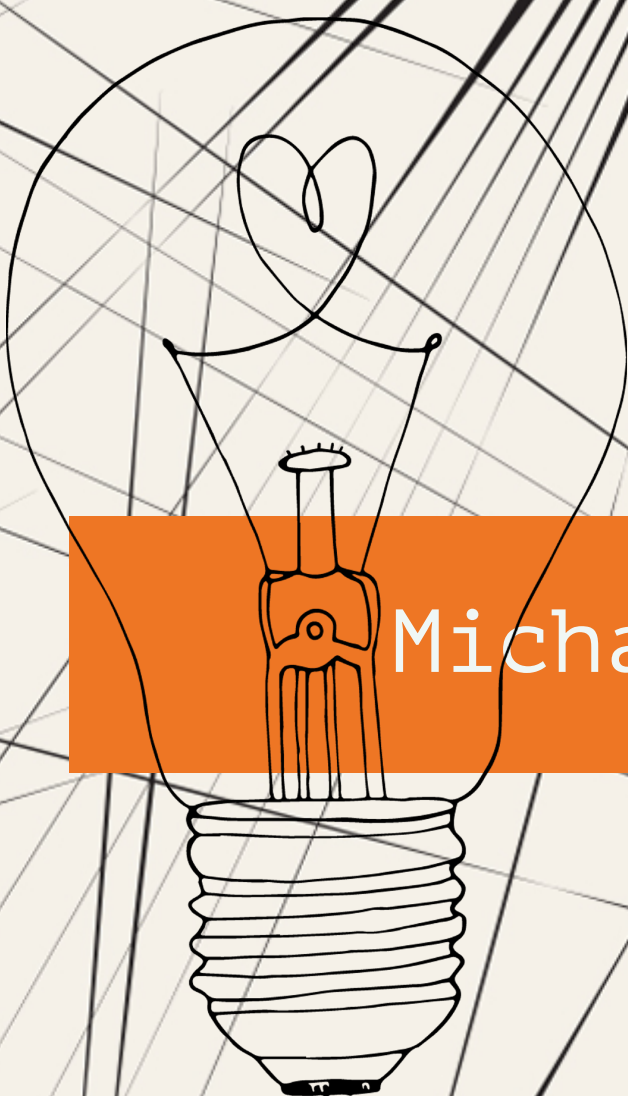


110 FALLACIES



Michael LaBossiere

110 Fallacies

“Rattlesnake Edition”

By Dr. Michael C. LaBossiere

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Introduction

If you are familiar with *76 Fallacies*, you will recognize this book as a significant upgrade from its predecessor. I have written a new section on argument basics, provided a better discussion of the concept of fallacies, included a brief discussion on bad faith reasoning and winning arguments, and added more fallacies. I have also overhauled and re-written the original 76 fallacies.

As the title indicates, this book presents numerous fallacies. The focus is on providing the reader with definitions and examples of these common fallacies rather than being a handbook on winning arguments or a detailed guide to logic. But understanding fallacies does require understanding the basics of arguments.

This version, the “rattlesnake” edition, is free for Florida A&M University employees, students, and alumni. [Kindle](#) and [print](#) versions of the book are also available on Amazon

Argument Basics

While people have a general idea of what “argument” means, the term also has a technical meaning. Philosophically, an argument is a set of claims, one of which is supposed to be supported by the other(s). A claim is a statement that is true or false. An argument is composed of two types of claims: one or more premises and a single conclusion.

The conclusion is the claim that is supposed to be supported by the premises. An argument has only one conclusion, though that claim can be re-used as a premise in another argument (forming an extended argument).

To find a conclusion, ask, “what is the point?” If there is no point being made, then there is no argument. If a point is being made, then there *can* be an argument present. But an argument requires more than just a point. An argument must also have at least one premise.

A premise is a claim given as evidence or a reason for accepting the conclusion. Aside from practical concerns, there is no limit to the number of premises in an argument. To find a premise ask, “what evidence or reasons are given for the point being made?” If there is no evidence or reason being offered, then there is no argument.

Creating an argument thus requires making a point (conclusion) and backing it up with evidence or reasons (premises). In philosophy, arguments come in two main varieties: inductive and deductive.

Varieties of Arguments

Most philosophers say there are two main categories of arguments: inductive and deductive. An inductive argument is one in which the premises are *intended* to provide *some* degree of support but less than *complete* support for the conclusion. A good inductive argument is strong, while a bad one is weak. More on this later.

A deductive argument is one in which the premises are *intended* to provide *complete* support for the conclusion. If a deductive argument is doing what it is intended to do, then it is valid. If not, it is invalid. I say a bit more about this below.

Other fields define “induction” and “deduction” differently, but being a philosopher, I use the philosophical definitions.

A third “type” of argument is the logical fallacy. As an argument, a fallacy is such that the premises fail to provide adequate support for the conclusion. There are informal(inductive) fallacies and formal (deductive) fallacies. The term “fallacy” is also often used to refer to an error in reasoning, a mistaken belief, and various rhetorical techniques.

Assessing Arguments

When assessing any argument there are two factors to consider: the quality of the premises and the quality of the reasoning (logic).

While people often lump the two together, the quality of reasoning is distinct from the quality of the premises. Just as it is possible to cook poorly using excellent ingredients, it is possible to reason badly using true premises. And as a cook can skillfully prepare a meal using poor ingredients, it is possible to reason well using false premises. As another analogy, consider a check book. Doing the math is the reasoning, getting the numbers right is like having true premises. The math can be done correctly (good reasoning) but the numbers entered (the premises) can be wrong. It is also possible to enter all the numbers correctly and then do the

calculations wrong. The worst case is getting the numbers wrong while also doing the math incorrectly.

Reasoning

When assessing the quality of reasoning, the question to ask is: do the premises logically support the conclusion? If the premises do not logically support the conclusion, then the argument is flawed, and the conclusion should not be accepted based on the premises provided. This does not mean that the conclusion is false; it might be true. It would be a fallacy (the Fallacy Fallacy) to infer that the conclusion of a fallacious argument *must* be false.

If the premises do logically support the conclusion, then you would have a good reason to accept the conclusion, on the assumption that the premises are true (or at least plausible).

While this general assessment applies to all arguments, the specific method used for assessment depend on whether an argument is deductive or inductive. If the argument is deductive, it is assessed in terms of being valid or invalid. A valid argument is such that *if* the premises were true, then the conclusion *must* be true. An invalid argument is such that all the premises *could* be true while the conclusion is false. An invalid deductive argument is a fallacy, typically referred to as a deductive fallacy or formal fallacy.

Validity is usually tested by formal means, such as truth tables, Venn diagrams,

and proofs. If an argument is valid and has all true premises, then it is sound. Naturally, a sound deductive argument also has a true conclusion. If a deductive argument is invalid or has one or more false premises (or both), it is unsound.

While deductive arguments are assessed in strict binary terms (valid or invalid, sound or unsound), inductive arguments are assessed in terms of varying degrees of strength.

A strong inductive argument is an argument such that *if* the premises are true, then the conclusion is *likely* to be true. A weak inductive argument is an argument such that even *if* the premises are true, the conclusion is *not likely* to be true given the premises. There are degrees of strength and weakness, usually expressed in informal terms. For example, someone might say that are “almost certain” when referring to a very strong inductive argument.

Assessment of is based on the standards for evaluating the specific type of inductive argument. The better an argument succeeds at meeting its standards, the stronger the argument. A strong inductive argument with true premises is often called cogent. The worse it fails, the weaker the argument.

One feature of inductive logic is that even the strongest inductive argument can have a false conclusion. This is due to the inductive leap: the conclusion of an inductive argument always goes beyond the premises. However, this does not make all inductive arguments fallacious (although it does make them all technically invalid). An inductive fallacy occurs when an inductive argument fails badly

enough—something that will be discussed for each inductive fallacy.

Assessing Premises

When assessing the quality of the premises, the question to ask is: are the premises true (or at least plausible)? While the testing of premises can be a challenging, it is reasonable to accept a premise as plausible if it meets three conditions. First, the premise is consistent with your own observations. Second, the premise is consistent with your background beliefs and experience. Third, the premise is consistent with credible sources, such as experts, standard references, and textbooks. Thoroughly and rigorously examining premises involves going far beyond the three basic standards presented here and this is the sort of thing one learns in mastering a field of knowledge. People do sometimes refer to false claims as fallacies, which can lead to confusion.

Fallacies

Before moving on to the specific fallacies, it is necessary to have a brief discussion about how the term “fallacy” is used. Unfortunately for those who prefer to see fallacies as logical errors, people do use the term “fallacy” to refer to a factual error. For example, someone might say “a lot of people think that Google created Android from scratch, but that is a fallacy. Google based Android on Linux.” While thinking that Android was created from scratch would be an error, it is an error about the

facts, rather than an error in reasoning. If someone said “Android is a bad operating system. After all, many creepy geeks use it”, then this would be an error in reasoning (this is an example of an Ad Hominem fallacy). Even if many creepy geeks use Android, this does not prove that the operating system is bad. While both are mistakes, they are two different types of mistakes. One is an error about the facts, the other an error in reasoning.

To see the distinction, think about balancing a checkbook. I can make a mistake by doing the math incorrectly (which would be an error in reasoning), and I can make a mistake by entering the wrong amount for a check (factual error).

To use another analogy, think about cooking. One way I could screw up a meal is by cooking badly. This would be like an error in logic or reasoning. Another way is that I could use the wrong (or bad) ingredients. That would be like making a factual error. It is one thing to get the facts wrong (factual error) and quite another to reason badly about them. This is why I avoid referring to untrue claims as fallacies; I just call them false claims. I will not, however, say that people are wrong to use the term this way.

In logic classes, a fallacy is often said to be an argument in which the premises fail to provide adequate logical support for the conclusion. This type of fallacy can be called a structural fallacy: the defect lies in the construction (logic) of the argument. A deductive fallacy, which is an invalid argument, is a paradigm example of a structural fallacy. Whether an argument is valid or invalid is an objective matter and

can be tested by various means, such as truth tables and proofs. Deductive fallacies are often called formal fallacies.

Inductive fallacies are usually described as less formal than deductive fallacies and so are often called informal fallacies. An inductive fallacy is a weak inductive argument in which the premises do not provided adequate support for the conclusion. In some cases, an inductive fallacy will be a structural fallacy: the defect lies in the structure of the argument itself and any argument with that structure will also be a fallacy. Ad Hominem fallacies are examples of structural fallacies: they are bad arguments because the pattern of reasoning is bad.

In other cases, an inductive fallacy occurs due to the argument being weak because it does not meet the standards for that argument type. In such fallacies, the structure of the argument is not the problem. For example, the Hasty Generalization fallacy and a strong inductive generalization are structurally identical. In both cases, the inference is that because $X\%$ of the sample of Y s are Z , it follows that $X\%$ of all Y s are Z (I am leaving out the margin of error here). A Hasty Generalization is simply an Inductive Generalization made from a sample that is too small. Determining that a Hasty Generalization has occurred requires examining the sample and looking at the pattern of reasoning will not reveal the mistake. This sort of fallacy could be called a criteria fallacy or a fallacy of standards. I considered using the term “standard fallacy” but realized that would be confusing.

While deductive arguments can be evaluated with certainty, this is not true for

inductive arguments. There are objective standards, but assessing inductive reasoning is bit like judging figure skating: very good and very bad cases are easy to spot, but in between cases can be reasonably disputed. While inductive fallacies are often categorized as informal fallacies, this term also refers to a broader category of errors in reasoning.

People also use the term “fallacy” to refer to bad reasoning that does not involve explicit errors in logic. Rhetorical devices are sometimes classified in this way as are various persuasive techniques and strategies. These methods, devices and tactics are commonly used to try to substitute persuasion for argumentation or to “win” an argument through deceptive means. For example, the Red Herring (introducing a new issue to distract from the original issue) is usually not an argument but is an avoidance tactic often used in argumentation. These fallacies can be called method fallacies. They are not bad arguments, but this is because they are not arguments at all (in the philosophical sense). No doubt there are other uses of the term that I have not mentioned, and language always evolves.

When reading through the fallacies, be sure to keep in mind that there is no official governing body for fallacies. While there are traditions and common practices, you will see other names and different definitions for these fallacies and many of these are reasonable. Just keep an eye out for those who try to redefine various fallacies for nefarious purposes.

It is also a good idea to keep in mind that not all things that look like fallacies are

fallacies. In some cases, they are not fallacies because they are not involved in reasoning at all. In other cases, an argument that might be mistaken for a fallacy could be a non-fallacious or even a good argument. I have taken care to make note of common occurrences of this sort in the fallacy descriptions. As a final point, there are far more fallacies than the 109 that are covered in this book (or any book). So, something that does not match a named fallacy might still be a fallacy.

Examples

The following are examples of the concepts and terms discussed above.

A Factual Error

Portland, Maine is the capital of the United States.

Valid Deductive Argument

Premise 1: If Bill is a cat, then Bill is a mammal.

Premise 2: Bill is a cat.

Conclusion: Bill is a mammal.

Extended Deductive Argument

Argument1 Premise 1: If pornography has a detrimental effect on one's character, it would be best to regard it as harmful.

Argument 1 Premise 2: Pornography has a detrimental effect on one's character.

Argument 1 Conclusion: It would be best to regard pornography as harmful.

Argument 2 Premise 1: If it is best to regard something as harmful, then the government should protect people from it.

Argument 2 Premise 2: It would be best to regard pornography as harmful (conclusion of argument 1).

Argument 2 Conclusion: The government should protect people from pornography.

Deductive Fallacy (Invalid Argument, Affirming the Consequent)

Premise 1: If Portland is the capital of Maine, then it is in Maine.

Premise 2: Portland is in Maine.

Conclusion: Portland is the capital of Maine.

(Portland is in Maine, but Augusta is the capital.)

A Strong Inductive Argument

Premise 1: 70-80% of humans have brown eyes.

Premise 2: Sally is a human.

Conclusion: Sally has brown eyes.

Inductive Structural Fallacy (Circumstantial ad hominem)

Premise 1: Dave supports the tax reduction for businesses and says it will be good for everyone, but he owns a business.

Conclusion: Dave must be wrong about the tax reduction.

Inductive Criteria Fallacy (Hasty Generalization)

Premise 1: Having just arrived in Ohio, I saw one white squirrel.

Conclusion: All Ohio squirrels are white.

Method Fallacy (Red Herring)

Reporter: “Senator, while you claim to want to address economic inequality, you have repeatedly used your insider knowledge to enrich yourself on the stock market. What is your response to your critics?”

Senator Smith: “I must remind you that I am working hard to pass laws to address climate change.”

Good and Bad Faith Reasoning

Before getting into the distinction between good and bad faith reasoning, I need to say a bit about the difference between argumentation and persuasion. Philosophical argumentation, broadly construed, aims at establishing the truth of a claim. Such argumentation is assessed in terms of the quality of the reasoning, and this is a matter of determining what is sometimes called the logical force of an argument. For deductive arguments, the assessment is objective and involves such

methods as Venn diagrams, truth tables and proofs. While assessing inductive arguments is not as clear cut, the assessment is not purely subjective. Inductive arguments have standards or criteria that are used to assess them, allowing you to determine how strong (or weak) an argument is. In the case of claims, this is a matter of determining if the claim is true. While there are philosophical arguments for the relativity or even subjectivity of truth, this book assumes that there are at least some objective truths. Ironically, if relativism or subjectivism are true, then there still must be at least one objective truth. Now, on to persuasion.

The goal of persuasion is to get the audience to believe a claim whether it is true or not. This is a matter of what is sometimes called persuasive or psychological force. Persuasive force is, by its nature, relative or subjective. While a valid argument is valid no matter what you think or feel about it, a persuasive device's effectiveness depends entirely on how you think or feel about it. For example, a person who thinks that a sexist stereotype about men is true is likely to be influenced by that stereotype when it is used as a rhetorical device. Someone who rejects the stereotype and finds it offensive will tend to have the opposite reaction.

Philosophical argumentation requires that one argue in good faith; persuasion does not. This is not to say that all persuasive techniques are forbidden or wrong when arguing in good faith. You can (and should) use certain persuasive techniques to make your arguments more appealing. But these devices are not substitutes for arguments. To use an analogy, if you are making a healthy meal, there is nothing

wrong with using seasoning and spices to make it taste good. But a bowl of seasonings and spices is not a healthy meal and seasoned poison is still poison. But what is it to argue in good faith?

Arguing in good faith is not the same thing as making a good argument or making only true claims. A person can make bad arguments or unknowingly assert false claims in good faith. This is because arguing in good or bad faith is a matter of intention. That said, arguments made in bad faith will tend to be bad arguments. To use an analogy, a person can prepare a turkey in good faith with the intention of making it safe and delicious. But the turkey could turn out badly or even give the guests food poisoning. Preparing food in bad faith, to continue the analogy, would aim at maliciously deceiving guests about what they are eating or aim at intentionally harming them (poisoning the food, for example). As the analogy suggests, just as you would want to avoid bad faith cooks you would want to avoid people who argue in bad faith. They will not be serving you anything you should want to consume.

When a person argues in good faith, they intend to argue that a claim is true by using good reasoning and providing true (or at least plausible) evidence and reasons. Arguing in good faith does not require that a person believe the claim they are arguing for, but they do need to be honest about this. A person can advance an argument or claim they disagree with as part of a good faith discussion. For example, philosophical argumentation often includes considering objections against one's position and these objections can (and should) be made in good faith. As another

example, when a philosopher presents the views of a philosopher they disagree with, they should present these views in good faith.

When considering arguments against your view (be they objections you raise yourself or not), arguing in good faith means using the principle of charity. Following this principle requires interpreting claims in the best possible light and reconstructing (or constructing) arguments to make them as strong as possible. There are three reasons to follow the principle. The first is that the use of this principle is the right thing to do. The second is that doing so helps avoid committing the Straw Person fallacy. In this context, this a fallacy in which one presents a distorted or exaggerated version of an argument and then takes criticism of that version to refute the real argument. The third is practical: criticism of the best and strongest version of an argument also addresses the lesser versions.

The principle of charity should be tempered by the principle of plausibility. If you are considering another person's argument, then the claims must be interpreted, and the argument reconstructed in a way that matches what is known about the source and the context. For example, reconstructing an argument by Descartes and including premises from quantum physics would violate the principle of plausibility. Now, on to arguing in bad faith.

Arguing in bad faith is not the same thing as arguing badly, but it usually involves making bad arguments with dubious premises. So, you cannot infer that all arguments made in bad faith must be bad and that every claim made in bad faith

must be false. As with good faith, bad faith is a matter of intention. When a person argues in bad faith, they intend to deceive and mislead when engaged in an argument. A person can engage in bad faith arguing in many ways.

One way to argue in bad faith is to knowingly use fallacies to get the audience to accept or reject a claim. To illustrate, a person arguing in bad faith might make a Straw Man (a distorted version) out of their opponent's view or launch an Ad Hominem attack to "refute" them.

Another way to argue in bad faith is to knowingly use persuasive devices (rhetoric) *instead* of evidence and reasons to get the audience to believe a claim. As noted above, you can use persuasive devices in good faith when making an argument. For example, a person skilled at both argumentation and comedy might make a hilarious but good argument. But intentionally using only persuasion in place of argumentation is to argue in bad faith.

A third way to argue in bad faith is to use lies in an argument. This is different from *unintentionally* using false claims. A person can make a false claim and not be lying, since lying is also a matter of intent. A person could even make a true claim and still be lying; this could occur because the person (incorrectly) believes the claim is false and is trying to deceive the audience into accepting it as true.

Like sorting out when someone is lying, determining when someone is arguing in bad faith can be challenging. A person who is arguing in good faith might seem to be arguing in bad faith if they unintentionally use bad logic or unknowingly make

false claims. Someone who is skilled at arguing in bad faith might be utterly convincing and seem to be advancing incredible arguments.

Fortunately, when assessing arguments and claims you can cut through bad faith by focusing on using the methods of logic and critical thinking to sort things out. When dealing with bad faith, keep in mind that to infer a person's claim must be false or that their argument must be fallacious because they are arguing in bad faith would be a fallacy: the Bad Faith Fallacy (which is a close relative of the Fallacy Fallacy). But this does not mean that you are under any obligation to spend your resources paying attention to them.

While a person who consistently argues in bad faith might say true things or make a good argument, their bad faith gives you practical and moral reasons to stop giving their claims and arguments serious consideration. This is different from inferring that their claims are false or their arguments or bad. Rather, this is a practical and moral position: they have shown that they are not worth your effort and attention.

To use an analogy, if you find out that a supposed friend has been intentionally harming you, lying to you, and merely pretending to be your friend, this does not mean that everything they do must be bad or harmful. But these qualities give you a good reason to stop being their friend: they are not worth your effort and attention. While this might seem harsh, there are many other people who would be a better investment for your friendship. Likewise, you will generally have good reasons to

not pay attention to people who argue in bad faith. There are many other people who would be a better investment for your attention, people who operate in good faith.

That said, ignoring influential people who operate in bad faith can be dangerous. For example, much of American politics (and hence laws and policies) is ruled by bad faith claims and arguments. While it is tempting to ignore these bad faith actors, they can have a huge influence on your life through the laws they pass, the prejudices they feed, and the false beliefs they shape. While it is always advantageous to be a critical thinker and aware of fallacies, it is especially important these days.

Winning an Argument

While logic is generally not about winning arguments, you could “win” an argument (dispute) in the philosophical sense by presenting (logically) better arguments in good faith. To use an analogy, this is like winning honestly in a fair athletic event. You abide by the rules of the competition and do not cheat. A victory, in an ideal version of philosophical argumentation, is rationally establishing a claim as (probably) true. But this is not the sort of winning people usually have in mind.

Usually when people talk about winning an argument, they mean that you win if the audience believes you—whether your claim is true or false. While philosophical arguments can be used to persuade people, they tend to be the weakest means of persuasion, which is something **Aristotle** pointed out centuries ago. As such, if you

want to win an argument, then good logic is usually your worst choice of tools. Fallacies are more effective than good arguments as tools of persuasion. Rhetorical devices, which rely on emotive and psychological force, are also effective in persuading people and thus are better than good arguments. While a fallacy can have a true conclusion and rhetoric can be used to dress up the truth, these tools do not reliably lead to the truth. Used well, however, they can reliably persuade.

Philosophers are often critical of this concept of winning an argument. This is something that goes back at least to Socrates in his battles with the Sophists. In terms of why most philosophers disagree with this notion of winning, they usually have reasons like why honest athletes are critical of cheating in sports. To use an analogy, consider winning a marathon. One way to win the marathon is to train hard, complete the course fairly, and honestly earn the first-place finish. But there are other ways to win the prize. One option is to compete unfairly by using performance enhancing drugs. Another option is to secretly cut the course. One could even bribe officials. There are many ways to “win” and get the prize without competing in good faith. An argument can be “won” using fallacies, rhetoric and lies—that is, one can be crowned the winner in the same way as the marathon cheat “earns” their victory.

It could be countered that in argumentation what really matters is winning. So, if a politician, pundit, or YouTuber can expand their base and profit by persuading people to accept their views through fallacies, rhetoric and lies then they have beaten

their opponents—even (or especially) if their opponents are making true claims and using good arguments. The obvious counter is to draw the analogy to sports: winning matters but winning must be earned through an honest path to victory. Just having the trophy does not make one the best athlete. “Winning” the argument does not make one right. This is, of course, a moral stance and one could also choose to embrace the **classic Sophist’s view that winning (success) is what matters.**

Informal Fallacies

What follows are the entries for the informal fallacies. Each entry provides a common name for the fallacy, common alternative names (if applicable), a description of the fallacy, offense/defense, and examples. Here is what each section does:

Name: This gives the common name of the fallacy, or at least the name I use the most. There is no bureau of fallacy naming (BoFN), so the names of fallacies vary across different sources. Fortunately, professional philosophers tend to use the same or similar names.

Also Known As: Other common (or not so common) names for the fallacies. I will probably miss some names. Fortunately, the most important thing is to realize that a fallacy is a fallacy and a fallacy by any other name is still an error of reasoning.

Description: This section will begin with a concise description of the fallacy and will usually be followed by the common form (or forms) of the fallacy. The form

presents, where appropriate, the logical structure (or steps) of the fallacy. Descriptions of fallacies with minor variations will include these variations, usually with the different forms presented. Major variations will (usually) get their own entries.

An instance of a fallacy out in the wild will rarely exactly match the form presented in the description. This is to be expected. If a person is committing a fallacy unintentionally, they are not being careful in their reasoning or are acting from ignorance. As such, they are unlikely to be carefully and exactly following a pattern of bad reasoning.

People who use fallacies intentionally are more likely to have their fallacies resemble the forms presented here, but they are also likely to knowingly present their fallacies “badly.” This makes sense because clearly presenting a fallacy by clearly following its form can lay bare that it is a fallacy. Because of this, those who intentionally use fallacies will often try to disguise, conceal, or camouflage their reasoning.

The description will also include a brief explanation of why the fallacy is a fallacy. Some descriptions will include additional information relevant to the fallacy. This information can include such things as notable exceptions, good reasoning that can be mistaken for the fallacy, and definitions of key terms. For example, the description of the Fallacy of Accent includes a brief discussion of ambiguity because it is a fallacy of ambiguity. In some cases, a description will also include an extended

(or classic) example to help explain the fallacy.

Defense: This section provides a guide on how people often intentionally use the fallacy and effective ways to defend against it. While these guides can assist those who want to weaponize fallacies for bad faith argumentation, I think that knowing how fallacies are misused can help people defend against them.

Accent, Fallacy of

Description:

This fallacy occurs when a conclusion is drawn from a premise or premises that are ambiguous due to a lack of clarity regarding the emphasis. Most commonly this fallacy involves an ambiguity arising from a shift in emphasis/accnt during the argument. This fallacy has the following form:

Premises: A premise or premise are presented that are ambiguous due to a lack of clarity regarding emphasis.

Conclusion: Claim C is drawn from these premises.

Ambiguity itself is not fallacious. It is a lack of clarity in language that occurs when a claim has two (or more) meanings, and it is not clear which is intended. The Fallacy of Accent occurs when an inference is drawn from a premise or premises based on a type of ambiguity that can arise in three ways.

The first is that a claim is ambiguous because the intended tone is not clear. For example, the claim “you would be lucky to get this person to work for you” could be high praise or a sarcastic remark depending on the tone used.

The second is that the ambiguity arises from a lack of clarity regarding the intended stress. For example, the meaning of the claim “Leslie thinks that Sally has been faithful to him” can shift based on the stress. Stressed one way, the claim can be taken as indicating that Leslie thinks this but is wrong.

A third possibility is that claim is taken out of context. As an example, suppose that the original text was “Among the radical left, Mr. Jones has considerable appeal as a congressional candidate. However, mainstream voters rightfully regard him as a questionable choice, at best.” If someone were to quote this as “Mr. Jones has considerable appeal as a congressional candidate”, then they would be taking the quote out of context.

The classic example of this sort of fallacy involves a hard drinking first mate and his teetotaler captain. Displeased by the mate’s drinking habits, the captain always made a point of entering “the mate was drunk today” into the ship’s log whenever the mate was drunk. One day, when the captain was sick, the mate entered “the captain was sober today” into the log. Naturally, the mate intended that the reader would take this emphasis as an indication that the event was unusual enough to be noted in the log and thus infer that the captain was drunk on all the other days. Obviously, to believe that conclusion would be to fall victim to the fallacy of accent.

Defense: The general defense against this fallacy is watching out for ambiguous claims. Since ambiguity interferes with knowing which meaning correct, ambiguous claims are always a potential hazard. In the case of the specific types of ambiguity used in the fallacy, you can be on guard against ambiguities of stress and tone. The version of this fallacy that is most often used intentionally is ambiguity arising from taking a quote out of context. This can be a very effective tool for misleading people since it is a (misused) quote rather than an outright lie. As such, the quote can show up in an internet search and, if not investigated, can seem accurate. The defense is to confirm that the quote is complete and taken in context.

Example #1

Sally: "I made Jane watch Jennifer Aniston in *Just Go With It* last night."

Ted: "What did she think?"

Sally: "She said that she never wants to see another Jennifer Aniston movie."

Ted: "But you love Jennifer and have all her movies. What are you going to do?"

Sally: "I'll do exactly what she said. I'll make her watch *Just Go With It* repeatedly."

Ted: "Cruel."

Sally: "Not at all. She did say that she never wants to see *another* Jennifer Aniston movie and I'll see to that by making sure that she watches that movie rather than another."

Example #2

Dr. Jane Gupta (on TV): “Though Prescott Pharmaceuticals claims that their VacsaDiet 3000 is ‘guaranteed to help you shed those unsightly pounds’, this claim has not been verified and many of the ingredients in the product present potential health risks.”

Stephen: “Hey, Bob! Dr. Jane Gupta just said that ‘Prescott Pharmaceuticals VacsaDiet 3000 is guaranteed to help you shed those unsightly pounds.’”

Bob: “In that case, I’m going to buy it. After all, Dr. Jane knows her stuff.”

Stephen: “Yes, she does. You just missed her—she was on TV talking all about diets and stuff.”

Bob: “I’m sorry I missed that. Now where did I put my credit card?”

Example #3

Employer: “I wasn’t sure about hiring you. After all, you were at your last job just a month. But your former employer’s letter said that anyone would be lucky to get you to work for them.”

Keith: “I will do my best to live up to that, ma’am.”

Employer: “I’m sure you will. Welcome to the company.”

Accident, Fallacy of

Description:

This fallacy occurs when a general rule is misapplied to a specific case that is beyond its intended scope. The fallacy has the following form:

Premise 1: General rule G, which usually applies to Xs is presented.

Premise 2: A is an X (but is an exception to G).

Conclusion: G applies to A (as if it were not an exception).

This is an error because the general rule is being incorrectly applied to the case at hand. The application is incorrect because the accidental property or properties of X make it an exception to the rule.

This fallacy is historically attributed to our good dead friend Aristotle. As far as the name goes, “accident” does not mean an accident in the usual sense (like getting hit by a car). Roughly put, Aristotle took an accidental property as lacking a necessary connection to the essence of a thing. So, an accidental property could change without the thing in question ceasing to be what it is. For example, the length of my hair is an accidental property. I can get a haircut and still be the same person. In contrast, essential qualities are necessary to the thing being what it is. For example, *having three sides* is an essential property of a triangle: if it ceases have three sides, it is no longer a triangle. Essential properties allow for no exceptions, so if property P is essential to being an F, then anything without P would also not be an F. Going back to the triangle example, anything without three sides would not

be a triangle.

Continuing the triangle example, the specific color of a triangle, say blue, is an accidental property. This is not because it became blue as the result of a painting accident, but because ceasing to be blue would not make it cease to be a triangle. As such, accidental properties allow for exceptions. There is considerable philosophical debate about what properties (if any) are essential. Less metaphysically, there can be good faith debates about whether something is an exception to a general rule. If someone provides a reason why the general rule should apply to an apparent exception, then they could avoid committing this fallacy. After all, if the apparent exception is shown to not be an exception, then the rule would reasonably apply.

Making an inference from an essential property would not be an error. You can think of this as like drawing an inference from a definition that specifies the necessary qualities of a thing. For example, inferring that a specific triangle has three sides because triangles necessarily have three sides would be good reasoning. After all, being a triangle entails (with certainty) having three sides.

Treating an accidental property as an essential property and making this sort of inference would be an error. For example, while most mammals lack pouches, lacking a pouch is not an essential property of mammals. So, to infer that a marsupial lacks a pouch because it is a mammal would involve this sort of error.

The fallacy can occur in cases literally involving rules (such as laws) or cases in which the rule is a bit more metaphorical.

Defense: The defense against this fallacy is to consider whether the case at hand is an exception to the general rule before accepting that the rule applies. This fallacy can be self-inflicted but can also be used offensively by intentionally applying the general rule and endeavoring to conceal the fact that it is being applied to an exception.

Example #1

“According to the Constitution, people have a right to privacy. John beat his wife in private, so to arrest him for that would violate his right to privacy. So, he should not be arrested.”

Example #2

Jane: “Please stop posting lies about me and my store in your blog. They are hurting my business and I am losing customers.”

Jim: “Like hell I will. I know my rights and I have a right to free expression!”

Jane: “Then I will have to sue you.”

Jim: “Go right ahead. You’ll never win. Freedom of the press, baby cakes. That means I am free to write whatever I want and there is nothing you can do about it.”

Example #3

Premise 1: Birds fly.

Premise 2: Penguins are birds.

Conclusion: Therefore, penguins fly.

Ad Hominem

Also Known as: Ad Hominem Abusive, Personal Attack

Description:

Translated from Latin to English, “ad Hominem” means “to the man.” Some translate it as “against the man” while others prefer “to/against the person.”

The ad Hominem is a general category of fallacies in which a claim or argument is rejected based on a claimed irrelevant negative feature of the person presenting the claim or argument. This fallacy usually involves two steps. First, an attack is made against the character of person making (or reporting) the claim, their circumstances, or their actions is made. Second, this attack is taken to be evidence against the claim or argument. This type of fallacious reasoning has the following form:

Premise 1: Person A makes claim (or argument) X.

Premise 2: Person B makes an attack on person A.

Conclusion: Therefore, A’s claim is false (or A’s argument is bad).

The reason why an Ad Hominem (of any kind) is a fallacy is that the character, circumstances, or actions of a person do not (in most cases) have a bearing on the truth or falsity of the claim being made (or the quality of the argument being made).

This fallacy and its family can be very effective as persuasive tools. After all, there is a psychological tendency to disbelieve a person who is seen as having negative qualities or to assume that they must be reasoning badly. This fallacy can be self-inflicted and can also be weaponized to be used against a target. Political advertisements often feature Ad Hominem attacks and the claims made are sometimes fabrications.

While there are many variations of Ad Hominem fallacies, what matters the most is that an Ad Hominem is being committed rather than being overly worried about what specific type it might be. In some cases, it will be clear which variant is being used but in other cases it might not be evident.

The qualities or circumstances of a person can, however, be relevant to evaluating their credibility. If a person has legitimate credibility, then it can be reasonable to accept relevant claims based on their credibility. This sort of credibility is discussed under the Appeal to Authority. If a person lacks credibility, then this can provide a good reason to be skeptical of their claims. For example, if a person is known to be dishonest, then it is reasonable to be careful before accepting a claim they make. But their dishonesty does not prove that any particular claim they are making must be false.

Defense: The main defense against this fallacy is to consider whether a criticism targets a claim (or argument) or some quality of the person making it. If the target

is the person and you are supposed to reject their claim or argument because of some attack against them, then an Ad Hominem fallacy is being used. It is also worth considering that Ad Hominem fallacies can and often are based on untrue claims made in bad faith about the target. But whether the negative claims are true or false is not relevant to whether the person's claim is true or whether their argument is good.

Example#1:

Bill: "I believe that abortion is morally wrong."

Dave: "Of course you would say that you're a priest."

Bill: "What about the arguments I gave to support my position?"

Dave: "Those don't count. Like I said, you're a priest, so you have to say that abortion is wrong. Further, you are just a lackey to the Pope, so I can't believe what you say."

Example#2:

John: "Sally was saying that people shouldn't hunt animals or kill them for food or clothing. She also..."

Wanda: "Well, Sally is a sissy crybaby who loves animals way too much."

John: "So?"

Wanda: "That means she is wrong about that animal stuff. Also, if we weren't supposed to eat them, they wouldn't be made of meat."

Example#3:

Bill: “Gerald says that climate change is real.”

Sally: “Ugh, that guy is such a creeper. I bet he is just saying that to try to hit on people.”

Bill: “So you think he is wrong?”

Sally: “Yes. Creeper neckbeard wrong. Which is the most wrong of the wrongs.”

Example#4:

Bill: “Samuel says that climate change is not real.”

Sally: “Ugh, that guy is such a jerk. I bet he is just saying that because his YouTuber idol says the same thing.”

Bill: “So you think he is wrong?”

Sally: “Yes. Jerk wrong. The most wrong of the wrongs.”

Example #5:

In a school debate, Bill claims that the President’s economic plan is unrealistic. His opponent, a professor, retorts by saying “the freshman has his facts wrong.”

Example #6:

“This theory about a potential cure for cancer has been introduced by a doctor who is a known lesbian feminist. I don’t see why we should extend an invitation for her to speak at the World Conference on Cancer.”

Example #7:

“Bill says that we should give tax breaks to companies. But he is untrustworthy, so it must be wrong to do that.”

Example #8:

“That claim cannot be true. Dave believes it, and we know how morally repulsive he is.”

Example #9:

“Bill claims that Jane would be a good treasurer. However, I find Bill’s behavior offensive, so I’m not going to vote for Jill.”

Example #10

“Jane says that drug use is morally wrong, but she is just a goody-two shoes Christian, so we don’t have to listen to her.”

Example #11

Bill: “I don’t think it is a good idea to cut social programs.”

Jill: “Why not?”

Bill: “Well, many people do not get a fair start in life and hence need some help. After all, some people have wealthy parents and have it easy. Others are born into poverty and...”

Jill: “You just say that stuff because you have a soft heart and an equally soft head.”

Ad Hominem: Accusation of Bigotry

Also Known As: You're the Racist!

Description:

The Accusation of Bigotry is a rhetorical tactic in which a critic of bigotry is accused of being the real bigot. In most cases, the bigotry is racism and the rhetorical response to criticism is an accusation that the critic is the real racist. When this mere accusation of bigotry is taken as evidence for a conclusion, then a fallacy of reasoning has occurred. It has the following general form:

Premise 1: Person A makes criticism C about bigotry or an (alleged) bigot.

Conclusion: Person A is a bigot because of C.

This is fallacious reasoning because it does not follow that a person is a bigot merely because they have criticized bigotry or an (alleged) bigot. This error can be illustrated by using an analogy to corruption:

Premise 1: Person A makes criticism C about an aspect of corruption or an (allegedly) corrupt person.

Conclusion: Person A is a corrupt person because of criticism C.

Being critical of corruption or a corrupt person does not make you corrupt. While a corrupt person could be critical of corruption or another corrupt person, their criticism is not evidence of corruption. Likewise, being critical of bigotry or an (alleged) bigot does not prove that the critic is a bigot.

A variant of this fallacy is aimed at fallaciously refuting the criticism through an accusation that the critic is the real bigot. It has the following form:

Premise 1: Person A makes criticism C about bigotry or an alleged bigot.

Premise 2: Person A is a racist because of C.

Conclusion: Criticism C is false.

This is a clear Ad Hominem attack: even if A is a bigot, this has no bearing on the truth of C. Another analogy to corruption shows the error in this reasoning.

Premise 1: Person A makes criticism C about an aspect of corruption or corrupt person R.

Premise: Person A is a corrupt person because of C.

Conclusion: Criticism C is false.

This is bad logic. If it were not, anyone who criticized corruption would always be wrong and this would be an absurd result. As such, it is clear why this fallacy is a fallacy.

A third variant of this fallacy is used to fallaciously argue that an (alleged) bigot is not a bigot:

Premise 1: Person A makes criticism C about (alleged) bigot B

Premise 2: Person A is a bigot because of C.

Conclusion: B is not bigot.

This is bad reasoning because even if person A were a bigot, it would not follow that B is not. Once again, consider an analogy with corruption:

Premise 1: Person A makes criticism C about corrupt person B.

Conclusion: Person A is a corrupt person because of C.

Conclusion: Person B is not corrupt.

Again, the badness of this reasoning is evident: if it were good logic, any accusation of corruption would be automatically false. Despite the fallaciousness of this sort of reasoning, the tactic is commonly used and is often appealing to some people. Given that it has no logical force, it must gain all its influence from

psychological force. I will offer a brief explanation of this using the specific context of racism. Readers who are triggered by discussions of racism should consider skipping ahead to the Defense section.

In the United States criticisms of and allegations of racism most often involve white Americans. For example, criticisms of white supremacy in the United States are aimed at white Americans. As another example, criticism of historical racism in America usually focuses on slavery and the mistreatment of the indigenous people. Since American slavery was almost exclusively white Americans owning Black Americans, these criticisms will tend to be aimed at white Americans. In the case of the mistreatment of indigenous people, this was mostly inflicted by white Americans. Today, most criticisms of racism focus on racism on the part of white Americans because this is the most common form of racism. As you might have noticed, the pattern is that most criticisms of racism and racists in the United States will be aimed at white Americans. One obvious and undeniable reason for this is that white Americans are a numerical majority. But there is also the character of American racism. While a focus on white racism would thus be expected, this can also be exploited to fuel this fallacy. I will use an example of teaching about slavery to illustrate how this fallacy is often used.

American slavery was predominantly a system in which white Americans owned Black people. As such, most criticisms of slavery will focus on the white slave owners. Operating in bad faith, a person can claim that such criticism is racist

because it is criticism focused on white people. That is, it is falsely claimed that white people are being attacked simply because they are white. The fallacy is then used by attacking the critic as being “the real racist” and the criticism is rejected, etc. However, criticizing white slave owners is not criticizing them because they are white, it is criticizing them because they were slave owners. That this criticism is not racist can be shown with, as you probably guessed, a look at corruption.

Like most Americans, I learned about various infamous scandals and corruption cases, such as the **Teapot Dome Scandal**, in grade school. My teachers were, I recall, generally critical of the corrupt behavior. But it would be absurd to say that this proved my teachers were corrupt and disproved their criticism. The matter of corruption can also be used to directly illustrate how criticism of white people like me is, obviously enough, not automatically racist.

These historic scandals mostly involved white Americans for two obvious reasons. The first is that white Americans were the majority, hence most scandals would involve white Americans. The second is that white Americans dominated government and business positions in which they could engage in such scandals. As such, criticisms of these cases would predominantly criticize white Americans. But it would be absurd to infer that such criticisms *must* be racist and that the critic is “the real racist.” This is because the criticism for this corruption is not because those involved were white, but because they engaged in corrupt behavior. Likewise, when someone is critical of a racist for being racist, this does not entail that the critic is a

racist. It also does not entail that the critic is not a racist, but evidence for that would be needed.

This fallacy does sometimes get a psychological boost from the way the criticism is expressed and in some cases the criticism can sound (or even be) bigoted. For example, if a critic of white supremacy is seen as taking all white Americans to be white supremacists, then this can create the impression that the critic is bigoted. And this impression might be true. But, as noted above, even if a critic is a bigot, it does not follow that their criticism is not true. I certainly do not deny that any human can be bigoted.

As another example, criticism might be seen as harsh and confrontational so that people can feel that they are being attacked simply for being in a group, even though this is not the case.

As a final example, people belonging to the same group as those being criticized can also feel that they are being attacked, even if the critic is careful to differentiate between bigots and non-bigots and is careful to use neutral language. These feelings are usually encouraged by those using this fallacy.

This fallacy can be used to start a Red Herring by switching the issue from the original criticism to the new issue of whether the critic is a bigot. This can be an effective distraction tactic and a failure to respond to the accusation can provide an opening for an Appeal to Silence.

Defense: The main defense against this fallacy is like the defense against any Ad Hominem: even if the critic is a bigot, it does not disprove their criticism. When this fallacy is used in bad faith, which is usually the case, it can also be useful to expose this bad faith usage. While arguing in bad faith does not prove that a person's claim is false or that their argument is bad, exposing bad faith can help undermine the psychological force of a fallacy. But since this fallacy is often used as Red Herring to switch to the issue of whether the critic is a bigot, you also need to be on guard against that tactic.

Example #1

Teacher: "The practice of slavery in the United States was characterized by predominant white ownership of Black enslaved persons. In general, this practice was brutal and..."

Student: "Were there any Black slave owners?"

Teacher: "Yes. The best known is probably **William Ellison**."

Student: "If there were Black slave owners, why are you being so critical of white people?"

Teacher: "I am being critical of slavery. But, as I said, most slave owners were white and the enslaved people were Black. Ellison didn't own white people."

Student: "Well, I'd say that you are the real racist."

Teacher: "Why?"

Student: "Because you are attacking white people."

Teacher: "I'm being critical of slavery. I think Ellison was also wrong to own people."

Student: "That is just what a racist would say when accused of racism. I'm going to tell my parents you hate white people."

Teacher: "I don't get paid enough for this."

Example #2

Ted: "White Americans are the worst. I mean slavery..."

Karen: "Hey, I never owned slaves!"

Ted: "I know, but you benefit from the legacy of slavery. Also, you benefit from white privilege."

Karen: "Hey, I worked for my degree, and I work hard at my job."

Ted: "I'm not denying that, although the fact that your dad is the CEO of the company where you work probably didn't hurt. And that company has quite the history of racism."

Karen: "Well, I think you are the real racist! Attacking me for being white!"

Ted: "What about my criticisms?"

Karen: "Like I said, you are the real racist. I am the victim here."

Example #3

Tucker: “These so-called feminists are attacking men for their alleged toxic masculinity. This is just attacking men for being men. So, who are the real sexists? The women. So much for all their toxic masculinity talk. Also, you should **tan your testicles.**”

Ad Hominem: Accusation of Hate

Description:

This fallacy is committed when it is inferred that a claim must be true because someone who disbelieves the claim is accused of hating the person who made the claim. This fallacy has this form:

Premise 1: Person A rejects Person B’s claim C.

Premise 2: Person A is accused of hating B.

Conclusion: Claim C is true.

That this is bad reasoning can be shown by the following example:

Premise 1: Dave rejects Adolph’s claim that $2+2=7$.

Premise 2: Dave hates Adolph.

Conclusion: So, $2+2=7$.

While hating someone would be a biasing factor, this does not disprove the

(alleged) hater's claim. That said, it is reasonable to consider a person's biases when assessing their credibility. If person A does hate person B, then this might bias them against B, causing them to unreasonably reject B's claim (perhaps due to an Ad Hominem fallacy). But even if a person is biased, it does not follow that they *must* be wrong. To make that inference would be a case of an Ad Hominem. While the fallacy can correctly be seen as a type of Ad Hominem, it is used often enough to warrant its own entry.

This fallacy can have great psychological force. If someone believes another person hates someone they like, they will tend to dislike (perhaps even hate) that person. This dislike (or hate) can influence them enough that they can fall victim to this fallacy. The fallacy is often intentionally used in politics to get the audience to believe untrue claims and is, ironically, often fueled by the hate the audience feels. In such cases, they are believing a claim because they hate the person rejecting the claim because they think that person hates someone they like.

Defense: The main defense against this fallacy is to remember that just because someone (allegedly) hates someone else, it does not follow that they are wrong when they reject a claim made by the target of their (alleged) hate. Because hate is a powerful emotion, this can be a difficult fallacy to defend against.

