Business Logic

Lecture 8: Fallacy Part 2

Lecturer: Fidela R. Balajadia

Associate Professor 2

University of the Assumption, Philippines

Lecture Learning Objectives:

At the end of the lecture, you will be able to:

1. Understand the fallacies in general
2. Explain the classification of fallacies
3. Differentiate formal from informal fallacies
4. Explain and illustrate the most common type of fallacy in ordinary language.

Fallacies in General

A **fallacy** is a defect in an argument that consists in something other than merely false premises. As we will see, fallacies can be committed in many ways, but usually they involve either a mistake in reasoning or the creation of some illusion that makes a bad argument appear good (or both). A **fallacy** that involves a mistake in reasoning is sometimes called a **non sequitur** (which in Latin means **"it does not follow"**). Both deductive and inductive arguments may contain fallacies; if they do, they are either unsound or uncogent, depending on the kind of argument. Conversely, if an argument is unsound or uncogent, it has one or more false premises or it contains a fallacy (or both).

Fallacies are usually divided into **two groups**: formal and informal. A **formal fallacy** is one that may be identified by merely 4examining the form or structure of an argument. Fallacies of this kind are found only in deductive arguments that have identifiable forms

Informal Fallacies are those that can be detected only by examining the content of the argument.

One reasons incorrectly when the premises of an argument fail to support its conclusion, and arguments of that sort may be called fallacious. So, in a very general sense, any error in reasoning is a **fallacy**. Similarly, any mistaken idea or false belief may sometimes be labeled "fallacious."

Formal fallacies occur when we misapply a valid rule of inference or follow a "rule" that is invalid. If a formal fallacy is suspected, it is important to determine both that the "rule" of inference is invalid (via the methods of formal logic) and that the argument itself is invalid by finding a counterexample (an actual or logically possible case in which the premises of the arguments are true, and its conclusion is false).

Having an invalid argument form does not automatically mean that an argument commits a formal fallacy; the argument must also be invalid.

A **formal fallacy** is a pattern of mistake that appears in deductive arguments of a certain specifiable form. There are other formal fallacies. Most fallacies, however, are not formal but **informal**: They are patterns of mistake that are made in the everyday uses of language. **Informal fallacies** arise from confusions concerning the content of the

language used. There is no limit to the variety of forms in which that content may appear, and thus informal fallacies are often more difficult to detect than formal ones. It is language that deceives us here; we may be tricked by inferences that seem plausible on the surface but that are in reality not warranted.

Informal fallacies are numerous and can therefore be best understood if they are grouped into categories, each with clearly identifiable features. This classification of fallacies is a controversial matter in logic. There is no one correct taxonomy of fallacies. Logicians have proposed lists of fallacies that vary greatly in length; different sets have been specified, and different names have been given to both the sets and the individual fallacies. Any classification of the kind that will follow here is bound to be arbitrary in some degree. Our aim is to provide a comprehensive scheme within which the most common informal fallacies can be helpfully identified—and avoided.

The outline of this classification and description of each fallacy appears immediately below.

FALLACIES OF DEFECTIVE INDUCTION

In fallacies of defective induction, which are also common, the mistake arises from the fact that the premises of the argument, although relevant to the conclusion, are so weak and ineffective that relying on them is a blunder. We will distinguish and discuss:

• D1: The argument from ignorance

Ad ignorantiam fallacies (or **appeals to ignorance**) have the form: ”it has not been proven that therefore -*P*”.

Appeals to ignorance suggest a false dichotomy: either our evidence for a claim is conclusive or the claim itself is false. However, a claim may be true even if our evidence for it is inconclusive. In the absence of proof, the rational approach is to weigh the available evidence, and if the pre-ponderance of evidence favors one conclusion, to adopt that conclusion tentatively. If the available evidence is not sufficient to favor a tentative conclusion, we should suspend judgment.

