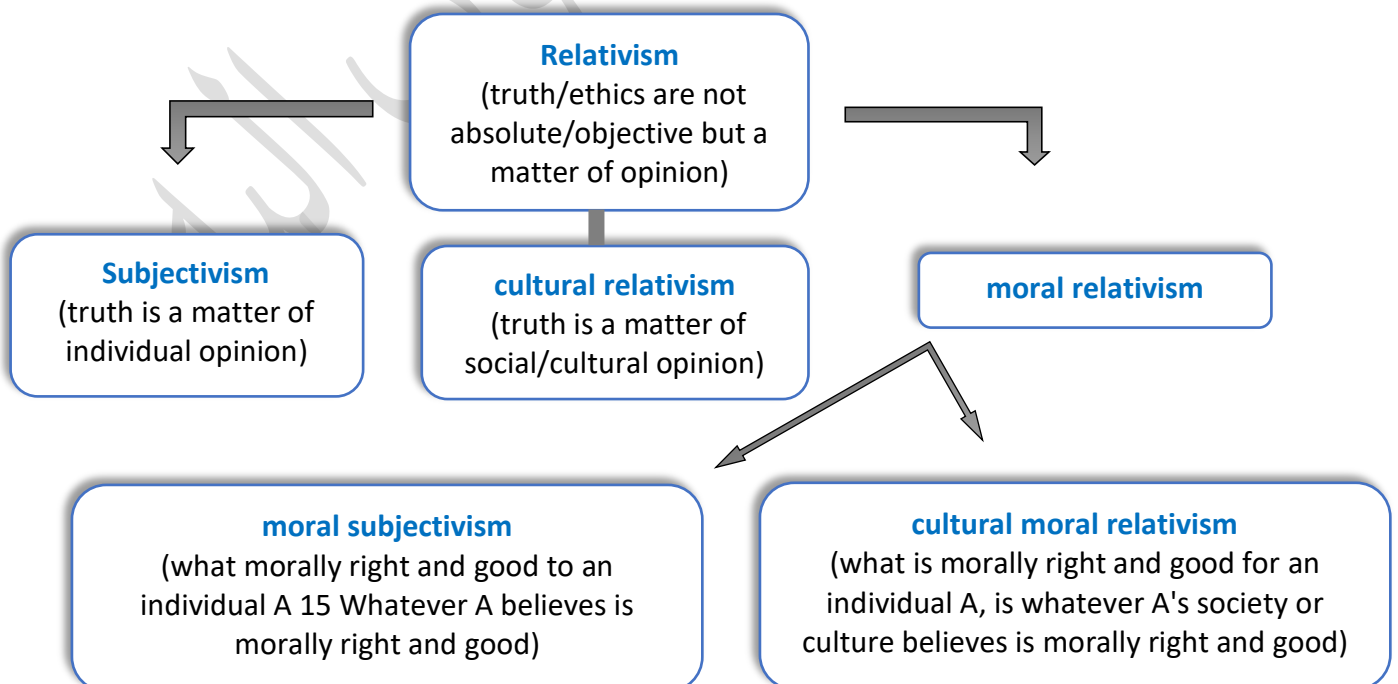
Relativistic Thinking

Relativistic thinking is thinking that is based on the idea that there is no objective or absolute truth because truth is simply a matter of opinion.

- Subjectivism is the view that truth is a matter of individual opinion.
- Whatever an individual believes is true, is true for that person.
- There is no such thing as objective or absolute truth i.e. truth exists independent of what anyone believes.

e.g.

If Bobby believes that abortion is wrong and Alice believes that abortion is not always Wrong, accordingly to subjectivism, abortion is always wrong for Bobby and not always wrong for Alice.



Cultural relativism 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.

For example, if drinking alcohol is wrong in country A but not wrong in country B. Then, according to **cultural relativism**, drinking alcohol is immoral in country A but, is morally permissible in country B.

Therefore, 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.

Moral relativism comes into 2 major forms: **moral subjectivism** and **cultural moral relativism**.

- **Moral subjectivism** is the view that what morally right and good for an individual A is whatever A believes is morally right and good.

for example, if A believes that dishonesty is always wrong, and B believes that it is not always wrong, according to moral subjectivism, dishonesty is always wrong for A and is not always wrong for B.

- **Cultural moral relativism** is 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.

For example, 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.

Cultural moral relativism is popular today for two reasons:

1-the nature of moral disagreement.

- in ethics there is widespread disagreement, the disagreements often go very deep and there seems to be no rational way to resolve many of them. Therefore, some people believe there is no objective truth in ethics, morality is just a matter of individual or societal opinion.

2- the value of tolerance.

- Cultural moral relativism supports 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 culture's moral beliefs and values.

Problems with cultural moral relativism

1- **Cultural moral or relativism** has consequences that make it very difficult to accept. The deep disagreement about an issue does not show that there is no objective truth about that issue. For example, there is disagreement whether God exists, but this deep disagreement does not show that there is no objective truth about existence of God.

2- **Cultural moral relativism** does not necessarily support the value of tolerance. Relativism tell us that we should accept the customs and values of our society but if you live in an intolerant society, relativism implies that you too should be intolerant.

However, if moral truth is simply a matter of opinion, it should make us cautious and open-minded regarding our own ethical beliefs. We can learn tolerance by opening our hearts and minds and thinking critically about the challenges of living.

Wishful thinking:

People fear the unknown and invent conformity to render the unseen.

- ✚ Wishful thinking is believing something because it makes one feel good, not because there is good reason for thinking that it is true.
- ✚ wishful thinking is believing something because of a desire or wish that it be true.
- ✚ Wishful thinking makes the decision-making and the formation of beliefs based on what might be pleasing to imagine, rather than on evidence, rationality, or reality.
- ✚ It could be a barrier if it is only like dreaming about something in a way that we are entertaining our feelings but not really thinking proactively and practically about it.
- ✚ It is like watching a movie about something, we would like to achieve without doing anything about it.

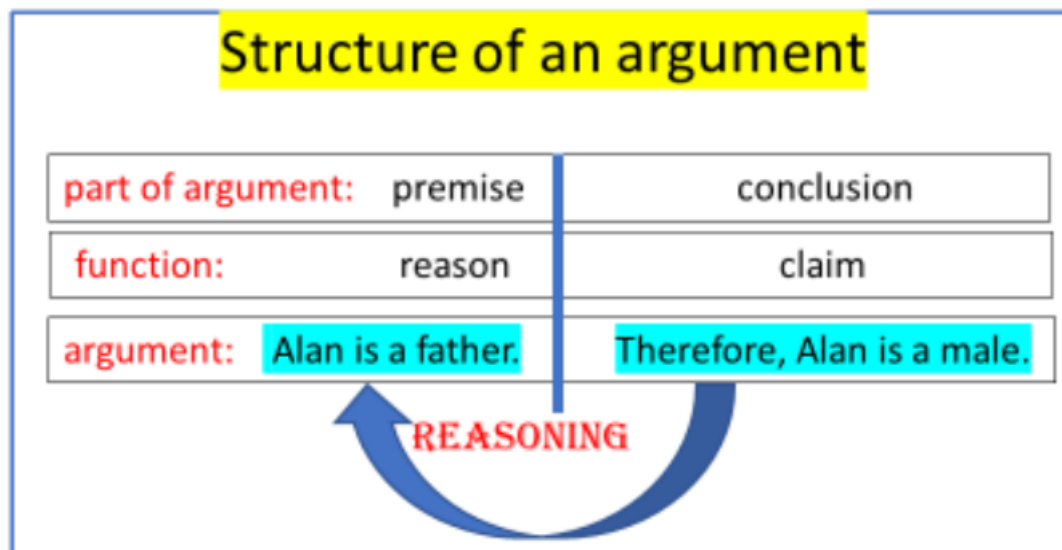
Chapter2

What is an argument

in critical thinking:

- **Argument:** is a claim defended with a reason.
- Passages that present reasons for a claim are called argument.
- **Argument are composed** of one or more reason premises and a conclusion.
 - **Premises:** are statements in an argument offered as evidence or reason why audience should accept another statement, the conclusion.
 - **Conclusion** is the statement in an argument that the premises are intended to prove or support.
- An Argument Is a group of statement, one or more of which, the premises, are intended to prove or support another statement, the conclusion.

