




Logic, Logic, Logic: Thinking about Thinking.



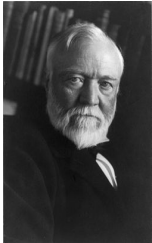
Interesting Quotes on Logic:




- “Logic is the technique by which we add conviction to truth.” ~ Jean de la Bruyere
- Bad reasoning as well as good reasoning is possible; and this fact is the foundation of the practical side of logic” ~ Charles Pierce.



Interesting Quotes on Logic:




- “He that cannot reason is a fool. He that will not is a bigot. He that dare not is a slave.” ~Andrew Carnegie
- The last function of reason is to recognize that there are an infinity of things which surpass it. ~Blaise Pascal, *Pensées*, 1670




What is logic? The art & science of reasoning; it involves the formal principles of reasoning.

1. From the Greek λογική (logiké);
2. Logic dates back to Aristotle, who formally established its importance in Western thought;
3. It has played a pivotal role in classical education;
4. It is central to computer science, mathematics, and rhetoric.



What is Logic?

- **Logic involves principles that govern how we should think and speak.**
- **Logic means investigating correct reasoning; it is the study of right reason.**
- **Logic is a study, an ordering, of how to think rightly, or how to find truth.**
- **Logic is a way to think so that we come to correct conclusions.**



Consider this definition of Logic:

“Logic is a way to think so that we can come to correct conclusions by understanding implications and the mistakes people often make in thinking.”

Geisler, N. L., & Brooks, R. M. (1990). *Come, let us reason : An introduction to logical thinking* (13). Grand Rapids, Mich.: Baker Book House.

Why is Logic Important?

- Biblically, we are called to defend the Christian faith, demolish arguments, and reason with others.
- Illogical truth-claims negatively impacts the explanatory power of our worldview.
- God Himself is logical.
- We are commanded to love God with our Mind.
- Worshipful-for we are expressing God's image in us.
- Logic enable us to recognize when A implies B and when it does not.

What is basis of logic?

- Human logic is patterned after reality.
- The Creator built logic into the structures of the physical and spiritual worlds.
- The Principles of logic reflect a deep reasonableness that characterizes both God and God's creation.
- Because the logic of human thought and speech is grounded in God and God's work, logic is not arbitrary.

Two-Fold Justification for Logic:

- These fundamental laws are true principles governing reality and thought and are assumed by Scripture. In fact, Jesus used certain laws of logic.
- Some believe that logic is devised by man, but this is false.
- Basic laws of logic govern all reality and thought and are known to be true for at least two reasons:
 - They are intuitively obvious and self-evident (as we will later see). Once we understand a basic law of logic, one can see that it is true.
 - Those who deny them use them in their denial, demonstrating that those laws are unavoidable and that it is self-refuting to deny them.

Some people contend that logic is arbitrary because it is grounded in how people choose to think:

Consider the following response by David K. Clark:

"This people yields a problematic consequence: it disconnects human thought from reality. It implies that human interaction with the real world fundamentally distorts that world. The human mind recalibrates the input of the real world to fit its own inward configuration. So there's no telling whether human thinking has any connection with reality. That is troubling, for life and action require knowledge of the real world (In addition, someone stating the position is likely refuting himself. He is probably saying that the truth about the real world is that human thinking is imposed on reality)."

"Is Logic Arbitrary?" in *Apologetic Study Bible*, 930.

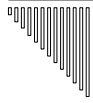
Let's consider some objections to logic:



There are many kinds of logic; Why study Aristotelian Logic?

"While there are different kinds of logic, the basic laws of logic are the same for all logic. They are necessary and undeniable, not just arbitrary rules that someone made up. Aristotle didn't *invent* logic; he only helped to *discover* it. These undeniable laws are the same for all thinking; once you know them, you can go on to look at other kinds of philosophies."

Geisler & Brooks, *Come, let us reason : An introduction to logical thinking*, 14.



There are many kinds of logic; Why study Aristotelian Logic?

Logic is not grounded in culture, but in objective reality.

While various people may think about different content and begin at various starting points, the deep reasonableness that governs human thinking is the same.