Someone commits the fallacy argumentum ad ignorantiam if he or she argues that something is true because it has not been proved false, or false because it has not been proved true. Just because some proposition has not yet been proved false, we are not entitled to conclude that it is true. The same point can be made in reverse: If some proposition has not yet been proved true, we are not entitled to conclude that it is false. Many true propositions have not yet been proved true, of course, just as many false propositions have not yet been proved false. The fact that we cannot now be confident rarely serves as a good reason to assert knowledge of falsity, or of truth. Such an inference is defective; the fallacy is called the **argument from ignorance, or the argument ad ignorantiam**. **Ignorance** sometimes obliges us to suspend judgment, assigning neither truth nor falsity to the proposition in doubt.

Example: There is no need for digitization; our generation has survived on logbooks and typewriters.

• D2: The appeal to inappropriate authority

Argumentum Ad Verecundiam or appeal to false authority is committed by manifesting in an argument a prominent personality or a believed authority who really isn't much proficient in the specific matter in question. This is much common in advertisements where famous celebrities endorse products by attesting to their efficacy base on scientific theories and explanations. Actresses may for instance endorse certain brands of medicines citing their potent chemical composition even if they are not chemists or pharmacists.

"Barbershop talks" are examples of this. Often we hear people saying for instance that, "Our national; economy is diminishing by reason of our luck of effective political policies." This may be a profound insight if coming from experts. This however is simple blabber from a non-expert.

The fallacy of the appeal to inappropriate authority arises when the appeal is made to parties who have no legitimate claim to authority in the matter at hand. Thus, in an argument about morality, an appeal to the opinions of **Darwin**, a towering authority in biology, would be fallacious, as would be an appeal to the opinions of a great artist such as Picasso to settle an economic dispute. Care must be taken in determining whose authority it is reasonable to rely on, and whose to reject. Although Picasso was not an economist, his judgment might plausibly be given some weight in a dispute pertaining to the economic value of an artistic masterpiece; and if the role of biology in moral questions were in dispute, Darwin might indeed be an appropriate authority. This is not to say that an authority in one field might not be correct when speaking outside his or her area of expertise—to allege that would constitute a **species of argumentum ad hominem circumstantial**. In every instance, an argument must be judged upon its own merits.

Example: According to the governor suob is the best cure for Covid-19, so, it must be true.

Ad verecundiam fallacies (or **appeals to authority**) occur when we accept (or reject) a claim merely because of the prestige, status, or respect we accord its proponents (or opponents).

On many occasions an **appeal to authority** is either justified or unavoidable. Indeed, in a complex society, where labor is divided and expertise segregated into specialties, much of our knowledge is unavoidably based on appeals to authority**. For example**, few of us have the required background in mathematics and physics to confirm the equation $E = mc^2$, so it is reasonable to take the word of Einstein and the community of contemporary physicists. Nevertheless, appeals to authority are fallacious if they demand uncritical acceptance of the authority's statements without evidence of the authority's reliability.

Appeals to authority are not fallacious provided we have good evidence that the authorities have adequate justification for their views.

In contemporary North America, perhaps the most prevalent form of appeal to authority is the **testimonial**, exemplified by celebrities who endorse products, services, or brands of consumer goods.

Testimonial versions of the fallacy of appeal to authority, exploiting fame or notoriety than special knowledge. Now if Nielsen or Costner urged aspiring thespians to enroll at a particular actor's school, this opinion (as the physics community's endorsement of $E = mc^2$) would gain some relevance since Nielsen and Costner are both successful actors. As a general rule, an appeal to authority is relevant (and hence reasonable) in proportion to the reliability of the authority in the corresponding field.

• D3: False cause

The precedent event is seen as the cause of the succeeding. Since X precedes Y, X must be the cause of Y. **For instance**, it can be said that "My German Shepherd got sick after the thunderstorm. Thunder caused my German Shepherd to get sick." This is not acceptable. Just because one thing came before the other does not necessarily mean that one caused the other.