Structure of an argument



What is a statement?

1-A statement is a sentence that can be viewed as either true, false or controversial.

2- A statement asserts or denies that something is the case.

e.g.

→ red is a colour.

→ Canada is in South America.

→ Abortion is morally wrong.

3- A sentence may be used to express more than one statement.

e.g.

→ roses are red, and violets are blue.

Statement

4- a statement can sometimes be expressed as a phrase or an incomplete clause, rather than as a complete declarative sentence.

→ e.g. with more mortgage interest rates at thirty-year lows, you owe it to yourself to consider refinancing your home. (radio ad).

5- statements can be about subjective matters of personal experience as well as objectively verifiable matters of fact.

→ e.g. I feel a slight twinge in my left knee.

is a statement because it is either true or false, but people have no way to verifying its truth?

Sentences which are not statements

6- **Not all sentences are statements.** Sentences that either assert or deny that something is the case are not statements.

Sentences which are not statements:

Questions: what time is it?

Exception:

Rhetorical questions e.g. Alyssa, you should quit smoking. **Don't you realize how bad that is for your health?**

- Rhetorical question is a sentence that has the grammatical form of a question but is meant to be understood as a statement because it does not look for information but make an assertion,

- i.e. smoking is very bad for one's health. This assertion is offered as a reason (premise) to support the conclusion that Alyssa should quit smoking.

Greetings: Hi, Dad.

Commands: close the window!

Exception:

Ought imperative e.g. do not read beauty magazines, they will only make you feel ugly.

(Mary Schmich)

- Ought imperative is a sentence that has the form of an imperative or command but is intended to assert a value or ought Judgment about what is good or bad or right or wrong.

- In the example above, the speaker is clearly making an assertion that you shouldn't read beauty magazines. Her statement: that reading, such (magazines will only make you feel ugly) is offered as a reason to support this value judgment.

Requests: please send me your current catalogue.

Proposals: lets' go to Paris for our anniversary.

Instructions: insert tab A into slot B.

Exclamations: oh, my goodness.

The indicator words

- Indicator words are words or phrases used in arguments to give clue that premises or conclusions are being offered.
- In identifying premises and conclusions, we are often helped by indicator words.
- Premise indicators indicate that premises are being offered.
- Conclusion indicators indicate that conclusion are being offered.

Common premise indicators:

since, for, seeing that, inasmuch as, because, given that, considering that, etc.

e.g. having fun can be the spice of life but not its main course, **because** when it is over nothing of lasting value remains (Harold Kushner).

Common conclusion indicators:

therefore, hence, thus, so, consequently, as accordingly, it follows that, that is why, etc.

e.& your life is what your thought make it **that is why** it is important for all of us to guard our minds from unhealthy habits that hold us back from what we could be accomplishing. (Tom Morris)

Limitations of indicator words

there are two main limitations with Indicator words:

1- Indicator words do not function as indicators

e.g.

- I haven't seen you since high school.
- You've had that jacket for as long as I've known you.
- Thus far everything has been great.
- It was so cold that even the ski resorts shut down.
- I wouldn't mind seeing that movie again.
- There is water on the floor because the sink overflow.

2-not all arguments have indicator words:

e.g.

- Cats are smarter than dogs. You can't get eight cats to pull a sled through snow. (Jeff Valdez).

Tips on finding the conclusion of an argument

- How can we find the conclusion of an argument when the argument contains no indicator words?

- Find the main issue and ask your self: 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 or those places
- Ask yourself, what is the writer or speaker trying to prove? That will be the conclusion.
- Try putting the word (therefore) before one of the statements. If it fits, that statement is probably the conclusion.
- Try the (because) trick the conclusion will naturally come before the word because e.g. The writer believes (Conclusion) because (premise).

A text is regarded an argument when:

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

There are 5 types of discourses which are not arguments:

1. reports,
2. 2- unsupported assertions,
3. 3- conditional statements
4. 4- illustrations,
5. explanations

1- Reports & reports about arguments:

a. reports: the purpose of report is simple to convey information about a subject, that is to narrate and inform, not offer reasons why one statement should be accepted on the basis of others.

Muscat: "The Sultanate authorities operate seven flights to offer supplies and medical devices. The Ministry of Health said in a statement: in the implementation of the directives by the supreme committee to deal with development resulting from the spread of the coronavirus, the medical response and public health sector continues its efforts to strengthen the drug stockpile to tackle the coronavirus pandemic by operating seven international flights carrying with supplies and medical devices".

b. reporting another person's argument is also regarded as a report rather than an argument. e.g. Harold Kushner argued that "having fun can be the spice of life but not its main course, because when it is over, nothing of lasting value remains".

2- unsupported assertions:

Unsupported assertions are statements about what a speaker or writer happens to believe but they do not follow from, or support other, claims.

e.g. "The death penalty should be abolished" is an assertion without a support".

3-Conditional statements- if-then statements:

- Conditional statements are not arguments because there is no claim that any statement follows from any part of a conditional statement.

e.g. If it rains, then the picnic will be cancelled.

- Conditional statements are made up of two basic parts:
 - part 1: the statement following the word If, (antecedent): If A,
 - Part 2: the statement following the word then (consequent): then B.

- The conditional statement asserts that if the first statement is true, the second statement will also be true.
- Conditional statement does not assert that either part 1 is true nor part 2 is true. Therefore, it is not an argument.

Conditional statements are part of hypothetical syllogism which is a reasoned argument consisting of 3 lines 2 of which are premises leading to the third line which is the conclusion.

- If A is true, then B is true.
- A is true.
- therefore, B true.

e.g. Two don't stop for petrol soon, then the car will run out of petrol.

Conditional statements can be as well part of chain argument which is a reasoned argument consisting of 3 conditional statements or more:

- If A Then B
- If B Then C
- Therefore, if A Then C.

e.g.

- if we don't stop for petrol soon, then we'll run out of petrol.
- if we run out of petrol, then we will be late for the wedding.
- Therefore, if we don't stop for gas soon, we will be late for the wedding.

4- illustrations:

- illustrations are statements intended to provide examples of a claim, rather than an evidence or proof or support for the claim.

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

- The second statement provided some examples of wildflowers rather than providing a convincing evidence for a conclusion; daisies and day lilies are notable or representative examples of a claim- that wildflowers are edible.

Phrases like for example and for instance sometimes are used in arguments:

e.g. Purists sometimes insist that we should say between when two and only two objects are present, among if there are more than two. This, however, is an oversimplification. **For example**, no one would object to between in "the main stumbling block in the present delicate exchange between Paris, Athens, London and Ankara".

- There is sometimes a fine line between illustrating a claim and providing sufficient evidence for the claim.

e.g. Many of the world's greatest philosophers were bachelors. For instance, Descartes, Locke, Hume, and Kant were all unmarried.