Example#1

Television Host: “The left has been critical of the president’s claim that the latest pandemic can be stopped by playing loud music to destroy the virus. But we need to remember that the left hates the president and will reject anything he says. I, for one, will be cranking my music up.”

Example #2

Television Host: “The right has been critical of the president’s claim that climate change can be fixed by banning hamburgers. But we need to remember that the right hates the president and will reject anything he says. I, for one, will not be eating hamburgers. I was already not doing that, but if I had been, I would stop now.”

Example #3

Sam: “The oil companies claim that they are not contributing significantly to climate change.”

Ted: “Well, the climate scientists say otherwise.”

Sam: “That is because they hate capitalism in general and oil companies in particular.”

Ted: “So they are wrong?”

Sam: “Of course.”

Example #4

Sam: “So, I heard this YouTuber claim that these supposedly woke companies are just in it for the money.”

Ted: “Well, this other YouTuber says that is not true.”

Sam: “That is because they are anti-woke and hate anyone who is woke.”

Ted: “So they are wrong?”

Sam: “Of course.”

Ad Hominem, Circumstantial

Description:

A Circumstantial ad Hominem is a fallacy in which an attack on a person’s circumstances (such as their religion, political affiliation, ethnic background, etc.) is substituted for evidence against a claim. There is a more specific version in which a claim is attacked by asserting that the person asserting the claim is doing so only from self-interest. The fallacy has the following forms:

Form 1

Premise 1: Person A makes claim X.

Premise 2: Person B makes an attack on A’s circumstances.

Conclusion: Therefore, X is false.

Form 2

Premise 1: Person A makes claim X.

Premise 2: Person B asserts that A makes claim X because it is in A’s self-interest to claim X.

Conclusion: Therefore, claim X is false.

This is a fallacy because a person's self-interest or circumstances have no bearing on the truth or falsity of the claim being made. While a person's self-interest does give them a motive to support certain claims, the claims stand or fall on their own merits.

A person's circumstances (religion, political affiliation, etc.) do not affect the truth or falsity of their claims. To use a silly example: "Bill claims that $1+1=2$. But he is a Republican, so his claim is false." While that reasoning is absurd, it is reasonable to consider the possibility of bias.

There are times when it is prudent to be suspicious of a person's claims when there is evidence that they are biased. For example, if a tobacco company representative claims that tobacco does not cause cancer, it would be prudent to not simply accept the claim on their word. This is because the person has a motivation to make the claim, whether the claim is true or not.

However, the mere fact that the person has a motivation to make the claim does not make it false. For example, suppose a parent tells her son that sticking a fork in a light socket would be dangerous. Simply because she has a motive to say this does not make her claim false.

A person's self-interest and other biasing factors can affect their credibility, and these are reasonable to consider when making such an assessment. For example, if

you learn that a once seemingly credible expert has been receiving money from renewable energy lobbying firm, then this would reduce their credibility. But it would not prove that what they have said about renewable energy is false. This is discussed in some detail in the Appeal to Authority.

Defense: The defense against this fallacy is to distinguish between legitimate concerns about a person's credibility due to biasing factors and mere attacks on their circumstances. Even if a person is biased, it does not follow that their claim is false. This fallacy can be both self-inflicted and used against you by others.

Example #1

“She asserts that we need more military spending, but that is false, since she is only saying it because she is a Republican.”

Example #2

“I think that we should reject what Father Jones has to say about the ethical issues of abortion because he is a Catholic priest. After all, Father Jones is required to hold such views.”

Example #3

“Of course, the Senator from Maine opposes a reduction in naval spending. After all, Bath Ironworks, which produces warships, is in Maine.”

Example #4

“Bill claims that tax breaks for corporations increases development. Of course, Bill is the CEO of a corporation.”

Example #5

Kelly: “I’m buying solar panels. While they cost up front, I’ll be getting free electricity. I’ll also help reduce climate change. I mean by some insanely small fraction, but every bit helps.”

Ted: “What gave you the idea?”

Kelly: “Well, my electrical engineering professor was talking about solar in class. She sold me on the idea.”

Ted: “You mean Dr. Lee?”

Kelly: “Yeah.”

Ted: “You know that these big solar companies help fund her research. You know they give her all those solar panels and batteries.”

Kelly: “Damn. No solar for me! All that stuff she said must be crap.”

Ad Hominem, Demonic

Description:

As noted above, an Ad Hominem is a general category of fallacies in which a claim or argument is rejected based on some irrelevant fact about the person making the claim or argument. The demonic version of this fallacy involves two steps, the first of which distinguishes the demonic from the normal ad hominem. First, the

target of the Ad Hominem is demonized. Demonizing is portraying the target as evil, corrupt, dangerous, or threatening.

This is usually done in three ways: selective demonizing, hyperbolic demonizing, or fictional demonizing. Selective demonizing is when a true negative fact about the target is focused on to the exclusion of other facts. Hyperbolic demonizing involves greatly exaggerating a negative fact about the target. Fictional demonizing is simply lying about the target. Second, this attack is taken to be evidence against the claim or argument in question.

The demonic ad hominem has the following form:

Premise 1: Person A makes claim X.

Premise 2: Person B demonizes person A.

Conclusion: Therefore, A's claim is false (or A's argument fails).

This is a fallacy because demonizing a person has no bearing on the truth of their claim or the quality of their argument. In addition to the logical error, a Demonic Ad Hominem also suffers from the fact that demonizing, by definition, involves deception. At the very least, demonizing involves taking facts out of context and often involves outright falsehoods.

A Demonic Ad Hominem can have considerable psychological force since demonizing typically goes beyond the usual Ad Hominem attacks and can trigger

stronger emotions.

A common tactic is to demonize the target using stereotypes the audience already accepts and by appealing to their biases, fears, and prejudices. Such an audience will be inclined to accept the demonization as true, and their emotional response can lead them to accept the fallacious reasoning.

Defense: There are two main defenses against this fallacy. One is to be aware it is an Ad Hominem. Even if the demonizing claims were true, the reasoning would still be flawed: true but irrelevant negative claims about a person, no matter how terrible, do not disprove a claim or show an argument is flawed. The other is to be especially critical about extremely negative claims and only accept them if they are adequately supported by evidence.

This fallacy can be self-inflicted since a person can convince themselves that the alleged terrible qualities or actions of a person proves that person's claim is not true. The fallacy can also be inflicted on others and is a staple in many political debates and advertising. It can be especially hard to defend against this fallacy when you dislike the person targeted for demonizing. As would be expected, this fallacy can be used to cause dislike in the target and thus incline people to believe the attack because of dislike manufactured in bad faith.

Example #1

Steve: “The president says that we should use more renewable energy and less foreign oil.”

Ted: “Yeah. Well, that guy really likes the young kids. If you know what I mean.”

Steve: “Are you saying he is a pedophile?”

Ted: “Oh, I’m just asking questions here. But I think we know that the answers are.”

Steve: “So you think he is wrong about energy?”

Ted: “Oh yes. Definitely. I mean, someone who is that way is going to be wrong about everything. Drill, baby drill!”

Example #2

Steve: “The president says that we should use less renewable energy and drill for more oil and gas in the United States.”

Ted: “Yeah. Well, that guy really likes the young kids. If you know what I mean.”

Steve: “Are you saying he is a pedophile?”

Ted: “Oh, I’m just asking questions here. But I think we know that the answers are.”

Steve: “So you think he is wrong about energy?”

Ted: “Oh yes. Definitely. I mean, someone who is that way is going to be wrong about everything. Solar and wind baby! Solar and wind!”

Ad Hominem: Leave It

While the Leave It fallacy can be seen as a type of Ad Hominem in that it involves rejecting a person’s or group’s claim based on an irrelevant attack, it has two distinguishing features.

First, the person is attacked because they are being critical of something. This attack often involves asserting the critic is motivated by a secret association or agreement with a disliked group. Second, rather than refuting the criticism, the attacker only tells the target to “leave.” There is, however, the implied conclusion that the person told to leave is thus wrong in their criticism. The fallacy has the following general form:

Premise 1. Person A makes critical claim X about Y.

Premise 2. Person B attacks A (usually for an alleged association/agreement with a disliked group G) and says that if A does not like X about Y, then they should leave Y (usually for G).

Conclusion: Therefore, X is false.

This argument is a fallacy because attacking a person and telling them to leave does not prove their criticism is false. The fallacy draws much of its psychological power from the cognitive bias of groupthink and ingroup bias. Groupthink is the tendency to try to minimize conflict and form a consensus by suppressing dissent and avoiding outside influences. Ingroup bias is the tendency to see one’s own group as superior and outsiders as inferior. Someone who is critical of a group can easily be presented as a threat and people in that group can be motivated to reject that criticism out of anger and dislike. These biases do not, of course, have any logical

weight.

Care should be taken to not confuse the Leave It fallacy with the False Dilemma “love it or leave it.” The idea in this False Dilemma is that one has just two options: to love something (typically a country) utterly and never criticize it or one must leave it. There are obviously many other options. The difference between the two is that the Leave It fallacy involves using an attack on the person to “argue” that their criticism is false while the False Dilemma “love it or leave it” is intended to silence criticism by wrongly asserting that one has only the two choices of loving or leaving. It can often be hard to distinguish the two because people often combine them and those attempting these fallacies are usually not meticulous in crafting their bad reasoning.

Defense: The defense against this fallacy is to try to reason through any negative feelings one might have and ask if any relevant refutation of the criticism has been offered. If it has not, then the “argument” gives no reason to reject that criticism. This does not mean that the criticism is therefore true—it just means the fallacy does not provide any reason to reject it.

Example #1

“These woke liberals claim that America still has systematic racism. But their brains have been corrupted by the foreign philosophies of the **Frankfurt School** and

Cultural Marxism. If they hate America so much, they should just leave!”

Example #2

“These conservatives claim that America has Marxist elements. But their brains have been corrupted by the foreign philosophies of fascism and Nazism. If they hate America so much, they should just leave!”

Ad Hominem: Poisoning the Well

Description:

This fallacy occurs when an attempt is made to discredit what a person might later claim by presenting unfavorable information (true or not) about the person. It is part of the Ad Hominem family and can be seen as a pre-emptive Ad Hominem. The reasoning has the following form:

Premise 1: Unfavorable information (true or false) about person A is presented.

Conclusion: Therefore, future claims made by person A will be false.

This is poor reasoning for the same reason that all Ad Hominem fallacies are fallacies: attacking a person does not refute their claims (or arguments), whether they have already been made or will be made in the future. The following silly example illustrates the bad reasoning:

Sam: “Donald has no ethics and lies even when the truth would serve him better.

You just wait, the next thing he says will be a lie.”

Mark: “That makes sense.”

Donald: “I was talking to this smart guy the other day and he said triangles have three sides. Always. You know what, he is right. They always do!”

Mark: “Aha, triangles do not have three sides! I knew that geometry teacher was a liar!”

The person making the attack hopes that the unfavorable information will bias listeners against the target and that they will reject claims they might make in the future. In most cases, the attack will be aimed at a category of claims the person might make rather than anything they might happen to say. For example, a Poisoning the Well attack on a judge might focus on what they will say in an upcoming ruling.

As with the other Ad Hominems, this fallacy can have considerably psychological force but has no logical force. It is easy to mistake Poisoning the Well for other Ad Hominems because it will often duplicate these other fallacies with one critical difference. Poisoning the Well aims at future claims rather than claims that have been made. A person can, of course, combine fallacies to attack claims that have been made and claims that will be made.

Being, in effect, a pre-emptive Ad Hominem, this fallacy is often used when it is

not known for sure what the person will say. For example, a bad faith debater who is speaking first might use this fallacy against their opponent. It is also often used in cases in which the target is unable to reply in real time. For example, a pundit might use this fallacy in their YouTube video or in their TV broadcast.

This fallacy can be effective for the same reasons that other Ad Hominem can be effective. It also has the advantage of being a pre-emptive attack. If used effectively against a target, they will start at a disadvantage in that they will need to overcome the pre-emptive attack before making their positive case. People are also sometimes inclined to believe the first thing they hear, especially if it is something negative.

Reasonable criticisms of a person's credibility might be mistaken for Poisoning the Well (or another Ad Hominem). Properly challenging a person's credibility involves raising reasonable concerns that are relevant to the reliability and accuracy of their claims. The Appeal to Authority includes a discussion of some factors relevant to a person's credibility. Proper credibility challenges also do not include the inference that a person's claim is false simply because of the challenge to their credibility.

Defense: As with its fellow Ad Hominem, the main defense against this fallacy is remembering that an attack on a person does not refute their claims (or arguments).

Example #1:

“Don’t listen to him, he’s a scoundrel.”

Example #2:

“Before turning the floor over to my opponent, I ask you to remember that those who oppose my plans do not have the best wishes of the university at heart.”

Example #3:

Sally: “Eric is such a decadent wastrel.”

Ann: “A what?”

Sally: “A good-for-nothing. A wasteful person. Eric is also decadent.”

Ann: “He sounds awful.”

Sally: “He is. But he also has a certain charm. But don’t listen to him, especially about politics. Everything that comes out of his mouth is a lie.”

Eric: “Hello, ladies. I was just discussing that bill about reducing regulations on businesses. Such a good idea!”

Ann: “Humph. I think that is a terrible idea.”

Eric: “Why? Will you listen to my reasons?”

Ann: “Get away you decadent weasel!”

Eric: “What?”

Example #4

Before class

Bill: “Boy, that professor is a real jerk. I think he is some sort of Eurocentric fascist.”

Jill: “Yeah.”

During Class:

Prof. Jones: “...and so we see that there was never any ‘Golden Age of Matriarchy’ in the ancient world.”

After Class:

Bill: “See what I mean?”

Jill: “Yeah. There must have been a Golden Age of Matriarchy, since that jerk said there wasn’t.”

Ad Hominem, Positive

Description:

The Positive Ad Homimen is, in effect, a reverse Ad Hominem. A standard Ad Homimem is a fallacy in which a claim (or argument) is rejected based on an attack on person presenting the claim or argument. A Positive Ad Hominem occurs when a claim or argument is accepted based on an irrelevant positive quality of the person making it. Typically, this fallacy involves two steps. First, something positive (but irrelevant) about the person making the claim, their circumstances, or their actions is made. Second, this is taken to be evidence for their claim or that their argument is good. This fallacy has the following form:

Premise 1: Person A makes claim or argument X.

Premise 2: Person B notes a positive (but logically irrelevant) feature of A.

Conclusion: Therefore, A's claim is true, or A's argument is good.

The reason why an ad Hominem (of any kind) is a fallacy is that the character, circumstances, or actions of a person do not (in most cases) have a bearing on the truth or falsity of the claim being made. Like the negative Ad Hominem, the Positive Ad Hominem relies on psychological force. Just as (alleged) negative qualities can incline people to reject claims made a person, (alleged) positive qualities can incline people to accept claims. People often commit this fallacy in the context of a Fallacious Appeal to Authority when they mistake irrelevant positive qualities as evidence of expertise. For example, people tend to listen to celebrities because they are famous, rich, or well liked. But none of these qualities are relevant to being a credible expert. A more subtle error is mistaking expertise in one area (a positive quality) as conferring expertise in other areas. For example, a famous expert on physics might be believed when they speak about philosophy, even though they have no expertise in the field.

As with the negative Ad Hominem, a person can lie when making a Positive Ad Hominem, thus engaging in bad faith argumentation. For example, a person might falsely attribute positive qualities to themselves or a politician they like to persuade others to believe them. This fallacy can be inflicted on others in good or bad faith or self-inflicted. In good faith cases, the person committing the fallacy believes that

the subject has the good qualities and is ignorant of the fallacy. In bad faith cases, the person using the fallacy knows it is a fallacy or is lying about the good qualities (or both). This fallacy can also be combined with the Steel Person.

There are cases when facts about a person are relevant to assessing that person's credibility. There are also cases in which non-fallacious arguments can be made based on a person's relevant positive qualities. For example, it would not be a fallacy to accept an expert's claim in their field if they are educated in the field, unbiased, and experienced in the field. For a discussion of when positive qualities are relevant to accepting a claim, see the Appeal to Authority.

Defense: As with any Ad Hominem, the defense is to keep in mind that the irrelevant qualities of the person making a claim or argument are irrelevant to the truth of their claim or the quality of their argument. It is especially important to be on guard in cases where you respect, like or agree with the person.

Example #1

"That Glenn is such a nice man and always so passionate about what he says. So, he must be right that we should buy gold."

Example #2

Sally: "What he said was ridiculous. Why do believe him?"

Janet: “Honey, with a butt like that, how can he be wrong?”

Sally: “Well, he was certainly talking out of it.”

Example #3

“I had some doubts about him, but then I realized that he was wearing an expensive suit. Plus, he had that British accent. There is no way he could be lying about this deal, so I am sure it will be a great investment!”

Example #4

Henry: “That guy doesn’t seem to know what he is talking about.”

Jay: “Well, he is a very successful businessman; he says he has made millions in real estate. Plus, he tells it like it is.”

Henry: “So you think he is right that the United States should switch to renewable energy?”

Jay: “Yes, I mean he is rich. So, I am sure he is right about solar power.”

Ad Hominem: Refutation by Envy

Also Known As: Accusation of Envy, Sour Grapes Fallacy

Description:

This fallacy occurs when a criticism is rejected by accusing the critic of being envious. Presented as an argument, it has the following form:

Premise 1: Person P makes critical claim C about X.

Premise 2: P is accused of envy (typically relating to X).

Conclusion: Therefore, claim C is false.

This is a fallacy because whether a person is envious or not has no bearing on the truth of the claims they make. Even if a person were entirely motivated by envy, it does not follow that the criticisms they make are thus in error. The following example should nicely illustrate that this “reasoning” is flawed:

Sam: “When tyrants oppress their people and commit genocide, they are acting wrongly.”

Sally: “Why you are just envious of tyrants. So, you are wrong. They are acting justly and morally.”

Another, absurd example, involves math:

Cool Joe: “ $2+2 = 7$.”

Mathematician Mary: “That is wrong; $2+2=4$.”

Cool Joe: “You are just envious of my being so cool. And rich. And handsome. So, you are wrong. $2+2 = 7$.”

Cool Cathy: “Oh, Joe, you are so right, and Mary is so wrong. Work through your envy and maybe you’ll get a man someday. Or whatever.”

This fallacy is a type of ad hominem because it involves rejecting a person's claim or argument based on an irrelevant attack on that person. Since it lacks logical force, it relies on psychological force to persuade the target audience. A likely source of this force is the classic fable of the **Fox and the Grapes**:

Driven by hunger, a fox tried to reach some grapes hanging high on the vine but was unable to, although he leaped with all his strength. As he went away, the fox remarked 'Oh, you aren't even ripe yet! I don't need any sour grapes.' People who speak disparagingly of things that they cannot attain would do well to apply this story to themselves.

Because of this tale, people can be inclined to think that those accused of envy are like the fox calling the grapes sour because they cannot attain what they want. Hence, they might fall for this fallacy. But, as noted above, even if a person is envious, they might still be right: the envy of the fox does not prove that the grapes are not sour. Because of this common view of envy, this fallacy can be committed in good faith: the person using it would think the accused is envious and would also be ignorant of this fallacy. The fallacy can also be committed in bad faith, this would involve knowingly using the fallacy and can often include a bad faith accusation of envy.

Defense: To avoid committing or falling for this fallacy, be sure to remember that a person's motives for making a claim are irrelevant to the truth of that claim. These motives can be relevant to assessing a person's credibility. If there is reason to believe that someone is biased due to their envy, then you should consider this when assessing their credibility as a source. But their claims and arguments stand or fall on their own merits.

While this is a fallacy whether used in bad faith or not, it can also be useful to consider if the argument is being made in bad faith. One indicator is that the only evidence offered that the target is envious is their criticism; it is assumed that must be their motive because they are critical. While exposing bad faith does not prove that the person's claim is false or their argument fallacious, it can help undercut the psychological force of the fallacy.

Example #1

Larry: "I know that they are chasing eyeballs, but the media should be more critical of Elon Musk and his claims. Just because he is rich, it doesn't follow that he is an expert on AI, ethics, and the philosophical problem of the external world."

Jackie: "Hmm, I notice that you are always tweeting things you think are profound. Thirsty for attention much?"

Larry: "What?"

Jackie: "I'm just saying it is obvious why you are attacking Musk. Jealousy."

Larry: "I think you mean envy. I'd be jealous if I feared losing media attention to Musk."

Jackie: "Whatever. Your envy is so obvious."

Example #2

Karl: "Billionaires like Gates, Bezos, and Musk are a plague on the rest of humanity. They say they offer all this great stuff, but they do almost incalculable harm. They could still live better than kings while paying a fair share of taxes. They could also easily pay their workers a living wage and still be ultra-wealthy."

Iago: "I see right through you."

Karl: "What?"

Iago: "You are just mad that you are not rich like them. If you were rich, you'd not be saying any of the stupid stuff you say."

Example #3

Belinda: "So I saw that this...romance novel...or something...has sold millions of copies on Amazon. But it is so awful. The characters just one-dimensional stereotypes and the writing punishes the brain. The plot, what there is of it, seems to be just lifted from hundreds of other similar stories. It is beyond bad."

Penny: "Don't you publish your books on Amazon?"

Belinda: "Yes."

Penny: "How are your sales?"

Belinda: “I can’t quit my day job. Or my night job. Or my weekend job.”

Penny: “That explains it.”

Belinda: “Explains what?”

Penny: “Your ‘criticism.’ Classic sour grapes, Ms. Fox. And I don’t mean that you are hot.”

Example #4

Chet: “My critics have made all these false allegations that the products I share with you, my loyal listeners, do not work. But these lib fools are just envious of my success! Now, if you want your brain power enhanced so you can see through these liberal lies, buy my new Master Brain Mix; just \$30 a jar!”

Example #5

Chet: “My critics have made all these false allegations that the products I share with you, my loyal listeners, do not work. But these conservative fools are just envious of my success! Now, if you want your brain power enhanced so you can see through these conservative lies, buy my new Master Brain Mix; just \$30 a jar!”

Ad Hominem Tu Quoque

Also Known as: “You Too Fallacy”

Description:

This fallacy, which is a type of Ad Hominem, has two versions. The first occurs when it is concluded that a person’s claim must be false because it is inconsistent

with something else the person claimed. The second occurs when it is inferred that a person's claim must be false because it is inconsistent with their actions. The first version has the following form:

Premise 1: Person A made claim X.

Premise 2: Person A also made claim Y.

Premise 3: It is asserted that claim X is inconsistent with claim Y.

Conclusion: Therefore, X is false.

This fallacy might seem to have some logical appeal, especially since it (mis)uses the notion of logical consistency. Consistency and inconsistency are logical relationships between two (or more) claims. If two claims are consistent, then they can both be true (but both could be false) at the same time. For example, the claim that my water bottle has liquid in it and the claim that it has water in it are consistent: they can both be true.

If two claims are inconsistent, then while both could be false, they cannot both be true at the same time. As an example, the claim that my water bottle contains only water is inconsistent with the claim that it contains vodka. While both cannot be true, both could be false. The bottle could, for example, be empty. If you know that two claims are inconsistent, you know that at least one of them must be false. However, and this is the fundamental error of this fallacy, the inconsistency does not tell you which claim is false (and both could be false). As such, concluding that

a specific inconsistent claim must be false would be an error in logic. It would be good reasoning to conclude that at least one of the claims must be false if they are inconsistent but that is another pattern of reasoning that would look like this:

Good Reasoning About Inconsistency (not a fallacy)

Premise 1: Claim A and Claim B are inconsistent.

Conclusion: A or B (or both) is false.

There are also cases in which it is wrongly claimed that two claims are inconsistent, but this mistake (or intentional deceit) is distinct from this fallacy.

While it is less common, this fallacy can also be committed using contradictory claims rather than inconsistent claims. Two claims are contradictions if they both cannot be true at the same time, but both cannot be false at the same time. As an example, the claim that my water bottle is empty contradicts the claim that my water bottle contains something. One of these must be true and one must be false. As with inconsistent claims, knowing that two claims are contradictory does not automatically inform you which one is false. All you know is that one is true, and one is false.

The second occurs when it is inferred that a person's claim must be false because it is inconsistent with their actions. It has the following form:

Premise 1: Person A made claim X.

Premise 2: Person A does Y.

Premise 3: It is asserted that claim X is inconsistent with doing Y.

Conclusion: Therefore, X is false.

This reasoning is fallacious because failing to act in accord with one's professed belief does not show that the belief is false. A person who professes beliefs and then acts in ways inconsistent with them could be subject to moral judgement and they might be a hypocrite. But this would not disprove their claims.

This fallacy can have considerable psychological force. This is because people are usually expected to act in accordance with their professed beliefs. If someone does not do so, this might incline us to think they are lying. That is, because they seem to be lying about what they believe, we might wrongly infer that their claim is false. In some cases, a person can be lying about what they believe. For example, a person might say they believe that free speech is a right for everyone, but they do not and favor laws that silence people they dislike while protecting only those they like. While such deceit can be condemned on moral grounds, it does not prove that the person's claim is not true. Free speech, in this example, might be a right for everyone and the person would thus be a hypocrite or a liar.

In other cases, a person might really believe what they claim, but fail to follow their professed belief for any number of reasons. For example, someone might

believe (correctly) that exercise is good for their health, but they might lack the time or inclination to exercise. Their failure to run would not prove that exercise is not good for you, just that the person is not acting on their belief.

Defense: The defense against the first version of this fallacy is to keep in mind that while inconsistent claims cannot both be true, this inconstancy does not (by itself) show which claim is false. And both might be false. In the case of the second version, the defense is to remember that an inconsistency between a person's actions and their claim does not show that their claim must be false.

Example #1:

Bill: "Smoking is very unhealthy and leads to all sorts of problems. So, take my advice and never start."

Jill: "Well, I certainly don't want to get cancer."

Bill: "I'm going to get a smoke. Want to join me, Dave?"

Jill: "Well, I guess smoking can't be that bad. After all, Bill smokes."

Example #2:

Jill: "I think the gun control bill shouldn't be supported because it won't be effective and will waste money."

Bill: "Well, just last month you supported the bill and you said it would be effective.

So, I guess you're wrong now."

Example #3:

Peter: “Based on the arguments I have presented; it is evident that it is morally wrong to use animals for food or clothing.”

Bill: “But you are wearing a leather jacket and you have a roast beef sandwich in your hand! How can you say that using animals for food and clothing is wrong!”

Amphiboly, Fallacy of**Description:**

This fallacy occurs when a conclusion is drawn from a premise or premises that are ambiguous due to their grammatical structure. This fallacy has the following form:

Premise: Grammatically ambiguous premises are presented.

Conclusion: Claim C is drawn from these premises.

Amphiboly is ambiguity caused by grammatical structure. Something is ambiguous when it has two or more meanings, and the context does not make it clear which is intended. Some texts refer to amphiboly as syntactical ambiguity (as contrasted with semantic ambiguity). This sort of ambiguity can be used with humorous intent, as in the Groucho Marx line: “one morning I shot an elephant in my pajamas. How he got into my pajamas I’ll never know.”

Ambiguity is not itself a fallacy, but rather a lack of clarity in language (which might be intentional or accidental). The fallacy of amphiboly occurs when an inference is drawn from a premise or premises based on grammatical ambiguity.

While this fallacy is not seen very often, it does have a famous example involving King Croesus of Lydia. This example illustrates how a person can fall prey to the fallacy by drawing the conclusion they favor from a premise that is ambiguous.

Defense: As with all fallacies based on ambiguity, the main defense is being aware of the ambiguity. Until the ambiguity of the premises is resolved, the conclusion should be accepted. Even after the ambiguity is resolved, the argument should still be assessed; resolving the ambiguity does not entail that the argument will be good.

Example #1

King Croesus: “Oracle, if I go to war with Cyrus the King of Persia, then what will happen?”

Oracle of Delphi: “If Croesus went to war with Cyrus he would destroy a mighty kingdom.”

King Croesus: “Excellent! After I destroy Cyrus, I shall make many and generous offerings to the gods.”

Croesus ended up destroying his own empire.

Example #2

Roger: “Janet told Sally that she had made an error.”

Ted: “Wow, I’m impressed that Janet was willing to admit the error she made.”

Example #3

Lawyer: “Richard Jones left \$20,000 and his cat, Mr. Whiskerpants, to Sally Jones and Daniel Jones.”

Sally: “Looks like I get the money and you get that darn cat.”

Daniel: “What?”

Mr. Whiskerpants: “Meow.”

Anecdotal Evidence, Fallacy Of

Also Known as: Appeal to Anecdote

Description:

This fallacy is committed when a person draws a conclusion about a population based on an anecdote (a story) about one or a very small number of cases. The fallacy is also committed when someone rejects reasonable statistical data supporting a claim in favor of a single example or small number of examples that go against the claim. The fallacy is often considered a variation of Hasty Generalization. It has the following forms:

Form One

Premise 1: Anecdote A is told about a member M (or small number of members) of Population P.

Premise 2: Anecdote A says that M is (or is not) C.

Conclusion: Therefore, C is (or is not) true of Population P.

Form Two

Premise 1: Reasonable statistical evidence S exists for general claim C.

Premise 2: Anecdote A is presented that is an exception to or goes against general claim C.

Conclusion: General claim C is false

This fallacy is like Hasty Generalization in that a similar error is committed, namely drawing an inference based on a sample that is inadequate in size. One difference between Hasty Generalization and Anecdotal Evidence is that the fallacy of Anecdotal Evidence involves using a story (anecdote) as the sample. The more definitive distinction is that the second form of Anecdotal Evidence involves a rejection of statistical evidence for a general claim.

People often fall victim to this fallacy because stories and anecdotes usually have more psychological influence than statistical data. This persuasive force can cause people to infer that what is true in an anecdote must be true of the whole population or that an anecdote justifies rejecting statistical evidence. People often accept this

fallacy because they would prefer that what is true in the anecdote be true for the whole population (a form of Wishful Thinking). For example, a person who smokes might try to convince herself that smoking will not hurt her because her Aunt Jane smoked 52 cigars a day and lived, cancer free, until she was 95.

People also fall for this fallacy when the anecdote matches their biases (positive or negative) or prejudices. For example, a person who fears and dislikes immigrants might believe that immigrants are likely to commit crimes because of an anecdote they hear about an immigrant who committed a crime. A person who has a very favorable view of immigrants might be swayed by an anecdote about an exceptional immigrant and infer that most immigrants will be exceptional.

As the example suggests, this sort of poor reasoning can be used in the context of causal reasoning. In addition to cases involving individual causation (such as Jane not getting cancer) this poor reasoning is commonly applied to causal claims about populations. What typically occurs is that a person rejects a general causal claim such as smoking causes cancer in favor of an anecdote in which a person smoked but did not get cancer. While this anecdote does show that not everyone who smokes gets cancer, it does not prove that smoking does not cause cancer.

This is because establishing that C is a causal factor for effect E in population P is a matter of showing that there would be more cases of E if all members of P were exposed to C than if none were. Showing that there are some anecdotal cases in which members of P were exposed to C but did not show effect E does not show

that C does not cause E. In fact, that is what you should expect to see in most cases.

That said, the exceptions given in the anecdotes can provide a reason to be suspicious of a claimed causal connection, but this suspicion must be proportional to the evidence provided by the anecdote. For example, the fact that **Alan Magee survived a fall of 20,000 feet from his B-17 bomber in WWII** does show that a human can survive such a fall. However, it does not serve to disprove the general claim that falls from such great heights are usually fatal.

Anecdotes can also provide the basis for additional research. For example, the fact that some people can be exposed to certain pathogens without getting sick suggests that they would be worth examining to see how their immunity works and whether this could benefit the general population. As another example, the fact that people do sometimes survive falls from aircraft does provide a reason for investigating how this works and how this information might be useful.

Defense: The defense against the first version of this fallacy is to keep in mind that an anecdote does not prove or disprove a general claim. It is especially important to be on guard against anecdotes that have strong persuasive force, such as one that are very vivid or nicely line up with biases.

For the second version, the person committing it will ironically raise the red flag for this fallacy. They will admit that they are rejecting statistical evidence in favor of an anecdote. In effect, they are telling you to believe the one piece of evidence they

like in favor of the weight of evidence they dislike. To avoid inflicting this fallacy on yourself, be on guard against the tendency to confuse the psychological force of an anecdote with its logical force.

Example #1

Jane: “Uncle Bill smoked a pack a day since he was 11 and he lived to be 90. So, all that science and medical talk about smoking being bad is just a bunch of garbage.”

Example #2

John: “Oh no! That woman is bringing pit bull into the dog park! Everyone get their dogs and run away!”

Sally: “Oh, don’t worry. I know that people think that pit bulls are aggressive and that there are all these statistics about them being dangerous dogs.”

John: “Yeah, that is why I’m leaving before your monster kills my dog.”

Sally: “But look at how sweet my pit bull Lady Buttercup is—she has never hurt anyone. So, all that bull about pit bulls being aggressive is just that: bull.”

Example #3

Bill: “Hey Sally, you look a bit under the weather.”

Sally: “Yeah, I think I’m getting a cold. In the summer. In Florida. This sucks.”

Bill: “My dad and I almost never get colds. You should do what we do.”

Sally: “What is that?”

Bill: “Drink red wine with every meal. My dad said that is the secret to avoiding

colds. When I got old enough to buy wine, I started doing it.”

Sally: “Every meal? Even breakfast?”

Bill: “Yes.”

Sally: “Red wine goes with donuts?”

Bill: “It pairs perfectly.”

Ted: “That is baloney. I know a guy who did that and he had colds all the time.

Now, this other guy told me that having a slice of cheese with every meal keeps the colds away. I never saw him so much as sniffle.”

Sally: “Why not just have wine and cheese every meal?”

Example #4

Fred: “You are wasting time studying.”

George: “What? Why aren’t you studying? The test is going to be hard.”

Fred: “No need.”

George: “You’re not going to cheat, are you?”

Fred: “No, of course not! But I heard about this woman, Keisha. She aced the last test. She went to the movies and forgot to study. So, I’m going with the Keisha Method—I just need to pick a movie and my A is assured.”

Example #5

Tucker: “Did you hear that story about the immigrant who killed that student?”

Sally: “I did. Terrible.”

Tucker: “So, I bet you’ll change your stance on immigration. After all, they are

coming here to commit crimes and endangering Americans.”

Sally: “The statistics show otherwise.”

Tucker: “That is your opinion. That murder shows otherwise.”

Example #5

Sally: “Did you hear that story about the immigrant who saved ten Americans and is now attending medical school and law school at the same time?”

Tucker: “I did. Impressive.”

Sally: “So, I bet you’ll change your stance on immigration. After all, they are amazing people who will do great things.”

Anecdotal Evidence: Absence of Anecdote

Also Known As: Do You Personally Know Anyone?

Description:

This fallacy, a variant of Anecdotal Evidence, occurs when a general claim is rejected because the person making the claim *lacks* a personal anecdote that would support the claim. It has the following form:

Premise 1: Person A makes general claim C.

Premise 2: Person A does not have a personal anecdote that supports claim C.

Conclusion: Claim C is false.

This is a fallacy because a lack of a personal anecdote does not serve as evidence that a general claim is false. This fallacy is thus a variant of the Anecdotal Evidence fallacy. In Anecdotal Evidence, an anecdote is accepted as evidence against a general claim, and this usually involves an explicit rejection of statistical evidence. In the Absence of Anecdote, the error is to reject a general claim because of the lack of an anecdote. These are fallacious for similar reasons: an anecdote or lack of anecdote does not prove or disprove a general claim. One common variant of the Absence of Anecdote is the Do You Personally Know Anyone?. This can be used as a rhetorical device or a fallacious argument.

As a rhetorical device, it involves asking a version of the question “do you personally know anyone who X?” with the intention of getting “no” as the answer. This can be used in good faith when X does rarely occur or does not occur at all. But even when used in good faith, rhetoric proves nothing.

For example, a person who wants to protect sharks might try to address worries about shark attacks by asking the audience if anyone has been attacked by a shark. They are betting that no one has and hope this will make their audience more receptive to their **dull statistics showing that shark attacks are incredibly rare**. There is an obvious risk in using this rhetorical device since it can backfire if someone answers “yes.” Psychologically, people are influenced more by anecdotes, especially vivid ones. than by dull statistics, which underlies the fallacies of Anecdotal Evidence and Misleading Vividness. In the shark example, if someone

says a shark bit their arm off, this would tend to psychologically outweigh the statistical data about shark attacks in the minds of the audience. While the shark example shows a good faith use of this rhetorical device, it can also be used in bad faith.

When used in bad faith, the intention is to create the false impression that X is rare or even that it does not occur at all. It can also be used to create the false impression that X is not serious. For example, someone might ask on Facebook if anyone personally knows someone who died of a disease with the hope that this will create the impression that the disease is rare or not that serious (when the disease is not rare and is serious). This does run the risk of getting “yes” responses, which might be countered by accusations of lying or other Ad Hominem attacks. When used in bad faith, this rhetorical device is often upgraded to a fallacy, sometimes with an implied conclusion. As a fallacy, it has the following general form:

Premise 1: Person P asks audience A (which is not an adequate sample), “do you personally know anyone who X?”

Premise 2: (Person P assumes) Audience A’s answer is “no.”

Conclusion: Therefore, X is rare, does not occur or is not serious.

This version can also be seen as type of Hasty Generalization or Biased Generalization since the inference is based on an inadequate sample. If a representative sample is used, then this would not be fallacious reasoning.

The fallacy can also be presented as this form, which would occur when there is a response to the question:

Premise 1: Person P asks Person A, “do you personally know anyone who X?”

Premise 2: Person A’s answer is “no.”

Conclusion: Therefore, X is rare, does not occur or is not serious.

This is fallacious reasoning because even if a person does not know anyone who X, it does not follow that X is rare, does not occur or is not serious. This is, of course, just drawing an inference from a lack of anecdotal evidence. To use a silly example, it would be absurd for me to infer that no one has ever won an Oscar because I do not personally know someone who has won one.

When used in bad faith, this fallacy is most effective when the X is statistically uncommon. That is, there is a good chance that an individual would not personally know someone who X. To use a pleasant example, imagine a lottery in the United States in which everyone gets a ticket, and the odds of winning a million dollars are 1 in 1600. While those might seem to be “bad odds” of winning, there would be about 207,156 winners. This would be a significant event, but you would *probably* not personally know anyone who won, since most people know about 600 other people. To use horrific example, imagine a terrorist attack on the United States in which 1 in 1600 people are killed. While those might seem to be “good odds” of not dying, there would be about 207,156 people killed. This would be a significant

event, but you would *probably* not personally know anyone who died if you know about 600 people.

If X is common or the truth about X is well known, then this fallacy will tend to fail. For example, trying to convince people that heart disease is a hoax by asking “do you personally know anyone who has heart disease?” would presumably fail. As such, this fallacy usually requires an X that is not *too* common and a degree of ignorance (willful or otherwise) in the target audience. While this fallacy lacks logical force, it can have considerable psychological force because people tend to accept their own personal experience (or lack of experiences) over statistical data.

Defense: To avoid inflicting this fallacy on yourself or falling for it, the main defense is to keep in mind that the absence of anecdotal evidence for a general claim does not disprove that claim. While statistics and probability are beyond the scope of this work, knowing some of the basics can be a good defense when considering whether not having a personal anecdote or not knowing someone who has experienced something is adequate evidence for a claim.

Example #1

TV Personality: “Do you *personally* know anyone who died of Squid Piox? I bet you don’t. It is just another hoax to scare people into handing over more power to Big Brother.”

Example #2

TV Personality: “Do you *personally* know anyone who has been the victim of shoplifting? I bet you don’t. It is just another hoax to scare people into handing over more power to Big Brother.”

Example #3

Ted: “This student loan debt situation seems bad. The President said he would do something about it, but he has done nothing.”

Jen: “So, do you know anybody who is suffering because of student debt?”

Ted: “Well, no.”

Jen: “So how big a deal can it be?”

Ted: “But I went to college forty years ago. What about people who graduated recently?”

Example #4

Tony: “Wow, we lost a so many people to COVID. And are still losing people.”

Tucker: “That is what the media says, but do you personally know anyone who died of COVID?”

Tony: “Well, my coworker’s brother died of it.”

Tucker: “Did you know them personally?”

Tony: “No. Are you saying that my co-worker lied about her brother’s death?”

Tucker: “I’m just asking questions. We need to focus on the real threat, like Antifa and their violence.”

Tony: “Do you personally know anyone who has been harmed by Antifa?”

Tucker: “Um...”

Appeal to Authority, Fallacious

Also Known as: Misuse of Authority, Irrelevant Authority, Questionable Authority, Inappropriate Authority, Ad Verecundiam

Description:

The fallacious Appeal to Authority is a fallacy of standards rather than a structural fallacy. A fallacious Appeal to Authority has the same form as a strong Argument from Authority. As such, determining when this fallacy occurs is a matter of assessing an Argument from Authority to see if it meets the standards presented below. The general form of the reasoning is as follows:

Premise 1: Person A is (claimed to be) an authority on subject S.

Premise 2: Person A makes claim C about subject S.

Conclusion: Therefore, C is true.

This reasoning is fallacious when person A is not qualified to make reliable claims in subject S. In such cases the reasoning is flawed because the fact that an unqualified person makes a claim does not provide any justification for the claim. The claim *could* be true, but the fact that an unqualified person made the claim does not

provide any rational reason to accept the claim as true.

When a person falls prey to this fallacy, they are accepting a claim as true without having adequate evidence. More specifically, the person is accepting the claim because they erroneously believe the person making the claim is an expert. Since people tend to believe people they *think* are authorities this fallacy is common one.

Since this sort of reasoning is fallacious only when the person is not a legitimate authority in a particular context, it is necessary to provide the standards/criteria for assessing the strength of this argument. The following standards provide a guide to such an assessment:

1. The person has sufficient expertise in the subject matter in question.

Claims made by a person who lacks the needed degree of expertise to make a reliable claim are not well supported. In contrast, claims made by a person with the needed expertise will be supported by the person's competence in the area.

Determining whether a person has the needed degree of expertise can be very difficult. In academic fields (such as philosophy, engineering, and chemistry), a person's formal education, academic performance, publications, membership in professional societies, papers presented, awards won and so forth can all be reliable indicators of expertise. Outside of academic fields, other standards will apply. For example, having sufficient expertise to make a reliable claim about how to tie a shoelace only requires the ability to tie the shoelace. Being an expert does not always

require having a university degree. Many people have high degrees of expertise in sophisticated subjects without having ever attended a university. Further, it should not be assumed that a person with a degree must be an expert.

What is required to be an expert is often a matter of debate. For example, some people claim expertise because of a divine inspiration or a special gift. The followers of such people accept such credentials as establishing the person's expertise while others often see these self-proclaimed experts as deluded or even as charlatans. In other situations, people debate rationally over what sort of education and experience is needed to be an expert. Thus, what one person may take to be a fallacious appeal another person might take to be a well-supported line of reasoning.

2. The claim being made by the person is within their area(s) of expertise.

A person making a claim outside of their area(s) of expertise should not be considered an expert in that area. So, that claim is not backed expertise and should not be accepted based on an Appeal to Authority.

Because of the vast scope of human knowledge, it is impossible for a person to be an expert on everything or even many things. So, an expert will only be an expert in certain subject areas. In most other areas they will have little or no expertise. Thus, it is important to determine what subject a claim falls under.

Expertise in one area does not automatically confer expertise in another area, even if they are related. For example, being an expert physicist does not make a person an expert on morality or politics. Unfortunately, this is often overlooked or

intentionally ignored. In fact, advertising often rests on a violation of this condition. Famous actors and sports heroes often endorse products that they are not qualified to assess. For example, a person may be a famous actor, but that does not automatically make them an expert on cars or reverse mortgages.

3. There is an adequate degree of agreement among the other experts in the subject in question.

If there is significant legitimate dispute between qualified experts, then it will be fallacious to make an Appeal to Authority using the disputing experts. This is because for almost any claim being made by one expert there will be a counterclaim made by another expert. In such cases an Appeal to Authority would tend to be futile. In such cases, the dispute must be settled by consideration of the issues under dispute. Since all sides in such a dispute can invoke qualified experts, the dispute cannot be rationally settled by an Argument from Authority.

There are many fields in which there is significant reasonable dispute. Economics, ethics, and law are all good examples of such disputed fields. For example, trying to settle an ethical issue by appealing to the expertise of one ethicist can easily be countered by pointing to an equally qualified expert who disagrees.

No field has complete agreement, and some degree of dispute is acceptable. How much is acceptable is, of course, a matter of debate. Even a field with a great deal of dispute might contain areas of significant agreement. In such cases, an Argument from Authority could be a good argument. For example, while philosophers disagree

on most things, there is a consensus among the experts about basic logic. As such, appealing to the authority of an expert on logic in a matter of logic would generally be a strong Argument from Authority.

When it comes to claims that most of the qualified experts agree on, the rational thing for a non-expert to do is to accept that the claim is probably true. After all, a non-expert is not qualified to settle to question of which experts are correct and the majority of qualified experts is more likely to be right than the numerical minority. Non-experts often commit this fallacy because they wrongly think that because they prefer the claim of the minority of experts, it follows that those experts must be right.

4. The person in question is not significantly biased.

If an expert is significantly biased, then the claims they makes will be less credible. So, an Argument from Authority based on a biased expert will tend to be fallacious. This is because the evidence will usually not justify accepting the claim.

Experts, being people, are vulnerable to biases and prejudices. If there is evidence that a person is biased in some manner that would affect the reliability of their claims, then an Argument from Authority based on that person is likely to be fallacious. Even if the claim is true, the fact that the expert is biased weakens the argument. This is because there would be reason to believe that the expert might not be making the claim because they have carefully considered it using their expertise. Rather, there would be reason to believe that the claim is being made

because of the expert's bias or prejudice.

No person is completely objective. At the very least, a person will be favorable towards their own views (otherwise they would not hold them). Because of this, some degree of bias must be accepted, provided it is not significant. What counts as a significant degree of bias is open to dispute and can vary a great deal from case to case. For example, many people would probably suspect that doctors who were paid by tobacco companies to research the effects of smoking would be biased while other people might believe (or claim) that they would be able to remain objective.

5. The area of expertise is a legitimate area or discipline.

Certain areas in which a person may claim expertise may have no legitimacy or validity as areas of knowledge. Obviously, claims made in such areas tend to lack credibility.

What counts as a legitimate area of expertise can be difficult to determine. However, there are cases which are clear cut. For example, if a person claimed to be an expert at something they called "chromabullet therapy" and asserted that firing painted rifle bullets at a person would cure cancer it would not be unreasonable to accept their claim based on their "expertise." After all, their expertise is in an area which has no legitimate content. The general idea is that to be a legitimate expert a person must have mastery over a real field or area of knowledge.