False cause occurs when the conclusion is a causal claim that is inadequately supported by its premises. This includes confusing a cause with an effect of offering a causal explanation for an event without considering alternatives. Another variant is **post hoc ergo propter hoc** (abbreviated post hoc), in which a causal relationship is inferred merely from the temporal proximity of two events.

A **post hoc argument** does not necessarily have a false conclusion. Rather, the evidence in the premise does not by itself make the conclusion very probable.

It is obvious that any reasoning that relies on treating as the cause of something or event what is not really its cause must be seriously mistaken. Often we are tempted to suppose or led to suppose that we understand some specific cause and effect relation when in fact we do not. The nature of the connection between cause and effect, and how we determine whether such a connection is present, are central problems of inductive logic and scientific method. Presuming the reality of a causal connection that does not really exist is a common mistake; in Latin the mistake is called **the fallacy of non-causa pro causa**; we call it simply the **fallacy of false cause**.

Example: My business prospers, thanks to the money tree necklace that you gave me!

• D4: Hasty generalization

Throughout our lives, we rely on statements about how things generally are and how people generally behave. Nonetheless, general claims, although critical in reasoning, must be carefully scrutinized: The universality of their application ought never be

accepted or assumed without justification. **Hasty generalization** is the fallacy we commit when we draw conclusions about all the persons or things in a given class on the basis of our knowledge about only one (or only a very few) of the members of that class.

Inductive fallacies occur when the inductive probability of an argument (i.e.) the probability of its conclusion given its premises) is low, or at least lower than the arguer thinks it is.

Hasty generalization fallaciously inferring a conclusion about an entire class of things from inadequate knowledge of some of its members. A hasty statistical generalization often follows from biased, unrepresentative, or inadequate sampling techniques.

Example: I was in the supermarket yesterday and I saw some shoppers, who are not wearing face masks, ahh! Filipinos are hardheaded! We have to blame them for rising Covid -19 cases.

FALLACIES OF PRESUMPTION

In fallacies of presumption, too much is assumed in the premises. The inference to the conclusion depends mistakenly on these unwarranted assumptions. We will distinguish and discuss:

• P1: Accident

A general imperative is applied when a situation implies am exception. This occurs when a general rule disregards exceptions. In effect, the exception is construed as a universal rule.

" All men are born free; Therefore, I can kill whoever I want." Apparently, freedom is generalized. The moral limits of our will must be considered.

Circumstances alter cases. A generalization that is largely true may not apply in a given case (or to some subcategory of cases) for good reasons. The reasons the generalization does not apply in those cases have to do with the special circumstances, also called the **"accidental" circumstances**, of that case or those cases. If these accidental circumstances are ignored, and we assume that the generalization applies universally, we commit the **fallacy of accident**.

Example: One may believe that silence speak volumes, but if you are a lawmaker you cannot claim that you do not speak that much because of that belief.

• P2: Complex question/Many questions

One of the most common fallacies of presumption is to ask a question in such a way as to presuppose the truth of some conclusion that is buried in the question. The question itself is likely to be rhetorical, with no answer actually being sought. But putting

the question seriously, thereby introducing its presupposition surreptitiously, often achieves the questioner's purpose fallaciously

Here, a single question is studded with other questions. This misleads the original question, making a simple and definite answer impossible. To counter this fallacy, an explanation is required and not just a mere nod of the head.

An example is as follows: "Do you believe that all, regardless of gender, are equal and that men should no longer need to hold the door open for women, pay the bill on dates, and be on the danger side of the road when in the company of ladies?" Here, a simple affirmation or denial will not suffice. This confuses and misleads the other into making one definite answer.

Example: Why is student X better than student Y?

• P3: Begging the question

In this fallacy, the arguer assumes the truth of the proposition, which is in essence the same as the conclusion which he seeks to establish.