The number of unmarried philosophers mentioned in the text is not enough to set an evidence for the claim that (**Many** greatest philosophers). Therefore, these are examples, rather than evidence. **So, the text is not an argument.**

5 explanations:

- Explanations are statement intended to explain **Why** something is the case, not to prove that it is the case.

→ e.g. Titanic sank because it struck an iceberg.

This sentence doesn't argue that Titanic sank, it just give the reason to explain why it sank. On the other hand, an argument proves that something is the case- tor example argue that titanic sank.

An argument proves that something is the case, explanation shows why something is the case.

→ e-g. Capital punishment should be abolished because innocent people may be mistakenly executed.

The above statement is an argument that claims capital punishment should be abolished, the evidence for the claim is that because innocent people may be mistakenly executed.

Explanations have two parts as shown in the example below:

I fell down

because I tripped.

Explanandum: the statement that is explained. **Explanans:** the statement that does the explaining.

Four basic tests to distinguish explanation from argument:

- The common knowledge test.
- The past-event test.
- The author's intent test.
- The principle of charity test

1- The common knowledge test.

Explanations seek to prove or explain a matter of common knowledge; something that is already a well-known fact.

- e.g. the North won the American Civil War because it had a large population and a greater industrial base. (explanation, because common knowledge and well-known past fact).

2-The past-event test.

Explanations seek to prove or explain an event that occurred in the past; because explanations try to explain why past events have Occurred.

- e.g. Mel flunked out because he never went to class. (explanation because it refer to past event, trying to explain it and why it happened.

3-The author's intent test.

If the speaker's or writer's intent to prove or establish that something is the case- that is to provide reasons or evidence for accepting a claim as true, then the text is an argument.

If the speaker's or writer's intent to explain why something is the case- that is, to offer an account of why some event has occurred or why something is the way it is, the passage is an explanation.

- e.g. Kevin is majoring in political science because he wants to go to law school. Is an explanation because the speaker is explaining why Kevin specialised in political science rather than trying to prove that Kevin specialised in political science.

4- The principle of charity test

Interpret unclear passages generously

Never interpret a passage as a bad argument when the evidence reasonably permits to interpret it as not an argument at all.

An example: Is the following passage an argument or an explanation?

"Jeremy won't come to the party tonight because he has an important exam tomorrow.

1- The common knowledge test:

This claim about Jeremy is not common knowledge.

2 -The past-event test:

t does not refer to a past event.

3- The author's intent test:

The speaker's intent is not clear; the speaker might be offering an argument or explanation.

4- The principle of charity test:

We have 2 option:

- argument, but the reasoning is somewhat weak- it is going to be a weak argument.
- explanation which is satisfactory.

Therefore, applying principle of charity urges us to interpret the passage as an explanation.

Chapter 3:

Deductive and Inductive arguments

Deductive argument

- The conclusion follows necessarily/ absolutely/ definitely from the premises
- The deductive argument provides logically conclusive ground for their conclusion.
- Deductive arguments prove their conclusions with rigorous, inescapable logic.

Inductive argument

- The conclusion follows probably/ likely/ plausibly from the premises.
- The inductive argument provides probable ground for the conclusion.
- inductive arguments claim that their conclusions are likely or probable-not absolute/not rigorous/ not unescapable

Deductive argument

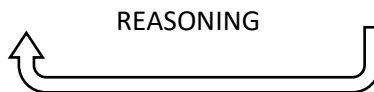
part of argument: premise conclusion
function: reason claim
argument: Alan is a father Therefore, Alan is a male.



CONCLUSION FOLLOWS NECESSARILY FROM THE PREMISE

Inductive argument

part of argument: premise conclusion
function: reason Claim
argument: Jill is a SIX-year-old girl. Therefore, Jill cannot run a mile in one-minute flat.



CONCLUSION FOLLOW'S PROBABLY FROM THE PREMISE

Examples of deductive and inductive arguments

<i>Deductive argument:</i>	<i>Inductive argument</i>
<p>1-K is a father. Therefore, K is a man.</p> <p>2- All humans are mortal. Socrates is human. Therefore, Socrates is mortal.</p>	<p>1-Every ruby so far discovered has been red. So, probably all rubies are red.</p> <p>2-The bank safe was robbed last night.</p> <ul style="list-style-type: none"> ○ Whoever robbed the safe knew its combination. ○ Only two people know the combination: lefty and Buggy. ○ Buggy was seen sneaking around outside the bank last night. ○ It is reasonable to conclude, therefore, that Buggy robbed the safe.

The indicator words

- Indicator words are words or phrases that are used in arguments to indicate whether the argument is deductive or inductive.
- Indicator words of deductive arguments indicate the strict reasoning of the premises and conclusion.
- Indicator words of inductive arguments indicate the probable reasoning of the premises and conclusion.

Deductive argument indicator words:	Inductive argument indicator words:
<p>it necessarily follows that, definitely, absolutely, certainly,</p> <p>→ e.g. If we are in Birkat AlMouz. Then, absolutely we are in AIDakhiliya.</p>	<p>Probably likely, it is reasonable to assume that:</p> <p>→ e.g. It has rained in Jabal Akhadar every February since weather records have been kept. Therefore, it will probably rain in Jabal Akhadar next February.</p>

What is principle of charity test?

It is a test used when we are in doubt and uncertainty of an offered text/passage whether it is a deductive or inductive argument, or not an argument at all.

The main principle of this test is that: **never attribute to the arguer weaker argument when the evidence reasonably permits attributing to him or her a stronger one.**

This can be achieved by:

1. Never interpret a passage as a bad argument when the evidence permits to interpret it as not an argument at all.
2. Never interpret bad arguments as good ones.

The goals of the principle of charity:

- Treating arguments of others with respect and understanding which fosters mutual respect.
- Promotes discovery of truth by insisting that we confront arguments that we ourselves admit to be the strongest and most plausible versions of those arguments.

An example of a doubtful argument:

Argument 1:

If Alan is a father. **Then**, Alan is a man.

Argument 2:

Jill is a six-year-old girl. **Therefore**, Jill cannot run a mile in one-minute flat.

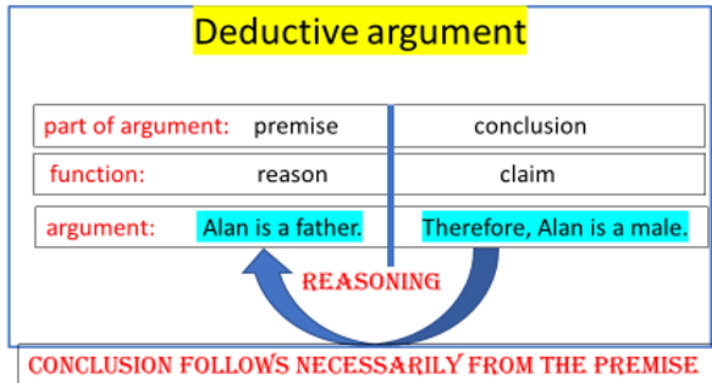
Argument 3:

Andy told me that he ate at Maxine's restaurant yesterday. But Maxine's restaurant was completely destroyed by fire less than a month ago. It is **certain**, therefore, that Andy is either lying or mistaken.

The four tests:

- o The indicator word test.
- o The common pattern test.
- o The strict necessity test.
- o The principle of charity test

What is deductive reasoning?



Five common patterns of deductive:

- Hypothetical syllogism
- Categorical syllogism
- Argument by elimination
- Argument based mathematics
- Argument from definition

Deductive reasoning:

- Deductive arguments are designed to prove **definitively** the conclusion.
- In a deductive argument, the conclusion **necessarily** follows from the premises.
- If the premises are true, the conclusion **must** be true.

