

WRITTEN ADVOCACY

LECTURE 5 – LOGIC & REASONING¹

A. INTRODUCTION

1. Logic is the discipline that aims to distinguish sound reasoning from bad. Of the three Aristotelian elements of persuasion, the *logos* or logic of an argument is often the most critical component of effective persuasion.
2. A working knowledge of logic and common logical fallacies is essential to construct a logical and persuasive argument.² Such knowledge would also be necessary to expose the flaws in your opponent's arguments.
3. A logical fallacy is a hole in an argument's reasoning or logic, which renders the argument invalid.³ However, when deployed by a skilled orator or demagogue, fallacies could be very powerful in persuading an audience. History is littered with examples of how skilled orators have perpetuated fallacious arguments to the detriment of peoples, nations, and humanity.
4. Avoid fallacies at all costs in your written and oral work. As an advocate and an officer of the Court, you are a handmaid of justice. It is your duty to present fair and principled arguments so that the Court is assisted in coming to a just decision.
5. Some fallacies arise due to the incorrect use of language. Others stem from arguments founded on inadequate or misapplied evidence. Still, others occur due to flawed assumptions or errors in deductive logic.⁴
6. We consider some of the more common fallacies in detail below.

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² A brief video explaining 19 common fallacies can be found here: [\(89\) 19 Common Fallacies, Explained. - YouTube](#)

³ A useful video explaining 15 logical fallacies arising from a speech made in 2015 by presidential candidate Donald Trump can be found here: [\(88\) Analyzing Trump: 15 Logical Fallacies in 3 Minutes - YouTube](#)

⁴ The Little Blue Reasoning Book: 50 Powerful Principles for Clear and Effective and Thinking (3rd Ed.); Royal, Brandon at page 191.

B. FALLACIES BASED ON LANGUAGE

Equivocation

7. The fallacy of *Equivocation* occurs when one uses a word or phrase with two or more meanings out of context or inappropriately. Consider the following example:

“All lemons are yellow.

This car is a lemon.

Therefore, this car is yellow.”

8. The word “*lemon*” refers to a fruit in the first sentence. In the second sentence, it is used as a metaphor to refer to a defective product. The conclusion in the third sentence is false as it does not logically follow the premises of the preceding two sentences.
9. The error of *Equivocation* arises from treating the word “*lemon*” as if it has the same meaning when used to convey two different meanings in the first and second sentences.
10. Consider the following argument:

“Gambling should be legalised everywhere because we can’t avoid it. It is part of life itself. People gamble whenever they board a plane or take a bus ride.”

11. The justifications for legalising gambling in the second and third sentences are invalid as the word “*gamble*” used in the third sentence has a different meaning than the “*Gambling*” referred to in the first sentence.

Distinction without a difference

12. The fallacy of distinction without a difference occurs when a person uses language to claim that there is a difference between two situations by using different words to describe the two situations to make that distinction.
13. Although different words are used to make the distinction, the reasoning is fallacious as the two situations are in substance identical or similar. Consider the following:

“I did not lie. I merely presented alternative facts.”

14. There is, in reality, no difference between a “lie” and “*alternative facts*”. They both present a falsehood. Using different words to describe them differently does not change that reality.

C. FALLACIES ARISING FROM INADEQUATE OR MISAPPLIED EVIDENCE

Ad Hominem

15. The *ad hominem* fallacy arises when a person attacks another in a personal or abusive way instead of addressing or attacking the argument made by the latter.⁵ Consider the following:

“The contentions of my learned friend are simply laughable. He is fresh out of law school and has no idea how the construction industry operates.”

16. The basis for rejecting the arguments put forward relates not to their validity but to the personal qualities of the person making the arguments. The character or traits of a person making an argument are irrelevant to the validity of their arguments.

⁵ For an extreme example of an ad hominem attack, see this video: [\(95\) Trump Ad Hominem Example - YouTube](#)

Poisoning the Well

17. The fallacy of *Poisoning the Well* involves preemptively presenting adverse information about a person intending to discredit or ridicule what that person may say.⁶ Consider the following:

“Only a moron would think that cold fusion is a possibility. John, did you have something to say about this?”

“Jill failed her Part B exams on contract law. I am not sure if you should be going to her for employment advice.”

“He is from Kuala Lumpur. What would he know about Penang?”

18. Attempting to taint an opponent’s argument by referring to their background, nationality, race, gender, or other traits is unfair. It does not amount to a valid or logical basis to discount the argument made.