The fallacy called **begging the question** is widely misunderstood, partly because its name is misleading. It is the mistake of assuming the truth of what one seeks to prove. The "question" in a formal debate is the issue that is in dispute; to "beg" the question is to ask, or to suppose that the very matter in controversy be conceded. This is an argument with no merit at all, of course, and one who makes such an assumption commits a **gross fallacy.**

Fallacies of Circular reasoning (also called **petitio principii** or **begging the question**) occurs when an argument assumes its own conclusion. Such an argument is always valid (since if the assumptions are all true, the conclusion must also be true) and is relevant (for what could be more relevant to a conclusion than that conclusion itself?). Furthermore, if all the assumptions are true, the argument is sound. However, circular reasoning is a fallacy, for it does not actually prove its conclusion.

Circular reasoning is useless for proving its conclusion. If the conclusion is doubtful, so is the corresponding identical assumption and an argument employing doubtful assumptions has no credibility.

Example: To be well known one must be famous, to be famous one must be well known.

An argument begs the question if it relies on a premise that expresses the same idea as the conclusion, which could only have been a misleading paraphrasing of the same or its synonym. When we say that, "drinking and driving do not combine well with each other because they cannot come together," although this is definitely true, this idea however is not well expressed. There is here a mere circular motion between the premise and the conclusion. Two things that cannot combine with the other cannot come together.

FALLACIES OF AMBIGUITY

The incorrect reasoning in fallacies of ambiguity arises from the equivocal use of words or phrases. Some word or phrase in one part of the argument has a meaning different from that of the same word or phrase in another part of the argument. We will distinguish and discuss:

• A1: Equivocation

Equivocation refers to the use of an ambiguous term, either verbal or written, in an argument. Here, the two or more dissimilar and inconsistent meanings of a single term, which is a key element to the argument, can shift in the mind. This may cause confusion or the witting or unwitting acceptance of an idea or argument.

As **example** is the statement that “In case things get worse, and he continues to bug me with his mischief, I will have to resort to some criminal action.” Does the speaker here intend to commit a criminal action, which is an overt act of lawlessness? On the other hand, does he intend to institute a criminal action, which is a suit in court to penalize an offender? The ambiguity of the statement here is caused by the confusing use of the equivocal term “criminal action.”

The **fallacy of equivocation** arise from the assumption that what is true of a term used in one sense is also true of the same term used in another sense. The fallacy of equivocation differs from the fallacy of amphibology in that, in the former, the error lies in the mistake interpretation of the connotation or denotation of terms while, in the latter, the error lies in the faulty grammatical structure of the sentence.

Most words have more than one literal meaning, and most of the time we have no difficulty keeping those meanings separate by noting the context and using our good sense when reading and listening. Yet when we confuse the several meanings of a word or phrase— accidentally or deliberately—we are using the word equivocally. If we do that in the context of an argument, we commit the **fallacy of equivocation**.

Semantic Fallacies occur when the language employed to express an argument has multiple meanings or is excessively vague in ways that interfere with the assessment of the argument’s cogency.

Ambiguity (or equivocation) is multiplicity of meaning and results from a word or phrase having more than one meaning. This alone does not inhibit understanding, since context usually makes the intended meaning clear. **For example**, “ball” usually means something different at a sports stadium than in a dance pavilion. Despite context clues, abstract terms such as “right” and “law” are prime candidates for equivocation since we often run their different meanings together. **For example**, a political right is not the same thing as a legal or moral right or as the political right (i.e. conservatism). Typically, **ambiguity** generates fallacies when the meaning of an

expression shifts during the course of an argument causing a misleading appearance of validity.

Ambiguous reasoning frequently requires reference to several different interpretation. No single interpretation can claim to be the argument that is really expressed (unless we have conclusive evidence that the arguer intends one). Rather, careful analysis requires attention to all plausible interpretations

Example: Ana went window shopping yesterday, when she came home not a window in sight.

Vagueness is indistinctness of meaning, as opposed to multiplicity of meaning. **For example**, the potential premise "Discrimination palates prefer wine "x" is vague. Exactly what is a "discrimination palate" and who has one? Anyone who likes wine x? We cannot determine if vague premises are true, and so we should not accept arguments using them.