1-Hypothetical syllogism

What is a hypothetical syllogism?

A reasoned argument consisting of 3 lines 2 of which are premises leading to the third line which is the conclusion.

→ e.g. if we don't stop for petrol soon, then the car will run out of petrol.

<p>Affirming the antecedent (Modus ponens)</p> <p>Patterns: If A is true, then B is true. A is true. Therefore, B is true.</p>	<p>Denying the consequent (Modus Tollens)</p> <p>Patterns: If A is true, then B is true. B is false. Therefore, A is false.</p>
<p>Affirming the Consequent</p> <p>If A is true, then B is true. B is true. Therefore, A (but logically false A is false conclusion).</p>	<p>Denying the Antecedent</p> <p>Patterns: If A is true, then B is true. A is false. Therefore, B is false.</p>

<p>Chain argument:</p> <p>Consists of 3 conditional statements: If A then B if B then C, Therefore, if A then C.</p>	<p>e.g.</p> <ul style="list-style-type: none"> ○ If we don't stop for petrol soon, then we'll run out of petrol. ○ If we run out of petrol, then we will be late for the wedding. ○ Therefore, if we don't stop for gas soon, we will be late for the wedding.
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4 Patterns of Hypothetical syllogism examples

<p>Affirming the antecedent (Modus ponens)</p> <p>Function: affirms the reasoning between the antecedent and consequence (affirming the consequence by affirming the antecedent) Part A (if statement) is true, Part B (then statement) is true.</p> <p>Example:</p> <ul style="list-style-type: none"> ❖ If we are in Nizwa, then we are in AIDakhilya. ❖ (yes) We are in Nizwa. ❖ Therefore, we are in AIDakhilya. <p>- Valid & Reliable conclusion because it is logically true</p>	<p>Denying the consequent (Modus Tollens)</p> <p>Function: Denys the reasoning between the antecedent and consequence (by denying the consequence) Part A (if statement-antecedent) is not true because, Part B (then statement-consequence) is not true.</p> <p>Examples:</p> <ul style="list-style-type: none"> ❖ If we are in Nizwa, then we are in AIDakhilya. ❖ (no) We are not in AIDakhilya. ❖ Therefore, we are not in Nizwa. <p>- Valid & Reliable conclusion because it is logically true</p>
<p>Affirming the Consequent</p> <p>Function: affirming the consequent which leads to a false conclusion.</p> <p>Example:</p> <ul style="list-style-type: none"> ❖ If we are in Nizwa, then we are in AIDakhilya. ❖ (yes) We are in AIDakhilya. ❖ Therefore, we are in Nizwa. <p>(logically a false conclusion; the problem: AIDakhilya is not only Nizwa; we can be in Birkat AlMouze and we are still in AIDakhilya).</p> <p>Unreliable conclusion because it is logically not true.</p>	<p>conclusion because it Denying the Antecedent</p> <p>Function: denying/refusing/rejecting the antecedent which leads to denying a valid/logical/reliable/true consequence.</p> <p>Example:</p> <ul style="list-style-type: none"> ❖ If we are in Nizwa, then we are in AIDakhilya. ❖ We are not in Nizwa. in Nizwa doesn't mean that we are not in AIDakhilya) ❖ Therefore, we are not in AIDhakhilya <p>(This is correct reasoning but unreliable conclusion because being not Unreliable conclusion because it is logically not true.</p>

2- Argument by elimination

An argument of which, the first form begins by identifying all possibilities. It then eliminates all possibilities but one and concludes that this remaining possibility must be actual.

- e.g. Either Joe walked to the library or he drove. But Joe didn't drive to the library. Therefore, Joe walked to the library.

3- Argument from definition

Is to argue that some particular thing belongs to a particular class of things because it fits the definition for that class or to show that the thing in question adequately meets the definition

- e.g. Janelle is a cardiologist. Therefore, Janelle is a doctor.

4- Categorical syllogism

An argument consisting of three lines in which each statement begins with the word (all), (some) or (no).

- All oaks are trees.
- All trees are plants.
- So, all oaks are plants.

5- Argument based mathematics

The conclusion is based on some mathematical calculation or measurement.

- e.g. If $2+2$ is 4, then $4-2$ must be 2.

Exception: argument based mathematics can be inductive:

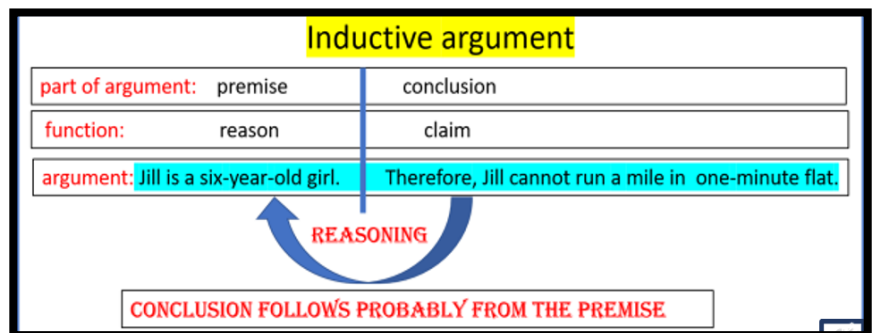
e.g. My blind uncle told me that there were 8 men, 6 women and 12 kids at the part. By simple addition, it follows that there were 26 people at the part.

This argument, though based on mathematics but due to possible false premise because the blind uncle may be miscalculated the people at the party, the argument is best treated as Inductive.

In an inductive argument, if the premises are true, the conclusion is probably true.

6 common patterns of inductive reasoning

- Inductive generalization
- Predictive arguments
- Argument from authority
- Causal argument
- Statistical argument
- Argument from analogy



Pattern	Inductive	Deductive
<p data-bbox="248 237 565 268">Inductive generalization</p> <p data-bbox="248 310 618 415">Statements Attributing some characteristics to all or most member of a given class.</p>	<p data-bbox="651 237 1013 489">All dinosaurs bones so far discovered have been more than sixty-five million years old. Therefore. Probably all dinosaurs bones are more than sixty-years old.</p> <p data-bbox="651 531 1000 716">Because future discovery will reveal bones older than sixty-five million years old. Inductive generalization arguments inductive normally be treated as Inductive.</p>	<p data-bbox="1047 237 1386 300">No deductive reasoning of inductive generalization</p>
<p data-bbox="248 737 513 768">Predictive argument</p> <p data-bbox="248 810 618 915">A statement about what may or will happen in the future defended with reasons.</p>	<p data-bbox="651 737 1000 947">it has rained in Vancouver every February since weather records have been kept. Therefore, it will probably rain in Vancouver next February.</p> <p data-bbox="651 989 992 1173">Because nothing in the future is absolutely certain arguments containing prediction are usually Inductive.</p>	<p data-bbox="1047 737 1354 768">Hypothetical syllogism:</p> <p data-bbox="1047 768 1273 831">1- Modus Ponens (affirming)</p> <p data-bbox="1047 842 1409 1010">If Amy comes to the party. Ted will come to the party. Amy will come to the party. Then, Ted will come to the party.</p> <p data-bbox="1047 1052 1403 1083">2- modus Tollens (denying)</p> <p data-bbox="1047 1094 1386 1293">If the teacher comes to the university today. then there will be a class. A. The teacher is not coming today. B. Then there will be no class.</p>
<p data-bbox="248 1308 578 1339">Argument from authority</p> <p data-bbox="248 1381 610 1566">Statement asserts a claim then supports it by citing some presumed authority or witness who had said that claim true.</p> <p data-bbox="248 1598 610 1671">According to person 1. Y is true. Therefore, Y is true.</p>	<p data-bbox="651 1308 1013 1413">It rained in Jabal Akhadar this morning. my friend told me so.</p> <p data-bbox="651 1455 992 1707">Because we can never be absolutely certain that a presumed authority is accurate or reliable. arguments from authority should normally be treated as Inductive</p>	<p data-bbox="1047 1308 1403 1371">Hypothetical syllogism: Modus Ponens (affirming):</p> <p data-bbox="1047 1381 1403 1566">The quiz is on Monday, the teacher announced it. If the teacher announced that the quiz is on Monday, then the quiz is on Monday.</p> <p data-bbox="1047 1598 1386 1734">A. It is true that the teacher announced it. B. then it true that the quiz is on Monday.</p>