Circular Reasoning

19. The fallacy of *Circular Reasoning* occurs when an argument is restated in different terms to support itself.⁷ A conclusion is based on a piece of evidence, which, in turn, is based on the conclusion. Consider the following:

“Using logic is important because it is important to use logic.”

“Fake news is harmful because it is bad if the news is not real.”

⁶ A video explaining the *Poisoning the Well* fallacy may be found at this link: [\(96\) What is the Well Poisoning Fallacy? - YouTube](#)

⁷ An amusing Simpson’s video highlighting *Circular Reasoning* can be found at this link: [\(95\) Simpsons Logical Fallacies: Circular Reasoning - YouTube](#)

“If an expert says it’s true, it must be true; after all, if experts don’t know, then who does?”

20. The above statements exhibit circular reasoning and do not objectively or logically advance the arguments.

The Fallacy of Negative Proof

21. The *Fallacy of Negative Proof* arises when a claim is assumed to be true because it has not been proven false. It also occurs when a claim is deemed false because it has not been proven true. Consider the following:

“You can’t prove I am not wearing an invisible hat. I am, therefore, justified in believing I am.”

“You cannot prove that global warming is caused by human activity. There is accordingly no such thing as global warming.”

22. The above statements do not logically establish the advanced proposition and are examples of fallacious argumentation.

The Red Herring

23. The *Red Herring Fallacy* occurs when something is introduced into an argument that misleads or distracts from the real issue.⁸ Consider the following argument:

“We can’t raise salaries, but we still provide great benefits for our employees.”

⁸ A video explaining the red herring fallacy may be viewed at this link: [\(100\) Red Herring - Critical Thinking Fallacies | WIRELESS PHILOSOPHY - YouTube](#). A more humorous illustration may be found here: [\(100\) Simpsons Logical Fallacies: Red Herring - YouTube](#)

24. The existence of benefits is not a valid reason not to raise salaries. It, however, distracts from the real point, i.e., that the employer will not increase salaries.

The Appeal to Popularity – The Ad Populum Fallacy

25. The *Ad Populum Fallacy* occurs when an idea or argument is accepted because a significant number or most people consider it true. Consider the following quote:

"Do you not consider yourself already refuted, Socrates, when you put forward views that nobody would accept? Why, ask anyone present!" - Plato, The Gorgias

26. The fact that most people accept a particular position does not make their view true. It may just as well mean that the majority are wrong.⁹

The Straw Man

27. The *Straw Man* fallacy occurs when a person's position is presented in a distorted way to render it easier to attack. Consider the following:

A man tells his daughter he cannot afford an overseas holiday this year. His daughter responds angrily by saying he does not want her to have fun.

28. The daughter in the above example has perpetrated the *Straw Man* fallacy by distorting her father's position (driven by economic limitations) unfairly to a motivation to prevent her from having fun.¹⁰

⁹ A video explaining the *Ad Populum* fallacy may be viewed at this link: [\(101\) Ad Populum \(Appeal to Popularity\): Lesson and Activity - YouTube](#)

¹⁰ A video explaining the *Straw Man* Fallacy may be viewed here: [\(102\) The Strawman Fallacy | Idea Channel | PBS Digital Studios - YouTube](#)

D. FALLACIES ARISING FROM FLAWED ASSUMPTIONS

The Domino or Slippery Slope Fallacy

29. The *Domino* or *Slippery Slope* fallacy occurs when an unjustified assumption is made that because one event may cause another to happen, it will also cause a series of other future events.¹¹ Consider the following:

*The government is debating whether or not they should lower the voting age. A member of parliament says that if they were to allow for a lower voting age to 17, then 16-year-olds would start insisting on the right to vote! If we lower it to 17, why not 16? Before long, babies will be voting!*¹²

30. There is no logical argument for babies to vote. However, the argument is presented to arouse fear that adopting a reasonable proposal would lead to drastic consequences. There is no logical reason or basis to assume that one event is likely to follow the other.

The Gambler's Fallacy

31. The *Gambler's Fallacy* concludes that a future event's chance or probability is altered based on a previous event's outcome, even though the two are independent and do not affect each other's likelihood.¹³
32. An example of the *Gambler's Fallacy* is often seen in parents who believe that the gender of their first child will affect the gender of their next child. Even if a couple has five male

¹¹ A video explaining the *Domino Fallacy* may be viewed here: [\(102\) Slippery Slope - Critical Thinking Fallacies | WIRELESS PHILOSOPHY - YouTube](#)

¹² For an interesting article on voting rights for children, see "Votes for children! Why we should lower the voting age to six", The Guardian, 16 Nov 2021 available at this link: [Votes for children! Why we should lower the voting age to six | Politics | The Guardian](#)

¹³ A video explaining the *Gambler's Fallacy* may be viewed here: [\(102\) The Gambler's Fallacy is Really Odd - YouTube](#)

children, it won't improve the odds of their next child being female. The odds will always remain 50/50.