As noted above, determining the legitimacy of a field can often be difficult. In European history, various scientists had to struggle with the Church and established

traditions to establish the validity of their disciplines. For example, experts on evolution faced an uphill battle in getting the legitimacy of their area accepted.

A modern example involves psychic phenomenon. Some people claim that they are certified “master psychics” and that they are experts in the field. Other people contend that their claims of being certified “master psychics” are simply absurd since there is no real content to such an area of expertise. If these people are right, then anyone who accepts the claims of these “master psychics” are victims of a fallacious Appeal to Authority.

6. The authority in question must be identified.

A common variation of the typical Appeal to Authority fallacy is an Appeal to an Unnamed Authority. This fallacy is Also Known as an Appeal to an Unidentified Authority.

This fallacy is committed when a person asserts that a claim is true because an expert or authority makes the claim, but the person does not identify the expert. Since the expert is not identified, there is no way to tell if the person is an expert. Unless the person is identified and has his expertise established, there is no reason to accept the claim on this basis.

This sort of reasoning is not unusual. Typically, the person making the argument will say things like “I have a book that says...”, or “they say...”, or “the experts say...”, or “scientists believe that...”, or “I read in the paper..” or “I saw on TV...” or some similar statement. in such cases the person is often hoping that the

listener(s) will simply accept the unidentified source as a legitimate authority and believe the claim being made. If a person accepts the claim simply because they accept the unidentified source as an expert (without good reason to do so), he has fallen prey to this fallacy.

Non-Fallacious Arguments from Authority

Not all Arguments from Authority are fallacious. This is fortunate since people must rely on experts. No one person can be an expert on everything, and people do not have the time or ability to investigate every single claim themselves.

In some cases, Arguments from Authority will be good arguments. For example, when a person goes to a skilled doctor and the doctor tells them that they have a cold, then the patient has good reason to accept the doctor's conclusion. As another example, if a person's computer is acting odd and their friend, who is a computer expert, tells them it is probably their hard drive then they have good reason to accept this claim.

What distinguishes a fallacious Appeal to Authority from a good Argument from Authority is that the argument effectively meets the six conditions discussed above.

In a good Argument from Authority, there is reason to believe the claim because the expert says the claim is true. This is because a qualified expert is more likely to be right than wrong when making claims within their area of expertise. In a sense, the claim is being accepted because it is reasonable to believe that the expert has

tested the claim and found it to be reliable. So, if the expert has found it to be reliable, then it is reasonable to accept it as being true. Thus, the listener is accepting a claim based on the testimony of the expert.

It should be noted that even a good Argument from Authority is not an exceptionally strong argument. After all, a claim is accepted as true because a credible person says it is true. Arguments that deal directly with evidence relating to the claim itself will tend to be stronger.

Defense: The main defense against this fallacy is to apply the standards of the Argument from Authority when considering any appeal to authority important enough to be worth assessing. You should especially be on guard when you agree with the (alleged) expert and want to believe they are correct. While there are legitimate uses for claims by anonymous experts, the credibility of these claims rest on the expertise of the person reporting the claim. This is because the evidence for such a claim is the credibility and expertise of the person reporting it. That is, you are trusting that they are honestly reporting the claim and are qualified to assess that the anonymous expert is credible.

Example #1:

Bill: "I believe that abortion is morally acceptable. After all, a woman should have a right to her own body."

Jane: "I disagree completely. Dr. Johan Skarn says that abortion is always morally

wrong, regardless of the situation. He must be right, after all, he is a respected expert in his field.”

Bill: “I’ve never heard of Dr. Skarn. Who is he?”

Jane: “He’s that guy that won the Nobel Prize in physics for his work on cold fusion.”

Bill: “I see. Does he have any expertise in morality or ethics?”

Jane: “I don’t know. But he’s a world-famous expert, so I believe him.”

Example #2:

Kintaro: “I don’t see how you can consider Stalin to be a great leader. He killed millions of his own people, he crippled the Soviet economy, kept most of the people in fear and laid the foundations for the violence that is occurring in much of Eastern Europe.”

Dave: “Yeah, well you say that. However, I have a book at home that says that Stalin was acting in the best interest of the people. The millions that were killed were vicious enemies of the state and they had to be killed to protect the rest of the peaceful citizens. This book lays it all out, so it must be true.”

Example #3:

Actor: “I’m not a doctor, but I play one on the hit series ‘Bimbos and Studmuffins in the OR.’ You can take it from me that when you need a fast acting, effective and safe pain killer there is nothing better than MorphiDope 2000. That is my considered medical opinion.”

Example #4:

Sasha: "I played the lottery today and I know I am going to win something."

Siphwe: "What did you do, rig the outcome?"

Sasha: "No, silly. I called my Super Psychic Buddy at the 1-900-MindPower number. After consulting his magic Californian Tarot deck, he told me my lucky numbers."

Siphwe: "And you believed him?"

Sasha: "Certainly, he is a certified Californian Master-Mind Psychic. That is why I believe what he has to say. I mean, like, who else would know what my lucky numbers are?"

Example #5

Sam: "I'm going to get the Shingles vaccine based on my doctor's advice."

Ted: "Well, I saw this guy on YouTube who says that the vaccine has microchips in it. And that it causes autism."

Sam: "Are they doctor or scientist?"

Ted: "Well, I think he was a doctor once. He said something about getting his medical license revoked because They are out to get him and want to silence him."

Sam: "Does he have any evidence for these claims?"

Ted: "Look, you can believe your doctor if you want, but don't come crying to me when the microchips take over your brain and you catch autism."

Sam: "You don't catch autism."

Ted: “Whatever.”

Appeal to Authoritarian

Description:

This is a variant of the Fallacious Appeal to Authority and can also be considered as a Positive Ad Hominem variant. This error occurs when a person believes a claim simply because it is made by an authoritarian authority they accept. While people tend to think of dictators when they think of authoritarians, the authoritarian could be an elected official or even a minor authority such as a supervisor or workplace boss. It has this form:

Premise 1: Authoritarian authority A makes claim C.

Conclusion: Claim C is true.

The fact that an authoritarian makes a claim does not provide evidence or a logical reason that supports the claim. It also does not disprove the claim. Accepting or rejecting a claim simply because it comes from an authoritarian would both be errors.

The authoritarian could be right about the claim.

The use a silly math example illustrates why this is bad logic:

Premise 1: The dear leader claims that $2+2 = 7$.

Conclusion: $2+2=7$.

As a variant of the Fallacious Appeal to Authority the error is accepting the authority of the authoritarian as expertise. This involves confusing hierarchical authority with the authority of knowledge.

The Appeal to Authoritarian can also be considered a variant of the Positive Ad Hominem Fallacy. In this case, the positive view a person has of the authoritarian traits of the person making the claim are substituted for evidence. This variant would have this form:

Premise 1: Authoritarian A makes claim or argument X.

Premise 2: Person B notes irrelevant qualities of A they see as positive.

Conclusion: Therefore, A's claim is true, or A's argument is good.

This is fallacious because the force of the argument is only psychological: the person falling for it likes the qualities of the authoritarian and mistakes them as evidence for a claim or proof that their argument is good.

At this point, you might be thinking about the consequences someone might suffer from not accepting what an authoritarian who has power over them claims. They could be fired, tortured, or even killed. While that is true, there is a critical distinction between having a rational reason to accept a claim and having a pragmatic reason to (pretend to) accept a claim.

Defense: While it is tempting to think that only the foolish would fall for this fallacy, almost everyone has some authoritarian tendencies. A person can, without realizing it, act as an authoritarian leader or follower.

While we usually think of an authoritarian as a dictator who rules an entire country, there are also minor authoritarians of varying degrees. These could be lesser government officials, but they can also be managers, celebrities, department chairs, parents, or even the informal leader of a group of friends. The authoritarian might not always act in an authoritarian manner, which can make it difficult to recognize when this fallacy occurs. As such, defending against this fallacy requires recognizing when someone is in the role of an authoritarian and determining that the only evidence offered for their claim is that the authoritarian has made the claim. That said, you should watch out for assuming that a person who is, for example, assertive or respected is thus an authoritarian.

While we often think of the followers of authoritarians as weak, stupid, foolish, and cultish (and thus easy to spot), almost anyone can be influenced by an authoritarian in the right circumstances. As such, it is wise to be on guard against such influence. So, if someone expects you to believe their claims simply because they say so, they are probably trying to get you to fall for this fallacy.

As with the standard Fallacious Appeal to Authority, the main defense is to assess

whether the person making the claim is a credible expert, as per the standards discussed earlier. If not, then you have no reason to accept the claim. If so, then you would have some reason to accept it. But, as noted above, even a good Argument from Authority is not particularly strong.

Example #1

Kevin: “The President said that if you put paint thinner on your skin it will cure Squirrel Pox. That is absurd. How would that even work?”

Margery: “Shut up. The President is a great man. Only he can fix this problem. He is so strong and manly. A true leader.”

Kevin: “So you think he is right, despite all the doctors warning people not to do that?”

Margery: “Of course he is right. Like he says, only he can fix this problem.”

Example #2

Lola: “Hey, do you want my car?”

Lucy: “Sure, but why are you giving it away?”

Lola: “David said that the end of the world is coming, and the true believers will be transported to Alpha Centauri by angels. So, I won’t need my car.”

Lucy: “So what will be ending the world?”

Lola: “A big asteroid. Like the one that got the dinosaurs.”

Lucy: “Is David an astronomer or something?”

Lola: “No, silly. He can see into space with his mind’s eye. He says that the rock is coming, but those that believe in him will be saved. If you met him and saw his greatness, you would know he is right.”

Lucy: “Maybe later. But thanks for the car. Can I get the title, too? Also, can I record you saying that you are giving it to me?”

Lola: “Um, okay.”

Lucy: “Great! Have fun at Alpha Centauri.”

Appeal to Belief

Description:

Appeal to Belief is a fallacy in which it is inferred that a claim is true simply because most people believe it. It has this general pattern:

Premise 1: Most people believe claim X is true.

Conclusion: Therefore, X is true.

The Appeal to Belief fallacy derives its influence from psychological rather than logical force. People are often inclined to accept a claim is true when they think most people believe it. The usual illustration of this is that at one time most people in Europe believed that the earth was the center of the solar system. However, this belief turned out to be false.

This reasoning is fallacious because the fact that most people believe a claim does not, by itself, generally serve as evidence that a claim is true. There are, however, two exceptions.

There are some cases when belief in a claim can indicate it is true. For example, suppose that when visiting Maine, you are told by several Mainers that anyone over 16 who wants to fish needs to buy a fishing license. Barring reasons to doubt them, it would be reasonable to accept their claim. In such cases, the reasoning is a good Argument from Authority rather than an Appeal to Belief.

There are also cases in which belief makes a claim true. For example, the truth of claims about manners seems to depend on what people believe to be good manners. The truths of language, such as what words mean, also seem to be a matter of majority belief. Another example is the case of community standards, which is often defined in term of what most of the community believes. As an illustration, obscenity might be defined in terms of community standards. In this case, the claim “X is obscene” will be true if most people in that community believe X is obscene. In such cases it is still prudent to question the justification of the individual beliefs.

This fallacy is sometimes modified slightly to better match its intended target. In these cases, the appeal is made to the (alleged) beliefs of people the target looks at favorably. For example, a teacher’s union might say that most teachers believe that a bill should be supported to influence teachers. This approach can improve the persuasive force of the fallacy but does not impact its logical force.

Politicians, pundits, and media figures often use this fallacy to intentionally or unintentional draw a conclusion from surveys about what people believe. For example, a news anchor might assert that crime has increased while presenting as evidence a survey reporting that people *believe* that crime has increased. While crime might have increased, a survey of what people believe is not evidence that the claim is true.

Defense: The defense against this fallacy is to recognize when the evidence offered for the claim is only that many people believe it is true. You should then consider whether it is plausibly a case in which belief indicates truth or a case in which belief determines truth. If it is either of those cases, then the Appeal to Belief fallacy would not have been committed.

Example #1

Ted: "Did you do your taxes yet?"

Ken: "Yeah. Got a tiny rebate."

Ted: "That is because you were honest. You should cheat on your taxes."

Ken: "That seems wrong. Also, illegal. I mean, for people like us."

Ted: "Nah, most people think it is okay to lie a bit to the IRS. So it is okay."

Example #2:

God must exist. After all, I just saw a poll that says 85% of all Americans believe in God.

Example #3:

Of course, there is nothing wrong with drinking. Ask anyone, he'll tell you that he thinks drinking is just fine.

Example#4:

Edward: "What do you think about that new bill?"

Willamina: "The one that lets parents decide what books will be allowed for use in public education?"

Edward: "Yup, that one. You know that most teachers like you think it is a bad idea and oppose it."

Willamina: "Well, I was not sure until now. But if my fellow teachers think it is a bad bill, I agree with them."

Appeal to Common Practice

Description:

The Appeal to Common Practice is a fallacy in which it is inferred that a practice is correct or justified simply because it is a common one. It has the following structure:

Premise 1: X is commonly done.

Conclusion: Therefore, X is correct/moral/justified/reasonable, etc.

The idea behind the fallacy is that the claim that many people do X is used as “evidence” to support an action or practice. It is a fallacy because just because most people do something does not make it correct, moral, justified, or reasonable.

The Appeal to Common Practice is like and often confused with the Appeal to Belief. The main difference is that the Appeal to Common Practice appeals to what people most people do and Appeal to Belief appeals to what most people think. Belief and action can, and often do, overlap so a person could combine the fallacies in making both fallacious appeals at the same time.

The fallacy seems to gain its psychological force from the tendency to believe that what is commonly done is acceptable to do. People do, of course, take their social cues from observing what others do. Another psychological factor that might be at play is that people might think that they should be allowed to do something if other people are also doing it. In some cases, this can be a non-fallacious appeal to fair play.

An appeal to fair play, which can look like an Appeal to Common Practice, need not be a fallacy. For example, a woman working in an office might say “the men who do the same job and who have the same qualifications get paid more than I do, so it would be right for me to get paid the same.” This would not be a fallacy if there was no relevant difference between her and the men (in terms of ability, experience, hours worked, etc.). An appeal to fair play has this form:

Appeal to Fair Play (not a fallacy)

Premise 1: It is common practice to treat people of type Y in manner X and to treat people of type Z differently.

Premise 2: There is no relevant difference between people of type Y and type Z.

Conclusion: Therefore, people of type Z should be treated in manner X, too.

This argument depends on the principle of relevant difference. On this principle two people, A and B, can be justly treated differently if and only if there is a relevant difference between them. For example, it would be right for me to assign a better grade to Sally than Dave if Sally wrote a better paper than Dave. However, it would be wrong of me to assign a better grade to Sally simply because Sally has red hair and Dave has blonde hair.

Moving away from logic and into ethics, there are moral theories in which majority acceptance of X as moral entails that X is moral. The usual example of this is moral relativism: morality is relative to the practices of a culture, which can be taken as what is common practice in that culture. If what is moral is determined by what is commonly practiced, then this argument would not be a fallacy:

Moral Relativism (not necessarily a fallacy)

Premise 1: Most people in culture C do X.

Premise 2: Moral relativism is true.

Conclusion: Therefore, X is morally correct.

This sort of relativism has some interesting consequences. For example, imagine that there are only 100 people in a culture. 60 of them do not steal or cheat and 40 do. At this time, stealing and cheating would be wrong. The next day, a natural disaster kills 30 of the 60 people who do not cheat or steal. Now it is morally correct to cheat and steal. Thus, it would be possible to change the correct morality to one's view simply by eliminating those who disagree. There are also other types of philosophical relativism, such as relativism about beauty.

Defense: The defense against this fallacy is to determine if the justification for an action or practice consists only in the claim that it is commonly done. To avoid mistaking a request for fair play with this fallacy, be sure to check to see whether that is what is occurring. If it would be reasonable to get more philosophical, you should also consider whether the argument is being made within the context of a relativistic theory, such as ethical relativism.

Example #1:

Director Jones oversees running a state waste management program. When it is found that the program is rife with corruption, Jones says "This program has its problems, but nothing goes on in this program that doesn't go on in all state programs."

Example #2:

“Yeah, I know some people say that cheating on tests is wrong. But we all know that everyone does it, so it’s okay.”

Example #3:

“Sure, some people buy into that equality crap. However, we know that everyone pays women less than men. It’s okay, too. Since everyone does it, it can’t really be wrong”

Example #4:

“There is nothing wrong with requiring multicultural classes, even at the expense of core subjects. After all, all universities and colleges are pushing multiculturalism.”

Example #5:

“Of course, our company opposes toxic masculinity, supports diversity and is going green. This is what all the enlightened companies are doing these days. And as the kids say, ‘get woke or go broke.’ Wait, did I say that last thing out loud?”

Appeal to the Consequences of a Belief

Description:

The Appeal to the Consequences of a Belief is a fallacy in which the consequences of a belief are taken as evidence for or against that belief. There are multiple forms of this fallacy:

Form 1

Premise 1: If people did not accept *X* as true, there would be negative consequences.

Conclusion: *X* is true.

Form 2

Premise 1: If people did not reject *X* as false, there would be negative consequences.

Conclusion: *X* is false.

Form 3

Premise 1: Accepting that *X* is true has positive consequences.

Conclusion: *X* is true.

Form 4

Premise 1: Accepting that *X* is false has positive consequences.

Conclusion: *X* is false.

This sort of reasoning is fallacious because the consequences of a belief have no bearing on whether the belief is true or false. To illustrate, if someone were to say, “If purple unicorns don’t exist, then I will be miserable, so they must exist, we would not expect purple unicorns to start appearing.

It must be noted that the consequences are those that stem from the belief. It is

important to distinguish between a rational reason to believe (evidence) and a prudential reason to believe (motivation). A rational reason to believe is evidence that objectively and logically supports the claim. A prudential (or pragmatic) reason to believe is a reason to accept the claim because of some external factor like fear, a threat, or a benefit or harm that may stem from the belief that is relevant to what a person values but not to the truth of the claim. For example, some people claim that if people did not believe in God, then that would be the death of morality and society would fall into chaos. Even if it is assumed that this is true, it does not prove that God exists. But it could provide a pragmatic (even a moral) reason to try to get people to believe in God. Such concerns are beyond the scope of “pure” logic and fall under the domain of ethics.

Defense: The main defense against this fallacy is to keep in mind the difference between evidence for a claim and a practical or pragmatic reason to accept a claim (or get others to accept it).

Example #1:

God must exist! If God did not exist, then all basis for morality would be lost and the world would be a horrible place!

Example #2:

It can never happen to me. If I believed it could, I could never sleep soundly at night.

Example #3:

I don't think that there will be a nuclear war. If I believed that, I wouldn't be able to get up in the morning. I mean, how depressing.

Appeal to the Consequences of a Belief: Wishful Thinking**Description:**

Wishful Thinking is a fallacy in which a claim is accepted as true because a person wishes it is true. Alternatively, it occurs when it is inferred that a claim is false because a person wishes it is false. It is a version of the Appeal to the Consequences of Belief but is distinct enough to merit its own entry. It has the following forms:

Wishful Thinking Version 1

Premise 1: I wish that X were true.

Conclusion: X is true.

Wishful Thinking Version 2

Premise 1: I wish that X were false.

Conclusion: X is false.

This is fallacy because merely wishing that something is true does not make it true. This fallacy differs from the Appeal to Belief fallacy in that the Appeal to Belief involves taking a claim that most people believe that X is true to be evidence for X being true. Wishful Thinking is not that most people believe it, but that it is true because someone really wants or hopes it is true. Alternatively, that it is false because someone really wants or hopes it is false.

This is not a rejection of the idea that a positive attitude can be beneficial or that a negative outlook can be harmful. To use an obvious example, an athlete who is positive will tend to do better than a comparable athlete who is sunk into despair. But this is not due to wishful thinking, rather it is a matter of sports psychology.

Even people who know better can fall for this fallacy. For example, one day during my first year as a professor I was in a rush to get to campus since I had to give four exams. I turned the key in my little Yamaha a bit too hard and broke it off in the ignition. I immediately fell into Wishful Thinking, irrationally concluding that everything would be fine because I wanted it to be fine. Then I told myself I was being stupid. I did manage to recover the broken part of the key using a drop of super glue, some dexterity and perhaps some luck. So things did work out, but not because of my Wishful Thinking.

Defense: Wishful Thinking, which is usually self-inflicted, is especially difficult to guard against. People most often engage in Wishful Thinking when they are in

distress or need and there can be strong emotions driving the fallacious reasoning. But the defense is to ask yourself whether you have evidence for your belief or if you just want it to be true. If other people engage in Wishful Thinking, there can be moral reasons to allow them to do so without criticism. For example, if someone is telling themselves that their loved ones are alright during a natural disaster because they could not bear it if anything happened to them, that would not be the time to give the person a logic lesson. But we should be on guard against our own Wishful Thinking and that of others when decisions are being made. For example, financial decisions should be protected from Wishful Thinking.

Example #1:

I acknowledge that I have no argument for the existence of God. However, I have a great desire for God to exist and for there to be an afterlife. Therefore, I accept that God exists.

Example #2:

Ann: “Wow, you bought a brand-new electric SUV! I mean it is great, but weren’t you just saying that your job barely pays you enough to get by? And our rent is due soon. I’ve got my half...”

Julie: “Oh, it will work out. Don’t worry, I have a good feeling that things will be fine. Look, I bought a lottery ticket!”

Appeal to Emotion

Description:

An Appeal to Emotion is a fallacy in which the evocation of emotion is accepted as evidence for a claim. It has the following structure:

Premise 1: Emotions are evoked about X.

Conclusion: Therefore, X is true.

This fallacy involves substituting means of producing strong emotions in place of evidence for a claim. If the favorable emotions associated with X influence the person to accept X as true because they “feel good about X,” then they have fallen prey to the fallacy.

This reasoning commonly occurs in politics and advertising. Political speeches are usually aimed at generating feelings aimed at getting people to vote or act a certain way. In the case of advertising, commercials are aimed at evoking emotions to get people to buy products or services. In most cases, these speeches and commercials are devoid of actual evidence.

This reasoning is fallacious because using various tactics to incite emotions in people does not serve as evidence for a claim. For example, if a person were able to inspire an incredible hatred of the claim that $1+1 = 2$ and then inspired people to love the claim that $1+1 = 3$, it would hardly follow that the claim that $1+1 = 3$ would be adequately supported.

Often it will not be obvious that the fallacy is being used to support a claim. Rather, it will appear to be an attempt to move people to take an action, such as buying a product or fighting in a war. However, it is possible to determine the claim serving as the conclusion of the fallacy. The question to ask is, “what sort of claim is this person attempting to get people to accept and act on?” For example, if a political leader is attempting to convince their followers to engage in violence using hate speech, then the claim would be “you should participate in these acts of violence.” In this case, the “evidence” would be the hatred evoked in the followers. This hatred would serve to make them favorable inclined towards the claim that they should engage in the acts of violence.

As another example, a beer commercial might show happy, scantily clad people on a beach, guzzling beer. In this case the claim would be “you should buy this beer.” The “evidence” would be the excitement evoked by seeing beautiful people guzzling beer on the beach.

While invoking emotions to “prove” a claim would be a fallacy, invoking emotions to motivate or inspire people is not. Without an appeal to peoples’ emotions, it can be difficult to get them to act or to perform their best. For example, a coach does not present their team with logical arguments before the big game. Instead, the pre-game speech is loaded with emotional terms and is an attempt to fire them up so they will play better. It is not an attempt to prove a claim and hence is not a fallacy.

As a final point, it can be difficult to distinguish an Appeal to Emotion from some

other fallacies. There are also times when multiple fallacies are being committed. For example, Ad Hominems are often like Appeals to Emotion and, in some cases, both fallacies will be committed. As an example, a leader might attempt to invoke hatred of a person to inspire their followers to accept that they should reject an opponent's claims. The same attack could function as an Appeal to Emotion and a Personal Attack. In the first case, the attack would be aimed at making the followers feel favorable about rejecting her claims. In the second case, the attack would be aimed at making the followers reject the opponents' claims because of some perceived (or imagined) defect in their character.

This fallacy is related to the Appeal to Popularity fallacy. Despite the differences between them, they involve appeals to emotions. In both cases the fallacies aim at getting people to accept claims based on how they or others feel about the claims and not based on evidence for the claims.

Another way to look at these two fallacies is as follows:

Appeal to Popularity (Variant)

Premise 1: Most people approve of X.

Premise 2: So, I should approve of X, too.

Conclusion: Since I approve of X, X must be true.

Appeal to Emotion (Variant)

Premise 1: I approve of (feel positive about) X.

Conclusion: Therefore, X is true.

In this variant, in an Appeal to Popularity the claim is accepted because most people approve of the claim. In the case of an Appeal to Emotion the claim is accepted because the individual approves of the claim because of the favorable emotion towards the claim.

Defense: The defense against this fallacy is focusing on distinguishing between what inspires emotions and what justifies a claim. As with all emotion-based fallacies, the defense is not to suppress or ignore your emotions but to be aware that how you feel about a claim does not prove or disprove that claim. To avoid unfairly accusing people of this fallacy, you should determine whether someone is trying to “prove” a claim by appealing to emotions or simply trying to invoke emotions for another purpose. The purpose might be a bad one, but they would not be committing this fallacy.

Example #1:

The new PowerTangerine computer gives you the power you need. If you buy one, people will envy your power. They will look up to you and wish they were just like you. You will know the true joy of power. TangerinePower.

Example #2:

The new UltraSkinny diet will make you feel great. No longer be troubled by your weight. Enjoy the admiring stares of the opposite sex. Revel in your new freedom from fat. You will know true happiness if you try our diet!

Example #3:

Bill goes to hear a politician speak. The politician tells the crowd about the evils of the government and the need to throw out the people who are currently in office. After hearing the speech, Bill is full of hatred for the current politicians. Because of this, he feels good about getting rid of the old politicians and accepts that it is the right thing to do because of how he feels.

Appeal to Envy

Description:

This fallacy occurs when a person infers a fault in another based on the emotion of envy. The fallacy has the following form:

Premise 1: Person A feels envious of person B.

Conclusion: Therefore, person B has fault F.

This reasoning is fallacious because a feeling of envy does not prove that a person has a fault or flaw. This error is tempting because people are often inclined to think badly of those they envy.

While envy is often seen as a negative emotion, the feeling of envy is not a fallacy. “Envy” and “jealousy” are often used interchangeably but some people do prefer to distinguish them. The usual distinction is that envy is a discontented or covetous desire for something possessed by another while jealousy is a state of being possessive and suspicious.

While often self-inflicted, this fallacy can also be inflicted on others. In this case, the objective is to invoke envy in a person and so get them to believe that someone else has a fault.

This fallacy is distinct from the Accusation of Envy fallacy. That fallacy is an Ad Hominem like fallacy in which it is inferred that a person’s claim is false because they are alleged to be motivated by envy.

Defense: While envy makes it easy to think negative things about others, the defense is to ask whether the claim that a person has a fault is supported by evidence. If not and there is only a feeling of envy driving the “reasoning” then this fallacy has been committed. Aside from concerns about logic, envy tends to be a damaging emotion and being on guard against it is a good idea.

Example #1

“Yeah, he is rich and handsome, but I’m sure he doesn’t have any friends.”

Example #2

Sally: “You know rich people are very unhappy.”

Ted: “Why think that? After all, they can solve many problems with money.”

Sally: “I just know they are. I mean, look at their amazing lives: wealth, luxury goods, trips, beautiful boyfriends, and awesomeness. They must be unhappy. They must be.

Example #3

Rachel: “Wow, Alyssa ran a fast marathon last week. She must be training hard.

Gwen: “Oh, I am sure she is training hard. So hard that I bet she does not have time to have friends or enjoy herself. Me, I’ll stick with having a life. My times might be slower, but I know I am happier.”

Appeal to Fear

Also Known as: Scare Tactics, Appeal to Force, Ad Baculum

Description:

The Appeal to Fear is a fallacy in which something that is intended to evoke fear is substituted as evidence for a claim. It has the following pattern:

Premise 1: Y is presented with the intent to invoke fear.

Conclusion: Therefore, claim X is true.

This reasoning is fallacious because the feeling of fear does not provide evidence for a claim. While lacking in logical force, this fallacy can have considerable psychological force because fear is a powerful emotion and can be effective in bypassing reason. People also can see their fear as self-justifying: if I am afraid of X, I must have a good reason to be afraid. But people can obviously be afraid for bad reasons or no reason at all.

Fear is also an effective persuasive tool because a person's fear can easily be shifted to an unrelated target. Politicians often make use of this feature of fear, in some cases shifting justified fear to an unwarranted target. For example, it does seem reasonable for some American workers to be afraid they will lose their jobs because of business decisions beyond their control. But politicians can shift this fear towards unrelated targets, such as migrants.

While this fallacy can be used in ignorance, it is commonly used in bad faith. Someone using it might exaggerate or lie to create fear and knowingly use this fallacy. They are also likely to make use of stereotypes, biases, and prejudices. This is a common tactic in politics. For example, a politician might invoke fears that migrants are diseased, job stealing criminals to “prove” that their immigration plan should be accepted.

While this fallacy can be as crude as a “believe or you get hurt”, it can also be more subtle. Advertisements, for example, often make use of scare tactics. For example, a commercial for a home security system might attempt to scare potential customers

by presenting a mother and daughter at home, suddenly being menaced by a scruffy looking intruder. The intent is to offer fear as a reason to buy their security system. But, of course, this invocation of fear does not prove that you should buy their product.

Perhaps the most subtle examples involve personal grooming products. For example, a commercial for hair coloring might show a grey-haired man walking a woman to her door after a date. He asks if he can come in for some “coffee” and she declines. The scenario runs again in the commercial, but this time the man has purchased and used hair dye to hide his grey. He is then invited in for some “coffee.” The message of fear is clear: if you have grey hair, you must buy their product or you will home alone “making your own coffee.” But, of course, this is just scare tactics.

As with some other fallacies, it is important to distinguish between a rational reason to believe (evidence) and a prudential reason (motivation) to do something. A rational reason to believe is evidence that logically supports a claim. The Appeal to Fear provides no rational reason to accept a claim. A prudential reason is a reason to act. Something that invokes fear can provide a prudential reason to do something. For example, it might be prudent to not fail the son of your dean because the son threatens that they will make life tough for you. However, this does not provide evidence for the claim that the son deserves to pass the class.

Being an emotion, fear is not itself a fallacy. There are also cases in which a claim can evoke fear while also providing a good reason to accept or reject a claim.

However, the feeling of fear is not evidence; it is just the case that a claim can both serve as evidence and invoke fear. For example, if you were about to go for a swim and you were warned that crocodiles had just been seen in the area, then you would probably feel some fear. But you would also have a good, non-fallacious, reason to stay out of the water.

Defense: The main defense against this fallacy is to remember that the feeling of fear is not evidence, nor are threats. While there can be prudential reasons to act based on scary things, the invocation of fear is not proof. Since fear is often driven by biases and stereotypes, it is wise to be especially on guard in such cases. To avoid mistakenly thinking the fallacy has been committed, also keep in mind that something can both invoke fear and serve as evidence for a claim.

Example #1:

“You know, Professor Smith, I really need to get an A in this class. I’d like to stop by during your office hours later to discuss my grade. I’ll be in your building anyways, visiting my father. He’s your dean, by the way. I’ll see you later.”

Example #2:

“I don’t think a Red Ryder BB rifle would make a good present for you. They are very dangerous, and you’ll put your eye out. Now, don’t you agree that you should think of another gift idea?”

Example #3:

“You must believe that God exists. After all, if you do not accept the existence of God, then you will face the horrors of hell.”

Example #4:

“You shouldn’t say such things against multiculturalism! If the chair heard what you were saying, you would never receive tenure. So, you had just better learn to accept that it is simply wrong to speak out against it.”

Example #5

Mike: “So, I’m looking at pickup trucks.”

Salesperson: “We have an excellent selection.”

Mike: “This one looks interesting, can I test drive it?”

Salesperson: “Certainly.”

Mike, after test drive: “This seems like a good truck.”

Salesperson: “I’ll get the paperwork.”

Mike: “Wait, I still want to look at some other brands. But if they aren’t as good, I’ll consider coming back.”

Salesperson: “If you don’t buy it now, I can’t guarantee there will be one available when you return.”

Mike, looking at a lot packed with trucks: “I’ll take my chances.”

Appeal to Flattery

Also known as: Apple Polishing

Description:

An Appeal to Flattery is a fallacy in which flattery is substituted as evidence for a claim. It has the following form:

Premise 1: Person A flatters person B.

Premise 2: Person A makes claim X.

Conclusion: Therefore, X is true.

In this fallacy, flattery is presented in the place of evidence for a claim. This is fallacious because flattery is not evidence for a claim. To illustrate with an obviously absurd example: “Bill, that is a truly magnificent tie. By the way, I know that you’ll agree that $1+1=41$.”

The claim the fallacy is intended to prove is often that the target should take some action, such as giving the person some extra points on a paper, giving them a raise, or granting a favor.

People generally enjoy being flattered and effective use of this fallacy can have great psychological force. But too much praise, or the wrong sort of praise, can have the opposite of the intended effect. After all, one way to mock people is with excessive sarcastic praise.

Flattery by itself is not a fallacy, it is only when it is used as a substitute for evidence that the fallacy occurs. Praise, due or not, is also not a fallacy.

Defense: The defense against this fallacy is to be on guard against attempts to influence you to accept a claim through praise rather than evidence.

Example #1:

Might I say that this is the best philosophy class I've ever taken. By the way, about those two points I need to get an A...

Example #2:

That was a wonderful joke about AIDS boss, and I agree with you that the darn liberals are wrecking the country. Now about my raise...

Example #3:

That was a singularly brilliant idea. I have never seen such a clear and eloquent defense of Plato's position. If you do not mind, I'll base my paper on it. Provided that you allow me a little extra time past the deadline to work on it.

Appeal to Group Identity

Also Known As: Group Think fallacy

Description:

This fallacy occurs when an appeal to a person's identification with a group is offered as a substitute for evidence. It has the following form:

Premise 1: An appeal is made to a person's identification with group G.

Conclusion: Therefore, claim C is true.

While the type of appeal varies, it most often appeals to the pride the group member feels about being in the group. While feeling pride and identifying with a group are not fallacious, to accept a claim based on group pride or identity is an error. This is because feelings of pride and a feeling of group identity are not evidence for a claim. A person can make this appeal to others or can make such an appeal to themselves.

This fallacy can be used with any sort of group identity, such as political groups, ethnic groups, religious groups, and so on. One variant makes use of nationalism (pride in one's country) when attempting to get people to accept a claim (or reject a claim). Since a person can convince themselves that a claim is true (or false) based on their feeling of group identity or pride, this fallacy can be self-inflicted.

That group identity does not serve as proof is easily shown by the following example: "I am proud of being a Geocentrist therefore the earth is the center of the solar system."

This fallacy might seem like Peer Pressure, Appeal to Belief, and Appeal to Common Practice. However, the logical errors made are different in each fallacy. While the Peer Pressure fallacy does involve a group, the mistake being made is that a claim is accepted based on fear of rejection by the group rather than because of

pride in that group. In the case of Appeal to Belief, the error is accepting a claim because many believe it. Appeal to Common Practice, as the name indicates, involves accepting that a practice is correct/good because it is common, rather than because one identifies with a group that engages in that practice. People can commit multiple fallacies, so someone might Appeal to Group Identity while also Appealing to Belief and to Common Practice.

Some might be tempted to think that this fallacy shows that people identifying as a member of a group they themselves dislike are making an error. This is not the case; the mistake is not identifying with a group but taking that identity as evidence for a claim.

Defense: If the fallacy is being used against you, the defense is to recognize that no reasons are being offered. Instead, there is an attempt to appeal to your group identity to persuade you to accept a claim. Defending against inflicting this fallacy on yourself can be more difficult. Ceasing to identify with groups is not a requirement for the defense but being critical about this identification is. If a matter is important, you should ask whether you accept a belief based on reasons or merely because of group identity.

Example #1

“Your blog post is truly awful. Your criticism of America’s Middle East policy shows

that you are not a real American. Me, I love America and I am proud to be an American. Since you obviously do not love America or have any pride in her greatness, you should pack up and move to Iran. I think this takes care of your criticisms and reveals the falsehoods you are spreading.”

Example #2

Fred: “America is responsible for global warming.”

Sally: “Well, we do contribute more than our fair share to the problem.”

Fred: “No, it is not just that Americans contribute more. American corporations and the American politicians set the world agenda and thus America is to blame for global warming.”

Sally: “That seems a bit much. Surely other nations contribute as well. Look at China, for example. China is hardly an American puppet, and they are cranking out cars and coal plants.”

Fred: “You just don’t get it. America is the cause of the world’s problems.”

Sally: “Wait; are you one of those ‘blame America first’ people?”

Fred: “That phrase is loaded, but I am proud to be on the left. We are the vanguard against America’s misdeeds and will make the world a better place. I know we are right because I can feel it in my heart.”

Sally: “So, you know you are right because you are proud of your elite group?”

Fred: “Yes. Maybe someday you will join us.”

Sally: “Will I have to buy a Prius and an iPad?”

Fred: "Of course."

Example #3

"Sure, there are people who criticize the government. But, as the guy said, 'my country, wrong or right.' So, those critics need to shut up and accept that they are wrong. Or maybe someone should shut them up with some Second Amendment remedies."

Example #4

"I've seen a lot of debate about faith, but I know that my faith is the correct one. Every time that I think of my relationship with God and my fellow believers, my heart swells with pride at our true and pure faith. I cannot help but feel sorry for those who blindly refuse to accept what we thus know to be true, but perhaps they will realize the foolishness of their error before it is too late."

Example #5

George: "Wow, that Mal Mart seems bad. Lawsuits from women and minorities and so on, that shows they have some real problems going on."

Gerald: "You shut your Twinkie hole! I work at Mal Mart and I won't listen to you say anything bad about us!"

George: "Easy, I'm not attacking you!"

Gerald: "When you attack Mal Mart, you attack me. Now admit you are wrong!"

George: "What, just because you work there and think you are part of the big Mal Mart family? That has nothing to do with me being right or wrong about the

company.”

Gerald: “Shut up or I’ll lower your prices.”

George: “What?”

Appeal to Guilt

Also Known As: Guilt trip

An appeal to guilt is a fallacy in which a person substitutes something intended to create guilt for evidence. The form of the reasoning is as follows:

Premise 1: G is presented, with the intent to create a feeling of guilt in person P.

Conclusion: Therefore, claim C is true.

This is fallacious because a feeling of guilt is not evidence for a claim. The emotion of guilt, like all emotions, is not itself fallacious. However, to accept a claim as true based on the “evidence” of feeling guilt would be an error.

This fallacy is often used to get a person to do something (to accept a claim that they should do something as being true) by trying to invoke a feeling of guilt. While it can be appropriate to feel guilt when one has done something wrong, the fact that a person has been caused to feel guilty does not show that the person *should* feel guilty. The question of when a person should or should not feel guilt is a matter for ethics rather than logic, which takes it beyond the scope of this book.

There are cases in which claims that logically serve as evidence can also cause a

feeling of guilt. In these cases, the feeling of guilt is still not evidence. The following shows a situation in which a person should probably feel guilty but in which there is also evidence for the claim being made:

Non-Fallacious Example

Jane: “You really should help Sally move.”

Hilda: “Moving is a drag. Besides, the game is on then.”

Jane: “Sally helped you move. In fact, she spent all day helping you because no one else would.”

Hilda: “Are you trying to guilt me into helping her?”

Jane: “Yeah, a bit. But you owe her. She helped you move, and you really should feel bad if you don’t lend her a hand.”

Hilda: “She’ll be fine. A lot of her friends are helping her out.”

Jane: “And they are helping her because she helped them. That is what friends do. If you value her friendship, then you should go with me.”

The above example is not fallacious. While Jane does hope Hilda will feel guilt and be motivated to help Sally, the fact that Sally helped Hilda does provide a reason why Hilda should help her. While it could be argued that helping people does not create a debt, this would be a matter for ethical debate rather than proof Jane has made a logical error.

Defense: While being incapable of feeling guilt would provide a perfect defense against this fallacy, the better option is to be on guard against attempts to misuse

guilt to persuade you to accept claims. For people who have a conscience, care should be taken to not overcorrect. This is because, on some moral theories, there are occasions when guilt should be felt.

Example #1

Child: "I'm full."

Parent: "You need to finish all your food. There are children starving in Africa."

Child: "But broccoli is awful!"

Parent: "Those kids in Africa would love to have even a single piece of broccoli.

Shame on you for not eating it."

Child: "Okay, I'll send them this broccoli!"

Parent: "No, you'll eat it."

Child: "But how does that help the starving kids?"

Parent: "Finish the broccoli!"

Example #2

Eric: "I need an iPad!"

Mother: "Don't you already have one?"

Eric: "That was the old iPad. I need a new iPad."

Mother: "You barely use the iPad you have now."

Eric: "If you love me, you'll get me one!"

Mother: "I don't think you need a new one now."

Eric: “How can you treat me like this? What sort of mother would let her son go to school without the latest iPad? You hate me!”

Mother: “Okay, I’ll get you one.”

Eric: “I need a new iPhone, too.”

Mother: “I just bought you one!”

Eric: “The new one is a different color. That changes everything.”

Mother: “Fine.”

Example #3

Bill: “You’re late. I planned dinner for when you were supposed to get home, so yours is cold now.”

Kelly: “I’m sorry. The meeting ran a little longer than I expected. But the boss had good news for me—I got a raise!”

Bill: “Oh sure, show up late for dinner and throw a raise in my face, now that I’m not working!”

Kelly: “I didn’t throw it in your face, I just...”

Bill: “You’re robbing me of my manhood!”

Kelly: “I’m sorry!”

Bill: “Well, you can make it up to me by buying me a motorcycle.”

Kelly: “Okay. I’m sorry about dinner and getting a raise.”

Bill: “That’s okay. You can use the raise to get me a really good motorcycle.”

Appeal to Novelty

Also Known as: Appeal to the New, Newer is Better, Novelty

Description:

Appeal to Novelty is a fallacy that occurs when it is inferred that something is better or correct because it is new. This sort of reasoning has the following form:

Premise 1: X is new(er).

Conclusion: Therefore, X is correct or better.

This is fallacious because the novelty or newness of something does not make it correct or better than something older. That this is true is shown by this absurd example: Joe has proposed that $1+1$ should now be equal to 3. When asked why people should accept this, he says that he just came up with the idea. Since it is newer than the idea that $1+1=2$, it must be better.

This sort of reasoning is appealing for many reasons. First, many cultures include the belief that new things must be better than old things. Second, the notion of progress (which seems to have come, in part, from the notion of evolution) appears to imply that newer things will be superior to older things. Third, advertising often sends the message that newer must be better. Because of these three factors (and others) people often accept that a new thing (idea, product, concept, etc.) must be better because it is new. Hence, Novelty is a common fallacy, especially in

advertising.

It should not be assumed that old things must be better than new things (see the fallacy Appeal to Tradition) any more than it should be assumed that new things are better than old things. The age of a thing does not, in general, have any bearing on its quality or correctness (in this context).

Obviously, age does have a bearing in some contexts. For example, if a person concluded that his day-old milk was better than his two-month-old milk, he would not be committing an Appeal to Novelty. This is because in such cases the newness of the thing is relevant to its quality. Thus, the fallacy is committed only when the newness is not, in and of itself, relevant to the claim. While it might be tempting to think that this fallacy would not occur when it comes to something like technological products, it can still occur. While newer technology can be better, it would be better for reasons other than simply being new.

Defense: The defense is to keep in mind that in most cases the newness of a thing has no bearing on it being true or correct. While something new can be better, more is needed than simply how new it is. This fallacy can be self-inflicted, although it is often used against others.

Example #1:

“The Sadisike 900 pump-up glow shoe. It’s better because it’s new.”

Example #2:

James: "So, what is this new plan?"

Biff: "Well, the latest thing in marketing techniques is the GK method. It is the latest thing out of the think tank. It is so new that the ink on the reports is still drying."

James: "Well, our old marketing method has been quite effective. I don't like the idea of jumping to a new method without a good reason."

Biff: "Well, we know that we must stay on the cutting edge. That means new ideas and new techniques must be used. The GK method is new, so it will do better than that old, dusty method."

Example #3:

Prof: "So you can see that a new and better morality is sweeping the nation. No longer are people with alternative lifestyles ashamed. No longer are people caught up in the outmoded moralities of the past."

Student: "Well, what about the ideas of the great thinkers of the past? Don't they have some valid points?"

Prof: "A good question. The answer is that they had some valid points in their own, barbaric times. But those are old, moldy moralities from a time long gone. Now is a time for new moralities. Progress and all that, you know."

Student: "So would you say that the new moralities are better because they are newer?"

Prof: “Exactly. Just as the dinosaurs died off to make way for new animals, the old ideas must give way for the new ones. And just as humans are better than dinosaurs, the new ideas are better than the old. So newer is literally better.”

Student: “I see.”

Appeal to Pity

Also Known as: Ad Misericordiam

Description:

An Appeal to Pity is a fallacy in which a person substitutes something intended to create pity for evidence in an argument. The form of the reasoning is as follows:

Premise 1: P is presented, with the intent to create pity.

Conclusion: Therefore, claim C is true.

This is fallacious because pity does not serve as evidence for a claim. To use a melodramatic example: “You must accept that $1+1=46$, after all I’m dying...” While you may pity me because I am dying, it would not make my claim true.

This fallacy differs from the Appeal to the Consequences of a Belief. In that fallacy, the effects of a belief are used as a substitute for evidence. In the Appeal to Pity, it is the feelings of pity or sympathy that are substituted for evidence.

There can be cases in which claims that serve as evidence also evoke a feeling of

pity. In such cases, the feeling of pity is still not evidence. For example:

Professor: "You missed the midterm, Bill."

Bill: "I know. I think you should let me take the makeup."

Professor: "Why?"

Bill: "I was hit by a truck on the way to the midterm. Since I had to go to the emergency room with a broken leg, I think I am entitled to a makeup."

Professor: "I'm sorry about the leg, Bill. Of course, you can make it up."

The above example does not involve a fallacy. While the professor does feel sorry for Bill, she is justified in accepting Bill's claim. Getting run over by a truck would be a legitimate excuse for missing a test.