Pattern	Inductive	Deductive
<p>Causal argument Statements that assert or deny that something is the cause or effect of something else.</p> <p>A causes B. (whenever A occurs, we should expect B to occur also)</p>	<p>I can't log on; the network must be down.</p> <p>Because we can rarely, if ever, be 100% sure that one thing causes/not cause something else, casual arguments should normally be treated as inductive.</p>	<p>Hypothetical syllogism: Modus Ponens (affirming)- If A then B. Whenever iron is exposed to oxygen, it rust. This iron pipe has been exposed to oxygen. Therefore, will rust because it</p>
<p>Statistical argument Use statistical evidence to proof that some percentage of some group/class has some particular characteristics of the whole group.</p>	<p>Eighty-three percent of the university student go home every weekends.</p> <p>Because statistical evidence is generally used to support claims that are presented as probable rather than are certain, statistical arguments usually inductive.</p>	<p>Hypothetical syllogism: Modus Ponens (affirming)- If A then B. If 65% of likely voters polled support Senator Beltway, then he will win in the landside. A. yes, it is true that 65% voters polled support S. Beltway B. then he will win the landside.</p>
<p>Argument from analogy Comparison of two or more things that look alike in some relevant aspects- the conclusion is claimed to depend on an analogy (comparison/similarity) them.</p>	<p>Habits are like cables; we weave a strand of it every day and soon it cannot be broken.</p> <p>Because the conclusion is claimed to depend on a comparison/similarity between 2 or more things, such arguments are inductive.</p>	<p>Denying the antecedent: Smoking cause thousands of deaths. Therefore, should be regulated. Automobiles cause thousands of deaths. Therefore, should be regulated</p>

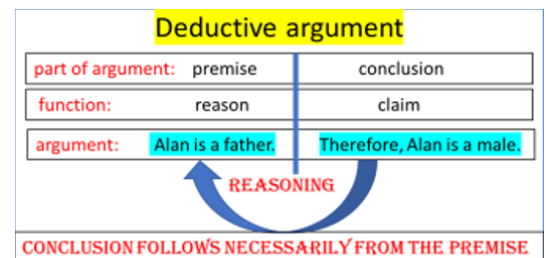
What is the Validity means??

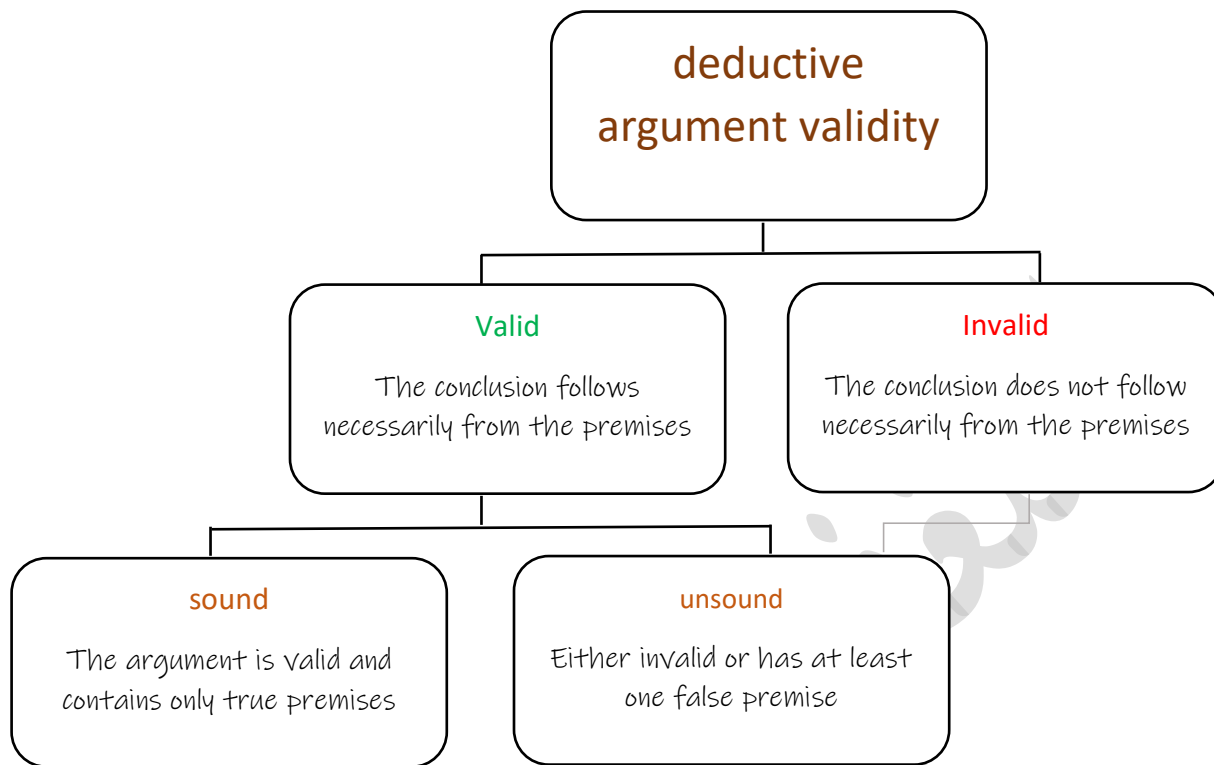
- Validity is about reasoning.
- Validity means the conclusion follows necessarily from the premises.
- A valid deductive argument is an argument in which the conclusion follows necessarily from the premises.

That means:

- the argument is well reasoned.
- the pattern of reasoning is logically reliable.

- **Invalid:** an argument that is not valid; the conclusion of which does not follow necessarily from the premises.