Cause and Effect or False Cause Fallacy

33. The *False Cause Fallacy* occurs when one assumes that a particular cause is responsible for a given effect when the assumption is not grounded in evidence or logic. Consider the following:

Susan owns chickens. Every morning, Susan is awoken when her rooster crows as the sun rises. Susan soon begins to believe that her rooster causes the sun to rise.

34. Susan has fallen into the *False Cause Fallacy*. She has mistaken correlation for causation.¹⁴

False Alternatives

35. The fallacy of *False Alternatives* involves assuming that only one of two alternatives is correct when there may be other alternatives. Consider the following:

“If we do not order pizza, we will have to eat the old salad that is in the fridge.”

36. The above is an example of *False Alternatives*, as your choice of cuisine is not limited to ordering pizza or eating leftovers in the fridge.¹⁵

¹⁴ A video explaining the *False Cause Fallacy* may be viewed here: [\(102\) Can you outsmart the fallacy that fooled a generation of doctors? - Elizabeth Cox - YouTube](#)

¹⁵ A video explaining the *False Alternative Fallacy* may be viewed here: [\(102\) False Dilemma - YouTube](#)

Fallacy of Composition

37. The fallacy of *Composition* consists in believing that what is true of the parts is also true of the whole. Consider the following:

Atoms are colourless.

Cats are made of atoms.

Therefore, cats are colourless.

38. The first two sentences are true. However, the conclusion reached in the third is false as it assumes that what is true of the constituent parts must also be true of the composite whole. Whilst in some cases this may be true, in other cases, the composite whole may be something more or less than the constituent parts.¹⁶

Fallacy of Division

39. The *Fallacy of Division*, which is the converse of the *Fallacy of Composition*, involves wrongly assuming that what is true of the whole is also true of the constituent parts. Consider the following:

The All Blacks are a great team.

Therefore, each player is a great player.

40. Whilst few would dispute that the All Blacks are a great team, that does not necessarily follow that every member of that team is a great rugby player.¹⁷

¹⁶ A video explaining the *Fallacy of Composition* may be viewed here: [\(102\) CRITICAL THINKING - Fallacies: Fallacy of Composition - YouTube](#)

¹⁷ A video explaining the *Fallacy of Division* may be viewed here: [\(102\) CRITICAL THINKING - Fallacies: Fallacy of Division - YouTube](#)

E. FALLACIES ARISING FROM ERRORS IN DEDUCTIVE LOGIC

Fallacy of Affirming the Consequent

41. The Fallacy of Affirming the Consequent involves the following argument:

If A, then B, it must also be true that if B, then A.

42. An illustration of such an argument would be as follows:

If it is a dog, then it growls. It growls. Therefore, it must be a dog.

43. The conclusion that it is a dog does not logically follow from the premise that it growls.¹⁸

Fallacy of Denying the Antecedent

44. The Fallacy of Denying the Antecedent involves the following argument:

If A, then B, it must also be true that if not A, then not B.

45. An illustration of such an argument would be as follows:

*If there is no petrol in the car, then the car won't run. There is petrol in the car.
Therefore, the car will run.*

46. The fact that there is petrol in the car does not guarantee that the car will run. It may have a fault that prevents it from starting.¹⁹

¹⁸ A video explaining the *Fallacy of Affirming the Consequent* may be viewed here: [\(102\) Affirming the Consequent: A Formal Fallacy - YouTube](#)

¹⁹ A video explaining the *Fallacy of Denying the Antecedent* may be viewed here: [\(102\) Denying the Antecedent: A Formal Fallacy - YouTube](#)

F. CONCLUSION

47. The above examples are some of the fallacies that frequently occur in argumentation. An awareness of the fallacies that could arise in your thinking and writing is essential to constructing fair, honest and persuasive arguments.
48. As Arthur Conon Doyle once said through the voice of Sherlock Holmes, “*Crime is common. Logic is rare. Therefore, it is upon the logic than upon the crime that you should dwell.*”²⁰
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²⁰ The Copper Breeches, Sir Arthur Conan Doyle.