As with other emotions, the feeling of pity is not itself a fallacy. Whether one should feel pity and act on it is a matter for ethics rather than logic. In the context of ethics, acting out of pity can sometimes be morally justified. One can also choose to be kind, which would not be a fallacy.

Defense: While being without pity would make you immune to this fallacy, the usual defense is to be on guard against attempts to substitute pity for evidence. While the fallacy can be self-inflicted, it is most often used against a target.

The most pernicious use of this fallacy is when a person targets something they

know will strongly influence a person, often because of something they (or someone they care about) suffered. This can be the hardest version to defend against because you will usually have a stronger emotional reaction. If the situation warrants suspicion, you should be on guard against such appeals—especially if the person knows something about you, they can exploit.

For example, my graduate school roommate died of cancer during my first year of teaching and I told my classes I had to miss class to go to his funeral. Later that semester a student who had not been doing any work told me they had cancer, but they did not have any documentation from the school to prove this. Having just seen a friend buried, I just accepted their claim without proof and arranged make-up work. I would have been none the wiser, but they used the same tactic on a friend of mine. He had been in a bad automobile accident which cost him a piece of a finger. So, the student told him that they had been in a bad car wreck. That worked perfectly on him. The student did not know that we knew each other and would have gotten away with this Appeal to Pity had we not happened to talk about the “awful thing” that had happened to our mutual student. While I obviously knew all about the Appeal to Pity as a fallacy, I had not yet fully developed the professional emotional distance essential to avoiding becoming a victim of such appeals. I also learned that some people would lie about anything even for but a small gain.

Example #1:

Jill: "He'd be a terrible coach for the team."

Bill: "He had his heart set on the job, and it would break if he didn't get it."

Jill: "Well, I guess he'll do an adequate job..."

Example #2:

"I'm positive that my work will meet your requirements. I really need the job since my grandmother is sick"

Example #3:

"I should receive an 'A' in this class. After all, if I don't get an 'A' I won't get the fellowship that I want."

Appeal to Popularity

Description:

The Appeal to Popularity has the following form:

Premise 1: Most people approve of X.

Conclusion: Therefore, X is true.

In this fallacy, a claim is accepted as true simply because most people are favorably inclined towards it. More formally, the claim that most people have favorable emotions associated with the claim is substituted for evidence. A person falls for this fallacy if they accept a claim simply because most other people approve of it.

It is fallacious to accept the approval of the majority as evidence. For example,

suppose that a skilled speaker managed to get most people to absolutely love the claim that $1+1=3$. It would still not be rational to accept this claim simply because most people approved of it. Approval is no substitute for a mathematical proof. At one time people approved of claims such as “humans cannot survive at speeds greater than 25 miles per hour”, and “the sun revolves around the earth” but these claims are not true.

This reasoning is common and can be an effective persuasive device. Since people often conform to the views of the majority, convincing a person that the majority approves of a claim can be an effective way to get them to accept it. Advertisers often use this tactic when they attempt to sell products by claiming everyone uses and loves their products. In such cases they hope that people will accept the (alleged) approval of others as a good reason to buy the product.

This fallacy is like Appeal to Belief and Appeal to Common Practice. However, in the case of an Appeal to Popularity the appeal is to the assertion that most people approve of a claim. In the case of an Appeal to Belief, the appeal is to the assertion that most people believe a claim. In the case of an Appeal to Common Practice, the appeal is to the fact that many people take the action in question.

This fallacy is related to the Appeal to Emotion fallacy, as discussed in the entry for that fallacy. Some authors consider Appeal to Belief and Appeal to Popularity to be variants of the same fallacy or even the same fallacy. There is nothing wrong with this view and, as mentioned above, there is no bureau of fallacy naming to

decide which is correct.

There are philosophical theories in which majority approval makes something true. One example is cultural ethical relativism. On this view, what is right is determined by the values of the culture and this can be taken as majority approval of the values. If such a theory is correct, then this reasoning would not be fallacy in that context.

While it might seem that the political view of majority rule would be an example of this fallacy, this is not the case. Majority rule does not entail that claim are true because the majority votes for them. Rather it is the view that political legitimacy arises from the approval of the citizens. So, a candidate getting the majority of the votes would be the legitimate winner but this does not entail that the approval of the voters proves that the politician's claims are true.

Defense: The main defense against this fallacy is to keep in mind the distinction between a claim being true and being approved of, even if most people do approve of it.

Example #1:

“My fellow Americans...there has been some talk that the government is overstepping its bounds by allowing police to enter people's homes without the warrants traditionally required by the Constitution or even knocking and identifying

themselves as police. However, these are dangerous times and dangerous times require appropriate actions. I have in my office thousands of letters from people who let me know, in no uncertain terms, that they heartily endorse the war against crime in these United States. Because of this overwhelming approval, it is evident that the police are doing the right thing.”

Example #2:

“I read the other day that most people really like the new gun control laws. I was sort of suspicious of them, but I guess if most people like them, then they must be okay.”

Example #3:

Jill and Jane have some concerns that the rules their sorority follows are racist. Since Jill is a decent person, she brings her concerns up in the next meeting. The president of the sorority assures her that there is nothing wrong with the rules, since most of the sisters like them. Jane accepts this ruling, but Jill decides to leave the sorority.

Appeal to Purity

Also Known As: No True Scotsman Fallacy

Description:

This fallacy is an attempt to protect a generalization about a group from a counterexample by an unprincipled change to the definition of the group to exclude

the counterexample. This is a fallacy because the tactic does not refute the counterexample, but only asserts without support that it does not apply. The fallacy is also known as the No True Scotsman fallacy thanks to the philosopher Anthony Flew. The fallacy has the following form:

Premise 1: Counterexample E is made against Claim C about group G.

Premise 2: Counterexample E does not apply to any *true* member of G.

Conclusion: C is true (and E is false).

Like many fallacies, it draws its persuasive power from psychological factors. A someone with a favorable view of the group has a psychological, but not logical, reason to reject the counterexample. Few are willing to believe negative things about groups they like or identify with. In Anthony Flew's example, a Scotsman refuses to believe a story about the bad behavior of other Scotsmen on the grounds that no *true* Scotsman would do such things. People can also reject counterexamples on pragmatic grounds, such as when this would provide a political advantage.

The fallacy can also be used in the opposite way to reject positive counterexamples about negative claims. For example, if someone claims that all video games are senselessly violent and rejects counterexamples of non-violent video games, then they are committing this fallacy.

This variation is also fueled by psychological factors, in this case negative ones: a

person dislikes the group in question and hence is motivated to reject positive counterexamples against negative claims. This can also be done for pragmatic reasons; for example, a politician might refuse counterexamples that go against their negative rhetoric about a group they are trying to demonize.

Sorting out who or what belongs in a group can be a matter of reasonable debate. For example, when members of religious groups do awful things, the question arises as to whether these people are true members of these groups. For example, the Westboro Baptist Church is infamous for its slogan “God Hates Fags” and its hate speech. Some might contend that they are not true Christians because their beliefs seem counter to mainstream Christianity. Others assert that they are Christians because they claim to be and back up their views with scripture.

Debates over group membership need not be fallacious, so it should not be assumed that every argument rejecting a counterexample must be a fallacy. For example, if someone contends that true Christians do not hate LGBT people and rejects the counterexample of the Westboro Baptist Church by providing reasons why they do not meet a good definition of “Christian”, then this fallacy has **not** been committed. This is because they have provided reasons to support their claim rather than simply rejecting the counterexample out of hand. Their argument could still fail, but not because it is this fallacy.

Providing a guide to settling such disputes goes far beyond the scope of this work, but this fallacy is not a tool that should be used in rational efforts to address such

matters.

While it is an error to dismiss counterexamples out of hand, it is also an error to simply accept that what is claimed about some members of a group applies to all or most members of a group. For example, someone might note that a migrant committed a crime and then assert that most migrants are criminals. As another example, one might assert that most police officers are prone to excessive violence because some have been involved in high profile cases of police violence. These would be example of the Hasty Generalization fallacy. This is leaping to a conclusion too quickly from a sample that is too small to support it properly.

Defense: The main defense against this fallacy is to consider whether a counterexample is rejected on principled grounds or is rejected without evidence, such as on psychological or pragmatic grounds. One way to try to overcome a psychological bias is to ask what evidence exists to reject the counterexample. If there is no such evidence, then all that would be left are psychological or pragmatic reasons. These have no logical weight.

Example #1

Bill: "Islam is a religion of peace. No Muslim would harm another person."

Sally: "What about the Muslims who are fighting in Syria and Yemen right now?"

Bill: "They are not true Muslims."

Example #2

Bill: “Christianity is a religion of peace. No Christian would harm another person.”

Sally: “What about all the Christians that killed each other in the world wars and other conflicts?”

Bill: “They were not true Christians.”

Example #3

Mark: “Republicans are not racists and certainly not white supremacists.”

Hector: “What about those racists and white supremacists who support Republican politicians? What about the Republican politicians who are racist and sexist?”

Mark: “We don’t accept them in our party; we are not racists.”

Example #4

Mark: “Democrats are not sexists; we are all for equal rights and respect women!”

Hector: “So, what about those Democrats who got outed by #MeToo for assaulting women?”

Mark: “They are obviously not real Democrats; no real liberal would do such things!”

Appeal to Ridicule

Also Known as: Appeal to Mockery, The Horse Laugh.

Description:

The Appeal to Ridicule is a fallacy in which ridicule or mockery is substituted for

evidence for a claim. This reasoning has the following form:

Premise 1: X, a form of ridicule, is directed at claim C.

Premise 2: Therefore, claim C is false.

This is fallacious because ridicule does not show a claim is false. This can be shown in the following example: “1+1=2! That’s the most ridiculous thing I have ever heard! So, 1+1 does not equal 2!”

This fallacy can be effective for psychological reasons. People generally do not want to associate with something (or someone) that is being effectively ridiculed or mocked. People are also inclined to believe that things they already dislike or disbelieve are ridiculous and hence Appeals to Ridicule can be quite effective in these cases. People also tend to think that those they disagree with are ridiculous, especially in matters such as politics. The ridicule need not be funny and can often be cruel.

This fallacy is often used in conjunction with hyperbole (extravagant overstatement) to make the target appear ridiculous. In such cases, this fallacy can also function as a Straw Man fallacy. In such a case, there are two logical errors wrapped up in one argument. The Straw Man fallacy would occur when the target is a distorted or exaggerated version of the actual target. This distortion would be intended to make the straw target seem ridiculous. The Appeal to Ridicule would

occur because the audience is supposed to reject the straw target because of the ridicule aimed at it.

This fallacy can also occur in conjunction with an Ad Hominem or Genetic Fallacy. In these cases, the attack made on the source of the claim is intended to make the target seem ridiculous.

Proving that a claim is absurd with a good argument could make it reasonable to reject the claim. One example of this sort of reasoning is the *reductio ad absurdum* (reducing to absurdity). In this argument, the method is to show that a contradiction (a statement that must be false) or an absurd result follows from a claim. For example: “Bill claims that a member of a minority group cannot be a racist. However, this is absurd. Think about this: white males are a minority in the world. Given Bill’s claim, it would follow that no white males could be racists. Hence, the white men of the Klan, white male Nazis, and male white supremacists are not racist.”

Since the claim that the Klan, Nazis, and white supremacists are not racist is clearly absurd, it can be concluded that the claim that a member of a minority cannot be a racist is false. While a *reductio* argument might fail for other reasons, it is not an Appeal to Ridicule. This is because the absurdity the *reductio* is aimed at showing is not mere mockery but a conceptual absurdity, such as contradiction.

Defense: The defense against this fallacy is not a matter of riding yourself of a sense

of humor. Rather, the defense is to distinguish between a reason to accept a claim and mere mockery. Defending against this fallacy is more difficult when you already dislike the targeted claim or think it is silly. But you should consider whether you dislike the claim or think it is silly for good reasons.

Example#1:

“Sure, my worthy opponent claims that we should lower tuition, but that is just laughable.”

Example#2:

“Equal rights for women? Yeah, I’ll support that when they start paying for dinner and taking out the trash! Hah! Fetch me another brewski, Mildred.”

Example#3:

“Those crazy conservatives! They think a strong military is the key to peace! Such fools!”

Example #4:

“Same sex marriage? Why that is just like allowing people to marry turtles. Can you imagine turtles in little tuxes or wedding gowns? So, no.”

Example #5:

“My opponent says that there is a legitimate right to keep and bear arms. But whenever I hear him say that all I can picture are Elmer Fudd and Yosemite Sam. He might as well be saying “wascally wabbit. So, I obviously don’t take his silly ideas

seriously.”

Appeal to Spite

Also Known as: Appeal to Anger

Description:

The Appeal to Spite Fallacy is a fallacy in which spite or anger is substituted for evidence for (or against) a claim. This line of reasoning has the following form:

Premise 1: X is presented with the intent of generating spite/anger.

Conclusion: Therefore, claim C is true (or false)

This is fallacious because a feeling of spite or anger does not count as evidence for or against a claim. This is shown by the following silly example: “Bill claims that the earth revolves around the sun. But remember that dirty trick he pulled on you last week. Now, doesn’t my claim that the sun revolves around the earth make sense to you?”

There is also a variant called Anger Justification:

Premise 1: If B did X to you, then you would be angry enough to do Y to B.

Conclusion: Doing Y to B is morally justified.

While there are moral theories that rest on emotions, even if it were true that an action would make me angry enough to do something, it does not follow that the action would be right. After all, I might be an emotional volcano who is easily angered by even the smallest perceived provocation. And even if I was not easy to anger, anger is still not proof.

Spite and anger are powerful emotions and can be effective in bypassing reason. When people are angry, they often think that they are justified in their anger simply because they are angry. That is, there is a tendency to see anger as self-justifying: if I am angry about something, then I must have a good reason to be angry. But people can obviously be angry for bad reasons or no reason at all.

Spite and anger are also effective persuasive tools because a person's anger at one thing can easily be shifted to an unrelated target. For example, a person who is angry about a co-worker turning them down for a date is likely to have that anger affect their judgment about their co-worker's qualifications for the job. Politicians often make use of this feature of anger, in some cases shifting justified anger to an unwarranted target. For example, it does seem reasonable for American workers to be angry that corporations have often moved many jobs overseas. But politicians often shift this economic anger towards unrelated targets, such as migrants.

Being emotions, anger and spite are not themselves fallacies. There are moral debates over when they are appropriate to feel, but that is a matter for ethics.

There are cases in which a claim can evoke spite or anger while also providing a

good reason to accept or reject a claim. However, the feelings of anger or spite are not evidence; it just so happens that good evidence could also make a person angry. The following is an example of such a **non-fallacious** situation:

Jill: "I think I'll vote for Jane to be treasurer of NOW."

Vicki: "Remember the time that your purse vanished at a meeting last year?"

Jill: "Yes."

Vicki: "Well, I just found out that she stole your purse and stole some other stuff from people. Because of this, I checked the organizations books and found that she has transferring money into her bank account."

Jill: "I'm not voting for her! Also, I'm calling the police!"

In this case, Jill has a good reason not to vote for Jane. Since a treasurer should be honest, a known thief would be a bad choice. If Jill concludes that she should vote against Jane because she is a thief and not just out of spite, her reasoning would not be fallacious.

Defense: While anger management is a useful skill for avoiding this fallacy, the main defense is being aware of the psychological power of anger. If you are angry, you should be on guard against accepting (or rejecting) claims. Whether the anger is invoked by another or not, you should ask whether what is causing your anger also

provides evidence for a claim or is it just a case of thinking you are justified in your anger because you feel angry?

Example #1:

Bill: "I think that Jane did a great job this year. I'm going to nominate her for the award."

Dave: "Have you forgotten last year? Remember that she didn't nominate you last year."

Bill: "You're right. I'm not going to nominate her."

Example #2:

Jill: "I think Jane's idea is a really good one and will really save a lot of money for the department."

Bill: "Maybe. Remember how she showed that your paper had a fatal flaw when you read it at the convention last year..."

Jill: "I had just about forgotten about that! I think I'll go with your idea instead."

Appeal to Silence

Also Known As: Argument from Silence, Argumentum Ex Silentio

Description:

This fallacy occurs when someone attempts to take silence (a lack of response) as evidence for claim. It has the following form:

Premise 1: No reply (or objection) has been made to claim C.

Conclusion: Therefore, claim C is true.

This is a fallacy because receiving no reply (or objection) to a claim is not evidence for that claim. A lack of reply leaves the claim with as much evidence as it had prior to any lack of reply.

That said, there are cases in which a lack of reply can be taken as evidence for a claim, but this requires establishing a situation in which a lack of reply reasonably indicates consent to accepting the claim. For example, imagine a meeting in which a proposal has been voted for. The chair says, “if there are no objections to be stated, then the consensus is that we will go with Sally’s plan.” It would not be a fallacy for the chair to accept the claim that the consensus is to go with Sally’s plan. While the chair could be mistaken (people might hate her plan but want the meeting to end), there is no error in reasoning.

This fallacy is like Appeal to Ignorance and is sometimes classified as a variant of it. The main difference is that an Appeal to Ignorance is based on a lack of evidence against something while the Appeal to Silence is aimed at the lack of a reply in a context, such in a conversation or debate in YouTube’s comment section.

This fallacy can be used as part of a bad faith tactic for “winning” an argument. The tactic is to exhaust the target with bad faith arguments and then use this fallacy

to “prove” the debate has been won. If the target responds, then the person can continue wearing down their target with bad faith methods. If the target does not respond, they can use this fallacy and hope that others fall for it and conclude that they have triumphed.

Defense: While silence *might* signal defeat or agreement in some contexts, a failure to respond to you does not show that the person agrees that a claim is true. If this fallacy is used against you, it can be tempting to reply, especially if the fallacy seems to be working on others. But if the person is engaging in bad faith arguing, responding will simply extend the bad faith debate. In most cases, the least bad option is to not respond and end your participation in the bad faith debate. If you think it might work, you can close by mentioning that Appeal to Silence is a fallacy.

Example #1

“Aha, the blog’s author never replied to my witty criticism of her belief in God. From her lack of reply, I must infer that she has no reply to make and has conceded to my argument.”

Example #2

Eric: “I think that people who are mentally incompetent should not exempt from the death penalty. After all, those are exactly the people we need to get rid of.”

Rich: “That is horrible.”

Eric: “But can you show I am wrong?”

Rich: “We’ve been arguing for hours. I’m argued out.”

Eric: “Aha! I must be right then.”

Rich: “What?”

Eric: “If you have no reply, that means I win. I’m right.”

Rich: “Fine.”

Eric: “Victory at last!”

Example #3

Theodore, commenting on a blog post: “No, it is you who committed the fallacy. You claim to be this smart philosopher, but you just do not see that I am right that companies should stay out of politics, except campaign contributions. You are just a dummy and can’t see the truth. Also, why do you hate America so much?”

Theodore, later: “Response?”

Theodore, even later: “Crickets. Nothing to say, dummy?”

Theodore, much later: “I see you have given up, dummy. You get that I am right, and you have nothing to say.”

Appeal to Silence: Gish Gallop & Fire Hose of Falsehoods

Description:

Like the general Appeal to Silence fallacy, the Gish Gallop and Fire Hose of Falsehoods are tactics that involve taking a failure to respond as evidence for a claim.

As a rhetorical tool, the Gish Gallop is an attempt to overwhelm an opponent by presenting many arguments and claims with no concern for their quality or accuracy. The Gish Gallop was named in 1994 by anthropologist **Eugenie Scott** who claimed that **Duane Gish** used this tactic when arguing against evolution.

The Gish Gallop is somewhat like the debating tactic of spreading which involves making arguments as rapidly as possible in the hopes that the opponent will not be able to respond to all of them. The main distinction is that the Gish Gallop is an inherently bad faith technique that relies on rapidly presenting weak arguments, fallacies, partial truths, Straw Men, and lies in the hopes that the opponent will not be able to refute them all. The Gish Gallop can be seen as a metaphorical cluster bomb of fallacies and untruths.

While this technique lacks logical force, it can have considerable psychological force. The Gish Gallop relies on **Brandolini's Law**, which is the idea that it takes more time and effort to refute a fallacy or false claim than it takes to make them. Effective use of a Gish Gallop will yield many unrefuted fallacies and false claims, and this can create the impression in the audience that the Gish Galloper has “won” the debate. The Gish Gallop can be combined with Moving the Goal Posts to create the illusion that at least some of the refutations have been addressed.

Psychologically, the side that seems to have made the most unrefuted arguments and claims might appear to be correct, especially if the Gish Galloper uses the Gish Gallop fallacy, which has the following general form:

Premise 1: Person A presented N arguments for claim C .

Premise 2: Person B, the opponent, refuted X of A's arguments.

Premise 3: N is greater than X .

Conclusion: C is true.

This is fallacious reasoning because it is not the number of arguments that proves a claim, but the quality of the arguments. As an illustration, consider this silly example:

Premise 1: During a debate, Bob presented 123 arguments that $2+2=6$.

Premise 2: Bob's opponent Sally only refuted 2 of Bob's arguments before time ran out.

Premise 3: 123 is greater than 2.

Conclusion: Therefore, $2+2=6$

While the error in reasoning is obvious in such absurd cases, people can easily fall victim to this reasoning in more complicated or controversial cases, especially if the audience does not know the subject well.

One reason why this fallacy might be appealing is that it seems analogous to methods that do work. For example, a swarm of relatively weak ants can overwhelm

a strong spider in virtue of their numbers, even though the spider might kill many of them. But argumentation usually does not work like that; weak arguments generally do not add together to overcome a single strong argument. So, the analogy is not a swarm of ants beating a spider, but a spider fighting weak ants one at a time.

Another reason the fallacy might seem appealing is that making claims or arguments that are not refuted could seem analogous to one team not being able to block every shot taken by their opponent. But the Gish Gallop would be best compared to a basketball team rapidly taking wild shots all over the place, not caring whether they are even made in the direction on the basket. The opposing team does not need to block those wild shots; they are not going to score any points. In the case of arguments, not refuting a bad argument does not prove that the argument is good. Not refuting a claim does not prove the claim is true. See Burden of Proof for a discussion of this.

While the Gish Gallop technique involves presenting at least some arguments, a related technique is to blast an opponent with a Fire Hose of Falsehoods. In this context, the Fire Hose of Falsehood is a rhetorical technique in which many falsehoods are quickly presented. The technique can also employ the rhetorical technique of repetition. As a matter of psychological force, the more times a person hears a claim, the more likely they are to believe it. But the number of times a claim is repeated is irrelevant to its truth. This method also often involves using multiple channels to distribute the falsehoods. For example, real users or bots on various

social media platforms could be employed to spread the falsehood. This can have considerable psychological force since people are also inclined to believe a claim that (appears to) come from multiple sources. But the mere number of sources making a claim is irrelevant to the truth of that claim.

This technique can be used to achieve various ends, such as serving as a Red Herring to distract people from an issue or, in its classic role, **as a propaganda technique**. On a small scale, such as in a debate, it can be used to overwhelm an opponent because a person can usually tell a lie much faster than someone else can refute it. This technique can be used with Moving the Goal Post to exhaust an opponent and run out the clock.

It can also be employed as a variant of the Appeal to Silence. As a fallacy, the reasoning is that unless all the falsehoods made by someone are refuted, then their unrefuted falsehoods are true. As a fallacy, it has this generally form:

Premise 1: Person A makes N falsehoods.

Premise 2: Person B, the opponent, refuted X of A's falsehoods.

Premise 3: N is greater than X.

Conclusion: The unrefuted falsehoods are true.

Laid bare like this, the bad logic is evident. Not refuting a falsehood does not make the falsehood true. When someone uses this fallacy, they will attempt to conceal the

logical structure of this reasoning. They might, for example, simply say that their opponent has not refuted their claims and so their opponent must agree with them.

While this is a fallacy, it can be effective psychologically. If a person seems confident in their falsehoods and overwhelms their opponent with the sheer number of their lies, they might appear to have “won” the debate.

Defense: To avoid being taken in by the Gish Gallop, the key is remembering that the support premises provide to a conclusion is based on the quality of the argument. The quantity of (unrefuted) arguments for a claim, by itself, does not serve as evidence for a claim. In the case of claims, a failure to refute all the claims made a person does not prove that the unrefuted claims are true; this applies to both the Gish Gallop and the Fire Hose of Falsehood.

If a Gish Gallop or Fire Hose of Falsehood is being used against you in a debate, you will almost certainly not be able to respond to all the arguments and claims. From a logical standpoint, one good option is to briefly point out your opponent’s technique and why it is defective. If you are arguing for a position, focus on your positive arguments and, if time permits, respond to the most serious objections. If you are arguing against a position, focus on your arguments against that position and, if possible, try to pre-empt the arguments your opponent is likely to use in their Gish Gallop. You can also sometimes group arguments and claims together and refute them in groups. For example, if an opponent uses multiple Straw Men, you

can respond to all of these by pointing this out.

Example#1

Gus: “So, my opponent is a climate change scientist. That means she hates capitalism, so she is wrong. Also, these so-called climate change scientists say that humans are the only things that affect the climate, that is totally wrong. You remember Al Gore, right? Remember how silly that guy is? Plus, he lost the election! To George Bush! Lots of smart people don’t believe in climate change and how can the climate change if the earth is flat? Remember how they used to call it global warming? Now these scientists say that some places will get cooler! Also, remember that it snowed in Texas. So much for global warming! And we still had winter; it was cold some days. And everyone knows that we had ice ages in the past. But we don’t have an ice age now. So, climate changes without us; so much for the idea that humans are causing it.”

Moderator: “Time. Your turn Dr. Jones. You have two minutes.”

Dr. Jones: “So where to begin...”

Gus, two minutes later: “See, “Dr.” Jones did not refute all my arguments. So, climate change is all a hoax, as I said.”

Appeal to Tradition

Also Known as: Appeal to the Old, Old Ways are Best, Fallacious Appeal to the

Past, Appeal to Age

Description:

Appeal to Tradition is a fallacy that occurs when it is assumed that something is better, correct, or true simply because it is older, traditional, or “always has been done/believed.” This reasoning has the following form:

Premise 1: X has been done or believed for a long time or is traditional.

Conclusion: Therefore, X is correct, good, or true.

This is fallacious because doing or believing something for a long time does not automatically make it correct. It also does not make it true. This example shows why it is bad reasoning: “The theory that witches and demons cause disease is far older than the theory that microorganism cause diseases. Therefore, the theory about witches and demons must be true.”

While Appealing to Tradition is a fallacy, traditions are not fallacies (though they can be assessed on their merits). Enjoying having a tradition is also not a fallacy. For example, someone who celebrates Easter by buying candy because of a family tradition is obviously not committing a fallacy.

This fallacy is psychologically appealing for many reasons. First, people often prefer to stick with what is older or traditional, perhaps due to habituation and familiarity. This is a common psychological characteristic of people which may stem

from the fact that people feel more comfortable about what has been around longer. The effective commercialization of nostalgia shows how appealing older things can be.

Second, sticking with things that are older or traditional is often easier than considering new things. Change can sometimes be seen as threatening, uncomfortable, or confusing.

Third, people who benefit or believe in power structures that have been in place for some time have a vested interest in maintaining certain traditions and thus have pragmatic reasons to accept what is traditional. This can motivate people to use and fall victim to this fallacy.

This fallacy is related to the Appeal to Belief and Appeal to Common Practice fallacy but differs in an essential way. In an Appeal to Belief fallacy, a claim is supposed to be accepted because most people believe that claim. In an Appeal to Tradition, a claim is supposed to be accepted because people have believed it a long time. That is, it is not the number of people who believe it but the alleged duration of the belief. In an Appeal to Common Practice, a practice is supposed to be good or acceptable because most people do it. In the Appeal to Tradition, a practice is supposed to be good or acceptable because it has been done a long time. These fallacies can certainly be combined. A person might, for example, appeal to a practice being both common and a tradition to defend it. In this case, they would be committing two fallacies.

It should not be assumed that the new must be better than the old (see Appeal to Novelty) any more than it should be assumed that the old is better than the new. The age of thing does not, in general, have any bearing on its quality or correctness (in this context). In the case of tradition, assuming that something is correct just because it is considered a tradition is poor reasoning. For example, if the belief that $1+1 = 56$ were a tradition of a group of people it would hardly follow that it is true.

Obviously, age does have a bearing in some contexts. For example, if a person concluded that properly aged cheese would be better than recently made cheese, they would not be committing an Appeal to Tradition. This is because, in such cases the age is relevant quality. Thus, the fallacy is committed only when the age is not, in and of itself, relevant to the claim.

One final matter to discuss is the test of time. People might assume that because something has endured it must be true or good because it has passed the test of time. If it is inferred that something must be correct or true simply because it has persisted, then this would be an Appeal to Tradition. False claims and bad things can persist for a long time. After all, the practice of murder is ancient, yet this does not make it good.

If “the test of time” is shorthand for successfully standing up to relevant challenges and effective tests for a long time, then accepting a claim or practice on this basis would not be this fallacy. This is because the appeal is not to the age of the claim or practice, but to the weight of evidence supporting it over time. As an example, the

theory that matter is made of subatomic particles has survived numerous tests and challenges over the years so there is a weight of evidence in its favor. The claim is reasonable to accept because of this evidence and not because the claim is old. Thus, a claim surviving legitimate challenges and passing valid tests for a long period of time can justify the acceptance of a claim. But mere age or persistence does not warrant accepting a claim.

Defense: The defense is to ask whether there is any reason other than tradition to accept a claim as true or something as good. If a claim is true or a something is correct, then there should be other reasons in their favor. If no reasons can be offered beyond invoke tradition, then you have been given no reason to agree. But it should not be inferred that the claim must be false simply because it is the conclusion of an Appeal to Tradition.

Example #1:

“Sure, I believe in God. People have believed in God for thousands of years so it seems clear that God must exist. After all, why else would the belief last so long?”

Example #2:

Gunthar is the father of Connan. They live on a small island and in their culture, women are treated as property to be exchanged at will by men.

Connan: “You know father, when I was going to school in the United States I saw

that American women are not treated as property. In fact, I read a book by this person named Mill in which he argued for women's rights."

Gunthar: "So, what is your point son?"

Connan: "Well, I think that it might be wrong to trade my sisters for cattle. They are human beings and should have a right to be masters of their own fate."

Gunthar: "What a strange and new-fangled notion you picked up in America. That country must be even more barbaric than I imagined. Now think about this son. We have been trading women for cattle for as long as our people have lived on this island. It is a tradition that goes back into the mists of time. "

Connan: "But I still think there is something wrong with it."

Gunthar: "Nonsense my boy. A tradition this old must be endorsed by the gods and must be right. "

Example #3:

Of course, this mode of government is the best. We have had this government for over 200 years, and no one has talked about changing it in all that time. So, it has got to be good.

Example #4:

A reporter is interviewing the head of a family that has been involved with a feud with another family.

Reporter: "Mr. Hatfield, why are you still fighting it out with the McCoys?"

Hatfield: "Well you see young man, my father feuded with the McCoys and his

father feuded with them and so did my great grandfather.”

Reporter: “But why? What started all this?”

Hatfield: “I don’t rightly know. I’m sure it was the McCoy’s who started it all, though.”

Reporter: “If you don’t know why you’re fighting, why don’t you just stop?”

Hatfield: “Stop? What are you crazy? This feud has been going on for generations so I’m sure there is a darn good reason why it started. So, I aim to keep it going. It has got to be the right thing to do. Hand me my shooting iron boy, I see one of those McCoy skunks sneaking in the cornfield. He’s probably going to steal our Wi-fi!”

Example #5:

Tucker: “Believing that transgender is a real gender goes against all tradition. We have always just had men and women. And you do not just switch to the other team.”

Sally: “Right! It has always been that way. Same for marriage. It is between one man and one woman. That is why I am running for the senate. I will save marriage and protect the children!”

Tucker: “Exactly. And the woman obeys the husband in all things and does not disagree with him. She also does all the cooking and cleaning. And no working outside the home. She needs to be in the kitchen and taking care of the kids. As it has always been.”

Sally: “What?”

Tucker: “Get back in the kitchen where you belong.”

Appeal to Vanity

Also Known As: Appeal to Snobbery

Description:

This fallacy occurs when an appeal to vanity or elitism is taken as evidence for a claim. It has the following form:

Premise 1: V is presented, with the intent to appeal to the vanity or snobbery of person P.

Premise 2: Therefore, claim C is true.

This is fallacious because appealing to a person’s vanity or snobbery is not evidence. Such an appeal can be psychologically effective because people can be influenced by a desire to think of themselves as part of an elite group.

While vanity and snobbery can be moral flaws, they are not in themselves fallacious. It is their use in place of evidence that results in the fallacy occurring.

This fallacy is often employed in advertising by trying to motivate purchasing a product because it is associated with someone famous or that having the product somehow makes a person part of a special group. It is also used in politics, religion, and similar identity-based contexts. For example, a politician might try to motivate their followers to accept a claim by asserting that they are the real elites because they believe what the politician is saying.

While this fallacy can be combined with Appeal to Group Identity in such contexts, they are different. Appeal to Group Identity gets its psychological force from the positive feelings the target has towards the group they identify with while the Appeal to Vanity gets its power from vanity or snobbery. If I believe a claim because I am proud to be a philosopher, then I would be committing an Appeal to Belief. If I accept a claim because I think I am better than everyone else because I am a philosopher and philosophers are the best, then I would be committing an appeal to vanity.

Defense: While it is appealing to think of oneself as among the elite, an appeal to vanity or snobbery provides no evidence for a claim. If someone is attempting to appeal to your vanity or snobbery, the defense is to ask whether there is any evidence for the claim they want you to accept. If there is not, you should not accept the claim based on this appeal.

Example #1

“Ben Affleck wears the finest suits. Of course, he buys them at the Harvard Yard Suit & Baked Bean Emporium. You should too.”

Example #2

“Such a fine watch is not for everyone, but only for those who can truly appreciate a majestic time piece. If you are one of the select few, you may arrange an appointment with one of our agents to discuss purchasing opportunities. We do not accept walk-ins.”

Example #3

“You, my supporters are not just the elite. You are the super-elite. Like me. We have more money, and we are smarter. Our houses are better. Our boats are much nicer. The best boats. You are the super-elite. We are the super-elite. So, you know I am right when I say that we need more gun control. We cannot allow the non-elites to run around with so many guns.”

Argument Against Authority

Also Known As: Argument Against Expertise

Description:

This fallacy occurs when a person rejects a claim simply because it is made by an authority/expert. It has the following form:

Premise 1: A is an authority/expert in field F.

Premise 2: A makes claim C in field F.

Conclusion: Claim C is false.

This fallacy can be seen as the reverse of a Fallacious Appeal to Authority. In that fallacy, an unqualified person's claim is accepted because they are mistakenly to be a trustworthy expert. In this fallacy, a qualified person's claim is rejected because of their correctly attributed expertise. That is poor reasoning can be illustrated with an example from geometry:

Premise 1: Euclid is an expert on geometry.

Premise 2: Euclid claims that triangles have three sides.

Conclusion: Triangles do not have three sides.

This fallacy has the unusual feature of not only being bad reasoning but also reasoning in which the premises will often support the *rejection* of the conclusion. This is because the target of this fallacy tends to be a qualified expert speaking in their field and, as such, someone who is likely to be right. But not guaranteed to be right.

There are rational grounds for doubting experts, as discussed in the Fallacious Appeal to Authority. When a person rationally applies the standards of assessing an alleged expert and determines that the expert lacks credibility, they would not be committing this fallacy. But to reject a claim solely because of the source is always a

fallacy (often an Ad Hominem) and rejecting a claim *because* it was made by an expert would be doubly fallacious if there were such a thing. But this fallacy can have great psychological force and explaining this takes us to visit our good, dead friend Socrates in ancient Athens.

One of Socrates' friends went to the oracle of Delphi and asked them who was the wisest of men. It was, of course, Socrates. While many would accept such praise, Socrates believed that the gods were wrong and set out to disprove them by finding someone wiser. He questioned the poets, the politicians, the craftspeople, and anyone who would speak with him. He found everyone believed they knew far more than they did and the more ignorant a person, the more they believed they knew. Reflecting on this, Socrates concluded that the gods were right: he was the wisest because he knew that he knew nothing, that his infinite ignorance eclipsed what little he knew. While some were grateful to Socrates, more were outraged and saw to it that he was put on trial and sentenced to death.

While we now have smart phones, people have not changed since those times: most believe they know far more than they do, and they resent those who would disagree. **Technology has made this worse—thanks to the “university of Google” and social media, people not only doubt the experts, but regard themselves as equal to or better than them.**

We can continue our philosophical adventure by visiting our good dead friend John Locke. While Locke is best known for “life, liberty and property” he also wrote

on **enthusiasm**. By “enthusiasm” he did not mean being really excited about your favorite sports team or getting free guacamole. He was concerned with the tendency to believe a claim because how strongly one feels it to be true. While Locke, as a devout Christian, focused on religion, he held to a very sensible general principle that one should believe in proportion to the evidence rather than in proportion to the strength of feeling.

While psychologists and cognitive scientists have examined the various cognitive biases that contribute to what Locke calls enthusiasm, his basic idea is still correct: believing based on strong feeling is not a rational way to form beliefs. True beliefs can be backed up with evidence and reason. Locke did accept divine revelation but argued that true revelation would always be consistent with reason. The power of this enthusiasm leads people to believe based on the strength of their feelings and they will often be wrong. This leads people to reject what experts claim when there is disagreement. They will feel that they are right and that their strong feeling counts more than expertise.

Americans (and I am one) are especially prone to rejecting experts and a mistaken conception of democracy serves to fuel this fallacy. While American political philosophy professes that everyone is equal and everyone has a right to free expression, these are often wrongly interpreted as everyone being equal in knowledge and that all opinions are equally good (although each of us sees our opinion as first among equals). The science fiction writer Isaac Asimov noted this:

“There is a cult of ignorance in the United States, and there has always been. The strain of anti-intellectualism has been a constant thread winding its way through our political and cultural life, nurtured by the false notion that democracy means that my ignorance is just as good as your knowledge.” While anyone can commit this fallacy, it is especially common in the United States and is often used in politics.

A clever tactic is to misuse the standards discussed under the Fallacious Appeal to Authority and accuse the targeted expert of failing to meet those standards. While this could be done in good faith ignorance, this will usually be a bad faith tactic involving lies or disinformation. This tactic can create the illusion of logical force since it resembles the correct way to assess an alleged expert. It will also have the advantage of psychological force, since it is not constrained by the requirements of a good faith assessment. This allows for the use of other fallacies when engaged in such bad faith criticism.

As would be expected, Ad Hominem attacks are often made on experts to provide fallacious justification for rejecting their claims. For example, an expert might be accused of being whatever the boogeyman of the day is to “refute” their claims. For example, an expert might be accused of being a socialist. Wicked Motive is also a popular addition to this fallacy. For example, an expert in climate change might be accused of the wicked motive of trying to destroy capitalism to “refute” their claims about climate science. As another example, a business expert might be accused of the wicked motive of wanting to exploit workers to “refute” their claims about business. The Fallacy Fallacy is also useful here: a critic could claim that those who believe the expert’s claim are committing a Fallacious Appeal to Authority and then conclude, fallaciously, that the expert’s claim is false.

As a final point, this fallacy can be committed even if the target is not an expert. In this case, the person committing the fallacy would have a false premise (that the person making the claim is an expert in the field) and be making an error of reasoning (that the alleged expert is wrong because they are allegedly an expert).

Defense: This fallacy is often self-inflicted due to arrogant ignorance. Fortunately, a fundamental lesson of philosophy provides an excellent defense: realizing, as Socrates did, that wisdom is recognizing that we know nothing relative to the infinity of what we do not know. This is not to embrace empty skepticism in which everything is doubted, but to accept a healthy skepticism of the extent of our own knowledge and to develop a willingness to listen to those who (probably) have knowledge.

This fallacy is also often accepted because of the incitement of strong feelings about an expert's claims. This can be self-inflicted or caused by others. The defense against this is not to become unfeeling. It is to be aware that feelings are not evidence and to try to believe proportional to the evidence and not our enthusiasm. This is difficult to do since it is hard to fight feelings. But rational decision making that can be a matter of life or death requires it. How we feel about pandemics, guns, economics, vaccines, or climate change does not tell us which claims about them are true.

For my fellow Americans, the defense is not to reject democracy or freedom of expression but to realize that neither entail that "my ignorance is just as good as your knowledge." We can accept democracy and accept that people have the right to express themselves, but the *truth* of a claim is not decided by a vote nor is any opinion automatically as good as another just because they can be freely expressed.

Most people get this in what they see as practical matters: while some people attempt to do their own dentistry, build rockets, or rewire their house, most realize that root canals, major electrical work and rockets are best left to people who know what they are doing. We turn to dentists, electricians, and engineers because they are experts. We should get that the same applies beyond these areas. This is not to say that we should blindly believe the experts, but that we should accept claims made by credible experts over our own ignorance.

Example #1

Seth: “Yeah, that epidemiologist says that we need to get vaccinated to stop the Squirrel Pox pandemic, but I have done my own research. So, I am not getting vaccinated. I am sure that because I work out, I will be fine.”

Example #2

Yolanda: “I guess people are still mad about the election.”

Jeff: “I am. I did my research and I know that the election was stolen.”

Yolanda: “What sort of research? Experts across the country looked for evidence and there were almost a hundred court cases. Nothing significant was found.”

Jeff: “I figured you would trust the ‘experts.’ But I did my own research and I know they are wrong. Those experts think too much and don’t do the kind of research I do. Also, they are biased and full of hate.”

Yolanda: “You keep talking about your research. What research did you do?”

Jeff: "I did my research. You should, too."

Example #3

Interviewer: "As I am sure you know, there has been some turmoil in **Agrabah**. Would you favor using military force against the country if doing so was in America's interest?"

Don: "Ah, yes. They are saying a lot about the trouble in Agrabah."

Interviewer: "When I interviewed foreign policy experts, they said it would be impossible to use force against Agrabah."

Don: "Those pointy-heads don't know anything. We are the most powerful country in the world, and we could wipe Agrabah off the map. Right off the map."

Interviewer: "So, you know a lot about foreign policy?"

Don: "I sure do."

Example #4

Rick: "Hey, can you pick up some chips when you go to the store?"

George: "Sure. What kind?"

Rick: "Salt & vinegar chips. Check to make sure that they are not GMO. Also, check to make sure they are organic, vegan, free-range and cruelty free."

George: "Why no GMO? They are safe. Well, as safe as non-GMO food."

Rick: "Who says they are safe?"

George: "Scientists and researchers."

Rick: "I've Googled GMO a lot. I know the truth. I'm not going to believe those researchers. This YouTuber has this video that shows how eating GMO foods can change your genes!"

George: "I don't think food works like that. Also, who is this YouTuber?"

Rick: "They talk about health. Like how healing candles can cure cancer."

George: "Do they have a degree in genetics or something?"

Rick: "No. But that is why I trust her."

George: "Does she sell candles?"

Rick: "Yes."

George: "Are they gluten free?"

Rick: "Of course."

Bad Faith Fallacy

Description:

This fallacy occurs when it is inferred a claim is false or an argument is fallacious because the person making it is arguing in bad faith. The form is as follows:

Premise 1: Person A made claim C or Argument A in bad faith.

Conclusion: Therefore, claim C is false or Argument A is fallacious.

This is a fallacy because even if a person is arguing in bad faith, this does not entail that a specific claim is false or that a specific argument is fallacious.

This fallacy is tempting because arguing in bad faith, by definition, involves using deceit. This deceit can include intentionally making false claims and intentionally using fallacies.

But even in the context of arguing in bad faith, a person can make true claims and make non-fallacious arguments. While this might occur due to ignorance, it is more likely to be intentional. The person might be combining good faith arguments and claims with their bad faith arguments and claims as part of an overall bad faith strategy. After all, lies can seem more plausible when they are in the company of true claims and a good argument might be used to make the person seem reasonable. The person might even have some isolated instances of good faith claims and arguments, because they think those will serve their purpose better than bad faith claims and arguments. That this fallacy is bad reasoning can be shown with this silly example:

Ted: “To recap, by showing the clear inconsistencies in Senator Smith’s claims and his repeated use of various fallacies against his critics, it is reasonable to conclude that Smith has been arguing in bad faith.”

Alice: “Hmm, Smith also claimed that $2+2=4$. So, he must be lying about that. I wonder what $2+2$ really equals?”

A bad faith (and ironic) variant of this fallacy is the Accusation of Bad Faith. This

fallacy involves intentionally and falsely accusing someone of arguing in bad faith to conclude that their claim is false, or their argument is fallacious

Premise 1: Person A (intentionally and falsely) claims that Person B is arguing in bad faith when they make claim C or argument A.

Conclusion: Therefore, Person B's claim C is false, or argument A is fallacious.

As a fallacy of reasoning, the logic is flawed because it uses the same logic as the Bad Faith fallacy. This fallacy can be psychologically effective if the audience knows enough about bad faith to know that it involves the intentional making of false claims and fallacious arguments but are ignorant of the Bad Faith Fallacy. While sometimes used for trolling, it can also be combined with other fallacies. For example, it can be very effective in a Gish Gallop because accusing someone of arguing in bad faith takes a few words while trying to prove one is arguing in good faith and explaining the Bad Faith Fallacy can take a long time.

The Bad Faith Fallacy can look like a Fallacy Fallacy or an Ad Hominem. In part, this is because they are similar. People also tend to be sloppy or intentionally obscure when committing fallacies. In such unclear cases, the important thing is recognizing that a fallacy is occurring. Being able to precisely identify it can be useful but is not essential.

Defense: The defense against this fallacy is to remember that just because a person is arguing in bad faith, this does not entail that a specific claim must be false or that a particular argument must be fallacious. While you should be suspicious of anyone who seems to be arguing in bad faith you should also not rush to an unwarranted inference about their claims or arguments.

If someone else is targeted by what you suspect is an Accusation of Bad Faith, you should assess the allegation. But even if it is true, there would still be a Bad Faith Fallacy occurring.

If you are targeted by an Accusation of Bad Faith, a time-consuming defense is to show that you are arguing in good faith and to explain the Bad Faith Fallacy. The burden of proof generally rests on the person who accuses someone else of arguing in bad faith, but someone who is operating in bad faith is unlikely to respect this.

Example #1

Brent: “And that is why abortion is morally wrong.”

Yolanda: “Meh, I have tried to engage in a serious discussion with you, but you keep on arguing in bad faith. I have lost count of your lies and every argument you advance is either a fallacy or incoherent. Your bad faith shows that your view about abortion is wrong.”

Example #2

Brent: “And that is why abortion is morally acceptable.”