People are Not Logical, so why bother?

"People are not logical. Why bother? Often people are not moral either: does that mean that we should close down all the churches and fire the police force? People may not act morally, but they ought to; and we should use every means to teach them how and remind them of proper behavior. Likewise, people may not think logically at times, but still, they ought to. If logic is a way to think so that we find truth, then we always ought to be logical so that we know the truth."

Ibid., 14.



Logic Doesn't Work; People don't respond to it.

"Logic does work on reasonable people, and everyone should be reasonable. On unreasonable people, nothing works. So why not try to be reasonable and let the other fellow be unreasonable? Besides, something is not true or right because it works. The idea that it is, is called pragmatism. If you were taking a true/false exam and wrote for your answer to one question, 'It works,' what would the teacher do? Whether it works or not is a totally different question from whether it is true or false. It has nothing to do with true and false, or right and wrong. All it tells you is that it works. If that is the criterion for truth, then you could never know that anything was true unless you knew that every time you tried it in the future it would work. Can you imagine a witness taking the stand in a courtroom and pledging 'to tell the expedient, the whole expedient, and nothing but the expedient, so help my future experience'? Pragmatism is no test for truth."

Ibid., 14.



Not Everything is Subject to Logic:

Not everything is subject to logic. That is true. Only questions of truth are subject to logic. Logic gives us rules for rational judgments and inferences, but it says nothing about some kinds of statements. For example, it says nothing about emotive expressions, that is, expressions of feelings. When you touch a hot stove and say, "Ouch," that expression is neither true nor false. It is simply an expression of your feeling. A housewife in tears over the way her preschoolers have abused her all day is totally in the realm of the subjective, and logic has nothing to do with the way she feels. Of course, we could make logical statements about the way she feels, like, "She either feels bad or she doesn't." But her emotive outburst, "Good grief!" is neither true nor false and is not subject to logic. Likewise, aesthetic expressions are not true or false. They are beautiful. They are to be appreciated, not analyzed. Moral judgments are right or wrong, not true or false. No one asks, "Is abortion true or false?" That is like asking, "What does blue smell like?" True/false categories don't fit everything. However, logic can evaluate the consistency between moral judgments and the inferences from them. It can help us understand some things even about areas that it can't enter into."

Ibid., 14.



Basic Laws of Logic:

- Are not inventions made by people. Rather, they are discoveries made by people.
- Are not like the laws of nature for God may violate the former, but He can't violate the latter. Why? For laws of logic are rooted in God's own nature.
- "In the beginning was the Word [Logos: a divine, rational mind]." Here the infinite Personal God implies that He is Reason. For example, even God can't exist and not exist at the same time, and even God can't validly believe that blue is a color and blue is not a color. While we do not understand what God does and why does what He does, this does not mean that God behaves illogically. In essence, since God is a God of logic, He does not violate in His being or thought the fundamental laws of logic.



The Bible commands that we reason; it is to be an expression of worship:

Reason is an aspect of God's image in us.



***The First & Greatest Commandment:
Love the Lord . . . with all your mind (Matt. 22:37).***

We are Commanded to Defend the Christian faith:

1 Peter 3:15 But in your hearts set apart Christ as Lord. Always be prepared to **give an answer** to everyone who asks you to give the reason for the hope that you have. But do this with gentleness and respect

1 Peter 3:15:

We are commanded to defend the Christian faith: 1 Peter 3:15-16a But in your hearts set apart [*hagiazo*; consecrate, dedicate, make holy] **Christ as Lord.** Always [constantly, unceasingly, regularly] be prepared to **give an answer** [give a defense] to everyone [all] who asks you to give the reason for the hope that you have. But do this with gentleness [humility, meekness] and respect [clear conscience, i.e., free from defilement. Fear of God rules out human intimidation].

Be prepared” means to be ready/prepared to bear witness to the gospel (see also Eph. 6:15). This word is also used for being “prepared” for good works (Titus 3:1 cf. 2 Tim. 2:21) and “being ready” for the return of Jesus Christ (Matt. 24:44).