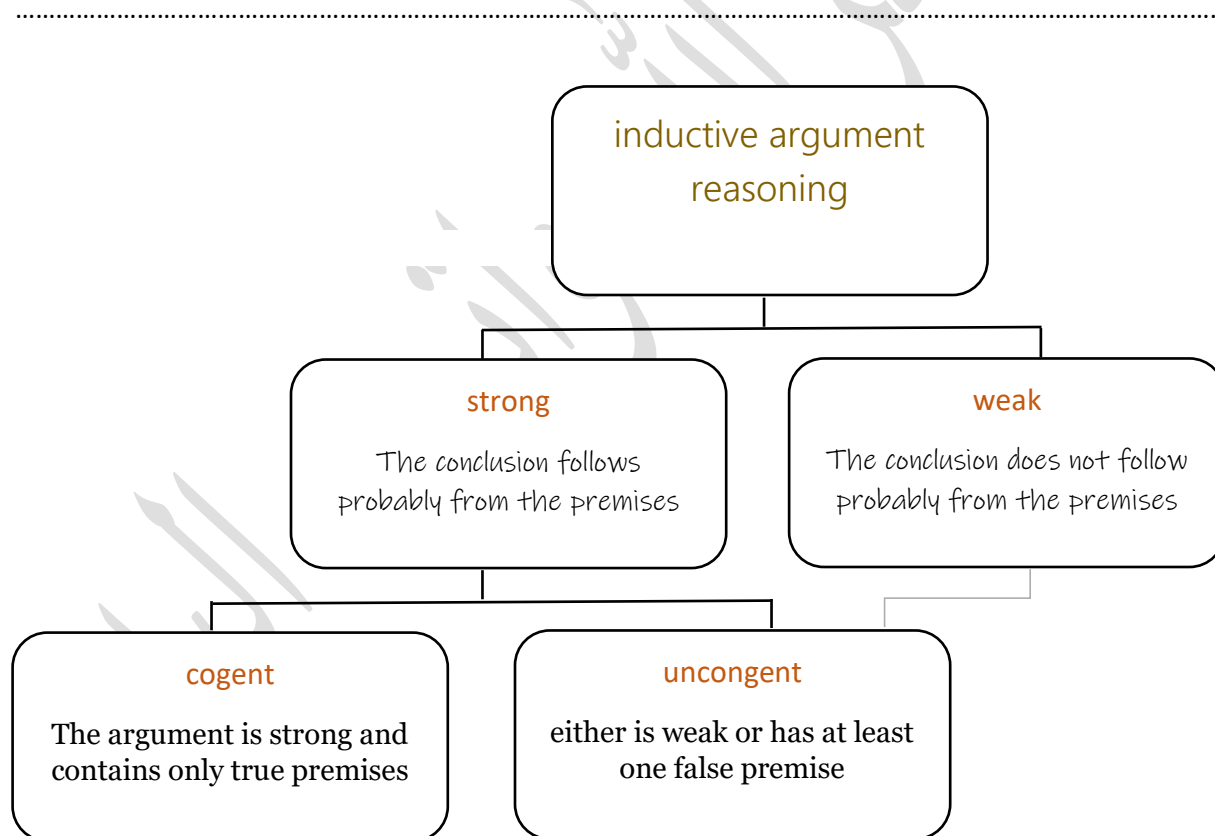
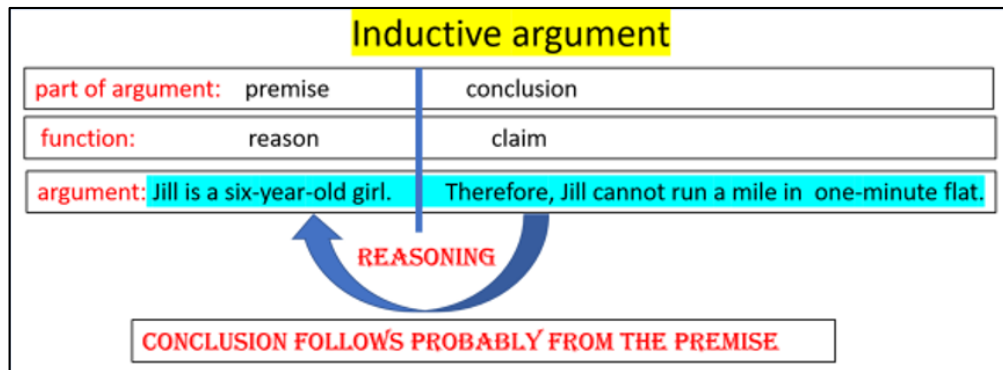
An example valid and invalid deductive argument

Content	Truth of premise\conclusion	Argument 1	Truth of premise\conclusion	Argument 2
Premise 1	True	The Eiffel Tower is in Paris.	False	All dogs are cats.
Premise 2	True	Paris is in France.	False	All cats are whales.
Conclusion	True	Therefore, The Eiffel Tower is in France	False	Therefore, all whales are dogs.
Argument validity	Valid & sound argument = the conclusion follows necessarily from the premises & the premises are true.		Invalid argument = has false premises and a false conclusion	

What is a strong inductive argument?

A STRONG INDUCTIVE ARGUMENT: Well-reasoned, the conclusion follows probably from the premises.

A WEAK INDUCTIVE ARGUMENT: The conclusion does not follow probably from the premises.



An example of a strong and weak inductive argument

<i>Content</i>	Truth of premise\conclusion	Argument 1	Truth of premise\conclusion	Argument 2
<i>Premise 1</i>	True	No U.S. president has been a U.S. skateboarding champ	False	all previous U.S. president have been professional football players.
<i>Premise 2</i>	True	Therefore, probably the next U.S. president will not be skateboarding champ.	False	Therefore, probably the next U.S. president will be an astronaut.
<i>Argument validity</i>	strong & cogent = the conclusion follows probably from the premises & the premise is true		uncogent weak argument = has false premise and strength the conclusion does not follow probably from the premise (weak).	

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Chapter.4

The need for precision

- ❖ Failure to be precise in communication can result in confusion and misunderstanding.
- ❖ To communicate clearly, to defend our claims without confusing or misleading anyone, and to assess the truth of premises presented to us in the arguments of others, we must insist that language in the context of argumentation be clear and precise.
- ❖ Thinking critically and arguing effectively often depend on recognizing imprecise language: language that is **vague**, **overgeneral** or **ambiguous**.

vagueness

- Vagueness means the word is inexact, not precise and has no clear borderline.
- it is hard to say what exactly the word refers to.
- a vague word has a spectrum of meanings like the spectrum of colour:



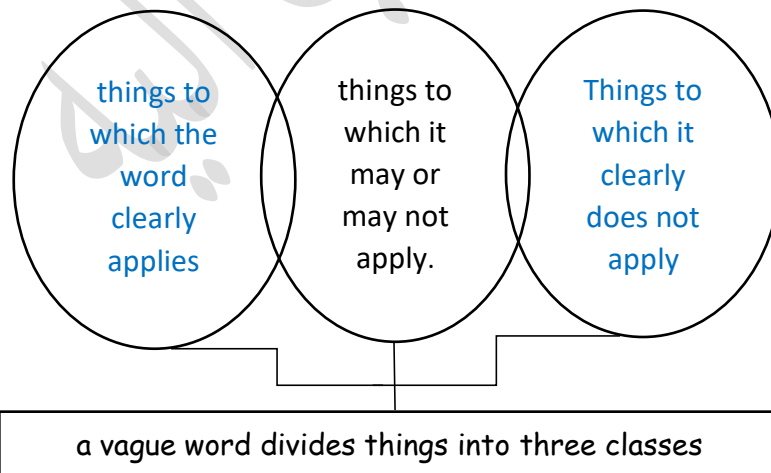
- examples of vague words: **rich**, **minimal pay**, **middle aged**, **vehicle**.

Minimal pay is vague because, it does not state exactly how much is paid for laborer.

vagueness

Case study: you have 200 RO, and want to give them as charity to someone who needs them. You have **Ahmed**, **Salem** and **Said**. Their details in the table below. Who is **RICH** so does not need the money and who is **not rich**, so he needs the money?

	Ahmed	Salem	Said
salary- RO	100	1000	2500
family	No	6	4
car instalment	no	300 RO	no
house rent	no	200 RO	no
bills	20	100	200
bank instalment	no	200	no



Vagueness: advantages & disadvantages

vague language has some advantages and usefulness:	Vague language has disadvantages:
For example, <ul style="list-style-type: none">• helps us speak with suitable caution when we lack precise information e.g. I think I did pretty well on the exam).• useful in diplomacy to avoid disclosing important information.• useful in formulating suitable broad legal standards e.g. (freedom of speech).	It might frustrate clear thinking and communication. For example, in the following statement, it is not clear what is meant by (behaving immorally): Anyone behaving immorally will be severely punished.