Yolanda: “Meh, I have tried to engage in a serious discussion with you, but you keep on arguing in bad faith. I have lost count of your lies and every argument you advance is either a fallacy or incoherent. Your bad faith shows that your view about abortion is wrong.”

Example #3

“The governor’s speech was yet another example of bad faith. He says he is signing all these bills because he cares about children. But the state has a severe child poverty problem, infant mortality and illness are both high, and so on. Whenever a bill is introduced to address these problems, he always says he will veto them if they manage to pass. He also said that reducing regulations on businesses would help create jobs. Just more bad faith, so that is obviously nonsense.”

Example #4

“The speaker of the house’s speech was yet another example of bad faith. She says she is fighting for the common people and against the rich, but she always opposes laws aimed at preventing her from engaging in insider trading. She claims that the green energy bill will be good. Just more bad faith, so that is obviously nonsense.”

Begging the Question

Also Known as: Circular Reasoning, Reasoning in a Circle, Petitio Principii

Description:

Begging the Question is a fallacy in which the premises include the claim that the

conclusion is true or assume the conclusion is true. This reasoning typically has the following form.

Premises: Premises in which the truth of the conclusion is claimed or assumed.

Conclusion: Claim C, the conclusion, is true.

This is fallacious because assuming the conclusion is true (directly or indirectly) is not evidence for that conclusion. Simply assuming a claim is true does not serve as evidence for that claim. This is especially clear in particularly blatant cases: “X is true. The evidence for this claim is that X is true.”

Some cases of question begging are blatant, while others can be extremely subtle. While it might seem odd, a case of circular reasoning can be valid deductive argument. For example, this obviously circular reasoning is also valid:

Premise: P

Conclusion: P

It is valid because validity means that if the premises of an argument are all true, then the conclusion must be true. If P is true, then it follows that P is true. That is indeed hard to dispute. But *assuming* P is true does not give you a reason to accept that P is true and that is why circular reasoning is fallacious.

Defense: The defense is to consider whether the premises simply assume the conclusion is true. If they do, this fallacy is committed.

Example #1:

Bill: "God must exist."

Jill: "How do you know?"

Bill: "Because the Bible says so."

Jill: "Why should I believe the Bible?"

Bill: "Because the Bible was written by God."

Example #2:

"If such actions were not illegal, then they would not be prohibited by the law."

Example #3:

"The belief in God is universal. After all, everyone believes in God."

Example #4:

Interviewer: "Your resume looks impressive, but I need another reference."

Bill: "Jill can give me a good reference."

Interviewer: "Good. But how do I know that Jill is trustworthy?"

Bill: "Certainly. I can vouch for her."

Biased Generalization

Also Known as: Biased Statistics, Loaded Sample, Prejudiced Statistics, Prejudiced Sample, Loaded Statistics, Biased Induction

Description:

This fallacy is committed when a conclusion is made about a population based on a sample that is unreasonably biased. It has the following form:

Premise: Sample S, which is biased, is taken from population P.

Conclusion: Claim C made about Population P based on S.

The fallacy can also be formalized as this:

Premise 1: Sample S (which is too biased) is taken from population P.

Premise 2: In Sample S X% of the observed A's are B's.

Conclusion: X% of all A's are B's in Population P.

This fallacy is a flawed Inductive Generalization:

Premise: X% of all observed A's are B's.

Conclusion: Therefore X% of all A's are B's.

An Inductive Generalization can be a good (strong) argument, provided that the sample is large enough (see the Hasty Generalization) and not biased. The fallacious version can be presented in this form:

Premise: X% of all observed A's are B's in biased sample S.

Conclusion: Therefore X% of all A's are B's.

Those committing the fallacy do not, of course, identify their sample as biased. When arguing in ignorance or bad faith, they would present it as if it were a strong Inductive Generalization and the sample would need to be evaluated to determine its bias.

A sample can be considered biased (also known as loaded) when the method used to take the sample is likely to result in a sample that does not adequately represent the population from which it is drawn.

Biased samples are unreliable. As a blatant case, imagine a person is taking a sample from a bucket of colored balls. Some of the balls are metal and some are plastic. If they used a magnet to select a sample, then the sample would include a disproportionate number of metal balls. In this case, any conclusions drawn about all the balls would be unreliable since there would probably be no plastic balls in the

sample.

Biased samples are also less likely to contain numbers proportional to the whole population. Bias is a relative concept and the same sample that is representative for one purpose could be representative for another.

For example, if a person wants to find out what most Americans think about gun control, a poll taken at a large NRA (National Rifle Association) meeting would be a biased sample, since members of the NRA would be more likely to oppose gun control than would the general population. But if they wanted to know what NRA members think, it would not be biased.

As another example, if a sample was taken at rally for gun control organized by Mothers Against Gun Violence (MAG), that sample would also be biased if the goal was to determine what most Americans think about gun control. But if the goal was to determine the opinions of people who rally for gun control, the sample would not be biased.

Since the Biased Sample fallacy is committed when the sample (the observed instances) is biased or loaded, a good generalization requires an unbiased sample. The best way to do this is to take samples in ways that avoid bias. A bit informally, there are three general sample types aimed at avoiding bias. These methods (when used properly) will tend to result in a sample that adequately resembles the population. Three types of samples are as follows:

Random Sample: This is a sample that is taken in such a way that only chance determines which members of the population are selected for the sample. Ideally, any individual member of the population has the same chance as being selected as any other. This type of sample avoids being biased because a biased sample is one that is taken in such a way that some members of the population have a higher chance of being selected than others. Unfortunately, creating an ideal random sample can be very difficult.

Stratified Sample: This is a sample involving three steps. First, the relevant strata (population subgroups) are identified. Second, the number of members in each stratum is determined. Third, a random sample is taken from each stratum in proportion to its size. This method is most useful when dealing with stratified populations. For example, a person's economic class often influences how she votes, so when conducting a presidential election poll in the United States, it would be a good idea to take a stratified sample that takes into account economic classes. This method avoids loaded samples by (ideally) ensuring that each stratum of the population is adequately represented.

Time Lapse Sample: This type of sample is taken by taking a stratified or random sample and then taking at least one more sample with a significant lapse of time between them. After the two samples are taken, they can be compared for changes. This method of sample taking is important when making predictions. A prediction based on only one sample is likely to be a Hasty Generalization. This is because the

sample is likely to be too small to cover past, present, and future populations. It can also be a Biased Sample because the sample will only include instances from one time. Now, back to the Biased Generalization.

People often commit a Biased Generalization because of bias or prejudice. This can occur in bad faith or ignorance when they seek out people or events that support their bias.

As an example, a person who is pushing a particular scientific theory might gather samples that are biased in favor of that theory. A person who is pushing a political narrative might gather samples that are most likely to seem to support their narrative.

People do sometimes commit this fallacy by accident rather than from bad faith. It is easy to just take a sample from what is readily available rather than taking the time and effort to generate an adequate sample and draw a justified conclusion.

Defense: The defense against committing this fallacy is ensuring that your samples are not significantly biased. When considering a generalization made by someone else, the defense is to check to see if the sample is biased. If you have no way of determining this, you should suspend judgment about the conclusion of the generalization. You should also check to see if a Hasty Generalization has occurred; these two fallacies can occur together when the sample is both biased and too small.

Example #1:

Bill is assigned by his editor to determine what most Americans think about a new law that will place a federal tax on all modems and computers purchased. The revenues from the tax will be used to enforce new online decency laws. Bill, being technically inclined, decides to use an email poll. In his poll, 95% of those surveyed opposed the tax. Bill was surprised when 65% of all Americans voted for the taxes.

Example #2:

The United Pacifists of America decide to run a poll to determine what Americans think about guns and gun control. Jane is assigned the task of setting up the study. To save mailing costs, she includes the survey form in the group's newsletter mailing. She is very pleased to find out that 95% of those surveyed favor gun control laws and she tells her friends that most Americans favor gun control laws.

Example #3:

Large scale polls were taken in Florida, California, and Maine and it was found that an average of 55% of those polled spent at least fourteen days a year near the ocean. So, it can be safely concluded that 55% of all Americans spend at least fourteen days near the ocean each year.

Burden of Proof

Also Known As: Appeal to Ignorance, Ad Ignorantiam

Description:

Burden of Proof is a fallacy in which the burden of proof is placed on the wrong side. One version occurs when a lack of evidence for side A is taken as evidence for side B when the burden of proof rests on side B. This is bad reasoning because side B is the one with the obligation to make their case. This fallacy looks like this:

Premise 1: Claim X is presented by A and the burden of proof rests on B.

Conclusion: Side B claims that X is false because there is no proof for X.

In some debates, one side will have the burden of proof. This side is obligated to provide evidence for its position. The claim of the other side, the one that does not bear the burden of proof, is (usually) assumed to be true unless proven otherwise.

It can sometimes be difficult, even in good faith debates, to determine which side (if any) the burden of proof rests on. If this cannot be done, good faith requires placing the burden on all sides. In terms of guidance, there are some suggestions about who should have the burden of proof.

Intuitively, the side that is less plausible should have the burden of proof. For example, if I claimed to have run a marathon in under two hours, the burden of proof would be on me and not on the people who deny my claim. But the question of which side has less initial plausibility is also a matter of debate, and this would lead to another question of who should have the burden of proof. After all, people

will tend to think that their side is the more plausible side.

Ease of proof (or disproof) can also be used to decide who has the burden. If one claim can be easily proven and its denial would be extremely difficult to prove, then the burden should be on the side that can more easily prove its claim. For example, if someone claims that ghosts exist on earth, it would be easier to find a single ghost and prove the claim than it would be to completely examine the entire planet to prove there are no ghosts.

In some cases, the burden of proof is set by context. For example, in American criminal law a person is (supposed to be) assumed to be innocent until proven guilty. So, the burden of proof is (in theory) on the prosecution. As another example, in debate the burden of proof is placed on the affirmative team. These are a matter of convention and can vary depending on the context.

As a final example, in most cases the burden of proof rests on those who claim something unusual exists (such as Bigfoot, psychic powers, metaphysical universals, and ghosts). But what counts as unusual can be debated.

While the burden of proof can be wrongly placed in good faith, a bad faith tactic is to intentionally place the burden of proof wrongly on the opposing side. This can provide a significant advantage. This is because the side stuck with the burden of proof will be seen as needing to prove their claim while the person arguing in bad faith will be assumed correct until proven otherwise.

Another variant on this fallacy is to infer that a claim is true because there is no

evidence against it. A common name for this is an Appeal to Ignorance. The form of this fallacy is:

Premise 1: There is no evidence against claim C.

Conclusion: Claim C is true.

The mistake in this reasoning is that a lack of evidence against a claim does not serve as positive evidence for that claim. This fallacy gets its appeal because assessing a claim does involve considering evidence against it. And it is tempting to think that a lack of evidence against a claim is thus evidence for a claim. If there is good evidence for a claim, then a lack of evidence against it would be a plus in favor of the claim. This assumes that possible evidence against the claim has been properly investigated.

It would also be a fallacy to infer that a lack of evidence for a claim disproves the claim. As the saying goes, absence of evidence is not evidence of absence. This reasoning has the following form:

Premise 1: There is no evidence for claim C.

Conclusion: Claim C is false.

It is tempting to think that a lack of evidence for a claim is evidence against it.

However, while a lack of evidence does entail that you should not accept the claim, not accepting a claim is different from rejecting a claim. If there is no evidence for a claim, but also no evidence against it, then the rational thing to do is suspend judgment.

While absence of evidence is not evidence of absence, there are contexts in which a failure to find evidence for a claim can count as evidence against that claim. To use an obvious example, an exhaustive search of a room that fails to turn up a missing item would provide evidence that the item is (probably) not in the room. As another example, a thorough search of a lake for a huge monster would provide evidence for the claim that there is no monster in the lake.

Defense: One defense against the Burden of Proof fallacy is to carefully consider which side needs to do the proving. This might end up being all the sides. For the variants, the main defense is to keep in mind that a lack of evidence for a claim is not proof that the claim is false and that the lack of evidence against a claim is not proof it is true. Only evidence for a claim is evidence for a claim and only evidence against a claim is evidence against a claim.

Example #1

Bill: "I think that we should invest more money in expanding the interstate system."

Jill: "I think that would be a bad idea, considering the state of the treasury."

Bill: How can anyone be against highway improvements?”

Example #2

Bill: “I think that some people have psychic powers.”

Jill: “What is your proof?”

Bill: “No one has been able to prove that people do not have psychic powers.”

Example #3

“You cannot prove that God does not exist, so He does.”

Example#4

“There is no evidence that the actor was lying about being attacked, so these claims that he made it up to get attention must be lies.”

Complex Question

Description:

This fallacy is committed by attempting to support a claim by presenting a question resting on one or more unwarranted assumptions. The fallacy has the following form:

Premise 1: Question Q is asked which rests on assumption (or assumptions) A.

Conclusion: Therefore, A is true.

This version is like Begging the Question in that what needs proof is assumed

rather than properly established.

Complex Question can also be defined as presenting two or more questions as if they were a single question and then using the answer to one question to answer both. The answer is then used as a premise to support a conclusion. This version has the following (complex) form:

Premise 1: Question Q₁ is presented that is formed of two (or more) questions Q₂ and Q₃ (etc.).

Premise 2: Question Q₁ is based on unwarranted assumption(s), U.

Premise 3: An answer, A, is received to Q₁ and treated as if it answers Q₂ and Q₃ (etc.)

Conclusion: Therefore, U is true.

This is a fallacy because the answer, A, is acquired based on one or more unwarranted assumptions. As such, the conclusion is not adequately supported.

This fallacy needs to be distinguished from the rhetorical technique of the loaded question. In this technique a question is raised that rests on one or more unwarranted assumptions, but there is no attempt to make an argument. This is different from a *leading* question. A leading question guides someone towards the desired answer.

The classic example of a loaded question is “have you stopped beating your wife?”

If a person answers “yes”, then it follows that they were beating their wife. If a person answers “no”, then this seems to imply that they are still beating their wife. Logically, if a person never started beating their wife, the correct answer would be “no.” This is because they cannot stop what they did not start.

Defense: The defense against this fallacy is to take care when answering questions, especially when they can be serious consequences. If you suspect that someone might be trying to use this fallacy against you, consider what unwarranted assumptions they might be making as well whether they seem to ask questions with the intent of misusing your answer. Sometimes you will be able to expose the fallacy for what it is by pointing out the unwarranted assumption or misuse of your answer. In some contexts, the best response can be no response—since almost any answer will be misused. This might lead the questioner to attempt an Appeal to Silence fallacy.

In the United States, **police can (as of this writing) legally use a range of deceitful techniques (including lying) when questioning people.** As such, you should be on guard against this fallacy when interacting with the police. Even if you are innocent.

Example #1

“How can America be saved from the socialist programs and job killing ways of the current administration? Clearly there is only one way: vote Republican!”

Example #2

Professor: "Have you stopped plagiarizing papers?"

George: "Um, Yes."

Professor: "Ah, that means that you were plagiarizing papers and that you have stopped now!"

George: "What?!"

Professor: "Well, you said you had stopped. That requires that you had been plagiarizing before. You could not very well stop if you had not started, right?"

George: "Um, I mean that no, I haven't stopped."

Professor: "Aha, so you are still plagiarizing papers! If you have not stopped, that means you have been and still are plagiarizing away!"

George: "No, I mean...I don't know what I mean!"

Sally: "George, you got suckered into that. The right answer is to say 'no, I didn't stop because I never started.'"

Example #3

Lawyer: "So where did you hide the money that was stolen in the robbery?"

Defendant: "Nowhere."

Lawyer: "Ah, so you did not hide it. It must then be inferred that you spent it all."

Defendant: "What, I didn't steal the money!"

Lawyer: "But you just said that you hid it nowhere. That seems to be an admission of guilt!"

Defendant: “Hey, shouldn’t my lawyer be objecting or something?”

Lawyer: “Even he can see you are guilty.”

Composition, Fallacy of

Description:

The fallacy of Composition is committed when a conclusion is drawn about a whole based on the qualities of its parts without a justification provided for the inference. There are two types of this fallacy.

The first type occurs when a conclusion about an entire group is inferred from the characteristics of individual members that group. The reasoning looks like this:

Premise 1: Individual F things have characteristics A, B, C, etc.

Conclusion: Therefore, the whole group of F things has characteristics A, B, C, etc.

This is fallacious because the fact that individuals have certain characteristics does not, by itself, guarantee that the group (taken as a whole) has those characteristics.

Drawing an inference about the characteristics of a class based on the characteristics of its individual members is not always fallacious. If sufficient evidence is provided for the conclusion, no fallacy would be committed.

The second type is committed when it is concluded that what is true of the parts must be true of the whole without adequate justification for the claim. More formally, reasoning is as follows:

Premise 1: The parts of the whole X have characteristics A, B, C, etc.

Premise 2: Therefore, the whole X must have characteristics A, B, C.

This is fallacious because it cannot be inferred that simply because the parts of a complex whole have (or lack) certain properties that the whole has those properties. A silly math example illustrates this: The numbers 1 and 3 are both odd. 1 and 3 are parts of 4. Therefore, the number 4 is odd.

Reasoning from the properties of the parts to the properties of the whole is not always fallacious. If there is justification for the inference from parts to whole, then this fallacy would not be committed. For example, if every part of the human body is made of matter, then it would not be an error in reasoning to conclude that the whole human body is made of matter. Similarly, if every part of a structure is made of brick, there is no fallacy committed when one concludes that the whole structure is made of brick.

Defense: The key to avoiding this fallacy is to be cautious about inferences from parts to wholes. If the inference is made without justification, then this fallacy has

occurred.

Example #1

“A main battle tank uses more fuel than a car. Therefore, the main battle tanks use up more of the available fuel in the world than do all the cars.”

Example #2

“A tiger eats more food than a human being. Therefore, tigers, as a group, eat more food than do all the humans on the earth as a group.”

Example #3

“Atoms are colorless. Cats are made of atoms, so cats are colorless.”

Example #4

“Every player on the team is a superstar and a great player, so the team is a great team.”

Example #5

Each part of the show, from the special effects to the acting is a masterpiece. So, the whole show is a masterpiece.”

Example #6

“Come on, you like beef, potatoes, and green beans, so you will like this beef, potato, and green bean casserole.”

Example #7

“You like eggs, ice cream, pizza, cake, fish, Jell-O, chicken, taco sauce, soda, oranges, milk, egg rolls, and yogurt so you must like this yummy dish made from all of them.”

Example #7

“Sodium and chlorine are both dangerous to humans. Therefore, any combination of sodium and chlorine will be dangerous to humans.”

Example #8

“I checked all the parts of my PC, and each part is good. So, once I get it assembled, the whole PC will work just fine.”

Confusing Cause and Effect

Also Known as: Questionable Cause, Reversing Causation

Description:

Confusing Cause and Effect is a fallacy in which a causal conclusion is drawn without considering that the alleged effect might be the cause. It has the following form:

Premise 1: A and B regularly occur together (and the possibility that B causes A is not considered).

Conclusion: Therefore, A is the cause of B.

This fallacy requires that there not be a common cause that causes both A and B. See Ignoring a Common Cause for this fallacy. To be a case of actually confusing cause and effect B must cause A.

This fallacy is committed when it is inferred that one thing must cause another just because the two occur together without considering the possibility that cause and effect have been reversed. More formally, this fallacy involves drawing the conclusion that A is the cause of B simply because A and B are in regular conjunction (and there is not a common cause that is the cause of A and B). The mistake being made is that the causal conclusion is being drawn without adequate justification because the possibility of reversed causation has not been considered. When B really is the cause of A causation has been erroneously reversed.

Sometimes the fallacy will be obvious. For example, a person might claim that the flu was caused by a person getting a fever. But the fallacy is not always evident. Causal reasoning can be difficult when it is not evident what is the cause and what is the effect. For example, a badly behaved child might be the cause of the parents being short tempered or the short temper of the parents might be the cause of the child's behavior.

The challenge in sorting out cause and effect is especially problematic in cases involving feedback. For example, the parents' temper might cause the child to become difficult, and the child's behavior could worsen the parents' temper. Determining which was the initial cause in such cases can prove challenging.

To determine that the fallacy has been committed, it must be shown that the causal conclusion has not been adequately supported and the person committing the fallacy has failed to properly consider the possibility they have reversed cause and effect. As such, the fallacy could have a true conclusion. The error would lie in the reasoning since the conclusion, despite just so happening to be true, would not be adequately supported.

Another thing that makes causal reasoning difficult is that people have different conceptions of cause and things can be complicated by emotions and values. For example, some claim violent media must be censored because it causes people to like violence. Some respond that there is violence in media because people like violence. In this case, it is not obvious what the cause is, and the issue is often complicated because it is an emotional and political matter.

All causal fallacies involve an error in causal reasoning. However, this fallacy differs from the other causal fallacies in terms of the error in reasoning being made. In the case of a Post Hoc fallacy, the error is that a person is accepting that A is the cause of B simply because A occurs before B. In the case of the Fallacy of Ignoring a Common Cause A is taken to be the cause of B when there is a failure to consider that there is a third factor that is the cause of both A and B. For more information, see the other causal fallacies in this book.

Defense: While causal reasoning can be difficult, many errors can be avoided with

due care and careful testing procedures. This is because this fallacy occurs because the conclusion is drawn without due care. The main defense is to check to see if the possibility of reversing causation has been adequately considered and addressed.

Another way to try to avoid the fallacy is to pay careful attention to the temporal sequence of events. Since (outside of science fiction), effects do not generally precede their causes, if A occurs after B, then A (usually) cannot be the cause of B. Unfortunately, the order of events can be muddled and there are cases in which causation goes both ways.

Example #1:

Bill and Joe are having a debate about music and moral decay:

Bill: "It seems clear to me that this new music is causing the youth to become corrupt."

Joe: "What do you mean?"

Bill: "This rap stuff is always telling the kids to kill cops, do drugs, and abuse women. That is all bad and the kids today shouldn't be doing that sort of stuff. We ought to ban that music!"

Joe: "So, you think that getting rid of the rap music would solve the drug, violence, and sexism problems in the US?"

Bill: "Well, it wouldn't get rid of it all, but it would take care of a lot of it."

Joe: "Don't you think that most of the rap singers sing about that sort of stuff

because that is what is really going on these days? I mean, people often sing about the conditions of their time, just like the people did in the sixties. But then I suppose that you think that people were against the war and into drugs just because they listened to Dylan and Baez.”

Bill: “Well...”

Joe: “Well, it seems to me that the main cause of the content of the rap music is the pre-existing social conditions. If there weren’t all these problems, the rap singers probably wouldn’t be singing about them. I also think that if the social conditions were great, kids could listen to the music all day and not be affected.”

Joe: “Well, I still think the rap music causes the problems. You can’t argue against the fact that social ills really picked up at the same time rap music got started.”

Example #2:

It is claimed by some people that severe illness is caused by depression and anger. After all, people who are severely ill are very often depressed and angry. Thus, it follows that the cause of severe illness is the depression and anger. So, a good and cheerful attitude is key to staying healthy. You’d be happier and prettier if you smiled more.

Example #3:

Bill sets out several plates with bread on them. After a couple days, he notices that the bread has mold growing all over it. Bill concludes that the mold was produced by the bread going bad. When Bill tells his mother about his experiment, she tells

him that the mold was the cause of the bread going bad and that he better clean up the mess if he wants to get his allowance this week.

Confusing Explanations and Excuses

Description:

This fallacy occurs when it is uncritically assumed that an explanation given for an action is an attempt to excuse or justify it. This fallacy has the following form:

Premise 1: Explanation E is offered for action A.

Conclusion: Therefore, E is an attempt to excuse or justify A.

This is a fallacy because an explanation of an action need not involve any attempt to excuse or justify that action.

This fallacy can be committed by accident due to a failure to distinguish between an explanation and an argument. This occurs because it can be easy to confuse them. Explanations are attempts to provide an account as to how or why something is the case or how it works. Arguments, in the logical sense, are attempts to establish that a claim (the conclusion) is true by providing reasons or evidence (premises). What can add to the confusion is that explanations can be used in arguments, often to establish an excuse or justify an action.

To illustrate, if someone said, “John missed class because he was in a car wreck”,

this would be an explanation rather than an argument. However, if someone said, “John’s absence from class should be excused because he was in a car wreck”, then this would be an argument. This is because John being in a car wreck is being offered as a reason why his absence should be excused.

When what is being explained is linked to strong emotions or values, people can unintentionally commit this fallacy, especially if they dislike the explanation. For example, if a foreign terrorist attack against the United States is explained in terms of being a reaction to United States foreign policy and economic activity, some people are likely to get angry and think the explanation is intended to excuse or justify the attacks. They might prefer to believe that the attack occurred because the terrorists hate our freedom.

The fallacy can also be committed intentionally to “prove” that someone is trying to justify an action when they are only offering an explanation. As with the unintentional use of the fallacy, this commonly occurs in matters of strong emotions. For example, a politician or pundit might intentionally use this fallacy to convince their audience that an expert who is explaining the motivations of a terrorist group is excusing or justifying the actions of the group.

It is also a mistake to assume that an excuse or justification is only an explanation, although that sort of error is not as common as confusing explanations with excuses.

Defense: To avoid committing this fallacy by accident, the best defense is to

examine the alleged excuse or justification and determine if it uses the language and tone of excusing or justifying an action. It is especially important to not read into an explanation when you are angry or dislike the explanation. An explanation can also be a bad explanation without being an attempt at excusing or justifying something.

To guard against others using this fallacy against you, you also need to look carefully at the wording and tone of the explanation. You should also consider that the explanation might be intentionally distorted to make it seem like it is an attempt to justify or excuse. A person using this fallacy in bad faith is also likely to use Straw Man against their target.

Example #1

Hosni: “While it has been common for many American politicians to claim that terrorists attacked America because they hate our freedoms, the reality seems to be that they have been primarily motivated by American foreign policy and economic activity.”

Sam: “I can’t believe that you are defending the terrorists! How can you say that the 9/11 attack was justified?”

Hosni: “I said no such thing.”

Sam: “Yeah, you did. You said that they were motivated by American foreign policy.

That means you think we made them attack us and they were right to do so!”

Example #2

Karen: “I think that Bill is doing badly in the class because he finds the subject matter boring. During my recitation sections he just spends his time texting, no matter how often I ask him not to. I know he can do good work—my sister showed me some of his work in his major, and it is good. But my sister says that he’s not interested in philosophy.”

Drew: “I know that Bill is your sister’s boyfriend, but you don’t have to defend him.”

Karen: “I’m not. I’m just saying why he is doing badly.”

Drew: “Don’t get defensive. I’m fine with teaching assistants who advocate for students. I was quite the advocate in my day, you know.”

Karen: “Really?”

Drew: “Of course. Now I’m the cruel professor. Hah, hah.”

Karen: “Hah.”

Cum Hoc, Ergo Propter Hoc

Description:

This is an error in causal reasoning that occurs when it is assumed that a mere correlation between two things must be a causal connection. Translated, the fallacy is called “with that, therefore because of that.” This fallacy has the following form:

Premise 1: There is a correlation between A and B (or As and Bs).

Conclusion: Therefore, A causes B (or As cause Bs).

This fallacy is like another classic causal fallacy, the Post Hoc Ergo Propter Hoc fallacy. The difference is that the Post Hoc fallacy occurs when it is inferred that A causes B merely because A occurs before B. In the Cum Hoc fallacy, the error involves assuming correlation must entail causation.

Just because two things are correlated is not enough to justify inferring that there is a causal connection. In some cases, this is obvious. For example, no one would infer that cold weather is caused by people wearing jackets.

The fallacy is most likely to occur when it seems there might be a causal connection. For example, a person might find a correlation between sleeping fully dressed and waking up with a headache and conclude that sleeping this way causes headaches. It would not be unreasonable to consider that clothes might have this effect, but mere correlation would not suffice to prove there is a connection.

The fallacy can even be committed when a causal connection holds between the two things. While it might seem odd, the key to the fallacy is not that there is, in fact, no causal connection between A and B. It is that adequate evidence has not been provided for the claim that A causes B. This is another example of the distinction between factual errors and bad reasoning.

This fallacy is often committed unintentionally due to a lack of caution in causal

reasoning. Leaping to a causal conclusion is easier and faster than investigating the phenomenon. However, such leaps often land far from the truth of the matter.

The fallacy can also be intentionally committed. In these cases, the person inflicting the fallacy believes that there is no causal connection but uses correlation to try to persuade others that there is. This technique can be misused for a wide variety of nefarious purposes, ranging from generating clickbait “science” headlines to deceiving people about the efficacy of a medical product or procedure.

This fallacy is often committed or accepted when a person wants the correlation to be causation. Such cases can be considered a combination of Wishful Thinking and this fallacy. For example, someone who wants to believe that eating chocolate causes weight loss might be inclined to accept an attempt to use (possibly manufactured) correlation to “prove” causation.

If you are interested in strange correlations, Tyler Vigen maintains a collection of spurious correlations at tylervigen.com. As Vigen shows, correlation exists between such things as the divorce rate in my home state of Maine and the per capita consumption of margarine. Such non-causal correlations should be expected. If enough data is analyzed, numerous correlations between unrelated things will be found.

Defense: Because this fallacy is committed by drawing an unjustified causal conclusion, the key to avoiding it is careful investigation. While causes and effects

do correlate, correlation is not causation. While a causal investigation will often begin with an investigation of correlation, it should not end there.

To avoid having this fallacy inflicted on you, the defense is to consider whether the claim is supported by anything beyond correlation. While statistical analysis goes way beyond the scope of this book, you should consider that there are numerous deceitful techniques to make it appear that a causal connection exists. But you also need to be careful about unwarranted skepticism about causal claims. People also reject well-supported causal claims because they do not want them to be true, which is often a case of Wishful Thinking, a form of Appeal to the Consequences of a Belief.

Example#1

“You know what I’ve noticed? There is a correlation between when the President speaks on the economy and the Dow Jones. While it does not happen every single time, usually when he speaks the Jones dips. And the more he talks, the deeper the dip. If he wants to help the economy, he needs to stop talking about it. His speeches are bringing it down!”

Example #2

Sam: “After four years of college I’ve learned something important.”

Jane: “And what might that be, Socrates?”

Sam: “Sleeping in your clothes gives me a headache.”

Jane: “You’ve been sleeping in my clothes?”

Sam: “No, I mean the general thing. Well, I mean when I sleep in my clothes, I get a headache. I’m not sure why but sleeping with clothes on hurts my head. So that is why I started sleeping naked.”

Jane: “What does your roommate think of that?”

Sam: “He’s not happy. He calls me ‘junk man.’”

Jane: “So, do you no longer get headaches?”

Sam: “That is the odd part. I still do. But I’m sure the clothes cause headaches. Maybe I’m sleeping too close to them?”

Jane: “Yeah, I’m sure that is it.”

Example #3

Ashleigh: “I’ve decided I’m not eating ice cream before I go swimming.”

Nancy: “You know that isn’t true. The myth about eating before swimming, I mean.”

Ashleigh: “Oh, I know. But I heard the professor say in class that drowning deaths increase in proportion to the sale of ice cream. I’m not sure what he was talking about, but I’m sure that eating ice cream before swimming would be risky.”

Demonic Justification

Description:

Demonizing is a rhetorical strategy aimed at casting the target as evil, corrupt,

dangerous, or threatening. Demonizing can also be used to fuel or intensify other fallacies, such as the Demonic Ad Hominem and the Demonic Genetic Fallacy.

Demonic justification is a fallacy in which a target is demonized in an attempt to justify how the target is being treated. This treatment can include such things as actions taken against the target or policies that are detrimental to the target. The fallacy has the following form:

Premise 1: Target person or group T is demonized.

Conclusion: Action A against T is justified.

This is a fallacy because the attempt to justify the action is based on demonization rather than good reasons. Since demonization, by definition, involves making either selective, exaggerated, or false claims, demonization cannot justify an action.

It should be kept in mind that committing this fallacy does not entail that the action is automatically unjustified. The action could be justified by other reasons, but the fallacy would still occur if the only stated justification for the action was demonizing. As with any fallacy the conclusion is not disproven because the reasoning is fallacious. To think otherwise is to fall victim to the Fallacy Fallacy.

This fallacy is often used to try to justify damaging, harsh and even brutal actions, or policies. It derives its power from the willingness of people to engage in demonizing and the appealing belief that harsh measures must be taken against the

wicked.

This technique is often used in war to motivate and try to justify the killing of enemy soldiers. It is also a powerful tool in domestic politics and is often used to try to justify cruel and unjust policies.

For example, throughout history migrants have been demonized as diseased criminals who are out to steal jobs from native workers. This demonizing has been used to try to justify harsh immigration policies and even violence against migrants. As another example, Stalinists and Maoists demonized their targets, thus attempting to justify their harsh and brutal measures.

As with many fallacies, the intended audience of this fallacy might fall for the fallacy because they sincerely believe that the demonization is an accurate description rather than demonization. In other cases, members of the target audience are in on the untruth and serve to spread the fallacy.

As a final point, taking actions or creating policies in response to real evil, threats or dangers need not be fallacious. Those who engage in demonizing will, of course, insist that they are not demonizing. But sorting out such justifications would be a matter for ethics rather than logic.

Defense: The main defense against demonic justification is being aware that demonization is occurring. One should take the time to seriously ask if such claims are adequately supported by objective evidence. Since people are strongly influenced

by their biases, prejudices, and stereotypes, this can be challenging. People also like to believe that they are on the side of good and are battling evil, and demonization plays right into this.

Example 1

“Migrants are bringing in disease, committing crimes and stealing our jobs. Sure, some people claim that some of them are legally seeking asylum, but I say that they are just using that to drop more anchor babies on American soil. We need to round them up, concentrate them in camps, and then ship them back.”

Example 2

Nero: “These Christians do not worship our gods and we all hate the, for their many abominations. It is no wonder, then, that they started the fires that burned down Rome. We need to round them up and be rid of them.”

Example 3

“These trans people just want to get into bathrooms to attack women. They also want to steal athletic trophies from real women and girls. Therefore, we must impose bathroom bans and band trans from sports!”

Example 4

“We all know that men are the ones who commit rape, sexual assault, and domestic violence. They also commit crimes and acts of violence against each other. Why, they surely go into bathrooms to attack women and girls. They also steal jobs,

trophies, and opportunities from women, what with all their testosterone and old boy networks. We need harsh measures to deal with all these men; they are naught but devils on the earth!”

Division, Fallacy of

Description:

The fallacy of Division occurs when it is concluded that what is true of a whole must also be true of its constituents and this inference is not justified. There are two main variants of the general fallacy of Division:

The first is committed when it is concluded that what is true of the whole must also be true of the parts and this inference is not adequately supported. It has this pattern:

Premise 1: The whole, X, has properties A, B, C, etc.

Conclusion: Therefore, the parts of X have properties A, B,C, etc.

That this line of reasoning is fallacious is made clear by the following example: “4 is an even number. 1 and 3 are parts of 4. Therefore 1 and 3 are even.”

It is not always fallacious to draw a conclusion about the parts of a whole based on the properties of the whole. If adequate evidence is provided in the argument, the reasoning can be good. For example, the human body is made from matter and

a reasonable argument can be made that the component parts are also made of matter.

The second version is committed when a conclusion about the properties of individual members of a group is drawn based on the collective properties of the group and there is inadequate justification for the conclusion. This reasoning is as follows:

Premise 1: As a collective, group or class X has properties A, B, C, etc.

Conclusion: Therefore, the individual members of group or class X have properties A, B, C, etc.

That this is fallacious can be easily shown by the following: It is true that athletes, taken as a group, are football players, track runners, swimmers, tennis players, long jumpers, pole vaulters and such. But it would be fallacious to infer that each individual athlete is a football player, a track runner, a swimmer, a tennis player, a swimmer, etc.

It is not always fallacious to draw a conclusion about an individual based on what is true of the class they belong to. If the inference is backed by evidence, then the reasoning can be fine. For example, it is not fallacious to infer that Bill the Siamese cat is a mammal from the fact that all cats are mammals. In this case, what is true of the class is also true of each individual member.

Defense: Avoiding this fallacy is a matter of checking to see if adequate reasons have been given to justify the inference from the whole to the parts.

Example #1:

“The ball is blue, therefore the atoms that make it up are also blue.”

Example #2:

“A living cell is organic material, so the subatomic particles making up the cell must also be organic material.”

Example #3:

Parent: “Look how big that dorm is!”

Child: “It is pretty big.”

Parent: “You’re going to have a nice, big room. That explains why the cost of college housing is so high.”

Child: “Yeah.”

Example #4:

“Sodium chloride (table salt) may be safely eaten. Therefore, its constituent elements, sodium, and chlorine, may be safely eaten.”

Example #5:

“Americans use much more electricity than Africans do. So, Bill, who lives in

primitive cabin in the Maine wood, uses more electricity than Nelson, who lives in a modern house in South Africa. “

Example #6:

“Men receive more higher education than women. Therefore Dr. Jane Smart has less education than Mr. Bill Buffoon. “

Example #7:

“Minorities get paid less than whites in America. Therefore, the black CEO of a billion-dollar company gets paid less than the white janitor who cleans his office.”

Equivocation, Fallacy of

Description:

Equivocation is when an ambiguous expression is used in more than one of its meanings in a single context. Ambiguity by itself is not fallacious but is a lack of clarity in language that occurs when a claim has two (or more) meanings and it is not clear which is intended. The fallacy of Equivocation occurs when that context is an argument, and the conclusion depends on shifting the meaning of the expression while treating it as if it remains the same.

Premises: One or more premises are presented that contain an equivocation.

Conclusion: Claim C is drawn from these premises.

The sort of “reasoning” presented above is fallacious because the evidence only appears to support the conclusion because the same word is being used. Because the meaning of the word is shifted, the evidence does not support the conclusion.

In some cases, the error is obvious. For example, if someone said, “Sally is standing on my right, I’m a moderate and people to the right of me are conservative, so Sally is a conservative”, most would see this as a lame joke. Other cases of equivocation, especially ones that occur with a more subtle equivocation, can be more tempting.

A variation of this fallacy, called the Motte-and-Bailey Fallacy or Doctrine, was presented by fellow philosopher Nicholas Shackel. Briefly put, this fallacy involves conflating two similar positions. One of the positions is controversial while the other is more modest and easier to defend. The technique is to advance the controversial position and then, when it is challenged, shift to the more modest position as if nothing had changed. This can also be seen as like Moving the Goal Posts, although it involves only one move.

Equivocation, like amphiboly, is often used in humor. Such uses are not intended as serious arguments and would not (generally) count as fallacies. Perhaps the most famous example is from *Alice in Wonderland*:

Who did you pass on the road?' the King went on, holding out his hand
to the Messenger for some more hay.

‘Nobody,’ said the Messenger.

`Quite right,' said the King: `this young lady saw him too. So of course, Nobody walks slower than you.

`I do my best,' the Messenger said in a sulky tone. `I'm sure nobody walks much faster than I do!'

`He can't do that,' said the King, `or else he'd have been here first. However, now you've got your breath, you may tell us what's happened in the town.'

Defense: The defense is to watch out for attempts to exploit equivocation to deceitfully (or accidentally) switch meaning in the context of an argument. This involves checking to see if the expression has the same meaning throughout the argument. In the case of the Motte and Mailey variant and other swapping variations, the defense is to watch out for the shift.

Example #1

“A blue whale is an animal; therefore, a small blue whale is a small animal.”

Example #2

“A feather is light. What is light is not dark. So, feathers cannot be dark.”

Example #3

Rex: “I can’t believe that Sally still doesn’t believe me.”

Ted: “Why not?”

Rex: “Well, I gave her the reason why I did it and I learned in logic that reasons support claims. So, she should believe me.”

Example #4

“Every day we see miracles such as antibiotics, the internet, and space travel. So, when those atheists say there are no miracles, they are wrong. So, that pretty much wraps it up for the atheists’ claim.”

Fallacious Analogy

Also Known As: Faulty Analogy, Weak Analogy, False Analogy

Description:

This fallacy occurs when an analogical argument’s premises do not adequately support its conclusion. This is a fallacy of criteria rather than structure because a False Analogy and a strong argument by analogy will have the same logical form. As such, the fallacy occurs when an analogical argument fails to meet the conditions of a strong analogical argument. Analogical arguments are inductive arguments; so even a strong one with all true premises can still have a false conclusion. A related fallacy is Perfect Analogy. In this fallacy a person refuses to accept any analogy that is not perfect.

An analogical argument is an argument in which one concludes that two things are alike in a certain respect because they are alike in other respects. An analogical argument will typically have three premises and a conclusion. The first two premises

establish the analogy by showing that the things (X and Y) in question are similar in certain respects (properties P, Q, R, etc.). The third premise establishes that X has an additional quality, Z. The conclusion asserts that Y has property or feature Z as well. Although people generally present analogical arguments in an informal manner, they have the following logical form:

Analogical Argument (need not be fallacious)

Premise 1: X has properties P, Q, and R.

Premise 2: Y has properties P, Q, and R.

Premise 3: X has property Z.

Conclusion: Y has property Z.

A more concise two premise version is also common:

Analogical Argument (need not be fallacious)

Premise 1: X and Y have properties P, Q, R.

Premise 2: X has property Z.

Conclusion: Y has property Z.

X and Y are variables that stand for whatever is being compared, such as chimpanzees and humans or apples and oranges. P, Q, R, and are also variables, but they stand for properties or features that X and Y possess, such as having a heart or being a fruit. Z is also a variable, and it stands for the property or feature that X is

known to possess. The use of P, Q, and R is just for the sake of the illustration—the things being compared might have many more properties in common.

An example of a non-fallacious argument by analogy presented in strict form is as follows:

Premise 1: Rats are mammals and possess a nervous system that includes a developed brain.

Premise 2: Humans are mammals possess a nervous system that includes a developed brain.

Premise 3: When exposed to the neurotoxin being tested, 90% of the rats died.

Conclusion: If exposed to the neurotoxin, 90% of humans will die.

While this is a good argument as presented, it is still an inductive argument. As such, the conclusion is not certain but is at best likely to be true if the premises are true. It could turn out that the conclusion is false, even if the argument is strong. That is the nature of induction. There might, for example, be some unknown difference between rats and humans that make humans immune to the toxin.

As noted above, Fallacious Analogy is not a structural fallacy but a fallacy of criteria. To determine if an analogical argument is strong or weak enough to be fallacious, you will need to apply the standards of assessment to the argument. There can be reasonable debate about the strength of an analogical argument, and you should not automatically assume that one you disagree with must be fallacious.

The strength of an analogical argument depends on three factors. To the degree that an analogical argument meets these standards it is a strong argument. To the degree that it does not meet them, it is weak. While these standards are objective, there is no exact line at which one can say for sure that an argument would become fallacious. Fortunately, no such exact line is needed (see the Line Drawing Fallacy under the False Dilemma). Here are the three criteria for assessing analogical arguments.

First, the more properties X and Y have in common, the stronger the argument. For example, in the example given above rats and humans have many properties in common. This standard is based on the commonsense notion that the more two things are alike in other ways, the more likely it is that they will be alike in some other way. It should be noted that even if the two things are very much alike in many respects, there is still the possibility that they are not alike regarding Z.

Second, the more relevant the shared properties are to property Z, the stronger the argument. A specific property, for example P, is relevant to property Z if the presence or absence of P affects the likelihood that Z will be present. Using the example, above, the shared properties are relevant. After all, since neurotoxins work on the nervous system, the presence of a nervous system makes it more likely that something will be killed by such agents. It should be kept in mind that it is possible for X and Y to share relevant properties while Y does not actually have property Z.

Third, it must be determined whether X and Y have relevant dissimilarities as well

as similarities. The more dissimilarities and the more relevant they are, the weaker the argument. In the example above, humans and rats do have dissimilarities, but most of them are probably not particularly relevant to the effects of neurotoxins. However, it would be worth considering that the size difference might be relevant and thus a difference worth considering.

While it can be tempting to label any argument by analogy you think is weak as fallacious, this temptation should be resisted. While there is not an exact line that can be drawn, you should consider whether the argument is reasonable despite your disagreement or if it fails badly enough to warrant being considered fallacious reasoning.

As an example, the **watchmaker argument from design** is often presented as a Fallacious Analogy. Oversimplified, the reasoning is that because the world is analogous to a watch, it follows that because the watch was designed by an intelligent being, the same applies to the world. While this analogy has been ably criticized by David Hume and Charles Darwin, the debate appears to be a substantial one and not settled by merely asserting that the argument is a False Analogy. That said, it can also be argued that it is a False Analogy.

This fallacy can be committed in good faith by someone who believes that their analogy has met the standards. It can also be committed in bad faith when the person using it believes that the analogy is weak but presents it as if they believe it is strong. For example, a person who agrees with vaccine choice but is anti-abortion

might compare vaccine choice with abortion choice in a bad faith analogy aimed at persuading a pro-choice (abortion) person to accept the vaccine choice view. Or a pro-choice (abortion) person might use this tactic against a vaccine choice person. This tactic can be used in conjunction with False Agreement and False Allegiance.

As with any fallacy, the conclusion of a Fallacious Analogy could be true. The error is one of reasoning and not one of fact.

Defense: The main defense against committing or falling for this fallacy is to carefully apply the three standards to the argument in question. Due care should be taken before accusing someone of committing this fallacy. While you might consider their analogy weak, saying that is fallacious implies that they have made an error of reasoning that is serious enough to be called a fallacy.

If someone is committing this fallacy in bad faith, it can be useful to determine this. While the fallacy is not committed because of the bad faith, exposing it can be useful in reducing the psychological force of the fallacy. For example, if someone who is pro-choice (abortion) makes a bad faith comparison between abortion choice and vaccine choice to convince a vaccine choice person to become pro-choice (abortion), revealing the bad faith could reduce the psychological appeal of the fallacy.

Example #1

“The flow of electricity through wires is like the flowing of water through pipes. Water flows faster downhill, so electricity does, too. This, by the way, is why electrical wires are run on poles. That way the electricity can flow quickly into your house.”

Example #2

Glenn: “Biden is going to do the same things to America that Hitler did to Germany!”

Bill: “What?”

Glenn: “Biden was democratically elected. So was Hitler. Do I need to bust out some chalk and draw it out for you?”

Bill: “Yes.”

Glenn: “I’m out of chalk.”

Bill: “Too bad.”

Example #3

Steve: “Those darn Republicans!”

Lena: “How have they hurt your liberal sensibilities this time?”

Steve: “They are saying that the health care plan is a big government takeover. They are making a big lie, just like Goebbels did. It is just like blood libel.”

Lena: “That seems to be a bit much.”