“**Answer**” or “**defense**” (*apologia*) has two overlapping nuances in biblical Greek. (1) defend oneself, make formal justification (Ac 25:16; 2Co 7:11; Phil. 1:7, 16; 2Ti 4:16; 1Pe 3:15) and (2) defense, the content of the answer or reply (Ac 22:1; 1Co 9:3). Here it is used to mean “speech in defense.”

“**Reason**” [*logos*] is used here to mean reason, statement, or speech (adj.) cause for something (see also Mt 5:32; Ac 10:29; 1Pe 3:15). To understand this nuance of *logos* is used, notice Acts 10:29: “I ask, therefore, for what reason did you send for me?” Acts 10:29

We are Commanded to Refute False Ideas About God

2 Corinthians 10:5 We demolish arguments and every pretension that sets itself up against the knowledge of God, and we take captive every thought to make it obedient to Christ.

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“**Demolish**” [*καθαίρω, kathaireō*]: means here to mean eliminate, cause to cease (cf. Acts 19:27).

“**Arguments**” [Gk. λογισμοὺς] means fallacious and deceptive reasoning and, by implication, based on evil intentions, false reasoning and false arguments.

“**Every Pretension**” [ὑψωμα, *hypsōma*] means arrogance, pride, conceit or any other act or attitude that sets itself up as an “obstacle to the emancipating knowledge of God contained in the gospel of Christ crucified and therefore keeps men in oppressive bondage to sin.” It is closely related to the expression *pan noema* “ever thought.”

Murray Harris of *Expositor’s Bible Commentary*, pg. 380, comments on vs. 5, “...the picture seems to be that of a military operation in enemy territory that seeks to thwart every single hostile plan of battle, so that there will be universal allegiance to Christ.

Paul Reasoned With People:

Acts 17:16-17 While Paul was waiting for them in Athens, he was greatly distressed to see that the city was full of idols. So he reasoned in the synagogue with the Jews and the God-fearing Greeks, as well as in the marketplace day by day with those who happened to be there.

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Jude Urged that We Contend for the Faith

Jude 3: Dear friends, although I was very eager to write to you about the salvation we share, I felt I had to write and urge you to contend for the faith that was once for all entrusted to the saints.

Jude urges that we contend for the faith (vs. 3): Dear friends, although I was very eager to write to you about the salvation we share, I felt I had to write and urge you to **contend for the faith** that was once for all entrusted to the saints.

“Contend” ἐπαγωνίζομαι (*epagōnizomai*): struggle for, contend, fight; it means to exert *intense effort* for the doctrine entrusted to the saints of God.

The context is that there were heretics (antinomians who were abusing God’s grace) infiltrating the church. Jude appeals to believers to stand their ground, fight for the faith they had learned. The word “faith” as used here refers to things believed, the body of truths as taught by Christ and the apostles (cf. Gal. 1:23; 1 Tim. 4:1).

Paul defended the Gospel: Phil. 1:7. It is right for me to feel this way about all of you, since I have you in my heart; for whether I am in chains or **defending and confirming the gospel**, all of you share in God’s grace with me.


“Defending” [ἀπολογία, *apologia*], means to defend oneself, to make formal justification (see also Acts 25:16; 2Co 7:11; 2Ti 4:16; 1Pe 3:15). In 4th century B.C. this term was used to give an account of the receipts.

“Confirming” [βεβαίωσις, *bebaiōsis*] means verification, confirmation. To cause something to be known as certain, to confirm, verify, to prove to be true and certain; certification, verification.

Three Fundamental Laws of Logic:
Let’s suppose P is any indicative (indicator of) sense, say, “It is snowing.”




- The law of Identity: P is P.
- The law of non-contradiction: P is not non-P.
- The law of the excluded middle: Either P or non-P.



Law of Identity:

- Law of identity says that if a statement such as “It is snowing” is true, then the statement is true. In sum, the statement P is the same thing as itself and is different from everything else.
- In sum, **if a statement is true, then it’s true.**
- Applied to reality, the law of identity statement that everything is itself and not something else.