• A2: Amphiboly

Amphiboly occurs when the ambiguity is inherent in the flawed argument itself as a single whole. Unlike in equivocation, here, the very expression of the totality of the argument itself is ambiguous.

For instance, we cay that, "It's really easier said than done when you want to cure cough with phlegm." An awkward statement here results, Does the statement speak of the intent to cure cough… with phlegm? Does it mean the treatment of cough which is accompanied with phlegm?

The **fallacy of amphiboly** occurs when one is arguing from premises whose formulations are ambiguous because of their grammatical construction. The word **"amphiboly"** is derived from the Greek, its meaning in essence being "two in a lump," or the "doubleness" of a lump. A statement is **amphibolous** when its meaning is indeterminate because of the loose or awkward way in which its words are combined. An amphibolous statement may be true in one interpreon and false in another. When it is stated as premise with the interpretation that makes it true, and a conclusion is drawn from it on the interpretation that makes it false, then the fallacy of amphiboly has been committed.

The **fallacy of amphiboly** arises on account of faulty grammatical construction of the sentence which gives rise to miscomprehension. The use of ambiguous pronouns or of dangling participial phrases often gives rise to the fallacy. **For example**, the notorious criminal had been arrested by the policeman who robbed the bank. In the example, the pronoun, who, is used ambiguously, so that it takes "policeman" as the antecedent. Another **example**: While crossing the bridge, an accident befell the priest. In the example, the participial phrases, while crossing the bridge modifies the word accident . Was it the accident or the priest that was crossing the bridge?

Amphiboly is ambiguity in sentence structure, i.e. ambiguity is not traceable to any particular word in a sentence but to how the words are assembled. The occurrence of both universal and existential quantifiers can be one source of amphiboly. **For example**, the sentence "some number is greater than any number" has two potential meanings:

1. For any number x, there is some number (not necessarily the same in every case) which is greater than x.
2. There is some number y which is greater than all numbers.

The duality of meaning in this sentence is not traceable to any single ambiguous word but instead is a product of its overall structure.

Example: Ladies, don't forget the rummage sale. It's a chance to get rid of those things not worth keeping around the house. Bring your husbands.
- Grammarbook.com

• A3: Accent

We have seen that shifting the meaning of some term in an argument may result in a fallacy of ambiguity. Most commonly that shift is an equivocation, as noted earlier. Sometimes, however, the shift is the result of a change in emphasis on a single word or phrase, whose meaning does not change. When the premise of an argument relies on one possible emphasis, but a conclusion drawn from it relies on the meaning of the same words emphasized differently, the **fallacy of accent** has been committed.

The emphasis or accentuation of a term in a statement or argument or of the whole argument itself may give rise to some ambiguity. Depending on the emphasis of the term "resent", the statement "I resent her text message" can be ambiguous. The speaker may have some antipathy towards the text message. Resent here is pronounced to mean a dislike or hatred. On the other hand, the intention of the speaker may be to send the text message.. again. Resent here can be pronounced as resent, meaning the act of sending the message the second time or oftener.

Accent refers to emphases that generate multiple (and sometimes misleading) interpretations. Newspaper headlines, contractual fine print, commercial give aways and deceptive contest entry forms are frequent sources of fallacies of accent.

The **fallacy of accent** is committed when the meaning of a proposition is misinterpreted on account of a misplaced accent or emphasis on a term. In the proposition, "we should be kind to our neighbors", the stress on the word <u>neighbors</u> may imply that we may not be merciful to those who are not our neighbors.

The following incident is a very striking example of the fallacy of accent: A house had just been repainted. On the wall the following injunction was written in bold letters: POST NO BILLS. Although he owner of the house was nearby, a girl posted on the wall of the house a poster advertising a brand of milk. When the owner of the house chided

her for doing so, the girl answered: “You are prohibiting, sir, the posting of bills, I posted only one.” Thus, to suit her own purpose, the girl placed the accent on the word “bills”. In another incident, a driver parked his car on a certain street in which there was the sign, “No parking on both sides.” When his attention was called to by the traffic aide for the violation of the ordinance, he said that he had parked his car on only one side, not om both sides; and that, therefore, he had not violated the law.