Steve: “Not at all. You know, that is how the Holocaust got started. With a big lie. The Republicans are going to cause a Holocaust because they are just like the Nazis!”

Lena: "That is quite a comparison."

Steve: "I know!"

Example #4

Ted: "While I think ghosts are cool, I don't believe they really exist."

Sam: "Why not?"

Ted: "Well, I have never seen one."

Sam: "Do you believe in atoms?"

Ted: "Yeah."

Sam: "Well, you have never seen one of them. So, you should believe in ghosts if you believe in atoms."

Example #5

Ed: "So, you are for banning guns?"

Fiona: "Yes."

Ed: "Even for the police?"

Fiona: "Especially for the police."

Ed: "Why ban them?"

Fiona: "Guns make it so easy to kill. Banning guns would reduce deaths."

Ed: "So we should also ban cars?"

Fiona: "What?"

Ed: "More people are killed by people with cars than by people with guns. So, if you

think we should ban guns, then you must think we should ban cars.”

Example #6

Ed: “So, you are for banning abortion?”

Fiona: “Yes.”

Ed: “Why ban them?”

Fiona: “Abortion is killing. If we banned abortion, there would be fewer deaths.”

Ed: “So we should also ban cars, guns, war, and capital punishment?”

Fiona: “What?”

Ed: “If we banned them, there would be less death. So, if you against abortion you must be against guns, car, war, and capital punishment.”

Fallacious Analogy: Psychologist's Fallacy

Description:

This fallacy occurs when it is concluded that another person has a certain mental quality because the person drawing that conclusion has that quality. This fallacy has the following form:

Premise 1: Person A has mental quality (or qualities) Q (a belief, a skill, knowledge, or tendency to act a certain way, etc.).

Conclusion: Person A concludes that person B has Q .

The error being made is specific type of Fallacious Analogy: person A is drawing a conclusion about person B based on the unsupported assumption that A and B are alike. Without adequate reason to think A and B are alike enough in relevant ways, concluding that they are alike regarding the quality in question is unjustified.

This fallacy is often fueled by the **false consensus effect**. This is a cognitive bias that inclines a person to think that their attitudes and beliefs are also held by the general population.

This fallacy can be avoided by making an adequate argument from analogy. This would involve providing the key premises establishing that A and B are alike in ways relevant to the quality in question.

The fallacy was named by William James. He noted that psychologists are particularly prone to ascribing their own standpoints to those they examine. But a person does not need to be a professional psychologist to commit this fallacy.

Getting a bit philosophical, one classic problem in epistemology is the **problem of other minds**. In my own case, the problem is determining how I would know that other beings have (or lack) minds like my own. More practically, the problem is determining if a person's words and actions match what they really believe and feel.

Philosophers have generally tried to solve this problem using an analogical argument. The usual idea is that I would infer that because I have mental states (thoughts and feelings) and other people are like me, they also (probably) have

mental states. Critics of this approach point out that it is a weak argument by analogy and that extending it to all people would be a Hasty Generalization because the sample size must be one person. This person would be me in my case, you in your case.

If the problem of other minds is taken seriously, then making inferences about the mental qualities of other people would seem to always be ill founded. This problem is, of course, a matter of epistemology but does have a very practical aspect: how do you know that what a person is saying matches what they are thinking?

Defense: The defense against this fallacy is to consider whether there is adequate evidence to infer that someone else has the same mental qualities (beliefs, interests, values, etc.) as you. From a practical standpoint, it is best not to get bogged down in the problem of other minds.

Example #1

Christine: "Thanks for coming to dinner! I made bacon burgers. With cheese!"

Florence: "Why?"

Christine: "I really like them. I figured you would, too."

Florence: "I'm a vegetarian. Do you have anything I can eat?"

Christine: "Well, you can put the cheese, lettuce and onions on the bun."

Florence: "I don't like onions. Or lettuce."

Example #2

“I’m sure those people will help me push my car out of the ditch. After all, I’d help someone who is in the same predicament.”

Example #3

Bob: “Did you hear that the legislature just voted on a law legalizing same sex marriage?”

Gretchen: “No way!”

Bob: “Really. It is going to the governor.”

Gretchen: “There is no way she’ll sign it!”

Bob: “Really? Why?”

Gretchen: “Well, I wouldn’t! So, I’m sure she won’t!”

Bob: “Uh, huh. Well, would you have voted for the law if you were in the house or state senate?”

Gretchen: “Hell no!”

Bob: “And yet the bill passed...”

Example #4

Bill: “I’m sure that no one would like that movie.”

Paul: “Why?”

Bill: “Well, I did not like it.”

Fallacious Example

Also Known As: Fallacious Argument by/from Example

Description:

This fallacy occurs when an argument by example fails to adequately meet the standards for assessing this type of inductive argument. An argument by example is an argument in which a claim is supported by providing examples.

Formally presented, an argument by example will have at least one premise that provides an example and one conclusion. Each premise is used to support the conclusion by providing an example. The idea is that the weight of the examples establishes the claim.

Although usually presented in an informal manner, it has the following logical form:

Argument by Example (need not be fallacious)

Premise 1: Example 1 is an example that supports claim P.

Premise n: Example n is an example that supports claim P.

Conclusion: Claim P is true.

In this case n is a variable standing for the number of the premise in question and P is a variable standing for the claim under consideration.

An example of a non-fallacious argument by example presented in strict form is as follows:

Premise 1: Lena ate pizza two months ago and did not contribute any money.

Premise 2: Lena ate pizza a month ago and did not contribute any money.

Premise 3: Lena ate pizza two weeks ago and did not contribute any money.

Premise 4: Lena ate pizza a week ago and did not contribute any money.

Conclusion: Lena is a pizza mooch who eats but does not contribute.

The strength of an argument by example depends on four factors. First, the more examples, the stronger the argument. For example, if Lena only failed to pay for the pizza she ate once, then the claim that she is a mooch who does not contribute would not be well supported and the argument would be very weak.

Second, the more relevant the examples, the stronger the argument. For example, if it were concluded that Lena was a pizza mooch because she regularly failed to pay for her share of gas money, then the argument would be weak. After all, her failure to pay gas money does not strongly support the claim that she will not help pay for pizza. There can be reasonable debate about whether an example is relevant. For example, people can sensibly differ about what counts as relevant experience for a job or political office.

Third, the examples must be specific and clearly identified. Vague and unidentified examples do not provide much in the way of support. For example, if someone claimed that Lena was a pizza mooch because “you know, she didn’t pay and stuff on some days...like some time a month or maybe a couple months ago”,

then the argument would be weak. Unidentified examples also cannot be confirmed, so there would not be any way of knowing if the examples are accurate or even real.

Fourth, counterexamples must be considered. A counterexample is an example that counts against the claim. One way to look at a counter example is that it is an example that supports the denial of the conclusion being argued for. The more counterexamples and the more relevant they are, the weaker the argument. For example, if someone accuses Lena of being a pizza mooch, but other people have examples of times which she did contribute, then these examples would serve as counterexamples against the claim that she is a pizza mooch. As such, counterexamples can be used to build an Argument by Example that has as its conclusion the claim that the conclusion it counters is false.

An argument that does not meet these standards would be a weak argument. If the argument is weak enough (though there is not an exact line that defines this) it would qualify as a fallacy because the premises would not adequately support the conclusion. And that would be a Fallacious Example.

Defense: Since a Fallacious Example is just a significantly flawed argument by example, the defense is to apply the standards for assessing this argument type to determine if it is fallacious.

Example #1

Rush: “The President is a socialist!”

Sean: “Really? Can you prove that?”

Rush: “Well he did those things; you know like that money thing and that other thing with insurance. You know, the socialist things.”

Sean: “So, those examples prove he is a socialist?”

Rush: “Well, yeah.”

Example #2

Rush: “The President is an authoritarian!”

Sean: “Really? Can you prove that?”

Rush: “Well he did those things; you know like that voting thing and that other thing with police stuff. You know, the authoritarian things.”

Sean: “So, those examples prove he is an authoritarian?”

Rush: “Well, yeah.”

Example #3

Dan: “In the Apology, Socrates argues that he did not corrupt the youth intentionally. He does this by asserting that if he corrupted them, they would probably hurt him. But, since no one wants to be harmed, he would not corrupt them intentionally. However, there are plenty of examples of leaders who corrupted their followers without being harmed by them. So much for Socrates’ argument!”

Ted: “Like who?”

Dan: “You know, like those leaders that corrupted people.”

Ted: “Oh, them.”

Fallacy Fallacy

Also Known As: Argumentum ad Logicam, Fallacist's Fallacy

Description:

This fallacy occurs when it is inferred a claim is false because it is the conclusion of a fallacy. The form is as follows:

Premise 1: Fallacy F was used to argue for claim C.

Conclusion: Therefore, claim C is false.

This is a fallacy (and an ironic one) because the truth or falsity of a conclusion cannot be inferred solely from the logical quality of the argument. This is because it is one thing to commit an error in reasoning and another to commit a factual error and one does not follow from the other. That said, some people do use the term “fallacy” to refer to untrue claims. In that case, inferring that a claim is untrue because it is in fact untrue would obviously be reasonable. This fallacy can have considerable psychological force because people are often unclear about the distinction between the quality of an argument’s logic and the plausibility of the premises. People tend to think that bad reasoning entails an untrue conclusion, and that untrue premises must indicate poor logic. While bad logic and untrue claims

often go together, one cannot be inferred from the other.

That reasoning and truth are distinct is especially clear when a deductive fallacy (an invalid deductive argument) is considered:

Premise 1: If Washington D.C. is the capital of the United States, then it is in the United States.

Premise 2: Washington D.C. is in the United States.

Conclusion: Washington D.C. is the capital of the United States.

This is an example of Affirming the Consequent which is a classic invalid argument. However, the conclusion is true. This nicely shows that poor reasoning does not entail a false conclusion or false premises.

A bad faith variant of this fallacy is the Accusation of Fallacy. This fallacy involves intentionally and falsely accusing someone of committing a fallacy to conclude that their claim is false. It has this form:

Premise 1: Person A intentionally and falsely claims that Person B used Fallacy F to argue for claim C.

Conclusion: Therefore, claim C is false.

As a fallacy of reasoning, the logic is flawed because it uses the same logic as the

Fallacy Fallacy. This fallacy can be psychologically effective if the audience knows enough about fallacies to know that they are poor reasoning but are ignorant of the Fallacy Fallacy. While sometimes used for trolling, it can also be combined with other fallacies. For example, it can be very effective in a Gish Gallop because accusing someone of committing a fallacy takes but a few words while explaining why a fallacy was not committed and explaining the Fallacy Fallacy would take much longer.

Defense: The defense against this fallacy is to remember that bad reasoning (or a lack of reasoning) does not entail that a claim must be false. While bad reasoning (or no reasoning) does not support a claim, it also does not count as evidence against it. So, the fact that something does not give you a reason to accept a claim does not mean that it gives you a reason to reject it. If you know that the support offered for a claim is fallacious, but do not know if the claim is true, then you should suspend judgment about the claim.

If someone else is targeted by what you suspect is an Accusation of Fallacy, you should assess the alleged fallacy. But even if it is a fallacy, there would still be a Fallacy Fallacy occurring. If there is no fallacy, the person might be acting in bad faith or might be acting from ignorance.

If you are targeted by an Accusation of Fallacy, a time-consuming defense is to show that you did not commit the alleged fallacy and to explain the Fallacy Fallacy.

The burden of proof generally rests on the person who accuses someone else of committing a fallacy, but someone who is operating in bad faith is unlikely to respect this.

Example #1

Glenn: “The president is a socialist. That is why he is wrong when he claims his stimulus plan helped the economy.”

Jon: “Aha! I just read about fallacies on the internet and you, my fine fellow, have just committed an Ad Hominem! That means that you are wrong: the president’s plan must have helped the economy.”

Example #2

Glenn: “The president is a racist. That is why he is wrong when he claims his stimulus plan helped the economy.”

Jon: “Aha! I just read about fallacies on the internet and you, my fine fellow, have just committed an Ad Hominem! That means that you are wrong: the president’s plan must have helped the economy.”

Example #3

Sally: “Why should you believe in God? Well, the bible says that God exists.”

Jane: “But why should I believe the bible? It is just a book after all.”

Sally: “It was written by God, so you can believe every word.”

Jane: “Hey, you are just assuming what you need to prove. That isn’t a good

argument at all! So, that just about wraps it up for God.”

Jane: “What?”

Sally: “Well, your argument is bad, so your conclusion has to be wrong.”

Jane: “I don’t think it works that way.”

Sally: “Why, did God put that in His book?”

False Allegiance

Description:

A False Allegiance is a bad faith technique in which a person pretends to belong to a group and attempts to exploit this professed false allegiance for persuasive purposes. While it can be used in conjunction with Hijacking, the difference is that False Allegiance involves a false claim of membership while Hijacking involves pretending to agree with something.

If someone uses a False Allegiance to cause harm to the target group through claims and arguments, this can be, perhaps a bit dramatically, called a False Flag. For example, a foreign agent might pretend to be a member of BLM and post inflammatory comments on Twitter. The same agent might also pretend to be a Proud Boy and post inflammatory comments, perhaps even in response to their own fake BLM posts.

As would be expected, accusing a member of a group of having a False Allegiance is also a rhetorical technique. See the Appeal to Purity fallacy for how this tactic can

work.

As a fallacy, one form involves attempting to persuade members of the target group to accept a claim based on a false claim of allegiance. It has this form:

Premise 1: Person A falsely claims membership in Group G.

Premise 2: Person A makes claim C to members of G.

Conclusion: Members of G should accept claim C.

Those using this technique usually employ other fallacies, such as Appeal to Group Identity, to exploit their false claim of group membership. Their intent is to get members of the target group to give their claim or argument more credence simply because they profess to be a member of that group. The person using the fallacy might also attempt to enhance it by claiming such things as that they are a dedicated member of the group or that they have been in the group a long time.

The False Flag variant would look like this:

Premise 1: Person A falsely claims membership in Group G.

Premise 2: Person A makes claim or argument C with the intent of harming G.

Conclusion: C should be accepted as representing G.

Those using this variant will typically use other fallacies and rhetorical techniques

along with the False Flag. For example, they might make use of Appeal to Fear or Appeal to Anger to enhance the response to their claim. As with the other variant, the person using this will often claim that they are loyal, long time, or mainstream member of the group.

Alternatively, the person might claim to be disenchanted with the group or a former member. This technique can make harmful claims appear more plausible because the person appears to have been in a position to “know the truth” and to have a credible motive for making harmful claims. For example, someone might pretend to be a former Republican who left the party because they hate Donald Trump. As another example, someone might profess to have left the Democratic Party because it became “too woke.” This technique makes it easier to use fallacies such as Straw Man when trying to harm the target group. This is because a former or disenchanted member would seem more credible saying negative things than someone who claims to be a loyal and current member of the group.

Defense: Lying about being a member of a group is not a logical fallacy but is obviously a bad faith technique. If someone’s False Allegiance is revealed, this does not in itself prove that their claim is false, or their argument is flawed. As always, claims and arguments should be assessed on their own merits. It does, however, reduce their credibility.

While a person’s real allegiance can sometimes be determined, the internet makes

this difficult. After all, anyone can pretend to be anything. Groups obviously also have dissenters and extreme members, so what might appear to be a False Allegiance or even a False Flag might not be. Fortunately, defending against False Allegiance does not require that you know the allegiance is false. In the case of the first version, the defense is like that used against Appeal to Group Identity and similar fallacies: believing a claim just because it comes from (what appears to be) one's group would be an error.

The defense against the False Flag variant is to keep in mind that a harmful claim made by a (alleged) member of a group does not, in itself, show that the claim is representative of that group. See, for example, Straw Man: Nut Picking.

Example #1

Ralph (who is not a Democrat): "As a long time Democrat who worked hard to get Obama elected, I can say that I have had it with cancel culture. I am disgusted and angered that my party is now against free speech. I am thinking about voting for the Republicans this year and think you should too."

Example #2

Ralph (who is not a Republican): "As a longtime Republican who worked hard for our party, I can say that I have had it with their racism, sexism, and homophobia. I am disgusted and angered that my party is no longer really the party of Lincoln. I am thinking about voting for the Democrats this year and think you should too."

Example #3

Sally (who is not in BLM): “I loved being in BLM at first. I thought I was helping people. But then I found out the truth: they do not believe that All Lives Matter but that only Black Lives Matter. This made me so mad that I quit. You all need to wake up and be awake rather than woke!”

Example #4

Sally (who is not in the NRA): “I loved being in the NRA at first. I thought I was helping people learn gun safety and fighting to protect the Second Amendment. But then I found out the truth: they are secretly controlled by Hillary Clinton and their top members run her child slavery ring! This made me so mad that I quit. You all need to wake up and leave the NRA!”

False Dilemma

Also Known as: Black & White Thinking

Description:

A False Dilemma is a fallacy in which two options are presented as if they are the only two options and since one is claimed to be false, the other must be true. This fallacy occurs when there are more than two options. This fallacy has the following pattern of reasoning:

Premise 1: Either claim X or Y is true (when X and Y could both be false).

Premise 2: Claim Y is false.

Conclusion: Therefore, claim X is true.

This is fallacious because if both claims could be false, then it cannot be inferred that one is true because the other is false. That this is the case is made clear by the following example:

Premise 1: Either $1+1=4$ or $1+1=12$.

Premise 2: It is not the case that $1+1=4$.

Conclusion: Therefore $1+1=12$.

While this fallacy can be self-inflicted, it can also be used against others. When used this way, a common tactic is to ensure that one of the options is appealing or implausible to the target of the fallacy. This can be done using various rhetorical techniques, such as hyperbole, or other fallacies, such as Straw Man.

In cases in which the two options are the only two options, this line of reasoning is not fallacious. For example (which assumes there are no undead):

Premise 1: Bill is dead or alive.

Premise 2: Bill is not dead.

Conclusion: Therefore, Bill is alive.

Defense: To avoid inflicting this fallacy on yourself, pause to check to see if you have considered all the (reasonable) options. If someone else is trying to inflict this fallacy on you, take the time to consider whether they have offered all the (reasonable) options. Since those who intentionally use this fallacy will often try to make the option they want you to reject look bad, it is also a good idea to look for the use of other rhetorical devices (such as hyperbole) and other fallacies (such as Straw Man).

Example #1

Senator Jill: “We’ll have to cut education funding this year.”

Senator Bill” “Why?”

Senator Jill: “Well, either we cut the social programs, or we live with a huge deficit, and we can’t live with the deficit.”

Example #2

Bill: “Jill and I both support having prayer in public schools.”

Jill: “Hey, I never said that!”

Bill: “You’re not an atheist are you, Jill?”

Example #3

“Look, you are going to have to make up your mind. Either you decide that you can afford this stereo, or you decide you are going to do without music for a while.”

False Dilemma: Line Drawing Fallacy

Also Known As: Continuum Fallacy, Sorites Fallacy

Description:

One variant of the False Dilemma is the Line Drawing Fallacy. In this fallacy, it is claimed that unless a precise line can be specified between two things, there is no line or difference between the two. The fallacy can be presented in this manner:

Premise 1: An exact line between X and Y must be drawable or there is no distinction between X and Y (when no such line must be drawn).

Premise 2: An exact line cannot be drawn between X and Y.

Conclusion: Therefore, there is no distinction between X and Y.

This is a form of the False Dilemma because it erroneously presents the target with two choices that are not the only two options. In this case, one option is drawing a precise line and the other is that there is no distinction.

When I first learned about this fallacy as an undergraduate, the examples were mostly purely academic. For example, if you pull hair from a person's head one at a time, you cannot specify the exact number of hairs you must remove before the person is bald. Therefore, you can never make a person bald by pulling out their hair. As another example, if you give a person one dollar one at a time, you cannot specify the exact number of dollars you must give them before the person is rich.

Therefore, you can never make a person rich by giving them one dollar at a time.

In 1990, however, this fallacy featured prominently in the trial of the officers who beat Rodney King. This provided the first example I knew of showing that this fallacy can have serious consequences. The reasoning used by the jury can be presented as follows:

Premise 1: The first time King was struck was not excessive force.

Premise 2: If excessive force was used during the beating, then there must be a specific strike at which point the force went from warranted to excessive.

Premise 3: This strike cannot be identified.

Conclusion: The force used in the beating did not become excessive.

While it is (probably) true that the exact point of transition cannot be determined, this is not necessary to determine that it eventually became excessive.

Defense: The main defense is to consider whether an adequate reason why an exact line must be drawn for there to be a distinction between the two things. If not, then it is a false dilemma. If so, then the dilemma (could be) real.

Example #1

Zeno: “So, my friend, if you remove a single grain of sand from a heap of sand, will it cease to be a heap?”

Hugh: “No.”

Zeno: “Aha, so even a single grain of sand will be a heap.”

Hugh: “What? No. Surely not.”

Zeno: “Consider my logic. You agreed that removing one grain from a heap will not cause it to cease being a heap. What about a second grain? A third?”

Hugh: “Um, still a heap.”

Zeno: “What, then, is the exact number of grains that must be removed before the heap ceases to be a heap?”

Hugh: “No idea.”

Zeno: “Exactly. So, removing every grain of sand but one from the heap will mean it is still a heap.”

False Dilemma: Perfectionist Fallacy

Description:

Perfectionist Fallacy is another variant of the False Dilemma. In this case, the False Dilemma is between something being perfect or rejecting it. Since perfection is not possible, it is concluded that the thing must be rejected. It has the following form:

Premise 1: X must be perfect, or it must be rejected (when there are other options).

Premise 2: X is not perfect.

Conclusion: Therefore, X must be rejected.

The fallacy can also occur when the standards are unreasonably high:

Premise 1: X must meet unreasonably high standards, or it must be rejected (when there are other options).

Premise 2: X does not meet the unreasonably high standards.

Conclusion: Therefore, X must be rejected.

A person might believe that perfection or other unreasonably high standard is required and commit this fallacy in good faith. But the fallacy is usually used as a bad faith argument to reject something. Since the extreme form of this fallacy is obviously fallacious, someone intentionally using this fallacy will usually not explicitly require perfection. Instead, they will start with unreasonably high standards. If these standards are somehow met, they will often use Moving the Goalpost to change the standards until they cannot be met.

In such cases, the person committing the fallacy knows they are intentionally requiring an unreasonably high standard and are hoping the fallacy will go undetected. This is a form of False Dilemma because it occurs when there are other viable options beyond perfection (or unreasonably high standards) or nothing. This fallacy is often used in political debates when one side opposes a proposed law. They will argue in bad faith that the new law would not perfectly solve the problem and

hence the law should not be passed.

It is not a fallacy to require that something meet reasonable standards or be rejected. There can be good faith debates about what counts as a reasonable standard, so merely having high standards does not entail that this fallacy has been committed. For example, while a hospital administrator should not expect a perfect back-up power system, it would be reasonable for them to expect a reliable system that could power the hospital for an adequate amount of time. How reliable and how long lasting the system must be can certainly be debated.

As another example, it is reasonable and wise to assess a proposed law to determine if it would be effective and beneficial. If there are good reasons to believe that the law would not effectively address a problem, then it would be reasonable to consider other alternatives. One should also consider that there can be times when a poor solution is better than none.

Defense: To avoid falling for (or unintentionally committing) this fallacy, the main defense is assessing whether the required standards are reasonable or not. If the standards are unreasonably high, then this fallacy has (probably) been committed.

When you suspect someone is committing this fallacy in bad faith, one way to test this is to consider what standards they apply in similar cases. For example, people who use this fallacy to argue against passing a law they dislike generally do not apply the same standards to laws they like. As always, showing that someone is arguing in bad faith does not prove their claim is false or argument is fallacious (see the Bad

Faith fallacy). But exposing bad faith and showing that someone does not accept their own fallacious argument or false claim can undercut the rhetorical force of their efforts.

Example #1

Herb: “Oh my God, another school shooting. This time over twenty people were killed. I know I say this after every shooting, but Congress needs to do something. We need laws passed like those in Australia, laws that have proven effective in reducing homicides. Also, suicides.”

Terry: “While I have thoughts and prayers for those families, we can never have enough laws to prevent all evil. Evil people do not obey laws. So people who want to shoot children will just get guns and do it, no matter how many laws we pass.”

Herb: “The laws don’t need to perfectly solve the problem.”

Terry: “Look, we can pass all the laws you want, but at the end of the day there will still be violence.”

Herb: “So, we should not pass any laws?”

Terry: “Exactly.”

Herb: “So, those anti-abortion laws should be repealed?”

Terry: “What? No.”

Example #2

Terry: “Thank goodness that pro-life laws are being passed. They will save so many

children. We must always think of the children first.”

Herb: “Well, those laws might have good intentions behind them but...”

Terry: “But what?”

Herb: “While I have thoughts and prayers for those who are aborted, we can never have enough laws to prevent all evil. Evil people do not obey laws. So, people who want to get abortions will just do it, no matter how many laws we pass.”

Terry: “The laws don’t need to perfectly solve the problem.”

Herb: “Look, we can pass all the laws you want, but at the end of the day there will still be abortions.”

Terry: “So, we should not pass any laws?”

Herb: “Exactly.”

Terry: “So, those guns control laws you like should be repealed?”

Herb: “What? No.”

False Equivalency

Description:

As a rhetorical device a False Equivalency occurs when two things that are not equivalent are treated as being the same for purposes of persuasion. As a fallacy of reasoning, it occurs when it is inferred that an often-irrelevant shared quality (or qualities) shows that two things are equivalent, often in terms of their degree or magnitude. The error is that the inferred equivalence is not warranted by the

premises. One way to formalize this fallacy is as follows:

Premise 1: A is X (to degree D) because it has qualities A, B, and C.

Premise 2: B has quality C.

Conclusion: A and B are equivalent, so B is X (to degree D).

This reasoning is defective because it does not follow that simply because two things have qualities in common that they are equivalent. To use an extreme example, while it is true that both Adolph Hitler and Donald Trump were elected officials, this does not entail that they are equivalent. It also does not follow that they are not equivalent.

What this reasoning lacks is an adequate comparison of A and B to determine if they are similar enough to warrant the inference that they are equivalent. The way to correctly draw such a conclusion is to use a strong argument by analogy to support the claim of equivalence and thus avoid the fallacy. The logical defense against a false accusation that you have made a false equivalence is to present this sort of strong argument.

While people often make use of this fallacy in bad faith for nefarious reasons, people also fall into it in good faith. Sometimes the fallacy is committed from good intentions. For example, credible American news sources often try to include both sides of an issue. This is laudable when both sides are worthy of serious

consideration. But when one side is clearly lacking credibility, including both sides can lend credence to a view that has not earned it. In some cases the media does this in bad faith; they are aware that one side lacks credibility but know that the controversy will get attention and advertising dollars.

This fallacy can be self-inflicted but is most often used in bad faith. In such cases the person using the fallacy is aware that they are making a False Equivalence but are hoping the target audience will not be critical enough to notice it. This fallacy is most effective when the target of the False Equivalence is something the target audience has strong feelings about.

This fallacy can be employed to try to downplay the severity of something. For example, someone might compare a major oil spill to having a bit of oil leaking from a car. The fallacy can also be used to try to persuade the target audience that something minor is extreme. For example, someone might compare a run of the mill political proposal to the evils of the Nazis.

Defense: The defense against this fallacy is to assess the comparison being drawn to determine if it supports the alleged equivalence. See the False Analogy fallacy for the standards for assessing this sort of analogical reasoning.

Example #1

“I don’t get why people think my having a pet tiger is a bad idea. It is a pet that I

must take care of, just as I would take care of a cat or a dog.”

Example #2

“The Republicans are proposing that we build more prisons. Need I remind you that under Stalin the Soviet Union built more prisons?”

Example #3

“A military pilot who bombs a target that results in civilian deaths is just like a criminal who sets off a bomb in a church or school. Both are murders who should be executed.”

Example #4

“The theory that the earth is hollow is a theory just like the theory of evolution. So, the hollow earth theory should be taught in public schools.”

Example #5

“Both those politicians are big liars. Smith exaggerated about the number of jobs he created. Brown said he never committed sexual assault, but six people have come forward with credible accusations. It doesn’t matter who you vote for, a liar is going to win.”

Gambler’s Fallacy

Also Known As: Monte Carlo Fallacy

Description:

This fallacy occurs when it is inferred that a result must be “due” because what

has previously happened departs from what would be expected on average or over the long term. The form of the fallacy is as follows:

Premise 1: X happened.

Premise 2: X departs from what is expected to occur on average or over the long term.

Conclusion: Therefore, X will end soon.

There are two common ways this fallacy is committed. In both cases it is inferred that a result must be “due” because what has previously happened departs from what would be expected on average or over the long term.

The first version involves events whose probabilities are independent of one another. For example, one toss of a coin does not affect the next toss. So, each time the coin is tossed there is a 50% chance of heads and a 50% chance tails. Imagine someone tosses a coin 6 times and gets a head each time. If they conclude that the next toss will be tails because tails “is due”, then they will have committed this fallacy. This is because the results of previous tosses have no effect on the outcome of the 7th toss. It has a 50% chance of being heads and a 50% chance of being tails, just like any other toss.

The second version involves cases whose probabilities of occurring are not independent of one another. For example, suppose that a boxer has won 50% of his

fights over the past two years. Suppose that after several fights they have won 50% of their matches this year, that they have lost their last six fights and that they have six fights remaining. If a person believed that the boxer would win the next six fights because they have “used up” their losses and are “due” for a victory, then this would be a fallacy. After all, the person would be ignoring the fact that the results of one match can influence the results of the next. For example, the boxer might have been injured in one match which would lower their chances of winning the last six fights.

Obviously, not all predictions about what is likely to occur are fallacious. If a person has good evidence for a prediction, then they it would be reasonable to accept. For example, if a person tosses a normal coin and gets nine heads in a row it would be reasonable for them to conclude that they will probably not get another nine in a row again. This reasoning would not be fallacious if the conclusion is based on an understanding of the laws of probability. In this case, if it were concluded that they would not get another nine heads in a row because the odds of getting nine heads in a row are lower than getting fewer than nine heads in a row, then this reasoning would be good, and this conclusion would be justified. Hence, determining whether the Gambler’s Fallacy is being committed can requires some basic understanding of the laws of probability.

The Gambler’s Fallacy is commonly self-inflicted and can lead people to make poor decisions, especially while gambling. It can also be inflicted on others, to

encourage them to make bad decisions. For example, a person who has been losing at a casino might be encouraged by others that they “are due” to win a hand and they could also convince themselves of this unsupported claim.

Defense: Because of its psychological power, this fallacy can be difficult to defend against. Logically, the defense against it is having a grasp of basic probability and knowing when the outcome of a previous event can impact the next event and when it cannot. The obvious problem with this is that it is math based defense going up against what can often be a strong feeling.

Example #1:

Bill is playing against Doug in a tabletop WWII tank battle game. Doug has had a great “streak of luck” and has been killing Bill’s tanks left and right with good rolls. Bill, who has a few tanks left, decides to risk all in a desperate attack on Doug. He is a bit worried that Doug might wipe him out, but he thinks that since Doug’s luck has been so good, Doug must be due for some bad dice rolls. Bill launches his attack and is shocked when Doug wipes him out.

Example #2:

Jane and Bill are talking:

Jane: “I’ll be able to buy that car I always wanted soon.”

Bill: “Why, did you get a raise?”

Jane: “No. But you know how I’ve been playing the lottery all these years?”

Bill: “Yes, you buy a ticket for every drawing, without fail.”

Jane: “And I’ve lost every time.”

Bill: “So why do you think you will win this time?”

Jane: “Well, after all those losses I’m due for a win.”

Example #3:

Joe and Sam are at the racetrack betting on horses.

Joe: “You see that horse over there? He lost his last four races. I’m going to bet on him.”

Sam: “Why? I think he will probably lose.”

Joe: “No way, Sam. I looked up the horse’s stats and he has won half his races in the past two years. Since he has lost three of his last four races, he’ll have to win this race. So, I’m betting the farm on him.”

Sam: “Are you sure?”

Joe: “Of course, I’m sure. That pony is due, man...he’s due!”

Genetic Fallacy

Also Known As: Fallacy of Origin, Fallacy of Virtue

Description:

A Genetic Fallacy is reasoning in which an alleged defect in the origin of something is taken as evidence that discredits it. It is also a fallacy in which the

origin of something is taken as evidence in its favor (a Positive Genetic Fallacy). It is called “the Genetic Fallacy” because the inference is based on the genesis of a thing. The origin of something can also include its history or its sources. This reasoning has the following form:

Premise 1: The origin of X is presented.

Conclusion: X is true (or false) or supported (or discredited).

This is a fallacy because the origin of something does not, by itself, prove (or disprove) that it is true or good. The one exception is in the case of a strong argument from authority. In that case, the qualities of the origin of the claim do serve to support the claim.

This fallacy is often used as a sort of group Ad Hominem:

Premise 1: The group making claim X is attacked.

Conclusion: X is false.

Or sort of a group Positive Ad Hominem:

Premise 1: Group A makes claim X.

Premise 2: Person B notes a positive (but logically irrelevant) feature of A.

Premise 3: A’s claim is true.

The distinction is that in strict terms an Ad Hominem targets an individual while a Genetic Fallacy targets a group. For example, “Bill is a Republican, so he is wrong about tax cuts” would be an Ad Hominem since it attacks Bill’s claim because he is a Republican. “The Republican Party is wrong about tax cuts because you know, they are Republicans. We all know that that means” would be a Genetic Fallacy because it attacks a group, the Republican Party, rather than an individual. Not everyone accepts this distinction, and it would not be necessarily wrong to speak about Ad Hominem attacks against groups of Genetic Fallacy attacks against individuals.

This fallacy can also refer to the history of something. For example, the current Republican party often claims that it is the party of Lincoln, which is presumably supposed to “prove” that the current version of party is good or not racist or something. While it is true that Lincoln was a Republican in the 1880s, this does not prove (or disprove) that the current party is good or not racist. It also does not prove that it is bad or racist.

This fallacy can seem like an Appeal to Tradition, a fallacy in which something being a tradition is taken as evidence that it is true or good. This differs from the Genetic Fallacy in that the Genetic Fallacy appeals to the origin of something rather than it being a tradition. These fallacies can certainly be used together. For example, a person might appeal to a tradition and appeal to its origin to “prove” that it is true or good.

It should be noted that there are cases in which the origin of a claim is relevant to the truth or falsity of the claim. For example, a claim that comes from a reliable expert is likely to be true. This would be a good Argument from Authority (see the Appeal to Authority, Fallacious for this discussion).

As a final point, a non-fallacious case can be made that something is good or bad now by examining its history up to the present. As such, the fallacy is not that the origin or history of something is considered, but that it is the only thing considered. If, for example, a law has a terrible history of misuse and this misuse is shown to have persisted, then concluding the law is bad now would not be a Genetic Fallacy.

Defense: The main defense is keeping in mind that except for good arguments from authority, the origin of a claim is irrelevant to its truth. In the case of other things, their origins, source, or history do not, by themselves prove (or disprove) that something is good or bad.

Example #1:

“Yeah, the environmentalists do claim that over-development can lead to all kinds of serious problems. But we all know about those darn bunny huggers and their silly views!”

Example #2:

“I was brought up to believe in God, and my parents told me God exists, so He

must.”

Example #3:

“Sure, the media claims that Senator Bedfellow was taking kickbacks. But we all know about the media’s credibility, don’t we?”

Example #4:

Ted: “You know, up until the Civil War the Democrats were the dominant political party in the south. As such, many of these Democrats supported slavery, which was opposed by many Republicans at the time.”

Nancy: “Really?”

Ted: “Historical fact. This proves that the Democrats are the real racists. We Republicans have been against racism since Lincoln.”

Kyle: “Are you going to tell Nancy about the Southern Strategy? You know, how the modern Republican party was able to get many southern Democrats to switch to the Republican party?”

Nancy: “What about that, Ted?”

Ted: “That is just a lie. You know that what those racist Democrats say are lies aimed at hurting America. So don’t you believe that the Southern Strategy is any more than a liberal lie.”

Example #5:

“Republicans say that we have too many regulations. They are obviously wrong. I mean, they are Republicans so they cannot be believed.”

Example #6:

“Amazon issued a statement saying that unions are bad for the economy and that workers are better off without them. I don’t even need to argue against this. The fact that Amazon says it proves it is wrong.”

Genetic Fallacy, Demonic**Description:**

A Genetic Fallacy is a flawed argument that comes in negative and positive variations. In the negative version a perceived defect in the origin of a claim or thing is taken as evidence discrediting the claim or thing itself. The positive variation is an error in reasoning in which the origin of a claim or thing is taken to be evidence for the claim or proof that the thing is true or good. A Demonic Genetic Fallacy is always negative. The Demonic Genetic fallacy has the following two forms:

Form 1

Premise 1: Claim (or argument) C originates from group G.

Premise 2: Group G is demonized.

Conclusion: Therefore, C is false (or the argument fails).

Form 2

Premise 1: A originated from O.

Premise 2: O is demonized.

Conclusion: A is discredited.

The reason why the Demonic Genetic fallacy is a fallacy is that demonizing a group or origin has no bearing on the truth of a claim, the quality of an argument or the origin of a thing. In addition to the logical error, a Demonic Genetic fallacy also suffers from the fact that demonizing, by definition, involves deception. At the very least, demonizing involves taking facts out of context and commonly involves outright falsehoods.

The demonic version of this fallacy involves two steps, the first of which distinguishes the demonic from the normal Genetic Fallacy.

First, the target, which is the origin of the claim or thing, is demonized. Demonizing is portraying the target as evil, corrupt, dangerous, or threatening. This can be done in the usual three ways: selective demonizing, hyperbolic demonizing, or fictional demonizing.

Selective demonizing is when some true negative fact about the target is focused on to the exclusion of other facts about the target. Hyperbolic demonizing involves greatly exaggerating a negative fact about the target. Fictional demonizing is simply lying about the target. Second, the attack on the origin of the claim or thing is taken to discredit the claim or thing.

A demonic genetic fallacy can have considerable psychological force since

demonizing typically goes beyond the usual attacks in a normal Genetic Fallacies and thus can trigger strong emotions. A common tactic is to demonize the target using stereotypes the audience already accepts and by appealing to their biases, fears, and prejudices. Such an audience will be inclined to accept the demonization and their emotional response can lead them to accept the fallacious reasoning.

A genetic fallacy, demonic or not, differs from the Ad Hominem fallacies in that a strictly defined ad hominem always targets an individual while the genetic fallacy can be used to target groups or institutions.

Defense: There are two main defenses against this fallacy. The first is to be aware of the logical flaw in the fallacy. Even if the demonizing claims were true, the reasoning would still be flawed: true but irrelevant negative claims about the origin of something, no matter how terrible, do not disprove a claim or argument or prove a defect in the thing.

The second is to be critical about negative claims and only accept them if they are adequately supported by evidence.

Example #1

“The so-called conservative media claims that Pelosi has engaged in insider trading, but they are a pack of sexist fascists who have set out to destroy America. Oh, I am sure they are also racist, but I guess that would not apply to Pelosi. Or maybe it

does?”

Example #2

“The teacher’s union has said that the law they pejoratively call ‘Don’t Say Gay’ is aimed at hurting LGBT children in our public schools. While some people might be simply confused about the law, we can be sure that the union is controlled by pedophiles who have been grooming children. So, we can dismiss their lies. This law will protect children. Protect them from the predators that now rule our schools.”

Guilt by Association

Also Known as: Bad Company Fallacy, Company that You Keep Fallacy

Description:

Guilt by Association is a fallacy in which a claim is rejected because a person dislikes those who accept the claim. It has the following form:

Premise 1: A accepts claim C.

Premise 2: A is disliked.

Conclusion: Therefore, C is false.

This is fallacious because how we feel about those who accept a claim does not disprove a claim. This can be illustrated with this silly example: “you might think that $1+1=2$. But Adolf Hitler, Charles Manson, Joseph Stalin, and Ted Bundy all

believed that $1+1=2$. So, you shouldn't believe it.”

The fallacy gets its psychological power from the fact that people do not like being associated with people they dislike. Hence, a person thinks they share a belief with people they dislike, they might be influenced to reject that belief. This rejection is not based on any defect in the claim itself but based on disliking the people who hold it.

This fallacy differs from the Ad Hominem and Genetic fallacies, although they are similar. In this fallacy, a claim is rejected because of its association with a person or group that is disliked. In the Ad Hominem and Genetic fallacies, a claim is rejected because of some (alleged) negative qualities of the source of the claim. These fallacies can be used together. For example, an Ad Hominem could be used to attack a person to get the audience to reject that person's claim, then a Guilt by Association could be used that exploits the dislike generated by the Ad Hominem attack.

While it is not a fallacy to avoid associating with people you dislike, dislike does not justify the rejection of any claim. For example, most wicked and terrible people also accept that the earth revolves around the sun and that lead is heavier than air. No reasonable person would reject these claims simply because this would put them in the company of people they dislike.

This fallacy works best when the target audience already dislikes or has doubts about the claim. For example, a Democrat who already dislikes the claim that tax cuts for the rich benefit the poor would be more likely to be influenced by this fallacy

than a Republican who likes the claim. It can also be effective when the target audience is ignorant about the claim and does not yet have an opinion.

The fallacy's effect can be enhanced by selecting associates of the claim that appear connected to the claim in a meaningful way. For example, a person might associate Stalin with a claim about socialism because Stalin was the authoritarian ruler of a state that was claimed to be socialist. As another example, a person might associate Mark Zuckerberg with a claim about social media.

Guilt by Association also works better when the associates of the claim are selected to maximize the dislike of the target audience. For example, if the fallacy is targeting Democrats or Republicans, it is usually easy to find specific politicians that will be especially disliked. The more targeted the fallacy, the less effective it will be on those outside the target group. It might even have a reverse effect on some. For example, if a Democrat used a reviled Republican for this fallacy, this might encourage certain Republicans to agree with the claim. Which takes us to the positive variant of this fallacy.

A reversal of this fallacy can be used to attempt to get people to accept a claim. This would be the Fallacy of Positive Association:

Premise 1: A accepts claim C.

Premise 2: A is liked.

Conclusion: Therefore, C is true.

This is poor reasoning because liking the person making a claim does not serve as evidence for the claim. As with Guilt by Association, it has only psychological force.

Another, negative, variant of the fallacy is to infer that someone has bad qualities because of their association with an (allegedly) bad group or person. It has this form:

Premise 1: Group or person A is associated with group or person B

Premise 2: Group or person B has (bad) qualities P, Q, R.

Conclusion: Group A has (bad) qualities P, Q, R.

This is fallacious because it does not follow that a person or group must be bad because of its association with a group or person (alleged) to be bad. This fallacy can be committed in bad faith in two ways. One is, of course, intentionally using the fallacy. The other is to lie about the alleged association or alleged bad qualities. But even if the premises are true, the conclusion still does not follow.

There are cases of good reasoning that might seem to resemble this fallacy. For example, if a person can be shown to have meaningful ties with a bad group and there is evidence they have done bad things, then inferring that they have bad qualities would not be a fallacy. This is because there is a logical connection between the evidence and the conclusion. The issue of what sort of association with a bad group or person is required for a person to be bad is a matter for ethics and hence the debate can quickly move beyond the realm of “pure” logic.

Defense: The defense against this fallacy is to keep in mind that even if people or groups you dislike accept a claim, it does not follow that they are wrong simply because you dislike them. It also does not follow that a person or group must be bad because they are associated with an allegedly bad group or person.

As with many fallacies, you can often test the reasoning by using an innocuous or true claim in place of the claim being attacked in a suspected fallacy. For example, a person might be tempted to fall for a Guilt by Association using Stalin aimed at a claim that collective ownership is good. But if that claim was replaced with something like “Salin believed that $1+1=2$ ” or “Stalin believes that dogs make good pets” the person might be more likely to recognize that the reasoning is bad.

Example #1:

Will and Kiteena are arguing about socialism. Kiteena is a pacifist and dislikes violence and violent people.

Kiteena: “I think that the United States should continue to adopt socialist programs. For example, I think that the government should take control of vital industries.”

Will: “So, you are for state ownership of industry.”

Kiteena: “Certainly. It is a great idea and will help make the world a less violent place.”

Will: “Well, you know Stalin also endorsed state ownership of industry. At last

count he wiped out millions of his own people. Pol Pot of Cambodia was also for state ownership of industry. He also killed millions of his own people. The leadership of China is for state owned industry. They killed their own people in that square. So, are you still for state ownership of industry?"

Kiteena: "Oh, no! I don't want to be associated with those butchers!"

Example #2:

Jen and Sandy are discussing the topic of welfare. Jen is politically conservative about most things but is a fervent anti-racist. Sandy is extremely liberal politically.

Jen: "I was reading over some studies of welfare, and I think it would be better to have people work for it. For example, people could do thing like pick up trash in public areas and even do skilled labor they are qualified for. This would probably make people feel better about themselves and it would get more out of our tax money."

Sandy: "I see. So, you want to have the poor people out on the streets picking up trash for their checks? Well, you know that is exactly the position David Count endorses."

Jen: "Who is he?"

Sandy: "I'm surprised you don't know him, seeing how alike you two are. He was a Great Wizard for the Aryan Pure White League and is well known for his hatred of blacks and other minorities. With your views, you'd fit right in with his little

racist club.”

Jen: “So, I should reject my view just because I share it with some racist?”

Sandy: “Of course.”

Example #3:

Libard and Ferris are discussing who they are going to vote for as the next department chair. Libard is a radical feminist, and she despises Wayne and Bill, who are two sexist professors in the department.

Ferris: “So, who are you going to vote for?”

Libard: “Well, I was thinking about voting for Jane, since she is a woman and there has never been a woman chair here. But I think that Steve will do an excellent job. He has a lot of clout in the university, and he is a decent person. I don’t think Jane has enough experience or connections yet to really get things done in these difficult times.”

Ferris: “You know, Wayne and Bill are supporting him. They really like the idea of having Steve as the new chair. I never thought I’d see you and those two pigs on the same side.”

Libard: “Well, maybe it is time that we have a woman as chair.”

Guilt by Association: Argumentum ad Hitlerum

Also Known As: Appeal to Hitler, Reductio ad Hitlerum, the Nazi Argument, the Hitler Card, the Nazi Card, Argument from Hitler

Description:

This fallacy is a specific instance of the Guilt by Association fallacy in which a claim is rejected because of its (alleged) association with Hitler. Because of the excessive use of the argumentum ad Hitlerum on the internet, in politics and elsewhere it warrants its own entry.

It has the following general form:

Premise 1: Hitler (or some other Nazi, or Nazis in general) accepts claim C.