Law of non-contradiction:

- The law of non-contradiction states that a statement such as “It is snowing” cannot be both true and false in the same sense. To be sure, it could be snowing in Colorado and not in East Texas, but the principle states that it can’t be snowing and now snowing at the same time in the same place.
- In sum, **if a statement is true, then it can’t be false.**



The Law of Non-Contradiction

The law of non-contradiction is undeniable. Even those who deny it use it.



The Law of Non-Contradiction

“Anyone who denies the law of non-contradiction should be beaten and burned until he admits that to be beaten is not the same as not to be beaten, and to be burned is not the same as not to be burned.”

(Avicenna, Great Medieval Philosopher)



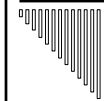
Law of Excluded Middle:

- A statement is either true or false.



Law of Excluded Middle:

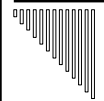
- Law of Excluded Middle states that a statement such as “It is snowing” is either true or false. There is no other alternative.



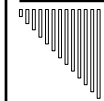
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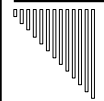


Consider the Law of Non-Contradiction:



Objections to Objective Truth

1. **There is no such thing as truth!**
2. **You can't know truth!**
3. **All truth is relative!**
4. **It's true for you but not for me!**
5. **No one has the truth!**
6. **All truth depends on your perspective!**

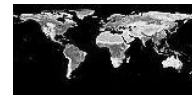


The Law of Non-Contradiction Helps Us Discover What is False

*Opposite ideas cannot both be true
at the same time and in the same sense.*



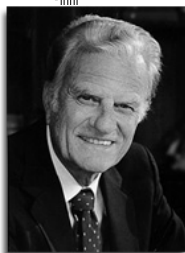
The Earth is Round



The Earth is NOT
Round



The Law of Non-Contradiction



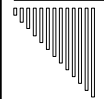
**Rev. Billy Graham –
God Exists!**



They can't
BOTH
be true!



**Madalyn O'Hair –
God Does NOT Exist!**




Your Greatest Tool in Answering These Objections:

Apply the claim to itself!


Example . . .

If someone were to say. . .


 "I can't speak a word in English."

↑

"Didn't he say *that* in English?"




...the law of non-contradiction




shows the person has no ground to stand on

Other Examples:


 "There is no truth."

↑

"Is *that* true?"




Other Examples:


 "You can't know truth."

↑

"Then how do you know *that*?"




Other Examples:


 "All truth is relative!"

↑

"Is *that* a relative truth?"




Other Examples:


 "There are no absolutes!"


↑

"Isn't *that* an absolute truth?"




Other Examples:


 "It's true for you but not for me!"




"Is *that* true for everybody?"




Other Examples:


 "No one has the truth!"




Then how do you know *that* s true?"




Other Examples:


 "There is no truth in religion, only science."




Is *that* a scientific truth?




Other Examples:


 "You should doubt everything."




"Should I doubt *that*?"




Other Examples:

 "You ought not judge!"



"Isn't *that* a judgment!"



Summary


The Truth About Truth

1. Contrary beliefs are possible, but contrary truths are not possible.
2. You can believe everything is true, but everything can't be true.
3. Objective truth can't be denied without being affirmed.



What is a logical fallacy?

- A logical fallacy is simply an error of reasoning.
- There are two types of fallacies:
 - Formal Fallacies;
 - Informal Fallacies.

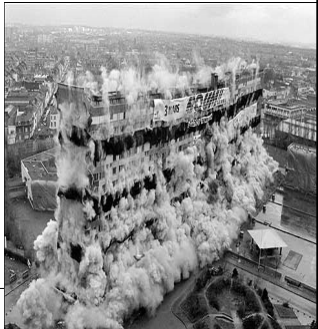


Consider: A Fallacy is a Mistake:

- Formal Fallacies have to deal with the form of the argument. It occurs when we mistakes in the way we set up our thinking, or by using an implication that is not true.
- Informal Fallacies have to deal with mistakes in the meanings of the terms we use (e.g., we might be misleading meanings of the terms we use; they might be unclear, or they might just not have anything to do with the subject at hand.

Why examine logical fallacies?