Overgenerality

Words are overgeneral if information they provide is too broad and unspecific in a given context. Examples, of Overgenerality: <ul style="list-style-type: none">▪ Teacher: What is seven + five?▪ Student: more than two▪ Mother: where are you going?▪ Son: out▪ Mother: when will you be back?▪ Son: later.	The answers in the previous example, are overgeneral that means not specific but too broad. What the specific answers, should be? Sometimes words are vague and overgeneral. → For example, describing a lost bag as (large, black bag) is vague and overgeneral because it does not give precise description of the bag hence there are many large, black bags.
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Ambiguity

A word or expression is ambiguous if it has two or more distinct meanings and the context does not make clear which meaning is intended. There are many words that have more than one meaning, e.g. bank which means: financial institution, riverside, blood bank etc., star , menu , window .	An ambiguous word is imprecise because it is unclear which of two or more distinct meanings is the one intended by the author. examples, (Joe went to the bank) , is an ambiguous expression because the context does not specify which bank. (Joe went to the bank to get some money) is a clear expression because it specified which bank.
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Types of ambiguity

- There are two types of ambiguity: **Semantic ambiguities** & **syntactical ambiguities**

- **Semantic ambiguities**: result from uncertainty about the meaning of an individual word or phrase e.g. bank.

- **Syntactical ambiguities**: result from faulty grammar or word order.

→ e.g. As a young girl, her grandfather often told her stories about the Wild West.
(ambiguous because of sentence structure, who was a young girl, the grandfather?!)

Verbal and factual dispute

Ambiguity might lead to verbal dispute or factual dispute.

Verbal dispute occurs when people disagree on an issue because they simply have not resolved the ambiguity of a key term.

for example, disagreement on defining (**guilt**) so when to name someone guilty, is it before being convicted or must wait until being convicted and then named guilty?

Factual dispute occurs when opponents disagree not over the meanings of words but over the relevant facts.

Person A might say: That man did not commit the crime, he has an alibi.

Person B. might respond: He committed the crime; I saw him doing it.

The importance of precise definitions

- A convincing argument often depends on the clear and accurate definition of language.

- Failure to define terms carefully can result in a messy battle, with some participants struggling to find the truth and others fighting to avoid it.

- In many discussions, terms may need to be defined before a position can be advanced.

- The interpretation of legal and other important documents depends on the definitions of key terms.

- In almost any argument, the definition of words can be the heart of the debate.

- The more important documents have a section on terms and definitions, e.g. Royal Decrees

4 Types of definitions

1. Stipulative definitions.

2- Persuasive definitions.

3- lexical definitions.

4 - Precising definitions.

1- Stipulative definitions: a definition that a writer or speaker has assigned to a term or that has been assigned to a term for the first time. In other words, a new word or an old word used in an entirely new way.

→ **e.g.** buddy-dumped; means dropped from a person's Internet Buddy List.

- Stipulative definitions are created by scientists/technologists/writers etc.

- when they discover/invent/describe new ideas, products, social trends etc.

- Stipulative definitions are subjective and cannot be true or false

2- Persuasive definitions: a definition created by an arguer to persuade a reader or listener to agree with the arguer's point of view regarding the thing being defined.

Persuasive definitions are subjective and usually contain emotional appeals and slanted terms because their point is not to provide objective, neutral definition but to persuade the audience to adopt the speaker's attitude.

e.g.

→ Capital punishment means the state-sanctioned, vengeful murder of helpless prisoners.

→ Capital punishment means the infliction of appropriate punishment on vicious cowards who have no regard for life.

3- lexical definitions: a definition in which terms are defined in the way they are generally used in the language. The purpose of lexical definition is to state the conventional, dictionary meaning of a word. Lexical definitions are less subjective and personal.

e.g.

→ Pastel means a colour having a soft, subdued shade.

→ Rug means a heavy fabric used to cover a floor.

4 - Precising definitions: a definition in which the writer or speaker assigns a precise meaning to a vague term so that the word's meaning is not left to the interpretation of the reader or listener.

For example, "Absence Warning 1", "Absence Warning 2", "Drop one Grade and Absence Warning 3" & "Barred from the final exam" are all given precising definitions in the "TEACHING & ASSESSMENT (T & A) PLAN" that was given to you at the beginning of the semester, as the extract below shows:

As per the University Policy UON/AA-001/POL/V1/2013, Absentee warning notice will be issued to the student according to:

1. **"Absence Warning 1"**: for unexcused absence of 5% of course's contact hours.
2. **"Absence Warning 2"**: for unexcused absence of 10% of course's contact hours.
3. **"Drop one Grade and Absence Warning 3"**: for unexcused absence of 15% of course's contact hours.
4. **"Barred from the final exam"**: for excused and unexcused absence of 25% of course's contact hours.

Late attendance of students must not be tolerated. Within the first ten minutes of class and in case of an emergency, the instructor shall admit the student to the class. However, the student shall be considered absent in this case.

Strategies for Defining

Writers use different strategies to clarify the meanings of certain words. Each of these strategies, while useful in particular contexts, has limitations. The strategies are:

- Ostensive definitions
- Enumerative definition
- Definition by subclass
- Etymological definition
- Synonymous definitions
- Definition by genus and differences

1- **Ostensive definitions:** provide a concrete example of the term by pointing to or demonstrating the thing being defined.

Examples:

- ✚ Capital letter means this: A.
- ✚ Door means this (and point at the door).

Ostensive definition is the simplest way to explain the meaning of a word but has limitations. For instance, if there are **different types** of the defined word you must show them all e.g. types of doors, vehicles.

Some abstract meanings may be difficult to demonstrate or to give examples for.

2- **Enumerative definitions:** to provide specific examples of what the word refers to, or to provide a list of members of the class to which the term refers.

Examples:

- ✚ The term country refers to: France, England, Oman, Iraq, and so on.
- ✚ Actor means: saleh Za'al, Tom Cruise, Jack Nicholson, Nicholas Cage, and so on.

The trouble with enumerative definitions is that they tend to be incomplete which may give rise to misunderstanding or convey only a very limited understanding of what the word means.

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3- **Definition by subclass:** assigns a meaning to a word by listing subclasses of the general class to which the word refers. It indicates what subclasses the word contains.

Examples,

- ✚ Mammal means: gorilla, horse, lion, whale and so forth.
- ✚ Fiction: includes short stories, novellas and novels.

Definitions by subclass are like definitions by enumeration in that both attempt to clarify the meaning of a word by illustrating what the word refers to, however, whereas definitions by **enumeration list individual things signified by a word, definitions by subclass list entire classes or categories.**

Limitation of definitions by subclass is that they can give rise to misunderstanding. The list of mammals, for example, which contains large animals, might make the reader understand that mammals are only big animals.

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4- **Etymological definitions:** shows the history of the term.

Example,

- ❖ **automobile:** comes from the Greek autos, meaning "self" and the French mobile (from the Latin moilis), meaning "move" an automobile is self-moving or self-propelled.
 - ❖ Etymological definitions are usually provided in dictionaries along side, words' part of speech, pronunciation.
 - ❖ Limitation of etymological definitions is that because meaning of words change over time, dictionaries cannot contain all meanings of words.
-

5- **Synonymous definitions:** use a word that has the same meaning or nearly the same meaning as the word or term being defined.

Examples:

- ✚ A playwright is a dramatist.
- ✚ Deleterious means harmful.

Assigns a meaning to a word by offering a synonym is very helpful in many contexts but has some limitations especially when it comes to words without synonyms, or synonyms with slight difference in their meanings.