Example: Some advertisements that give emphasis on some words in order to entice customers.
SALE ALERT! Up to 50% 0ff on selected items.

• A4: Composition

The **fallacy of composition,** sometimes called **false synthesis**, is a fallacy of quantity in which we assert that what is true of a part taken singly is true of the whole taken collectively. Example: All members of this class weigh less than 150 lbs.; A, B, C, D, E, F, G and H are all the members of this class; therefore, A, B, C, D, E, F, G and H weigh less than 150 lbs.

The term **fallacy of composition** is applied to both of two closely related types of mistaken argument. The **first** may be described as reasoning fallaciously from the attributes of the parts of a whole to the attributes of the whole itself. A **flagrant example** is to argue that, because every part of a certain machine is light in weight, the machine “as a whole” is light in weight. The error here is manifest when we recognize that a very heavy machine may consist of a very large number of lightweight parts. Not all examples of fallacious composition are so obvious, however.

Some are misleading. One may hear it seriously argued that, because each scene of a certain play is a model of artistic perfection, the play as a whole is artistically perfect. This is as much a fallacy of composition as to argue that, because every ship is ready for battle, the whole fleet must be ready for battle.

• A5: Division

The **fallacy of division** is a fallacy of quantity which arises when we assert that what is true of the whole collectively is true of a part taken singly. Examples: All members of this class weigh 1,500 lbs.; A is a member of this class; A weighs 1,500 lbs. Another is, The Philippines is a rich country. Juan Cruz lives in the Philippines; Juan Cruz is a rich man.

The **fallacy of division** is simply the reverse of the fallacy of composition. In it the same confusion is present, but the inference proceeds in the opposite direction. As in the case of composition**, two varieties of the fallacy of division** may be distinguished. The **first kind of division** consists of arguing fallaciously that what is true of a whole must

also be true of its parts. To argue that, because a certain corporation is very important and Mr. Doe is an official of that corporation, therefore Mr. Doe is very important, is to commit the fallacy of division. This first variety of the division fallacy is committed in any such argument, as in moving from the premise that a certain machine is heavy, or complicated, or valuable, to the conclusion that this or any other part of the machine must be heavy, or complicated, or valuable. To argue that a student must have a large room because the room is located in a large dormitory would be still another instance of the first kind of fallacy of division.

The **second type of division fallacy** is committed when one argues from the attributes of a collection of elements to the attributes of the elements themselves. To argue that, because university students study medicine, law, engineering, dentistry, and architecture, therefore each, or even any, university student studies medicine, law, engineering, dentistry, and architecture is to commit the second kind of division fallacy. It is true that university students, collectively, study all these various subjects, but it is false that university students, distributively, do so. Instances of this fallacy of division often look like valid arguments, for what is true of a class distributively is certainly true of each and every member. Thus, the argument,

Dogs are carnivorous.
Afghan hounds are dogs.
Therefore, Afghan hounds are carnivorous.
is perfectly valid.
Closely resembling this argument is another,
Dogs are frequently encountered in the streets.
Afghan hounds are dogs.
Therefore, Afghan hounds are frequently encountered in the streets.

Exercise 1
Determine whether the fallacies committed by the following arguments are **formal fallacies** or **informal fallacies.**

1.If Rasputin was really mad, then he deceived Czar Nicholas. Rasputin was not really mad. Therefore, he did not deceive Czar Nicholas.

2. Everything that runs has feet. The Columbia River runs very swiftly. Therefore, the Columbia River has feet.

3. All persons who believe we create our own reality are persons who lack social responsibility. Therefore, all persons who believe we create our own reality are persons governed by selfish motives.
4. The ship of state is like a ship at sea. No sailor is ever allowed to protest orders from the captain. For the same reason, no citizen should ever be allowed to protest presidential policies.

5. Renowned violinist Pinchas Zukerman has said, “When it comes to vodka, Smirnoff plays second fiddle to none.” We must therefore conclude that Smirnoff is the best vodka available.