- **Avoiding them is valuable.**
- **Keeps away from knowing the truth.**
- **Preventive protection against deception & manipulation.**



What is a formal fallacy? Let's consider deductive arguments:

- Deductive arguments are excellent arguments. For a deductive argument to be cogent, it must be absolutely impossible for both its premises to be true and its conclusion to be false.
- The truth of the premises entails the truth of the conclusion.

What is a formal fallacy? Let's consider deductive arguments:

- The classic example of a deductive argument:
 1. All men are mortal (major premise);
 2. Socrates is a man (minor premise):

Therefore:

 3. Socrates is mortal (conclusion).
- It is simply not possible that both (1) and (2) are true and (3) is false, so this argument is deductively valid.

A good deductive argument:

- Any deductive argument that fails to meet this (very high) standard commits a logical error, and so, technically, is fallacious. They've committed a "formal fallacy."



What is an Inductive Argument:

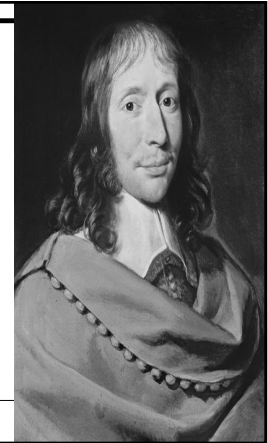
- An **inductive** argument is one in which the premises are supposed to support the conclusion in such a way that if the premises are true, it is **improbable or less likely** that the conclusion would be false. Thus, the conclusion follows **probably** from the premises and inferences.

What is an Inductive Argument?

- A good inductive argument only establishes that its conclusion is *probably* true.
- Inductive arguments are not as rigorous as deductive arguments.

Example of an Inductive Argument:

1. Blaise Pascal was French. (premise)
2. Most French eat fish. (premise)
3. Blaise Pascal ate fish. (conclusion)




Three Common Types of Logical Fallacies:

The most common types of fallacies are:


1. **Relevance** (for example, irrelevant appeals; ad hominem fallacies);
2. **Ambiguity** (e.g., equivocation; straw man fallacy);
3. **Presumption** (e.g., false dilemma; circular argument).

The following fallacies are largely adapted from www.logicalfallacies.info. It is an excellent website with awesome descriptions and examples of an incredible amount of logical fallacies.




Let's Look at Some Major Fallacies of Relevance:

- They are attempts to prove a conclusion by offering considerations that simply don't bear on its truth. In order to prove that a conclusion is true, one must offer evidence that supports it.
- Arguments that commit fallacies of relevance don't do this; the considerations that they offer in support of their conclusion are irrelevant to determining whether that conclusion is true. The considerations offered by such are usually psychologically powerful, however, even if they don't have any evidential value.



Character attack ad hominem Argument is a form of Genetic Fallacy:

- A. Focus not on the evidence for a view but on *the character* of the person advancing it; they seek to discredit positions by discrediting those who hold them. It is always important to attack arguments, rather than arguers, and this is where arguments that commit the ad hominem fallacy fall down.



Character attack ad hominem Argument is a form of Genetic Fallacy:

Example:

- (1) President Ronald Reagan argued that modern biology supports the idea that there is an intelligent designer who created life.
- (2) Reagan would say that because he was religious.
Therefore:
- (3) Modern biology doesn't support intelligent design.


This argument rejects the view that intelligent design is supported by modern science based on a remark about the person advancing the view, not by engaging with modern biology. It ignores the argument, focusing only on the arguer; it is therefore a fallacious argument ad hominem.



Bandwagon Fallacy:

The bandwagon fallacy is committed by arguments that appeal to the growing popularity of an idea as a reason for accepting it as true. They take the mere fact that an idea suddenly attracting adherents as a reason for us to join in with the trend and become adherents of the idea ourselves.

This is a fallacy because there are many other features of ideas than truth that can lead to a rapid increase in popularity. Peer pressure, tangible benefits, or even mass stupidity could lead to a false idea being adopted by lots of people. A rise in the popularity of an idea, then, is no guarantee of its truth.