For example, tests-assessment, excuse-justification

6- **Definition by genus and differences:** assigns a meaning to a word by identifying a general class (**genus**) to which thing named by the word belong and then specifying a differentiating quality (**difference**) that distinguishes those things from all other things in the class.

examples:

- ✚ A fawn is a young deer.
- ✚ Calf means young cow.
- ✚ **Buck** means **male deer**.

(**Deer**) names the general class (**genus**) to which (**bucks**) belong, and (**male**) names the differentiating characteristic that distinguishes **bucks** from **all other deer**.

Rules for constructing good lexical definitions

- ✓ Don't make the definition too broad or too narrow.

A definition is too broad if it includes too much and is too narrow if it includes too little. A good definition applies to all and only the things being defined.

For example,

defining "automobile" as "a vehicle with four wheels" would be too broad because it would include golf carts and lawn mower.

A definition of sibling as "brother" is too narrow because it fails to include sisters.

Rules for constructing good lexical definitions

- ✓ Convey the essential meaning of the word being defined.

A good definition should do more than just pick out some uniquely identifying properties of the thing being defined.

Defining horse, as "an animal with four legs ridden in races" is clearly a poor definition because it fails to capture the important and necessary properties that distinguish horse from other animals such as camel.

Rules for constructing good lexical definitions

- ✓ Provide a context for ambiguous words.

Many words are ambiguous; that is, they have two or more distinct meanings. To prevent confusion, therefore, a good definition should indicate the context in which an ambiguous word is being used.

For example, "walk" in baseball is different from "walk" in the park.

Therefore, we might say:

"walk means, in baseball, an award of first base to a batter who receive four pitched balls that are outside the strike zone and are not swung at by the batter".

Rules for constructing good lexical definitions

✓ Avoid Slanted Definitions.

Don't let personal preferences or attitudes interfere with your definition.

Avoid definitions biased or emotionally charged definitions that improperly play on the emotions or attitude of an audience.

Rules for constructing good lexical definitions

✓ Avoid figurative definitions.

A good definition should express clearly the conventional meaning of the word, not be couched in figurative or metaphorical language.

For example, "advertising means legalized lying" is figurative and should be avoided.

✓ Avoid needlessly obscure definitions.

A good definition should not include a lot of big words or technical jargon that readers aren't likely to understand.

For example,

"Mouse means a quadrupedal mammalian of any of the more diminutive species of the genus *Mus* of the order Rodentia.

Rules for constructing good lexical definitions

✓ Avoid Circular Definitions.

A definition is circular if a person would need to know what the defined word means in order to understand the word or words used to define it, for example,

"Entomologist means someone who engages in the science of entomology.

Emotive language: slanting the truth

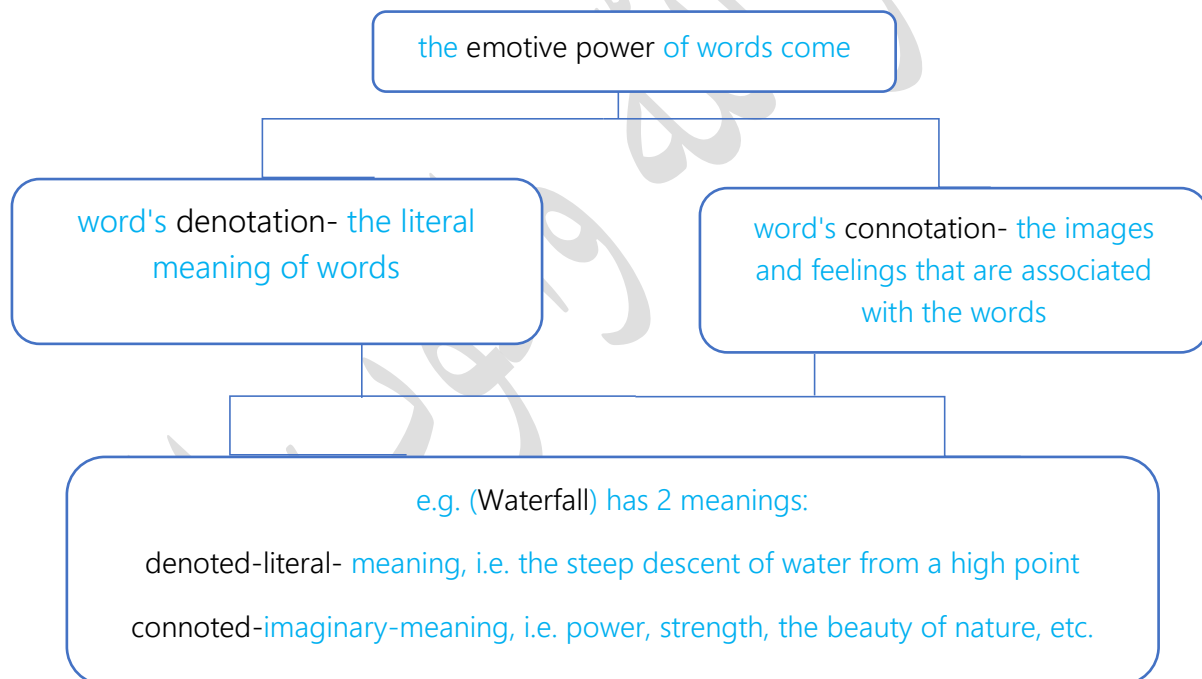
Words are selected for two reasons: **information they convey**, and **emotion force they have**.

Emotive language more overtly reveals a writer attitude and feelings toward the subject than precise, neutral, and mor objective language does. It also intended to create in the reader same attitude and feelings towards the subject rather than increase the reader's knowledge about the subject.

Emotive language in an argument is intended to rile, to move readers by agitating, disturbing, angering or exciting them.

The danger of using emotive language is that we might believe that information has been conveyed, when in truth we have learned nothing factual.

The emotive power of words



Emotive language: slanting the truth

Connotations of words come from many sources, including:

- People's experiences,
- the use of the word in the culture (in poems, advertisement etc.)
- the way the word is used as a symbol or metaphor in various religions
- the word's sound.

It is up to critical readers to keep their eyes and mind open to the use of connotative language, language that evokes certain images or emotions, in all forums, including supposedly neutral sources such as newspapers, magazines and encyclopedias.

The test for emotive language is **not whether a reader or listener is emotionally moved** by the word in an argument.

The test for emotive words is, instead, **whether the writer or speaker appears to be using the word unfairly to generate predictable feelings in an audience or to manipulate the audience** into either agreeing with the argument or overlooking its flaws.

One way to distinguish between the fair and unfair use of emotive words is to ask **whether the use of the word needs to be defended**. E.g. son to his father: don't treat me like a child!

The best way to determine **whether words are unduly emotive is to ask whether the words could be replaced with neutral words and phrases with no damage** to whatever information is being conveyed.

Euphemisms and political correctness

Euphemisms are mild or evasive words that take the place of harsh, negative words.

Very often in our communication with one another, we avoid language that we feel might offend, upset, or insult our listeners or readers.

- Passed away = died
- Facilities, restroom etc. = toilet
- Downsizing/rightsizing = firing employees from their jobs

Whatever our reason when we choose a more gentle and less negative word over those we feel would be offensive or too direct, we are speaking in euphemisms: mild, comforting or evasive words that take the place of harsh, blunt, or taboo words.

- There is nothing wrong with using euphemisms to make us more comfortable in polite society,
- Critical thinker should be aware that pleasant or vague language is often used to hide reality or avoid facing the truth. Therefore, euphemisms are unacceptable when they are used to hide the truth and reality.