Conclusion: Therefore, claim C is false/wrong.

This is a fallacy because the mere fact that Hitler (etc.) accepted a claim (or acted in a certain way) does not show that the claim (or action) is wrong. Hitler presumably believed that $1+1=2$ and if this reasoning was any good, it would have to be concluded that $1+1$ does not equal 2, which is absurd.

This fallacy draws its psychological power from the negative view most people have towards the Nazis in general and Hitler in particular. This fallacy is sometimes used in bad faith argumentation by people who do not particularly dislike some aspects of Nazism but believe their opponents do and hence accuse them of being like Hitler or the Nazis. People using this fallacy also sometimes lie about what the Nazis believed or did to try to unjustly smear something with Nazism. While lying is not a fallacy, this is a bad faith tactic.

Attacking a person by comparing them to Hitler (or Nazis) to “disprove” their

claim would usually be an Ad Hominem attack.

Comparisons to Hitler, Nazis and Nazism need not be fallacious. For example, a strong argument by analogy could be used to show that a modern political group embraces the core tenets of Nazi philosophy. So, it should not be assumed that all references to Hitler or Nazis in argumentation must be fallacious. To reject an argument simply because of such references would also be a fallacy.

Defense: While there can be good arguments that refer to the evils of the Nazis, you should be on guard whenever an argument compares anything to Hitler or the Nazis. You should ask whether this comparison is accurate and whether the comparison supports the claim being presented.

Example #1

Lee: "So, you are a vegetarian now."

Rachel: "Yes. Well, I am trying."

Lee: "You know that Hitler was a vegetarian, right?"

Rachel: "Really?"

Lee: "Yes. He also hated tobacco smoking."

Rachel: "Quick, get me some bacon and a pack of cigarettes! I repudiate my views!"

Example #2

Ricardo: "Hmm, there seem to be some good arguments for having national health

care.”

Glenda: “Oh, really?”

Ricardo: “Yes. After all, we have national defense against human enemies and even a federal agency for disasters. Why not have a comparable national defense against diseases and health problems?”

Glenda: “Why not indeed. You know that the Nazis were for national health care. They also killed all those people in the death camps. You are not proposing a final solution to health care, are you?”

Ricardo: “I watch the History Channel, so yeah, I know. But what does that have to do with national health care?”

Glenda: “I’m just connecting the dots.”

Ricardo: “Uh huh.”

Hasty Generalization

Also Known as: Fallacy of Insufficient Statistics, Fallacy of Insufficient Sample, Faulty Generalization, Hasty Induction, Leaping to a Conclusion, Over-Generalization.

Description:

This fallacy is committed when a conclusion is inferred about a population based on a sample that is not large enough to adequately support that conclusion. It has the following form:

Premise 1: Sample S (which is not large enough) is taken from population P.

Conclusion: Claim C is made about Population P based on S.

It can also be presented as:

Premise 1: Sample S (which is too small) is taken from population P.

Premise 2: In Sample S X% of the observed A's are B's.

Conclusion: X% of all A's are B's in Population P.

This fallacy also occurs due to an error in making (or a misuse of) an Inductive Generalization. This argument type, which need not be fallacious, has this form:

Inductive Generalization (need not be fallacious)

Premise 1: X% of all observed A's are B's.

Conclusion: X% of all A's are B's.

The fallacy of Hasty Generalization is committed when the sample is too small to warrant the conclusion. If the sample size is adequate and the sample is not biased (see the Biased Generalization) then the reasoning is not fallacious. There can be strong inductive generalizations, so such reasoning is not inherently fallacious.

Small samples tend to be unrepresentative. As an extreme case, asking one Canadian what they think about gun control would not be an adequate sample for

determining what Canadians in general think about the issue.

Small samples are also less likely to contain numbers proportional to the whole population. For example, if a bucket contains blue, red, green, and orange marbles, then a sample of three marbles cannot be representative. As the sample size of marbles increases the more likely it becomes that marbles of each color will be selected in proportion to their numbers in the whole population. The same holds true for things others than marbles, such as people who like marbles.

Since Hasty Generalization is committed when the sample (the observed instances) is too small, good reasoning requires samples of adequate size. What counts as adequate size will vary with the context, but in general larger samples will be better.

If the population is not very diverse, such as a population of cloned mice, then a small sample could suffice for a generalization. If the population is very diverse then a larger sample would be needed. The size of the sample also depends on the size of the population. For example, a class of thirty-five people could be adequately sampled by a smaller sample than would be needed to make a strong inductive generalization about the entire freshman class of a university or all freshmen in the world.

Finally, the required size will depend on the purpose of the sample. If Bill wants to know what Joe and Jane think about gun control, then a sample consisting of Bill and Jane would (obviously) be large enough. If Bill wants to know what most

Australians think about gun control, then a sample consisting of Bill and Jane would be too small.

People often commit Hasty Generalizations because of bias or prejudice. For example, someone who is a sexist might conclude that all women are unfit to fly jet fighters because they heard a woman pilot crashed one once. People also commit Hasty Generalizations due to sloppy reasoning or a lack of effort. It is very easy to simply leap to a conclusion and much harder to gather an adequate sample and draw a justified conclusion. Thus, avoiding this fallacy requires minimizing the influence of bias and taking care to select a sample that is large enough. A sample can even be large but biased, which is one reason that Hasty Generalization and Biased Generalization are distinct fallacies.

Formal or professional inductive generalizations, such as those conducted in research studies or news surveys, will include a margin of error. This number, often presented as plus or minus X%, denotes the range of percentage points within which the conclusion of an inductive generalization falls. With a margin of error, an Inductive Generalization looks like this:

Inductive Generalization with Margin of Error (need not be fallacious)

Premise 1: X% of all observed A's are B's.

Conclusion: X% +/- M% of all A's are B's.

While properly discussing statistics goes far beyond the scope of this work, it is useful to know that even properly conducted small samples of relatively large populations will have large margins of error. For example, a sample of 10 Florida voters would have a margin of error of ± 30 . If the sample showed that 60% of voters would vote for the Republican, the actual percentage of the population who would vote for the Republican could range from 30-90%. Increasing the sample size will reduce the margin of error, but this will soon run into diminishing returns. For example, a survey of 100 Florida voters would have a margin of error of ± 10 and increasing the sample to 1,000 would result in a margin of error of ± 3 . The way the margin of error works illustrates why overconfident inferences based on small samples yields a Hasty Generalization.

This fallacy is often exploited in “click bait” stories that report on small samples with eye-catching results. For example, a story might report that “Most People Are Cheaters!” because 52% of people surveyed said they cheated on their partner. This story might downplay that the survey had 25 respondents (a margin of error of ± 22). With such a small sample, the overconfidence expressed in the headline would be an example of a Hasty Generalization.

One final point is that a Hasty Generalization, like any fallacy, might have a true conclusion. However, if the reasoning is fallacious there is no reason to accept the conclusion based on that reasoning. As an illustration I present the following tale of Ohio.

About a week before I left for college in Ohio, I was riding my Huffy ten-speed bike in my hometown of Old Town, Maine. Suddenly, a blue car pulled up behind me and the driver began honking the horn. Startled, I tried to get out of the way, but they forced me off the road. As my bike and I hit the ground, I saw the car had an Ohio license plate. Falling victim to a Hasty Generalization, I worried that Ohio drivers would be a danger to me while biking. Despite this concern, I made the journey to Marietta, Ohio.

Shortly after my arrival, I decided I wanted run on the cross-country team and went for a run with the coach. As we were running, a (different) blue car drove up behind us and the driver started blasting the horn. The car then came up on the sidewalk after us, scraping against a stone wall. Fortunately, the coach and I had good reflexes and we jumped the low wall, watching the scratched-up car speed away. Once again, I thought that Ohio drivers would present a meaningful danger to me. But this was still a Hasty Generalization, though it could also be considered a case of Misleading Vividness.

During my eight years in Ohio, I experienced many more such incidents and got quite skilled at rolling off the hoods of cars whose drivers either tried to hit me or were just not looking. I also became adept at dodging objects thrown from cars while running or on my bike. Other runners and bikers related similar tales. Eventually, although I cannot specify an exact incident (see the Line Drawing Fallacy in the False Dilemma), I would say that inferring a significant number of Ohio drivers

presented a danger to bikers and runners ceased to be a Hasty Generalization and became a strong informal inductive generalization. But the fact that my initial conclusion was vindicated does not mean that my previous Hasty Generalizations were any less fallacious: I was right all along, but only justified in my belief when I had adequate evidence.

This example also illustrates how different conclusions can be justified or not by the same evidence. You might have noticed that I did not conclude that all or even most Ohio drivers are dangerous to bikers and runners. Even with years of accumulated evidence that conclusion would be unsupported by the evidence. But my conclusion that a *significant* number of Ohio drivers presented a danger was supported by this evidence. While I did not define “significant” statistically, I used it in practical terms of assessing how careful I would need to be of drivers intentionally trying to harm me and found that this was a rational concern. Since my conclusion was in proportion to the evidence, my reasoning was (eventually) not fallacious. Then I moved to Florida to teach philosophy and had more near exciting experiences with drivers.

Defense: While understanding the relevant parts of statistics provides a good defense against this fallacy, a working practical defense is to consider whether an inference is based on a large enough sample before accepting a claim based on it. You should also consider whether the sample is biased or not. It is especially

important to be on guard against Hasty Generalizations about populations that you like or dislike. For example, Democrats should be especially wary about generalizations about Republicans (and vice-versa).

You should also consider the specifics of the conclusion in question. As my Ohio example illustrates, the same evidence could provide adequate support for one conclusion while failing to support another conclusion. So, a key matter to settle is whether the sample is adequate in size to support your confidence in the conclusion.

Example #1:

Smith, who is from England, decides to attend graduate school at Ohio State University. He has never been to the US before. The day after he arrives, he is walking back from an orientation session and sees two white (albino) squirrels chasing each other around a tree. In his next letter home, he tells his family that all American squirrels are white.

Example #2:

Sam is riding her bike in her hometown in Maine, minding her own business. A station wagon comes up behind her and the driver starts beeping his horn and then tries to force her off the road. As he goes by, the driver yells “get on the sidewalk where you belong!” Sam sees that the car has Ohio plates and concludes that all Ohio drivers are jerks.

Example #3:

Bill: "You know, those feminists all hate men."

Joe: "Really?"

Bill: "Yeah. I was in my philosophy class the other day and that Rachel chick gave a presentation."

Joe: "Which Rachel?"

Bill: "You know her. She's the one that runs that feminist group over at the Women's Center. She said that men are all sexist pigs. I asked her why she believed this, and she said that her last few boyfriends were real sexist pigs."

Joe: "That doesn't sound like a good reason to believe that all of us are pigs."

Bill: "That was what I said."

Joe: "What did she say?"

Bill: "She said she's seen enough men to know we are all pigs. She obviously hates all men."

Joe: "So you think all feminists are like her?"

Bill: "Sure. They all hate men."

Hijacking

Also Known As: False Agreement, Hijacked Argument, Hijacked Claim, Hijacked Principle

Description:

Hijacking is a bad faith technique in which someone pretends to agree with

something, such as an argument, to use it as a rhetorical tool against those targeted by the hijacking. This method differs from False Allegiance in that while there is a claim of agreement, there is not a claim of allegiance. To illustrate, a person might pretend to be a Republican to use the False Allegiance method. To Hijack, they might pretend to agree with a Republican argument to use it against Republicans in bad faith.

Claims, principles, and arguments are common targets for Hijacking. In terms of fallacious reasoning, the usual pattern is that the hijacker selects a claim, principle, or argument that the target accepts. The hijacker pretends to agree with what they have hijacked it and then asserts that it entails or implies that a claim is true. The goal is often to persuade the target that they should agree with the claim, but this method can, like many fallacies, also be used to troll the target.

The fallacy can be presented in this general form:

Premise 1: A accepts P.

Premise 2: B pretends to accept P.

Premise 3: B claims that P entails/implies Q.

Conclusion: Q is true.

In this form, A is the target of the fallacy and P is a claim, argument, principle, etc. that they agree with. For example, A might be vaccine choice advocates and P

might be the view that the **principle of autonomy** gives people the moral right to refuse to be vaccinated even during a pandemic. B is the person using the fallacy; they pretend to accept P. For example, B might be a pro-choice liberal who pretends to agree that the principle of autonomy applies to vaccine mandates. The deceit itself is not a fallacy of reasoning but is an act of bad faith.

B then claims that P entails or implies Q. For example, B might claim that the principle of autonomy entails that people should have the right to an abortion. If P does not entail or imply Q, then they would either be engaged in another deceit or making a logical error about entailment or implication. But even if P does entail or imply Q, this reasoning would still be fallacious.

While it might seem odd, this fallacy's logical error hinges on Premise 1, that A accepts P. Even if P does entail/imply Q, it does not follow that Q is true just because A accepts P. A silly math example shows this:

Premise 1: A accepts that $2+2=5$.

Premise 2: B pretends to accept that $2+2=5$

Premise 3: B claims that $2+2=5$ entails that $(2+2) + (2+2) = 10$.

Conclusion: It is true that $(2+2) + (2+2) = 10$.

Laid bare like this, it is clear why the reasoning is flawed. But when people engage in Hijacking, their goal is persuasion rather than proof. In such cases, the hope is

that A's acceptance of P will persuade them, via a professed false agreement, to accept Q. For example, the goal might be to persuade pro-choice (about abortion) liberals to agree with the pro-choice stance on vaccination. As another example, a vaccine choice person might Hijack the principle of autonomy to use against those who are pro-choice about abortion. It is fallacious either way.

While Hijackers can be recognized for their bad faith pretense, Hijacking can be an effective persuasive tool. After all, a person might be psychologically inclined to agree with those who profess to agree with them or who appear to be trying to establish common ground. Good faith efforts to highlight agreement or common ground would not be Hijacking, although they might be mistaken as such. Hijacking can also be used as a rhetorical tool with a different target audience.

A common use of Hijacking is to hijack a principle, apply it to something those who accept this principle disagree with, and then fallaciously conclude that the target does not really agree with their professed principle. This tactic is a bad faith attempt to accuse the target of bad faith. It can be presented as having this general form:

Premise 1: A accepts P.

Premise 2: B pretends to accept P.

Premise 3: B claims that P entails/implies Q.

Premise 4: (B asserts that) A rejects Q.

Conclusion: (B asserts that) A rejects P.

Since this is Hijacking, B acts in bad faith when they pretend to accept P. B might also act in bad faith by pretending to believe that P entails/implies Q, but they might believe this (and might be right). B can also lie about A rejecting Q, perhaps by constructing a Straw Man. But acting in bad faith is not what makes this reasoning fallacious. The error is to infer that A rejects P because A (is claimed to) reject Q. This does not follow.

This form of Hijacking is usually not aimed at trying to persuade A to accept Q. Rather, it is most often used to make a bad faith criticism of A built on their (alleged) rejection of P.

As an example, feminists generally accept that women should be treated fairly. A person who dislikes trans people might pretend to agree with this and then assert that fair treatment of women entails/implies that trans women should be banned from competing as women in sports. They could then claim in bad faith that feminists reject this and conclude in bad faith that feminists do not really believe in fair treatment for women.

While the conclusion of this fallacy does not follow from the premises, it can have considerably psychological force and rhetorical value, especially in the minds of people who already dislike the target. For example, an audience that dislikes feminist and trans people might find the bad faith quality argument very psychologically

appealing.

Hijacking can also have the illusion of logical force. This is because it can resemble good reasoning, such as the technique of parity of reasoning. What follows is a somewhat detailed discussion of two methods of reasoning that Hijackers might attempt to mimic. This discussion is not essential to understanding this fallacy.

Parity of Reasoning

Parity of reasoning can be seen as a special type of argument by analogy. The idea is that if two arguments have the same reasoning, then if one is good (or bad) then the other is also good (or bad).

The structure of the reasoning looks like this:

Parity of Reasoning (not fallacious)

Premise 1: Argument A is good (or bad) reasoning.

Premise 2: Argument B has the same reasoning as A.

Conclusion: B is good (or bad) reasoning.

One philosophically famous example of this is **Gaunilo's criticism of St. Anselm's ontological argument**. Put very crudely, the ontological argument contends that God must exist because He is perfect. Grossly oversimplified, Gaunilo argued that if saying something is perfect proves it exists, then you could prove the existence of a perfect island (or a perfect anything) with the same reasoning. Gaunilo

considered this absurd and concluded, by parity of reasoning, that St. Anselm's argument was also absurd.

In the case of deductive arguments, the parity of reasoning is identity of reasoning. This is because if two deductive arguments have the same form and one is valid, then the other must also be valid. Likewise for an invalid deductive argument. A sound argument, which is a valid argument with all true premises, does not work the same way. This is because while all sound arguments are valid, not all valid arguments are sound. As such, one argument could be sound while another argument with the same form might only be valid. Here is what this reasoning looks like:

Parity of Reasoning, Deductive Arguments (not fallacious)

Premise 1: Argument A is valid (or invalid)

Premise 2: Argument B has the same logical structure as A.

Conclusion: B is valid (or invalid).

In the case of inductive arguments, parity of reasoning is more complicated. This is because two inductive arguments can have identical logical structures while one is strong and the other is weak, or even a fallacy. To illustrate, Hasty Generalizations and Biased Generalizations are fallacious versions of the inductive generalization. See these fallacies for a more detailed discussion of this.

When applying a parity of reasoning argument to two inductive arguments, you

will usually need to compare more than their logical structure to show that they have adequately similar reasoning.

Parity of reasoning does apply to structural inductive fallacies; these are inductive fallacies that are always bad reasoning because of their logical structure. That is, there are no versions that are good reasoning. So, any argument with that structure will also be a fallacious argument. Now, as to why Hijacking can look like parity of reasoning.

A parity of reasoning style Hijacking can be presented as having this structure:

Premise 1: A accepts argument P as good.

Premise 2: B pretends to accept P.

Premise 3: B claims that P has parity of reasoning with Q.

Conclusion: Q is a good argument.

While there would be the question of whether P and Q do have a parity of reasoning, this would still be a fallacy for the reasons given earlier. That is, even if P and Q have parity of reasoning, A's view that P is a good argument does not prove that Q is a good argument. In addition to gaining the illusion of logical force from parity of reasoning, Hijacking can also misuse the good logic of entailment and implication.

Entailment & Implication

While there is dispute over how these terms should be used, I will take a somewhat practical approach to entailment and implication. In the case of what could be called strict logical entailment, then if A entails B, then B follows from A with certainty (or necessity). For example, one can think of the premises of a valid deductive argument as entailing the conclusion. As another example, one can think of being a triangle as entailing that something has three sides.

While philosophers do also use “implication” the same way as I have just used “entailment” it also enjoys a broader usage that could be seen as an inductive inference. On this informal view, if A implies B, then B follows from A with a reasonable degree of likelihood. In general, this form of reasoning would be good logic:

Entailment/Implication (not fallacious)

Premise 1: P entails/implies Q.

Premise 2: P is true.

Conclusion: Q is true.

For example, this would be solid logic:

Premise 1: Being a triangle entails having three sides.

Premise 2: T is a triangle.

Conclusion: T has three sides.

As noted above, Hijacking misuses this sort of reasoning and instead makes uses of bad logic like this:

Premise 1: A accepts P

Premise 2: P entails/implies Q

Conclusion: Q is true.

The problem is, as explained earlier, that it does not follow that Q is true because A accepts P and P entails/implies Q. But this bad logic can be modified to be (possibly) good reasoning:

Acceptance Entailment/Implication (possibly not fallacious)

Premise 1: Person A accepts P.

Premise 2: P entails/implies Q.

Conclusion: A *should* accept Q.

One very noticeable difference between this reasoning and Hijacking is that there is no deception; no one is pretending to accept P in bad faith. From a logical standpoint, the essential difference lies in the conclusion: the claim is not that Q is *true*, but that A *should accept* Q based on their acceptance of P and that P entails/implies Q. This method is a good faith way of arguing that a person should

accept something that is entailed/IMPLIED by something else they accept.

If P does entail/IMPLY Q, then it seems reasonable that A should logically accept Q if they accept P. This does, of course, depend on the strength of the entailment/implication and there can certainly be cases where this can be debated. For example, whether the principle of autonomy entails/implies a right to choose to get an abortion or entails/implies a right to choose to not get vaccinated during a pandemic can be rationally debated in good faith. Because of this, someone could engage in Hijacking while also making a (possibly) good argument. After all, arguing in bad faith is not the same thing as making a bad argument. The form would look like this:

Premise 1: Person A accepts P.

Premise 2: Person B pretends to accept P.

Premise 3: P entails/implies Q.

Conclusion: A *should* accept Q.

While Premise 2 is an act of bad faith, it can be seen as irrelevant to the logic of the argument. This is because Premises 1 and 3 do the logical work and Premise 2 is there to function as a bad faith persuasive device. If the target accepts the conclusion *because* of Premise 2, then they would be a victim of bad faith persuasion and engaged in poor reasoning.

To illustrate, imagine a vaccine choice person who is anti-abortion. They might

pretend to accept the pro-choice (abortion) view of autonomy and assert that it implies that vaccine choice should also be a right. If the pro-choice (abortion) view plausibly implies the vaccine choice view, then it would be reasonable for a pro-choice person to also accept a right to vaccine choice. The vaccine choice person would still be engaged in a bad faith argumentation, and they would, of course, not accept their own argument as support for their view. This does not show that their conclusion is wrong or that the argument is flawed; this is because acting bad faith does not entail that a person's claim is false or that their argument must be bad. See the Bad Faith Fallacy and the Fallacy Fallacy.

Defense: Being a matter of intention, bad faith can sometimes be difficult to discern. After all, a person can make untrue claims or bad arguments in good faith but appear to be arguing in bad faith. A person can also use the truth and good arguments in bad faith. Fortunately, Hijacking attempts are sometimes easy to detect. This is because the hijacker is pretending to agree with something, and this pretense can often be exposed by even a cursory investigation of the Hijacker.

As would be suspected, one thing to look for are inconsistencies between the Hijacker's professed agreements and their other claims and actions. For example, imagine a politician who professes to agree that fairness to women and equality for women must be a matter of law and use this notion to argue for banning trans women from competing against women in sports. When criticized by liberals, this

politician accuses them of being the ones who are against fairness and says they do not care about women.

But a look at the politician's voting record shows they have voted against all other bills aimed at fair treatment for women and have consistently expressed a disdain for equality. It would be reasonable to infer that they are hijacking the notion of fairness in bad faith.

In other cases, it can be difficult to tell. For example, some random vaccine choice person you see in a video waving an "Our bodies! Our choice!" sign might be consistently pro-choice about abortion, vaccines, and perhaps other things as well. Or they might be cynically Hijacking pro-choice (abortion) language to "own the libs."

When making judgments about bad faith due to inconsistency, be sure to avoid falling into the trap of the Ad Hominem Tu Quoque. You should also keep in mind that people are often ignorant of what their professed principles, values, and beliefs entail/imply. And, of course, there can be rational disagreements about what something entails or implies. Fortunately, sorting out the truth of claims and the quality of reasoning does not require knowing a person's intent. But this leads to the subject of why discerning bad faith Hijacking matters.

While exposing bad faith does not disprove the Hijacker's claim, it does show that they do not believe in their own argument. After all, a Hijacker (by definition) is pretending to accept something and making use of this pretense as a rhetorical

device. If they believed, they would not be pretending and could advance a good faith argument. As such, while exposing bad faith of this sort does not prove the Hijacker is wrong, it would prove that they think they are wrong in that they do not accept their own professed argument.

In some cases, the Hijacker's argument can be turned against them. For example, if an anti-abortion but pro-vaccine choice person Hijacks the notion of autonomy to support their pro-vaccine choice view, then it would be reasonable to argue that they should become pro-choice (abortion) if they are pro vaccine choice. The same would apply if a pro-choice (abortion) person hijacked the autonomy argument of a vaccine choice person.

While sorting out bad faith can be challenging, defending against the bad logic of the fallacy is easy; the specific defects of the various forms are given in the description above. Look for those and you should easily avoid being taken in by this bad faith technique.

Example #1

Protestor: "Our Bodies! Our Choice! No vaccine mandates!"

Bystander: "Hey, didn't I see you at the pro-life rally last week?"

Protestor: "Yeah, so?"

Bystander: "Are you pro-choice now?"

Protestor: "Yes. Pro-choice for vaccines."

Bystander: “So, still opposed to abortions?”

Protestor: “Our Bodies! Our Choice! No vaccine mandates!”

Example #2

Protestor: “Life is sacred! Choose life! Vaccine mandates now!”

Bystander: “Hey, didn’t I see you at the pro-choice rally last week?”

Protestor: “Yeah, so?”

Bystander: “Are you pro-life now?”

Protestor: “Yes. Pro-life for vaccines.”

Bystander: “So, still pro-choice about abortions?”

Protestor: “Life is sacred! Choose life! Vaccine mandates now!”

Historian’s Fallacy

Also Known as: Hindsight Fallacy

Description:

This fallacy, which is credited to David Hackett Fischer, occurs when it is assumed that people in the past viewed events with the same information or perspective as those analyzing these past events with the benefit of hindsight. The fallacy has the following form:

Premise 1: From the present perspective event A in time T is seen as X (a good idea, significant, a bad idea, etc.)

Conclusion: Therefore, event A was (or should have) been seen as X at time T.

The X above can include a wide range of evaluations, such as being a good idea, being of great significance, being a bad idea, being easily foreseeable, and so on.

This sort of reasoning is a fallacy because it is an error to infer that people in the past would (or should) see the events of their time from the perspective of those in their relative future. Obviously, the people in the past do not have the benefit of hindsight that those looking back possess.

It is not a fallacy to analyze past events from a present perspective, provided that the analysis attributes to those involved only the information they could reasonably be expected to have at the time.

For example, suppose Sally invests heavily in Adrek Robotics because all the available evidence shows it to be a smart investment. But the company is eventually exposed as a fraud. In this case, it would not be a fallacy to claim that it *turned out* to be a bad idea for Sally to invest. It would be a fallacy to judge Sally as if she knew then what she only learned now. As another example, if Sally was aware of red flags about the company, it would not be a fallacy to argue she made a bad choice *when* she invested.

It not a fallacy to be critical for what a person reasonably should have known. For example, if Sally did not know about Adrek Robotics being a fraud because she invested without doing any investigation, it would be reasonable to argue that she

made a poor choice. This does not require having a perspective available only from the future and would not be fallacious.

Defense: The defense against this fallacy is to consider what a person in the past could have reasonably known at the time. This involves using both the principle of charity and the principle of plausibility. You should also be on guard against the error of assuming that people in the past must have been ignorant of what we now know or that they are exempt from judgment.

Example #1

“It seems clear that Roosevelt must have known about the attack on Pearl Harbor and let it happen to ensure that we got into the war. After all, looking over all the historical data from the United States and Japan, the signs of an attack are so obvious. So, he surely must have known.”

Example #2

Dan: “Did you hear? Kelly and Rob are getting divorced.”

Lisa: “Why?”

Dan: “Well, Rob lost his job and...”

Lisa: “And she just dumped him as soon as she found out? Rob is such a great guy and I’m sure he’ll get a new job. I set them up, you know!”

Dan: “No. He didn’t tell her that he lost his job. He tried to find one, but he couldn’t

and it kind of broke him. He started drinking and he wrecked the car while driving drunk.”

Lisa: “She should have known to never marry that loser!”

Illicit Conversion

Description:

This mistake occurs when the conversion rule from categorical logic, which is a type of deductive logic, is used improperly.

In deductive logic, conversion is a rule that allows the subject and predicate claims of a categorical claim to be exchanged. As with most rules, it has correct and incorrect applications. In the case of conversion, the correctness of the application depends on what sort of claim is subjected to the rule.

In categorical logic there are four sentence types: **All S are P**, **No S are P**, **Some S are P**, and **Some S are not P**. Conversion applies correctly to two of them: **No S are P** and **Some S are P**. A conversion is legitimate when the converted claim logically follows from the original (and vice versa). Put another way, the rule is applied correctly when its application does not change the truth value of the claim.

For example, “No cats are hamsters” converts legitimately to “no hamsters are cats.” Interestingly, “some dogs are huskies” converts correctly to “some huskies are dogs”, at least in categorical logic. In categorical logic, “some” means “at least one.” Hence, “at least one dog is a husky” is converted to “at least one husky is a dog.” In

this case, the inference from one to the other is legitimate because it is made in the context of categorical logic.

The illicit use of conversion is an error that can occur in two ways. The first is when the rule is applied incorrectly in the context of categorical logic: if conversion is applied to an **All S are P** or **Some S are not P** claim, then the rule has been applied improperly. This can be easily shown by the following examples.

The first example is that while it is true that all dogs are mammals, the conversion of this claim, all mammals are dogs, is not true. As another example, the claim that some dogs are not huskies is true while its conversion, some huskies are not dogs, is false. This sort of mistaken application of the conversion rule can also be presented as a fallacious line of reasoning, as shown by the following flawed inference patterns:

Fallacious Pattern #1

- 1. **Premise:** All S are P
- 2. **Conclusion:** All P are S

Fallacious Pattern #2

- 1. **Premise:** Some S are not P
- 2. **Conclusion:** Some P are not S

The second type of error occurs when the conversion rule is applied outside of the

context of categorical logic as if it were being applied within such a context. That is, it occurs in contexts in which “some” does not mean “at least one.” Inductive reasoning is one such context. The mistake, which is sometimes known as an Illicit Inductive Conversion, is as follows:

Fallacious Pattern #3: Illicit Inductive Conversion

1. Premise: P% (or “some”, “few”, “most”, “many”, etc.) of Xs are Ys.

2. Conclusion: Therefore P% (or “some”, etc.) of Ys are Xs.

For example, to infer that most people who speak English are from Maine because most people from Maine speak English would be an obvious error. This is because “most” in this context is not taken to mean “at least one” but is instead taken to refer to a majority. While people usually do not make such obvious errors, they can fall victim to conversions that seem plausible. A good example of this occurs when people interpret the results of medical tests.

In practice, no medical test for a disease has 100% accuracy. As such, a test can falsely show a person has or does not have the disease. So how do you correctly judge the probability that a person has a disease based on a test result?

Intuitively, the chance a person is infected (or not) would seem to be the same as the accuracy of the test. For example, if a cancer test has an accuracy of 90%, then the seemingly rational inference would be that if you test negative, there is a 90%

chance you did not have cancer. Or, if you test positive, there is a 90% chance you have cancer. While this seems sensible, it is not accurate and involves a confusion about conditional probabilities and falling victim to an Illicit Inductive Conversion. I will keep the math to a minimum because **math, as Barbie said, is hard.**

So, suppose that I test positive for Squid Pox and the test is 90% accurate. If I think there is a 90% chance, I have pox, then I am probably wrong. My error is failing to recognize that the probability that X given Y is distinct from the probability of Y given X. In the case of the test for pox, testing positive is the effect of the pox and not the cause. As such, a 90% accurate test for Squid Pox does not mean that 90% of those who test positive (effect) will have had pox (cause). It means that 90% of those who had pox (cause) will test positive (effect). So, if I have Squid Pox, then there is a 90% chance the test will detect it. The wrong way of looking at it would be to think that if I test positive, then there is a 90% chance I had Squid pox. This is a form of an Illicit Inductive Conversion, and the form looks like this:

- 1. Premise:** 90% of people who have Squid Pox test positive for Squid Pox.
- 2. Conclusion:** Therefore, 90% of those who test positive for Squid Pox have Squid Pox.

So, what is the true chance I have Squid Pox if I test positive on a test that is 90% accurate?

To know my chance of having Squid Pox I would also need to know the percentage of false positives that occur with the test and, very importantly, the base rate of the disease. The base rate of the disease is the frequency of the cause. Using my made-up test and some made-up numbers, here is how the math would go.

Suppose that the 90% accurate test has a 10% false positive rate and 1% of the population in question has Squid Pox. For every 1,000 people in the population:

- 10 people will have Squid Pox.
- 9 of the people with Squid Pox will test positive.
- 990 people will not have Squid Pox
- 99 of the people without Squid Pox will test positive.

While there will be 108 positive test results, only 9 of them will have Squid Pox. So, a person who tests positive has an 8% chance of having Squid Pox, not 90%. In conditional terms and using these made-up numbers, if I had Squid Pox, then there is a 90% chance I will test positive. But If I test positive, then there is an 8% chance I have Squid Pox. I could still have Squid Pox but knowing about the Illicit Inductive Conversion allows me to avoid getting the probabilities wrong. This provides a good example of a practical application of knowing about fallacies.

Defense: When applying conversion in the context of deductive logic, be sure that

it is being applied to the correct sentence types. In the case of inductive reasoning, be wary of assuming that switching the subject and predicate of a claim does not change the truth value of that claim.

Example #1

“Very few white men have been President of the United States. Therefore, very few Presidents have been white men.”

Example #2

“A small percentage of automobile accidents involve drivers over 70. Therefore, a small percentage of drivers over 70 are involved in automobile accidents.”

Example#3

“Most conservatives are not media personalities on Fox News. Therefore, most of the media personalities on Fox News are not conservative.”

Example #4

“Most wealthy people are men, so most men are wealthy.”

Example

#5

"Most modern terrorists are Muslims, therefore most Muslims are modern terrorists."

Example #6

"Most modern terrorists are religious people, therefore most religious people are terrorists."

Ignoring a Common Cause

Also Known as: Questionable Cause

Description:

This fallacy occurs when it is assumed that because two things are regularly connected, one must be the cause of the other while the possibility of a common cause is not considered. It has the following general structure:

Premise 1: A and B are regularly connected.

Premise 2: The possibility of a common cause is not considered.

Conclusion: Therefore, A is the cause of B.

This fallacy is committed when it is concluded that A is the cause of B simply without considering the possibility that a third factor might be the cause of both A and B simply because A and B are regularly connected.

In many cases, the fallacy is obvious. For example, if someone claimed a person's sneezing was caused by her watery eyes and they ignored the fact that the person was standing in a hay field, they would have committed this fallacy. This is because it would be reasonable to conclude that the sneezing and watering eyes was caused by a reaction to the plants.

In other cases, the fallacy can be more challenging to spot. For example, a doctor might find a growing population of bacteria in a patient and conclude it is the cause

of the patient's illness without considering that there might be a third factor causing both. It might be that a virus is making the patient ill and weakening their immune system, thus allowing the growth of the bacteria.

As with any fallacy of reasoning, the error is not that the conclusion *must* be false but that the evidence does not warrant the conclusion. A person could still commit this fallacy and be right about the cause. For example, if my video card drivers and a game keep crashing on my PC and I immediately infer that defective drivers must be causing the crash without considering that a third factor is causing both, then I could be right but would still be making an error of reasoning.

Defense: While causal reasoning is often difficult, this fallacy can be avoided by considering that other factors that might be the cause of both the suspected cause and the suspected effect. If a person fails to check for the possibility of a common cause, then they will commit this fallacy. Thus, it is always a good idea to always ask “could there be a third factor that is actually causing both A and B?”

Example #1:

One day Bill wakes up with a fever. A few hours later he finds that his muscles are sore. He concludes that the fever must have caused the soreness. His friend insists that the soreness and the fever are caused by some microbe. Bill laughs at this and insists that if he spends the day in a tub of cold water his soreness will go away.

Example #2:

Over the course of several weeks the leaves from trees along the Wombat River fell into the water. Shortly thereafter, many dead fish were floating in the river. When the EPA investigated, the owners of the Wombat River Chemical Company claimed that it was obvious that the leaves killed the fish. Many local environmentalists claimed that the chemical plant's toxic wastes caused both the trees and the fish to die, and the leaves had no effect on the fish.

Example #3:

A thunderstorm wakes Joe up in the middle of the night. He goes downstairs to get some milk to help him get back to sleep. On the way to the refrigerator, he notices that the barometer has fallen. Joe concludes that the storm caused the barometer to fall. In the morning he tells his wife about his conclusion. She tells him that it was a drop in atmospheric pressure that caused both the barometer to drop and the storm.

Incomplete Evidence

Also Known As: Suppressed Evidence, Cherry Picking, One-Sided Argument

This fallacy occurs when available evidence that would count against a claim is ignored or suppressed. Looked at another way, it occurs when only evidence in support of a claim is selected or "cherry picked." It has the following form:

Premise 1: Evidence E is given for claim C.

Premise 2: It is asserted or implied that there is no available evidence A that would significantly count against C (but A is available and is ignored or suppressed).

Conclusion: Therefore, C is true.

Unlike many other fallacies, this fallacy does not arise because the *presented* premises do not logically support the conclusion. Instead, the error is that the person making the argument fails (intentionally or accidentally) to consider available evidence would count against their conclusion. The fallacy does its work by conveying the impression that the premises are both true and complete (that salient evidence has not been ignored or suppressed).

There are two factors that must be considered when determining whether the fallacy has been committed. The first is whether the suppressed or ignored evidence is significant. That some salient information has been left out is not enough to show the fallacy has been committed. For the fallacy to occur, the suppressed or ignored evidence would need to make a meaningful difference in the strength of the argument. If not, the fallacy is not committed. This factor is important for allowing people to create concise arguments without committing this fallacy.

The second is whether the (allegedly) suppressed or ignored evidence was reasonably available to the person committing the fallacy. If someone is alleged to have “ignored” evidence that they could not reasonably be expected to know, then they would not be committing this fallacy. Sorting out what a person can reasonably

be expected to know can be challenging and thus there can be reasonable dispute over whether the fallacy was committed.

As a general guide, if the evidence was missed because of carelessness, bias, or lack of reasonable effort, then it would be reasonable to expect the person to be aware of such evidence. A person who knowingly suppresses or ignores evidence would obviously be guilty of committing this fallacy in bad faith.

There is an entire field of **epistemology** (the theory of knowledge) devoted to the **ethics of belief**. One concern of this field is sorting out what obligations people have (if any) in terms of considering evidence for their beliefs. Since this is a large field and a matter of considerable debate, I cannot offer a definitive account of what would count as wrongfully ignoring or suppressing evidence.

This fallacy is often fueled by confirmation bias. This is the tendency to assign more weight to evidence that supports one's belief and ignore or downplay evidence that counts against it.

One form of the Fallacy of Accent, namely quoting out of context, can be seen as a type of Incomplete Evidence.

Defense: While, as noted above, there is considerable philosophical controversy over the ethics of belief, the main defense against inflicting or suffering this fallacy is to consider whether relevant and meaningful evidence has been ignored or suppressed. If it has, then the evidence would not warrant accepting the conclusion.

As always, this does not entail that the conclusion must be false. It could be true, even if the argument does not support it.

Example #1

“Most philosophers are men. Since Dr. Sarah Shute is a philosopher, Dr. Shute is a man.”

Example #2

“People from the Middle East generally do not speak English fluently. So, I’ll certainly need to get a translator when I interview the Israeli ambassador to the United States.”

Example #3

Steve: “All those gun control laws are unconstitutional.”

Mitt: “Could you be more specific?”

Steve: “Well, here is an example. By law, I can’t bring my pistol to class.”

Mitt: “How is that unconstitutional?”

Steve: “The Second Amendment clearly states that the right of the people to bear arms shall not be infringed. My right to bear my pistol in class is clearly being infringed! So, that law is unconstitutional.”

Mitt: “Maybe you should read the whole amendment and maybe some of the rulings on relevant cases. You are in law school, after all.”

Example #4

David: “Did you read by blog about how the founding fathers were fundamentalist Christians?”

Thomas: “Not yet. Can you sum up your argument?”

David: “Sure. I went to the original texts and found all the references made to Christianity by the founding fathers that match fundamentalist ideas. I found quite a few and they clearly serve as evidence for my thesis. Those liberal atheists are really going to hate me!”

Thomas: “Hmm, that is interesting. But did you consider references they made to Christianity and other things that do not match your fundamentalism?”

David: “Well, no. My thesis is that they held to fundamentalist views. Why would I bother looking for evidence that they were not? I’m sure there isn’t any.”

Example #5

Bill: “There is a war on New Year's Eve!”

Hilda: “What?”

Bill: “People are saying ‘Happy Holidays!’ That is proof! They don’t want us to say, ‘Happy New Year!’”

Hilda: “Who are they?”

Bill: “You know. Them.”

Hilda: “**Giant ants?**”

Bill: “What?”

Hilda: “People have been saying ‘Happy Holidays’ for years, this is nothing new.

Don't you remember people saying that when you were a kid? You can also Google it, you know."

Bill" "Do not threaten me with facts. Or giant ants."

Incomplete Evidence: Incomplete Comparison

Description:

This variant of Incomplete Evidence occurs when an argument supporting a comparative conclusion depends on ignoring or suppressing relevant evidence. It has the following general form:

Premise 1: A and B are compared.

Premise 2: Evidence relevant to the comparison is ignored, suppressed, or excluded.

Conclusion: Therefore, claim C about the comparison is true.

Like the standard Incomplete Evidence, this fallacy does not arise because the *presented* premises fail to logically support the conclusion. The fallacy persuades by conveying the impression that relevant information has not been ignored or excluded. While this fallacy can be committed in ignorance, it is often used in bad faith efforts. While there are far too many ways to make such incomplete comparisons to cover in this book, I will briefly discuss some common methods.

One method is to make a comparison using percentages while leaving out other

numbers that would provide important context. This can be used to create a false impression of a significant difference. For example, if you saw a headline reporting that cases of Squid Pox had increased 600% worldwide since last year, then you might be worried and accept the conclusion that it is a serious health threat. But if you learned that the increase was from one case to six, you would probably be less inclined to accept that conclusion.

This method can also be used to downplay the seriousness or significance of something. For example, someone might point out that Black people made up only **27% of those shot by the police in 2021** and conclude that there is not a significant issue with racism and police violence. But this reasoning ignores a relevant fact, that only 13% of Americans are Black. While there are those who argue that this disproportionate percentage of shootings is warranted, ignoring the population data would result in committing this fallacy.

Another method is to ignore differences in such things as standards, definitions, and reporting and recording practices when making the comparison. This can be used to create the appearance of a relative increase or decrease. For example, it might be claimed that efforts to combat a disease have been unsuccessful because the number of infected people has increased, but this increase in numbers is due to the change in the definition of the disease or due to more accurate testing and reporting.

This method can be used to make a comparison seem favorable or unfavorable simply by ignoring relevant differences. For example, an administration might claim

that they have decreased unemployment relative to their predecessor but leave out the fact that they have redefined what counts as being unemployed.

A third method is to make a comparison while ignoring that the things being compared are not comparable. That is, relevant differences are simply being ignored. For example, imagine that someone simply compares past marathon times with current times, and conclude that today's athletes are better than past athletes (not just that they have better times). But if they ignore factors such as technological advances in running shoes, improvements in sports hydration and nutrition, then they risk committing this fallacy. As a specific example, consider the once controversial Nike Vaporfly. **As Nike claimed, this shoe does improve a runner's running economy by an average of 4%**, which is significant. As such, comparisons between race times before the Vaporfly and after the Vaporfly run the risk of committing this fallacy. If I had been wearing the Vaporfly in 1989, my 2:45 marathon would have probably been around a 2:38, a significant improvement.

As would be suspected, this method can be an effective bad faith technique to mislead people. For example, a politician might argue that the minimum wage should not be increased because it is already much higher than when they were a kid mowing lawns in the 1980s. But they would be leaving out a critical difference between then and now, namely the effects of inflation. While minimum wage is higher today in terms of the number of dollars, the dollar has less significantly less buying power today.

As another example, imagine that someone wants to claim that the retail industry is being devastated because there has been an **88% increase in shoplifting. But they neglect to mention that this increase is relative to 2020, when the COVID-19 pandemic lockdowns and disruptions were in effect.** They would also neglect to mention that relative to 2019, recorded thefts have decreased.

A fourth method is leaving out key information when the comparison involves averages. While a useful tool, averages can be very misleading. For example, two cities might have the same average temperature, but this could be because one city has extreme lows and highs while the other city has a consistent year round temperature. As such, concluding that you would have the same experience in each city based on just the average would be an error.

There are also different types of averages. Leaving out the type of average being used in a comparison can result in this fallacy being committed. Leaving out the numbers used to calculate the mode can also result in this fallacy.

When you think of an average, you probably think of the mean. The mean of a set of numbers is calculated by adding up the numbers in the set and dividing it by the number of members of that set. A second type of average is the median, which is the number in the middle of a set of numbers. There are as many numbers of the set larger than the median as are smaller. A third type is the mode. In a set of numbers, the number that occurs most frequently is the mode.

Regardless of the type of mean used, extremely different sets of numbers can have

the same (or similar) means. For example, the sets {10, 20, 70, 70, 500} and {70, 70, 70, 70, 70} would have the same mode of 70. While this can lead to good faith errors, it can also be exploited in bad faith in this fallacy. For example, a professor could make a bad faith argument to address student complaints about bad grades by truthfully saying that the average of the class is 75 which is higher than the expected average of 70. The professor simply neglects to mention that they are using the mode and does not provide (anonymous) scores for the entire class.

Defense: To avoid committing or falling victim to this fallacy, the basic defense is to consider whether relevant information has been left out of an argument with a comparative conclusion. In the case of comparisons involving percentages, you would need to know the other numbers that would provide needed context.

In cases in which standards, definitions, and reporting and recording practices matter when making the comparison, you would need to know what these methods are and whether they are the same for the things being compared. You should also consider whether the items are comparable and if such information has been left out. Finally, if the comparison involves an average, you will need to know the type of average being used, the numbers used to calculate it and any other relevant context.

If your argument is incomplete, you can fix it by adding the relevant information. If you encounter this fallacy, you should suspend judgment about the conclusion unless you can fill in the missing evidence. As always, even if this fallacy is committed it does not follow that the conclusion of a fallacious argument must be false. To think otherwise is to fall for the Fallacy Fallacy.

Example #1

News Anchor #1: “There was an 88% increase in shoplifting this year relative to last year. As you can see in this clip, a bold thief is just riding his bicycle down the aisle, grabbing merchandise, and mocking those trying to stop him.”

News Anchor #2: “This is why so many stores are closing in American cities. They simply cannot afford the losses they are suffering. This is why we cannot have nice things.”

Example #2

News Anchor #1: “In shocking news, health experts have reported a 600% increase in cases of Squid Pox. This terrible disease jumped species from squids to humans after a 300% increase in squid attacks last year.”

News Anchor #2: “How big of a threat is this disease?”

News Anchor #1: “Huge. As I said, cases increased 600% and squid attacks were up 300%.”

News Anchor #2: "I'm staying out of the ocean!"

News Anchor #1: "They can get you in the tub. Or shower."