Bandwagon Fallacy:

- **The bandwagon fallacy is closely related to the appeal to popularity; the difference between the two is that the bandwagon fallacy places an emphasis on current fads and trends, on the growing support for an idea, whereas the appeal to popularity does not. Consider:**
1. Increasingly, people are coming to believe that saying the prayer of Jabez will motivate God to give us what we want.
Therefore:
 2. The prayer of Jabez will help us get what we want from God.

This argument commits the bandwagon fallacy because it appeals to the mere fact that an idea is fashionable as evidence that the idea is true. Mere marketing schemes and book trends do not serve reliable guides to truth.



Fallacist Fallacies:

The fallacist's fallacy involves rejecting an idea as false simply because the argument offered for it is fallacious. Having examined the case for a particular point of view, and found it wanting, it can be tempting to conclude that the point of view is false. This, however, would be to go beyond the evidence.

It is possible to offer a fallacious argument for any proposition, including those that are true. One could argue that $2+2=4$ on the basis of an appeal to authority: "John Piper says that $2+2=4$ ". Or one could argue that taking relieves headaches using a post-hoc fallacy: "I ate rosemary leaves and then my headache went away; it worked!"

Each of these bad arguments has a true conclusion. A proposition therefore should not be dismissed because one argument offered in its favor is faulty.

"People argue that there must be an afterlife because they just can't accept that when we die that's it. This is an appeal to consequences; therefore there is no life after death."

Fallacy of Composition:

The fallacy of composition is the fallacy of inferring from the fact that every part of a whole has a given property that the whole also has that property. This pattern of argument is the reverse of that of the fallacy of division.

It is not always fallacious, but we must be cautious in making inferences of this form.

For Example:

Every song on the album lasts less than an hour.

Therefore:

The album lasts less than an hour.

Obviously, an album consisting of many short tracks may itself be very long.

Fallacy of Division:

The reverse of fallacy of composition, this fallacy is committed by inferences from the fact that a whole has a property to the conclusion that a part of the whole also has that property. Like the fallacy of composition, this is only a fallacy for some properties; for others, it is a legitimate form of inference.


An example of an inference that certainly does commit the fallacy of division is this:

1. Water is liquid.
- Therefore:
2. H₂O molecules are liquid.

This argument, in attributing a macro-property of water, liquidity, to its constituent parts, commits the fallacy of division. Though water is liquid, individual molecules are not.

Note: an argument with the same logical form but inferring from the fact that a computer is smaller than a car that every part of the computer is smaller than a car would not be fallacious; arguments with this logical form need not be problematic.

Gambler's Fallacy:



The gambler's fallacy is the fallacy of assuming that short-term deviations from probability will be corrected in the short-term. Faced with a series of events that are statistically unlikely, say, a series of 9 coin tosses that have landed heads-up, it is very tempting to expect the next coin toss to land tails-up. The past series of results, though, has no effect on the probability of the various possible outcomes of the next coin toss.

Gambler's Fallacy:


For example:

1. This coin has landed heads-up nine times in a row.

Therefore:

2. It will probably land tails-up next time it is tossed.

Gambler's Fallacy:



This inference is an example of the gambler's fallacy. When a fair coin is tossed, the probability of it landing heads-up is 50%, and the probability of it landing tails-up is 50%. These probabilities are unaffected by the results of previous tosses.

- The gambler's fallacy appears to be a reasonable way of thinking because we know that a coin tossed ten times is very unlikely to land heads-up every time. If we observe a tossed coin landing heads-up nine times in a row we therefore infer that the unlikely sequence will not be continued, that next time the coin will land tails-up.
- In fact, though, the probability of the coin landing heads-up on the tenth toss is exactly the same as it was on the first toss. Past results don't bear on what will happen next.

Genetic Fallacy:

- The genetic fallacy is committed when an idea is either accepted or rejected because of its source, rather than its merit.
- Even from bad things, good may come; we therefore ought not to reject an idea just because of where it comes from, as ad hominem arguments do.
- Equally, even good sources may sometimes produce bad results; accepting an idea because of the goodness of its source, as in appeals to authority, is therefore no better than rejecting an idea because of the badness of its source. Both types of argument are fallacious.