6. If the government systematically kill its unwanted orphans, then the government is immoral. The government is indeed immoral. Therefore, the government systematically kills its unwanted orphans.

7. Sarah, Jessica Parker, Ben Affleck and Julia Roberts are Democrats. Therefore, it must be the case that all Hollywood stars are Democrats.

8. House Majority Leader Tom DeLay argues that stem cell research is immoral. But DeLay is an ultra-right-wing lunatic who is incapable of thinking objectively about anything. Obviously his argument is nonsense.

9. If plastic guns are sold to the public, then terrorist will carry them aboard airliners undetected. If plastic guns are sold to the public, then airline hijackings will increase. Therefore, if terrorists carry plastic guns aboard airliners undetected, then airline hijackings will increase.

10. Some corporate mergers are arrangements that produce layoffs. Some arrangements that produce layoffs are occasions of economic unrest. Therefore, some corporate mergers are occasions of economic unrest.

11. The Brooklyn Bridge is made of atoms. Atoms are invisible. Therefore, the Brooklyn Bridge is invisible.

12. If Apes are intelligent, then Apes can solve puzzles. Apes can solve puzzles. Therefore, apes are intelligent.

13. A chess player is a person. Therefore, a bad chess player is a bad person.

14. All bullfights are grotesque rituals. All executions are grotesque rituals. Therefore, all bullfights are executions.

15. If it's raining, the streets are wet. The streets are wet. Therefore, it's raining.

Exercise 2

Determine whether the fallacies committed by the following arguments are **Argument from Ignorance**, **Appeal to Authority**, **False Cause**, **Hasty Generalization**, **Accident Fallacy**, **Amphiboly Fallacy**, **Accent Fallacy**, **Composition Fallacy** or **Division Fallacy.**

1. No one has ever proven that God does exist, therefore, God does not exist.

2. Her teacher says that I should be happy to be an American, therefore, I should be happy to be an American.

3. Every prophet or messiah is a charismatic leader, therefore, Exercising a talent for leadership is a road to religious inspiration.

4. Every sentence in this book is well written; therefore, This book is well written.

5. Freedom of speech is a constitutionally guaranteed right. Therefore, John should not be arrested for his speech that incited the riot last week.

6. No one has ever proven that God does exist, therefore, God does exist.

7. The Daily News carried an article this morning about three local teenagers who were arrested on charges of drug possession. Teenagers these days are nothing but a bunch of junkies.

8. Leslie Nielsen urges us to buy a new Chrysler; therefore, we should buy a new Chrysler.

9. No one has ever been able to prove the existence of extrasensory perception.
   We must therefore conclude that extrasensory perception is a myth.

10. The patient became violently ill after eating lunch.
    There were no signs of illness prior to eating.
    She is in overall good health with a clear medical history
    Therefore, she was a victim of food poisoning.

11. Property should be returned to its rightful owner. That drunken sailor who is starting a fight with his opponents at the pool table lent you his .45-caliber pistol, and now he wants it back. Therefore, you should return it to him now.

12. SALE ALERT! Up to 50% 0ff on selected items.
13. While crossing the bridge, an accident befell the priest.
14. This book is written in English, therefore, Every sentence in this book is in English.
15. Kevin Costner urges us to buy a new Ford; therefore, we should buy a new Ford.

VIDEOS

Video 1 Top 10 Fallacies in https://www.youtube.com/watch?v=IawljqOJBU8

Video 2 31 Logical in 8 Minutes in https://www.youtube.com/watch?v=Qf03U04rqGQ

REFERENCES:

Introduction to Logic
Irving Copi
Carl Cohen
Kenneth McMahon
14th edition, Pearson Education Limited, 2014

Introduction To Logic
Harry Gensler
2nd Edition New York: Routledge, 2010

A Concise Introduction to Logic 9th Edition
Patrick J. Hurley, Wadsworth Thomson Learning, Inc. 2006