Genetic Fallacy:

1. My pastor told me that covenant theology is true.
Therefore:
2. Covenant theology is true.

Or

1. C. I. Scofield, a dispensationalist, once struggled with alcoholism.
Therefore:
2. Dispensationalism is false.

Each of these arguments commits the genetic fallacy, because each judges an idea by the goodness or badness of its source, rather than on its own merits.



Fallacy of Relevance:

- Irrelevant appeals attempt to persuade the listener with information that is irrelevant to the matter at hand.
- There are many different types of irrelevant appeal, many different ways of influencing what people think without using evidence.
- The following are fallacies of relevance:

Fallacy of Relevance:

- Irrelevant appeals attempt to persuade the listener with information that is irrelevant to the matter at hand.
- There are many different types of irrelevant appeal, many different ways of influencing what people think without using evidence.
- The following are fallacies of relevance:

Fallacies of Irrelevance:

- Appeal to Antiquity / Tradition
- Appeal to Authority
- Appeal to Consequences
- Appeal to Force
- Appeal to Novelty
- Appeal to Pity
- Appeal to Popularity
- Appeal to Poverty
- Appeal to Wealth

An appeal to Antiquity/Tradition:

- Appeals to antiquity assume that older ideas are better, that the fact that an idea has been around for a while implies that it is true. This, of course, is not the case; old ideas can be bad ideas, and new ideas can be good ideas. We therefore can't learn anything about the truth of an idea just by considering how old it is.
- Example:
 - (1) Dispensationalism is a recent theological idea .
 - Therefore, Dispensational theology is false.


Appeal to Authority:

- For example, an appeal to authority seeks to persuade by citing what someone else, a perceived authority, thinks on the subject, as if that resolves the question.




Appeal to Consequences:

- An appeal to consequences seeks to persuade by getting the listener to consider either the attractiveness of a belief, or the unattractiveness of the alternatives. We should form beliefs, however, not on the basis of what we would like to be true, but on the basis of what the evidence supports.



Appeal to Force:

- An appeal to force is an attempt to persuade using threats. Its Latin name, “argumentum ad baculum”, literally means “argument with a cudgel”. Disbelief, such arguments go, will be met with sanctions, perhaps physical abuse; therefore, you’d better believe.
- **Example:**
- (1) If you don’t accept Covenant Theology, then you are demonstrating you are not a member of the elect.



Appeal to Novelty:

Appeals to novelty assume that the newness of an idea is evidence of its truth. They are thus also related to the bandwagon fallacy.


That an idea is new certainly doesn’t entail that it is true. Many recent ideas have no merit whatsoever, as history has shown; every idea, including those that we now reject as absurd beyond belief, were new at one time. Some ideas that are new now will surely go the same way. Consider these examples:

- (1) Evolution is the most recent development in biology. Therefore: (2) Evolution is true.
- (1) Religion is old-fashioned; atheism is a much more recent development. Therefore: (2) Atheism is true.




Red Herring Logical Fallacy:

- The red herring is a fallacy of distraction, and is committed when a listener attempts to divert an arguer from his argument by introducing another topic. This can be one of the most frustrating, and effective, fallacies to observe.
- The fallacy gets its name from fox hunting, specifically from the practice of using smoked herrings, which are red, to distract hounds from the scent of their quarry. Just as a hound may be prevented from catching a fox by distracting it with a red herring, so an arguer may be prevented from proving his point by distracting him with a tangential issue.



Let’s look at two fallacies of Ambiguity: Equivocation & Straw-man fallacy:

- Fallacies of ambiguity appear to support their conclusions only due to their imprecise use of language. Once terms are clarified, fallacies of ambiguity are exposed. It is to avoid fallacies of this type that philosophers often carefully define their terms before launching into an argument.



Fallacy of Equivocation:

- (1) The church would like to encourage theism.
(2) Theism is a medical condition resulting from the excessive consumption of coffee.
Therefore:
(3) The church ought to distribute coffee more freely.
- This argument is obviously fallacious because it equivocates on the word theism. The first premise of the argument is only true if theism is understood as belief in a particular kind of god; the second premise of the argument is only true if theism is understood in a medical sense.



Fallacy of Equivocation:

- The fallacy of equivocation is committed when a term is used in two or more different senses within a single argument.
- For an argument to work, words must have the same meaning each time they appear in its premises or conclusion. Arguments that switch between different meanings of words equivocate, and so don't work. This is because the change in meaning introduces a change in subject. If the words in the premises and the conclusion mean different things, then the premises and the conclusion are about different things, and so the former cannot support the latter.



Straw-Man Fallacy:

- This fallacy misrepresents a position in order to make it appear weaker than it actually is, refutes this misrepresentation of the position, and then concludes that the real position has been refuted. This is fallacious because the position that has been claimed to be refuted is different to that which has actually been refuted; the real target of the argument is "untouched" by it.



Straw-Man Fallacy:

- **For example:**
- (1) Trinitarianism holds that three equals one.
(2) Three does not equal one.
- Therefore:
(3) Trinitarianism is false.
- This is an example of a straw man argument because its first premise misrepresents Trinitarianism, its second premise attacks this misrepresentation of Trinitarianism, and its conclusion states that Trinitarianism is false. Trinitarianism, of course, does not hold that three equals one, and so this argument demonstrates nothing concerning its truth.



Fallacies of Presumption:

- Are not errors of reasoning in the sense of logical errors, but are nevertheless commonly classed as fallacies. Fallacies of presumption begin with a false (or at least unwarranted) assumption, and so fail to establish their conclusion.



Circular Fallacy:

- If its conclusion is among its premises;
- If it assumes (either explicitly or not) what it is trying to prove.
- Such arguments are said to beg the question. A circular argument fails as a proof because it will only be judged to be sound by those who already accept its conclusion.
- Anyone who rejects the argument's conclusion should also reject at least one of its premises (the one that is the same as its conclusion), and so should reject the argument as a whole. Anyone who accepts all of the argument's premises already accepts the argument's conclusion, so can't be said to have been persuaded by the argument. In neither case, then, will the argument be successful.



Circular Fallacy:

- Anyone who rejects the argument's conclusion should also reject at least one of its premises (the one that is the same as its conclusion), and so should reject the argument as a whole.
- Anyone who accepts all of the argument's premises already accepts the argument's conclusion, so can't be said to have been persuaded by the argument. In neither case, then, will the argument be successful.



Circular Fallacy:

- **Example**
- (1) The Bible affirms that it is inerrant.
(2) Whatever the Bible says is true.
- Therefore:
(3) The Bible is inerrant.
- This argument is circular because its conclusion—The Bible is inerrant—is the same as its second premise—Whatever the Bible says is true. Anyone who would reject the argument's conclusion should also reject its second premise, and, along with it, the argument as a whole.



False Dilemma:

- **The bifurcation fallacy is committed when a false dilemma is presented, i.e. when someone is asked to choose between two options when there is at least one other option available. Of course, arguments that restrict the options to more than two but less than there really are similarly fallacious.**



False Dilemma:

- (1) **Either a Creator brought the universe into existence, or the universe came into existence out of nothing.**
(2) **The universe didn't come into existence out of nothing (because nothing comes from nothing).**
Therefore:
(3) **A Creator brought the universe into existence.**
- **The first premise of this argument presents a false dilemma; it might be thought that the universe neither was brought into existence by a Creator nor came into existence out of nothing, because it existed from eternity.**



Hasty Generalization Fallacy

- **Draws a general rule from a single, perhaps atypical, case. It is the reverse of a sweeping generalization.**
- (1) **My Christian neighbor is an idiot.**
Therefore:
(2) **All Christians are idiots.**



Slippery Slope Argument:

- **Falsely assume that one thing must lead to another. You begin by suggesting that if we do one thing then that will lead to another, and before we know it we'll be doing something that we don't want to do. They conclude that we therefore shouldn't do the first thing. The problem with these arguments is that it is possible to do the first thing that they mention without going on to do the other things; restraint is possible.**
- **Example**
- (1) **If you study theology, you will lose your love for God.**
- (2) **You don't want to lose your love for God.**
Therefore:
(3) **You shouldn't study theology**



Bibliography:

- **The arguments are largely adapted from an excellent website:**
- www.logicalfallacies.info