News Anchor #2: "Really?"

News Anchor #1: "As far as you know."

Example #3

Student: "Professor, I talked to many of the other students, and they did badly in your course. They asked me to talk to you about this. If so many of us did badly, we should get a chance at extra credit or something."

Professor Belial: "I appreciate you bringing this to my attention. I want to assure you that I review the course average regularly and compare it to past classes. Your class's average is 77, which is significantly better than the standard average of 70. Based on this, the class is doing better than expected and no extra credit is needed."

Student: "But we're doing badly. If you aren't going to offer any extra credit, what should we do?"

Professor Belial: "Study harder."

Student: "That's it?"

Professor Belial: "Yes."

Example #4

Governor: “I am pleased to announce that because of my reform of unemployment and my Work Don’t Shirk plan, there are 33% fewer people on unemployment in our great state. This should silence my woke critics who complain that we aren’t doing enough to help the workers. Obviously we are doing a lot.”

It Could Be Worse

Also Known as: Should be Grateful Fallacy, Lucky Fallacy

Description:

This fallacy occurs when it is argued that something is not bad (or as bad as claimed) simply by asserting that it could be worse. This fallacy is commonly used to dismiss concerns or complaints. This fallacy has the following basic form:

Premise 1: Person A claims that X is bad (to degree D).

Premise 2: But person B claims there are things worse than X.

Conclusion: Therefore, X is not bad (to degree D).

This is bad reasoning because even if there is something worse than X, it does not follow that X is not bad or that it is not as bad as claimed. To use a silly but effective analogy, consider size. If it is claimed that something has a specific size, pointing out that there are bigger things does not refute this claim:

Premise 1: Ted claims that Sally is six feet tall.

Premise 2: But Andrew points out that the sun is much larger than Sally.

Conclusion: So, Sally is not six feet tall (or Sally has no size at all).

While the size analogy illustrates why this is bad reasoning, it also suggests why it can be appealing. It is true that a larger thing is larger than a smaller thing and this can imply that the smaller thing is not large relative to the larger thing. For example, a large mouse is smaller than an elephant and it makes sense to say the mouse is not large relative to the elephant. Likewise, a comparison between a relatively minor evil and a greater evil can lead one to sensibly infer that the minor evil is not that bad relative to the greater evil. But it does not follow that the lesser thing lacks the claimed size or degree of evil. In sum, just as the existence of something bigger does not prove that something is not big, the existence of something worse does not prove that something is not bad.

As noted earlier, this fallacy is often employed to dismiss or downplay concerns or complaints. This variant can be presented as having this form:

Premise 1: Person/Group A expresses concern or complains about X.

Premise 2: Person/Group B claims Y is worse than X.

Conclusion: Therefore, A has no grounds for concern or complaint about X.

This is bad reasoning because it does not follow that the existence of something worse proves that there are no grounds for complaint or concern about lesser evils. If this were good reasoning, then it would imply that people would only be warranted in complaining or being concerned about the worst thing possible, which would seem to be something infinitely infinite in its badness. This could also be seen as a form of False Dilemma in which the only two options are being unjustified in complaining or being justified in complaining if it is the worst thing. But this is not to say that all refutations of concerns or complaints must be fallacious.

There can be reasonable arguments aimed at showing complaints or concerns are not well-founded or are overblown. One way to do this is by making reasonable comparisons and drawing a well-founded inference about relative levels of badness, things that are lacking in this fallacy. But this reasoning goes far beyond “pure” logic and hence beyond the scope of this work.

This fallacy is also often presented with a slight variation in wording. Instead of saying something like “it could be worse”, the phrasing can be something like “you are lucky that it is not worse” or “you should be grateful for...” This technique involves “refuting” a complaint or concern by asserting the person or group is lucky it is not worse or they should be grateful that it is not worse. The poor reasoning is the It Could Be Worse Fallacy, but there is the additional reference to luck or gratitude aimed at giving it a boost in psychological force. This variant has the following structure:

Premise 1: Person A expresses concerns about X or complains about X being bad.

Premise 2: Person B says that it could be Y rather than X.

Premise 3: Person B says that A is lucky or should be grateful because Y is worse than X.

Conclusion: X is not bad (A has no grounds for concerns or complaint).

This is poor reasoning because the fact that a person or group is claimed to be “lucky” that it is not worse does not prove that it is not bad or worthy of complaint. While the reasoning is the same as the standard version of this fallacy, the Lucky Fallacy and Should be Grateful fallacy variants add an extra psychological factor intended to give them more psychological force.

The Lucky variant attempts to persuade by trying to make the bad thing seem less bad (or even positive) simply by claiming that it is lucky that it was not worse. This variant gets its psychological force from the fact that it is better to suffer a lesser evil than a greater evil; but this does not entail that a lesser evil is not evil nor worthy of complaint.

There is non-fallacious reasoning that does resemble this bad reasoning. This would typically occur in situations in which a worse outcome was likely and rational consideration shows that the less bad outcome was “lucky” (against probability). This reasoning does not involve simply dismissing complaints or inferring that

something is not bad because it could be worse, so it does avoid this fallacy. For example, if I get hit by a car while running and only suffer a broken leg when I could have been killed, I would be “lucky” that I did not get killed. But my broken leg would still be bad, and I would have reason to complain that a car hit me. Luck, of course, is a subject in metaphysics and goes far beyond the scope of this work.

The Should Be Grateful variant tries to create and exploit the feeling of gratitude to persuade the target that something is not bad or that they have no grounds for complaint. It gets its psychological force from the fact that it can be reasonable to be grateful that one has suffered a lesser evil rather than a greater evil. But this does not entail that the lesser evil is not evil or that it is not worthy of complaint.

There is non-fallacious reasoning about gratitude that does resemble this bad reasoning. This would typically occur in situations in which a worse outcome was likely, and someone (or something) intervened to prevent that. This reasoning does not involve simply dismissing complaints or inferring that something is not bad because it could be worse, so it does avoid this fallacy. For example, suppose a driver tries to run me over and another driver intentionally collides with them to save me and as a result I am only badly injured rather than killed. I would be grateful to the driver who saved my life. But it would not follow that my serious injury is not bad or that I have no grounds for complaint against the driver who tried to kill me. When gratitude should be felt is a matter of normative reasoning (usually ethics) and goes way beyond “pure” logic.

Defense: To avoid falling for this fallacy, the general defense is to keep in mind that simply asserting that things could be worse does not prove that something is not bad or that there are no grounds for concern or complaint. While it is reasonable to keep things in perspective, this fallacy is not about doing that.

This fallacy can be self-inflicted but can also be used to try to persuade you that the evil you face is not bad (or as bad as you claim) or that you have no grounds for concern or complaint. The Lucky and Grateful variants can even be used to try to persuade you that the apparent evil you face is a good thing (or the best you can expect). While it is reasonable to consider when you have been “lucky” or should be grateful, mere assertions about luck or gratitude are just that, mere assertions.

When self-inflicted, this fallacy is often combined with the Wishful Thinking variant of Appeal to the Consequences of a Belief, so you should be on guard against that as well. For example, a person who has a terrible job might tell themselves that they are lucky to even have a job and that they should be grateful that they were hired so that they feel better about their awful job. They could engage in Wishful Thinking by believing these claims because they want them to be true; otherwise, they would need to face the truth.

This fallacy can also be used to attempt to persuade you that the plight of others is not bad (or as bad as they claim) or that you should not take their complaints or concerns seriously because they are “lucky” that things are not worse for them or

that they should be grateful for what they have (or that things are not worse). For example, a pundit might use this fallacy to try to persuade their audience that the plight of underpaid workers is not that bad because other workers have it even worse. This pundit could also use the fallacy to try to persuade their audience that the complaints of these workers lack merit simply because they are “lucky” to have jobs and they “should be grateful” that a business hired them. The defense against this is to remember that simply asserting that things could be worse, that someone is lucky, or that someone should be grateful does not prove that something is not bad or that there are no grounds for complaint. While it is reasonable to consider matters of “luck” and when gratitude is appropriate, someone simply making such assertions does not prove their claim.

To avoid mistakenly accusing others of committing this fallacy you will also need to consider their intent when they say, “it could be worse”, “you are lucky” or “you should be grateful.” For examples, these phrases are often used in attempts to make people feel better about something bad that has occurred. For example, years ago I tore my quadriceps tendon when a ladder I was climbing failed, and I was told that “it could have been worse.” Those who said this were certainly right; a friend of mine died after a fall last year. In this situation, they were not committing a fallacy. This is because they were attempting to make me feel better rather than trying to “prove” that my injury was not bad. While I was certainly grateful that I had “only” suffered a quadriceps tear, I did not find much consolation in knowing that worse things

could (and do) happen.

Example#1

Sam: “When she gets mad, my wife hits me. I need to get away from her.”

Ted: “Well, it could be worse. Some husbands get killed by their wives.”

Sam: “So I should stay with her?”

Ted: “Yeah, you should be grateful you have a woman who will put up with you at all.”

Example #2

Tucker: “These ungrateful Amazon workers have been complaining that they must pee in bottles to keep to their schedules. They also whine about low pay. Well, I say that they should be grateful that they have jobs. They are lucky they are not living on the street. So, they should shut up and stop talking about unionizing.”

Example #3

Claudius: “I have heard some Christians complain about how they are treated. But it could be worse. When Christianity was just starting out, Christians were sometimes harshly persecuted. I mean, think of the martyrs executed by the Romans. So, these Christians today have nothing to complain about.”

Example #4

Tucker: “So, these liberals are crying for the poor, saying that they do not get adequate food, health care or income.”

Laura: "I know. So many tears. But when you think about it, the poor today have things that the Roman Emperors or medieval kings never had. I mean, a poor person today will have a TV. Nero did not have a TV. A poor person probably has a microwave. King Arthur had Excalibur, but that would not make popcorn for him."

Tucker: "Exactly. And a poor person probably has a cell phone. Napoleon did not have one of those."

Laura: "So poor people have got it good. I mean, can we even really call them "poor" when they have all these treasures?"

Tucker: "Umm, I do like calling them 'the poor.'"

Laura: "As do I."

Example #5

Rico: "Look, I know you are mad that your guy lost the election..."

Rudy: "Had the election stolen from him."

Rico: "Yeah...well...at least he wasn't arrested or, you know, executed for treason. It could be worse."

Rudy: "So?"

Rico: "So, you should shut up and be grateful about how lucky you are."

Example #6

Megan: "While I agree that women are better off now than they were 50 years ago, there are still many problems that women face because of how they are treated."

Women are still paid less than men even when there is no relevant difference and women still need to be afraid of being harassed and assaulted.”

Brett: “Whatever. I hear women complain about this and that. But things could be worse. Look at places like Saudi Arabia and Afghanistan. You are lucky you get to drive and vote. Think about that before you start whining about pay. Now get back on stage and work that pole.”

Middle Ground

Also Known as: Golden Mean Fallacy, Fallacy of Moderation

Description:

This fallacy is committed when it is assumed that the middle ground between two (often extreme) positions must be correct simply because it is the middle position.

This reasoning has the following form:

Premise 1: A and Z are two (extreme) positions.

Premise 2: P is a position located in the middle between A and B.

Conclusion: Therefore, P is correct.

This is fallacious because it does not follow that a position is correct just because it lies in the middle of two positions. This is shown by the following example.

Suppose that a person is selling his bike. He wants to sell it for the current market

value, which is \$800, and someone offers him \$1 for it. It would hardly follow that \$400.50 must be a reasonable selling price.

This fallacy draws its power from the fact that a moderate or middle position can often be correct. For example, a moderate amount of exercise is better than too much or too little. This is not because it just happens to be the middle ground between two positions. It is because too much exercise is harmful and too little exercise is almost useless. In many cases in which moderation is correct it is because the extremes are variations of “too much” and “not enough” and the middle position is “enough.” In such cases the middle position is, by definition, correct and it would not be fallacious to make this inference.

This fallacy can also draw psychological force from the belief that a compromise or meeting someone in the middle is often reasonable or good. While this can be true, it does not follow that the middle position must be true or even that it likely to be true just because it is in the middle. While considerations of fairness and compromise are worth considering, they take the matter far beyond the realm of “pure” logic and into the normative realm.

It should be kept in mind that while uncritically assuming that the middle position must be correct because it is the middle position is poor reasoning it does not follow that accepting a middle position is always fallacious. A moderate position can certainly be true or correct. However, the claim that the moderate position is correct must be supported by good reasoning.

A variant of this fallacy is expressed by the saying that “if both sides hate you, you must be doing something right.” In this sort of reasoning, the inference is that if two (often extreme) opposing sides dislike something, then it must be correct. While not explicitly appealing to the idea of a middle ground, the idea is that the hatred of both sides would place the target in something of a middle position. This reasoning has the following form:

Premise 1: A and Z are two (extreme) sides

Premise 2: Both A and Z hate what person P is doing.

Conclusion: Therefore, what P is doing is correct.

This is fallacious reasoning because the mere fact that both (or more) sides hates what a person is doing does not entail that it must be correct. Or that it is not correct. While this reasoning does have some psychological appeal, it lacks logical force. After all, the two sides might hate what a person is doing because it is so horrible, destructive, or foolish that most people would hate it. To illustrate, consider this example:

Premise 1: Democrats and Republicans are two sides.

Premise 2: Both Democrats and Republicans hate that Ted is urinating in public pools.

Conclusion: Therefore, Ted is correct in his pool urination.

This variant can also focus on a position rather than a person's actions. It has the following form:

Premise 1: A and Z are two (extreme) positions.

Premise 2: P is a position hated by both those who accept Position A and those who accept Position B.

Conclusion: Therefore, P is correct.

This is poor reasoning because the mere fact that those holding to two (or more) opposing positions hate something does not prove that it is correct. It also does not prove that it is incorrect.

Defense: The main defense is to consider whether the support offered for a middle position consists only of the claim that it is a middle position. If so, there is no reason to accept it as correct on this basis.

To avoid being mistaken about the fallacy, you should also consider whether it is a case where the middle position is, by definition, correct. You should also consider whether it is a case of normative reasoning in which the concern is over compromise or fairness; but even in such cases the reasoning should still be assessed.

In the case of both sides hating what a person is doing or a position they both hate; the main defense is keeping in mind that such hate does not prove that what

is hated is correct. After all, there are many things that most people dislike and dislike for good reasons.

Example #1

Some people claim that God is all powerful, all knowing, and all good. Other people claim that God does not exist at all. Now, it seems reasonable to accept a position somewhere in the middle. So, it is likely that God exists, but that he is only very powerful, very knowing, and very good. That seems right to me.

Example #2

Congressman Jones has proposed cutting welfare payments by 50% while Congresswoman Shender has proposed increasing welfare payments by 10% to keep up with inflation and cost of living increases. I think that the best proposal is the one made by Congressman Trumple. He says that a 30% decrease in welfare payments is a good middle ground, so I think that is what we should support.

Example #3

A month ago, a tree in Bill's yard was damaged in a storm. His neighbor, Joe, asked him to have the tree cut down so it would not fall on Joe's new shed. Bill refused to do this. Two days later another storm blew the tree onto Joe's new shed. Joe demanded that Joe pay the cost of repairs, which was \$250. Bill said that he wasn't going to pay a cent. Obviously, the best solution is to reach a compromise between the two extremes, so Bill should pay Joe \$125.

Example #4

Senator Ted: “So, my religious freedom bill would allow churches to engage in politics, just like any other organization.”

Republican: “Yay!”

Democrat: “I hate it.”

Senator Ted: “But, of course, churches would lose all those special tax breaks and other exemptions. They would just be another group.”

Republican: “I hate it.”

Senator Ted: “Also, all religious holidays would now be equal, in that none of them would be federal holidays.”

Republican & Democrat: “We hate it.”

Voter: “This bill must be great if both sides hate it!”

Misleading Vividness

Description:

Misleading Vividness is a fallacy in which a small number of dramatic events are taken to outweigh significant statistical evidence. Somewhat more formally, this fallacy is committed when an estimation of the probability of an occurrence is based on the vividness of the occurrence and not on statistical evidence of how often it occurs. It has the following form:

Premise 1: A small number of dramatic/vivid events of type X occur (and the vividness is taken to outweigh significant statistical evidence).

Conclusion: Therefore, events of type X are likely to occur.

This is fallacious because the vividness of an event does not make it more likely to occur, especially in the face of significant statistical evidence.

This fallacy gets its psychological force from the fact that dramatic or vivid cases tend to make a strong impression on the mind. For example, if a person survives a dramatic plane crash, he might believe that air travel is dangerous. After all, a plane crash will have a much stronger psychological impact than the dull statistics that a person is more likely to be struck by lightning than killed in a plane crash.

This fallacy is often self-inflicted, even if a person knows better. For example, reading *Jaws* as a kid contributed to my fear of being killed by a shark, so I must struggle with this fallacy. I know that I am much more likely to be killed in a crash on the way to the beach than be attacked by a shark, but I feel more afraid of sharks than car crashes. The fallacy can also be inflicted on others, intentionally or not. For example, the odds of an American being killed by someone in the country illegally are incredibly low. But someone might use Misleading Vividness to try to scare people into believing this is something they should be very afraid of.

It should be kept in mind that considering that something dramatic or vivid might occur is not always fallacious. Assessing risk is not just a matter of statistics, but also

a matter of values. For example, a person might decide to never go sky diving because an accident could kill them. If they know that, statistically, the chances of dying are very low, but they consider even that small risk unacceptable, they would not be committing this fallacy. The mistake in this fallacy is that the vividness or drama of an event is substituted for evidence that the event is likely to occur.

Defense: When statistical data is available, it can be used to defend against this fallacy. For example, if a politician is trying to scare people with rare but dramatic occurrences, then checking the statistics from a reliable source can help protect you from falling for this fallacy.

If statistical data is not readily available, then the defense would be to consider how often the vivid events have occurred based on the examples presented by the person who seems to be committing the fallacy. This puts a reasonable burden of proof on them to show that these occurrences are as likely to happen as they claim.

Addressing the psychological factors of this fallacy can be much more challenging. For example, while I know that flying is the safest way to travel, I am terrified of traveling by plane. So, I force myself to fly and vacillate between feeling that I will surely die any second and knowing that I almost certainly will not. But I show no fear, **because showing fear attracts gremlins at 20,000 feet.**

Example #1:

Jane: "I've been thinking about getting a computer. I'm tired of having to wait in the library to write my papers."

Bill: "What sort of computer do you want to get?"

Jane: "Well, it must be easy to use, have a low price and have decent processing power. I've been thinking about getting a Kiwi Fruit 2200. I read in that consumer magazine that they have been found to be very reliable in six independent industry studies."

Bill: "I wouldn't get the Kiwi Fruit. A friend of mine bought one a month ago to finish his master's thesis. He was halfway through it when smoke started pouring out of the CPU. He didn't get his thesis done on time and he lost his financial aid. Now he's working over at the Mal Wart as a greeter."

Jane: "I guess I won't go with the Kiwi!"

Example #2:

Joe: "When I was flying back to school, the pilot came on the intercom and told us that the plane was having engine trouble. I looked out the window and I saw smoke billowing out of the engine nearest me. We had to make an emergency landing and there were fire trucks everywhere. I had to spend the next six hours sitting in the airport waiting for a flight. I was lucky I didn't die! I'm never flying again."

Drew: "So how are you going to get home over Christmas break?"

Joe: "I'm going to drive. That will be a lot safer than flying."

Drew: "I don't think so. You are much more likely to get injured or killed driving

than flying.”

Joe: “I don’t buy that! You should have seen the smoke pouring out of that engine! I’m never getting on one of those death traps again!”

Example #3:

Jane: “Did you hear about that woman who was attacked in Tuttle Park?”

Sarah: “Yes. It was terrible.”

Jane: “Don’t you run there every day?”

Sarah: “Yes.”

Jane: “How can you do that? I’d never be able to run there!”

Sarah: “Well, as callous as this might sound, that attack was out of the ordinary. I’ve been running there for three years, and this has been the only attack. Sure, I worry about being attacked, but I’m not going to give up my running just because there is some slight chance I’ll be attacked.”

Sarah: “That is stupid! I’d stay away from that park if I was you! That woman was badly hurt, so you know it is going to happen again. If you don’t stay out of that park, it will happen to you!”

Moving the Goal Posts

Also Known As: Raising the Bar

Description:

This fallacy occurs when evidence against a claim is rejected by insisting, in an

unprincipled way, that different (typically stronger) evidence be provided. The fallacy has the following forms:

Version 1

Premise 1: Evidence E against claim C is presented.

Premise 2: It is insisted (without justification) that a different sort of evidence, D, must be presented against C.

Conclusion: E is rejected.

Version 2

Premise 1: Evidence E against claim C is presented.

Premise 2: It is insisted (without justification) that a different sort of evidence, D, must be presented against C.

Premise 3: E is rejected.

Conclusion: C is true.

This is a fallacy because changing the conditions under which something counts as evidence against a claim (in an unprincipled way) does not show that the evidence does not count. This is analogous to moving a goal post after a goal has been scored and then insisting that the goal does not count, hence the name.

It is not automatically a fallacy to argue that alleged evidence against a claim is not evidence against that claim. The fallacy occurs when the rejection of the

evidence is done in a way that is not justified. Typically, this is done simply to “protect” the claim from criticism.

There are cases in which the standards of what count as evidence against a claim can shift in a justified manner during an argument. Not surprisingly, what counts as a justified change in standards can be a matter of considerable debate and goes beyond the scope of this book.

There is also another version of this fallacy in which a claim is “defended” from refutation by switching to a new or modified claim and treating that claim as if it were the original claim. This version of the fallacy has the following form:

Version 3

Premise 1: Person A makes claim C.

Premise 2: Evidence E against claim C is presented.

Premise 3: A shifts to claim D.

Conclusion: E is rejected.

Version 4

Premise 1: Person A makes claim C.

Premise 2: Evidence E against claim C is presented.

Premise 3: A shifts to claim D.

Premise 4: E is rejected.

Conclusion: D is true.

This reasoning is fallacious because unprincipled shifting from one claim to another does not defend the original claim from the evidence against it. One variant of this fallacy, which is usually considered a type of Fallacy of Equivocation, is called the Motte-and-Bailey fallacy or doctrine. This fallacy was first presented by philosopher Nicholas Shackel.

While it can be tempting to see any change of claim as this fallacy, modifying a claim in good faith in response to evidence would not commit this fallacy.

Moving the Goal Posts is often used as a bad faith tactic to exhaust an opponent who is arguing in good faith. From a psychological standpoint, a person who uses this fallacy might appear to be “winning” a debate, because they can create the illusion that they are countering each objection to their claim. If their opponent gives up in frustration, they can then use the Appeal to Silence to claim that they have won.

While this fallacy is usually used in bad faith, a person could commit it without realizing that they are doing so. While it would still be a fallacy if committed in good faith, there is a chance of convincing a person to stop using it.

Defense: To avoid inflicting this fallacy on yourself, consider whether you are rejecting evidence or shifting your claim in a principled way. If you are engaged with

someone who might be using this technique, the main defense is to look for signs that they are rejecting the evidence you present or shifting their claim in an unprincipled way. If they are, then attempt to point this out.

If your opponent is using this fallacy in bad faith, they will probably attempt to exhaust you by using it repeatedly. From a practical standpoint, engaging them will almost certainly be a waste of time. The best strategy is to establish that they are Moving the Goal Posts, state that discussing it more is pointless, and explain the Appeal to Silence fallacy before they try to use it against you.

Example #1

Gary: “The moon landings were faked. If they were real, there would be photos of the landing sites from later probes.”

Janet: “Well, there are. NASA released the photos a while ago.”

Gary: “Well, NASA no doubt modified the images using Photoshop.”

Janet: “That kind of modification can be checked, you know. Also, Photoshop didn’t exist then.”

Gary: “NASA’s technology is good. They can fool the experts.”

Janet: “Well, what about the Russians. If we had faked the landings, they would have revealed it to the world.”

Gary: “The Russians were in on it. We lied for them; they lie for us.”

Janet: “For the love of God, what would count as proof? What if you were able to

go to the moon and see the lander?”

Gary: “That could be planted there before I arrive.”

Janet: “I give up.”

Gary: “I win!”

Example #2

Donald: “I still have doubts that Obama was born in America.”

Bill: “I didn’t vote for him, but he released his certificate of live birth. That seems good enough for me.”

Donald: “But a certificate of live birth is not the same thing as a birth certificate, so I have my doubts.”

Bill: “Legally, it is good enough. Also, do you think that McCain, Rove, and all those major Republicans wouldn’t have challenged him if there was any basis for this?”

Donald: “They’re politicians, so they all stick together.”

Bill: “Yeah, I can see the love they had for Obama. But it doesn’t really matter—Obama released his ‘long form’ birth certificate, you know.”

Donald: “That could be a fake.”

Example #3

Rachel: “I’m not getting my son vaccinated. They cause autism.”

Juan: “That does not seem to be true.”

Rachel: “It is. The mercury in the thimerosal used as preservative for vaccines causes

autism.”

Juan: “Well, that was removed from vaccines years ago and there was no statistically significant change.”

Rachel: “Well, the toxins in the vaccines cause autism.”

Juan: “This has been thoroughly investigated and no causal link has been found. But don’t take my word on this-check out the studies.”

Rachel: “Those studies are flawed. No doubt they were sponsored by the companies that sell vaccines.”

Example #4

Lola: “I think that politician you like is a racist.”

Ted: “Really? He doesn’t seem to be a racist.”

Lola: “I heard that he has connections to white supremacist groups.”

Ted: “Those were debunked. Even MSNBC agreed that those claims were false.”

Lola: “Well, he has said things that are racist. Like that tweet.”

Ted: “Well, I do agree that tweet you mention could be interpreted as having some racial overtones, but he apologized right away for the awkward wording. Do you know of anything else he said that would be racist?”

Lola: “I bet he suffers from implicit bias.”

Ted: “Doesn’t everybody?”

Lola: “He is probably a secret racist. Just waiting until he is elected.”

Ted: “Um, I don’t know what is really in his mind. I don’t have telepathy.”

Lola: "Check and mate."

Example #5

George: "Climate change is not real."

Al: "Here is overwhelming evidence that it is, be careful when lifting this stack of printed evidence."

George: "Climate change is not caused by humans. It is a natural phenomenon."

Al: "Here is the overwhelming evidence that humans play a significant role in climate change. This is also heavy, so be careful if you try to lift it."

George: "There is nothing we can do about climate change."

Al: "Here is...wait...it does look like it is too late now. You ran out the clock on that one."

George: "Victory!"

No Angel

Also Known As: Guilty of Something

Description:

This fallacy occurs when it is inferred that a person deserves to suffer a specific harm because of unrelated (alleged) wrongdoing on their part or other (alleged) defects of character. This reasoning has this form:

Premise 1: Person A suffered harm H.

Premise 2: Person A (allegedly) has done wrongs unrelated to H or has some (alleged) defects of character.

Conclusion: Therefore, A's suffering H is deserved (or at least acceptable).

This reasoning is flawed because it does not automatically follow that a harm done to a person is warranted because they have (allegedly) engaged in unrelated wrongdoing or have an (alleged) defect in character. The following example illustrates this reasoning:

Premise 1: Ted received a grade of F in his philosophy class.

Premise 2: Ted was dating the daughter of the professor and cheated on her, so he is no angel.

Conclusion: Therefore, Ted's failing grade is deserved.

While Ted might have failed the class because of his poor work, it would be unreasonable to infer that his cheating on the professor's daughter would warrant the failing grade.

The "no angel" name of the fallacy comes from the common practice of describing "miscreants" and "thugs" as being "no angel" when they are harmed or killed. Making a point of saying that a person is "no angel" can also be a case of

demonizing that person.

A variant of this fallacy is the Guilty of Something fallacy. This is the reasoning that a person deserves a specific harm because they are (alleged) to be guilty of some unrelated misdeed. It has the following general form:

Premise 1: Person A suffered harm H.

Premise 2: Person A is (alleged) to be guilty of some wrongdoing.

Conclusion: Therefore, A's suffering H is deserved (or at least acceptable).

Even if a person is guilty of some unrelated wrongdoing, it does not follow that they deserve to suffer a specific harm. While I am not a lawyer, most legal systems follow this principle. For example, a person on trial for embezzlement would not be sent to prison for embezzlement because they had committed an unrelated assault and battery. They could, of course, stand trial for the assault and battery. That said, this fallacy does stand on the boundary between “pure” logic and normative (moral, legal, religious, etc.) reasoning.

On some normative theories, inflicting a specific harm on a person who has engaged in unrelated wrongdoing might be warranted. On such a view, the harm need not be connected to the misdeed the person committed, the fact that they have done something wrong could warrant the harm. In the context of such a theory, the No Angel fallacy would not be a fallacy. This is because this normative theory

warrants such harms. These theories are beyond the scope of this work, but without such a justification, the No Angel fallacy would be a fallacy.

Outside of such theories, this fallacy gains its psychological force from the tendency people possess to dislike people who are (alleged to be) wrongdoers. People often feel that even an unrelated harm is warranted because the person surely deserves some sort of consequences for their (alleged) misdeeds.

This fallacy can be committed in good and bad faith. In the bad faith version, the person committing the fallacy either knows that they are committing it or are demonizing the target (or both). In the good faith version, the person is both ignorant of the fallacy and sincerely believes that the person being harmed is a wrongdoer or otherwise morally defective and thus deserves to be harmed.

Defense: The main defense against this fallacy is to remember that the justification for a specific harm needs to be related to that harm in a meaningful way. Even if someone is “no angel” it does not follow that an unrelated specific harm inflicted on them is thus justified by other wrongdoing. Since this fallacy also often involves demonizing, it is worth considering whether that is also occurring.

As noted above, this reasoning can be non-fallacious in the context of certain normative theories. As such, this should also be considered. But such a theory cannot simply be assumed to be true to avoid the fallacy, reasons would be needed to accept it.

Examples#1

“Yes, it was unfortunate that a sixteen-year-old was killed by the police. But he had been arrested before and when he was shot, he was skipping school. We can all agree that he was no angel.”

Example #2

“Yes, it was unfortunate that a sixteen-year-old was killed by the police. But he had some connections with a white supremacist group and had thrown rocks at BLM protestors. We can all agree that he was no angel.”

Example #3

Professor Smith: “This student of mine says things that are borderline racist and sexist in class. He never quite crosses the line, but I know what he is doing.”

Professor Jones: “That must be rough on the other students.”

Professor Smith: “It is. But, like I said, he never violates the student code of conduct. I have seen some of his public Facebook posts and he seems like he might be in a racist group of some kind.”

Professor Jones: “Are you going to do anything?”

Professor Smith: “Yup. I’m going to fail him. He is close to an F anyway.”

Professor Jones: “That would be wrong.”

Professor Smith: “Look, that little sexist racist has done some bad things, so he deserves the F.”

Example #4

Professor Smith: “This student of mine says things that are very woke and radical in class. He never quite crosses the line, but I know what he is doing.”

Professor Jones: “That must be rough on the other students, that class being mostly for business majors.”

Professor Smith: “It is. But, like I said, he never violates the student code of conduct. I have seen some of his public Facebook posts and he seems like he might be in Antifa, BLM or some other radical group. He is always quoting Marx, so he is probably a Marxist.”

Professor Jones: “Are you going to do anything?”

Professor Smith: “Yup. I’m going to fail him. He is close to an F anyway.”

Professor Jones: “That would be wrong.”

Professor Smith: “Look, that little woke warrior has probably burned a business or something, so he deserves the F.”

Noble Motive

Also Known As: Good Intentions Fallacy

Description:

This fallacy occurs when an (alleged) noble motive is taken as proof that a claim is true, or an argument is good. It is the “reverse” of Wicked Motive. This reasoning

has the following general form:

Premise 1: Person P makes claim C or argument A.

Premise 2: Person P's motivation for making C is (alleged to be) noble.

Conclusion: Claim C is true, or argument A is good.

While motives are relevant in normative assessment (such as in law and morality), they are irrelevant to the truth of a claim or the quality of an argument. A person can make a false claim or a bad argument, even if they have a noble motive for doing so. For example, someone might say that a person is well qualified for job because they care about that person. But their motive does not make their claim true.

The following example illustrates why this is a fallacy:

Premise 1: Sally tells Sam that deer ticks do not carry Lyme disease.

Premise 2: Sally's motive is to reassure Sam, a hypochondriac who has found a tick on his skin.

Conclusion: Therefore, deer ticks do not carry Lyme disease.

While Sally should, perhaps, be praised for comforting Sam, her noble motive does not disprove the fact that deer ticks can carry Lyme disease.

In some cases, this fallacy gains its psychological force because the (alleged) noble

motive causes positive feelings that influence the target audience. The target audience can be the person committing the fallacy; it can be self-inflicted or targeted at others. For example, a voter who thinks that a politician is supporting a bill because they “want to protect the children” might commit this fallacy.

The fallacy can also occur when the noble motive seems to enhance the person’s credibility. While considering factors that increase credibility is not fallacious, inferring that a person whose credibility seems enhanced *must* be right would be a fallacy. For example, a person well known for being motivated by honesty and concern for others might say they are supporting a plan because it will help people. But it does not follow that they are right. The plan could be terrible.

This fallacy can be made in good and bad faith. There are two ways to commit this fallacy in bad faith. The first is that the person is using the fallacy intentionally. The second is that the person is lying about the noble motive. This motive can be the motive of someone else or their own professed motive. For example, a politician might say that they support a bill because they are motivated by a desire to help the working people of their district. But they really are motivated by the campaign donations made by the lobbyist telling them to vote for the bill. But lying is not required for this to be a fallacy since the logical error is the inference from motive to truth or quality of argument.

A person can combine Noble Motive with Rationalization. The Rationalizing part would be them deceiving themselves about their motives. The Noble Motive

part would be inferring that their claim is true, or argument is good because of this (alleged) noble motive they attribute to themselves.

When made in good faith, the person committing the fallacy believes their target is acting from a noble motive and they are unaware of this fallacy. But, of course, they would still be committing this fallacy.

If the person in question really does have noble motives, this could be called a Good Intentions fallacy. The reasoning is the same as the Noble Motive fallacy, it would just be a case of reasoning badly in good faith. This variation of the fallacy can be especially appealing. But, of course, the warning that the road to Hell is paved with good intentions is always worth considering.

Defense: The defense against this fallacy is to remember that a person's motives are irrelevant to the truth of their claims or the quality of their argument. Motives are often relevant to normative assessment, such as in law and ethics. But this sort of assessment goes far beyond "pure" logic. Motives are also relevant in assessing credibility, so it is reasonable to take them into account when assessing a claim. Because of this, it is wise to be careful to distinguish between reasonable assessment of credibility and this fallacy.

For example, if a lawyer establishes that a witness is honest and is motivated by a sense of justice and desire to tell the truth, then this can reasonably enhance their credibility. But if the lawyer said that the witness was certainly right because of their

motives, this would be fallacious reasoning.

It is also reasonable to consider whether the claim of noble motives is true, although the fallacy occurs either way. Showing that the alleged noble motive is not the real motive can sometimes help reduce the psychological force of the fallacy. One way to assess a person's motives is to consider their actions. If their actions are generally inconsistent with their professed motive, then it would be reasonable to consider that they have another motivation. For example, if a politician claims they support a bill that would remove certain books from school libraries because they want to "protect the children" and yet they have routinely voted against bills aimed at addressing infant mortality, child poverty, etc. then it would be reasonable to doubt their professed motive. But be sure to avoid the Ad Hominem Tu Quoque and keep in mind that people are often inconsistent due to ignorance rather than wickedness.

This fallacy can be self-inflicted, so it is wise to be on guard against it especially when judging someone you think has noble motives, such as someone whose politics or ethics you agree with. You should also be on guard against falling victim to Rationalization and Noble Motive; the two can create a very effective trap.

The fallacy can also be inflicted by someone else on you, so you will want to be on guard against that as well.

Example #1

Larry: “Ouch! I burned my hand.”

Gerald: “You need to slather it in butter.”

Larry: “What?”

Gerald: “It will work. My grandpa told me about it when I was a kid. He loved me, so I know that he would never lie to me. I like you and just want to help. So here is the butter.”

Larry: “Okay. I believe you.”

Example #2

“I support this bill because I care about the children and want to protect them. You can count on this bill doing just what I say it will do. After all, I have kids of my own and I would never do anything that would harm them.”

Example #3

“Look, I just want to help you get the best deal you can on a new car. I went into the business to help people and that is what I love to do. So, you can rest assured that this is the vehicle for you and that the price is the best you will get. Now just sign here and here...”

Oversimplified Cause

Description:

This fallacy occurs when someone infers that only one cause is responsible for an effect without considering that there might be multiple causes. This fallacy has the

following form:

Premise 1: Effect E occurs.

Premise 2: C is a cause of E.

Conclusion: Therefore, C is the *single* cause of E.

This is an error because the possibility of multiple causes must be considered in causal reasoning. This fallacy often occurs because sorting out complicated casual situations is difficult, and it is easier to focus on one alleged cause.

In some cases, people commit this fallacy in (good faith) ignorance by failing to consider that the causal situation might be more complicated than they think.

In other cases, this fallacy is used intentionally to get people to think that there is a single cause for an effect. This is often done for political reasons with the single cause matching the political agenda of the person using the fallacy. For example, a politician might claim that price increases are due entirely to corporate profiteering while not mentioning the effects of such things as supply chain issues and increased demand.

It is important to note that this error can occur even when there is only a single cause. As with all fallacies of reasoning, the error is not a factual one. Even if the conclusion is true, if the person making the claim fails to consider the possibility that there are multiple causes, then they have committed this fallacy. Naturally,

some situations might so obviously be cases of a single cause that minimal effort is required to eliminate the possibility of multiple causes. Other cases can be more complicated.

A person can focus on a single cause without committing this fallacy, if they are not erroneously concluding that there must be a single cause. For example, while there are many causes of forest fires a specific mitigation plan might focus only on one cause for various practical reasons.

Defense: While causal reasoning can be difficult, avoiding this fallacy is easy: when engaged in causal reasoning, be sure to consider that a single effect might have multiple causes.

Example #1

Rick: “It looks like our schools are in rough shape. I saw that Americans are lagging way behind the rest of the world in areas like math and science.”

Ed: “Yup. It is those stupid teacher unions. They ruined education. If we could just get rid of the unions, we’d be on top of the world again.”

Example #2

“The recent economic meltdown was an incredible financial disaster. However, nothing has been done to address its cause, namely allowing mortgage companies to make subprime loans.”

Example #3

“It is obvious what the cause of violent crime is. The destruction of the traditional family by the woke folks has brought blood to our streets.”

Example #4

“It is obvious what the cause of violent crime is. The greed of the rich has brought blood to our streets.”

Overconfident Inference from Unknown Statistics

Description:

This fallacy is committed when a person places unwarranted confidence in drawing a conclusion from statistics that are unknown.

Premise 1: “Unknown” statistical data D is presented.

Conclusion: Claim C is drawn from D with greater confidence than D warrants.

Unknown statistical data is just that, statistical data that is unknown. This data is different from “data” that is simply made up because it has at least some foundation.

One type of unknown statistical data is when educated guesses are made based on limited available data. For example, when experts estimate the number of people who use illegal drugs, they are making an educated guess. As another example, when the number of total deaths in any war is reported, it is (at best) an educated guess

because no one knows for sure exactly how many people have been killed.

Another common type of unknown statistical data is when it can only be gathered in ways that are likely to result in incomplete or inaccurate data. For example, statistical data about the number of people who have affairs is likely to be in this category. This is because people generally try to conceal their affairs.

Obviously, unknown statistical data is not good data. But drawing an inference from unknown data need not always be unreasonable or fallacious. This is because the error in the fallacy is being more confident in the conclusion than the unknown data warrants. If the confidence in the conclusion is proportional to the support provided by the evidence, then no fallacy would be committed.

For example, while the exact number of people killed during the war in Afghanistan will remain unknown, it is reasonable to infer from the known data that many people have died. As another example, while the exact number of people who do not pay their taxes is unknown, it is reasonable to infer that the government is losing some revenue because of this.

The error that makes this a fallacy is to place too much confidence in a conclusion drawn from unknown data. Or to be a bit more technical, to overestimate the strength of the argument based on statistical data that is not adequately known.

This is an error of reasoning because, obviously enough, a conclusion is being drawn that is not adequately justified by the premises. This fallacy can be committed in ignorance or intentionally committed.

Naturally, the way in which the statistical data is gathered also needs to be assessed to determine whether other errors have occurred, but that is another matter.

Defense: The main defense against this fallacy is to keep in mind that inferences drawn from unknown statistics need to be proportional to the quality of the evidence. The error, as noted above, is placing too much confidence in unknown statistics.

Sorting out exactly how much confidence can be placed in such statistics can be difficult, but it is wise to be wary of any such reasoning. This is especially true when the unknown statistics are being used by someone who is likely to be biased. That said, to simply reject claims because they are based on unknown statistics would also be an error.

Example #1

“Several American Muslims are known to be terrorists or at least terrorist supporters. As such, I estimate that there are hundreds of actual and thousands of potential Muslim–American terrorists. Based on this, I am certain that we are in grave danger from this large number of enemies within our own borders.”

Example #2

“Experts estimate that there are about 11 million illegal immigrants in the United States. While some people are not worried about this, consider the fact that the

experts estimate that illegals make up about 5% of the total work force. This explains that percentage of American unemployment since these illegals are certainly stealing 5% of America's jobs. Probably even more, since these lazy illegals often work multiple jobs."

Example #3

Sally: "I just read an article about cheating."

Jane: "How to do it?"

Sally: "No! It was about the number of men who cheat."

Sasha: "So, what did it say?"

Sally: "Well, the author estimated that 40% of men cheat."

Kelly: "Hmm, there are five of us here."

Janet: "You know what that means..."

Sally: "Yes, two of our boyfriends are cheating on us. I always thought Bill and Sam had that look..."

Janet: "Hey! Bill would never cheat on me! I bet it is your man. He is always given me the eye!"

Sally: "What! I'll kill him!"

Janet: "Calm down. I was just kidding. I mean, how can they know that 40% of men cheat? I'm sure none of the boys are cheating on us. Well, except maybe Sally's man."

Sally: "Hey!"

Example #4

“We can be sure that most, if not all, rich people cheat on their taxes. After all, the IRS has data showing that some rich people have been caught doing so. Not paying their fair share is exactly what the selfish rich would do.”

Pathetic Fallacy

Also Known As: Anthropomorphic Fallacy, Personification Fallacy

Description:

This fallacy occurs when inanimate objects are treated as if they possessed mental states such as feelings, thoughts, sensations, and motivations. To be a fallacy of reasoning, a conclusion must be drawn based on this assumption. However, by popular usage the error occurs from treating an inanimate object in this way. As a fallacy of reasoning, it has this form:

Premise 1: Inanimate object (or force) O is treated as if it had mental state M.

Premise 2: O was involved in event E.

Conclusion: Therefore, O's role in E is due to M.

This is an error because it attributes to inanimate objects animate qualities, which they do not (by definition) possess, and uses this attribution to support a conclusion. As a fallacy of reasoning, it tends to be rare.

Far more commonly the Pathetic Fallacy is taken to include cases in which no

conclusion is drawn. For example, if someone says, “the sea is angry” and leaves it at that, then there would be no fallacy of reasoning. However, this would be regarded as the Pathetic Fallacy in the popular use of the term.

The Pathetic Fallacy also occurs in cases involving explanations that are flawed because they involve attributing mental states to inanimate forces or objects. For example: “When it gets hot, air wants to rise.” Since air has no wants, this would be an inadequate explanation. That said, such attributions are often not literal.

This fallacy derives its name from “pathos” rather than “pathetic” in the pejorative sense.

Defense: The main defense is to remember that inanimate things do not have animate qualities. There is, however, considerable philosophical debate over what entities do have animate qualities. But this debate is beyond the scope of this work on fallacies.

Example #1

“I was working on my paper and the darn computer crashed. That computer never liked me, so I must infer that it did that out of spite.”

Example #2

Les: “Thanks for letting me borrow your car, but it won’t start.”

Mel: “She is very temperamental. Did you try sweet talking her?”

Les: "Um, no. I did check the battery, though."

Mel: "Here, I'll give it a try."

Les: "Okay."

Mel: "Good morning, Lucile! How about going for a trip with Les?"

Lucile: "Vrooom!"

Mel: "You see, this shows that she has to be sweet talked into starting."

Les: "Thanks again. I'll be sure to talk nicely to her there and back!"

Peer Pressure

Description:

Peer Pressure is a fallacy in which a threat of rejection by one's peer is substituted for evidence in an argument. This reasoning has the following form:

Premise 1: Person P makes claim C.

Premise 2: Person P is pressured by his/her peers or threatened with rejection.

Conclusion: Therefore, person P's claim C is false.

Alternatively,

Premise 1: Person P's peers make claim C.

Premise 2: Person P initially rejects C.

Premise 3: Person P is pressured by his/her peers or threatened with rejection.

Conclusion: Therefore, claim C is true.

This line of “reasoning” is fallacious because peer pressure and threat of rejection do not constitute evidence for accepting or rejecting a claim. This is especially clear in the following example:

Joe: “Bill, I know you think that $1+1=2$. But we don’t accept that sort of thing in our group. If you want to remain, you’ll need to reconsider this.”

Bill: “I was just joking. Of course, I don’t believe that.”

The pressure from Bill’s peer group has no bearing on the truth of the claim that $1+1=2$. While people (usually) do not fall for such silly examples, the threat of rejection by a peer group can have considerable psychological force.

Loyalty to a group and the need to belong can give people very strong psychological reasons to conform to the views and positions of those groups and thus create fear of rejection. Also, for practical reasons people often compromise their beliefs to avoid being rejected.

Although this fallacy can be used in conjunction with Appeal to Group Identity, the error is different. In the case of Appeal to Group Identity, a person accepts a claim because of their identity with (or pride in) the group. In the case of Peer

Pressure, it is the fear of rejection by the group that provides the psychological motivation.

Defense: The defense against this fallacy is to remember that while a threat of rejection by one's peers can have considerable psychological force, it has no logical force.

Example #1:

Dorothy: "I like the idea that people should work for their welfare when they can."

Karl: "You mean they always have to work?"

Dorothy: "No, just when they can work."

Karl: "Hah! That is absurd."

Jan: "Yes, that is the kind of thing a fascist would say."

Fred: "Are you sure you want to be a member of the College Democrats?"

Dorothy: "I do. I'm sorry. I didn't really think it through."

Example #2:

Bill: "I like classical music and I think it is of higher quality than most modern music."

Jill: "That stuff is for old people."

Dave: "Yeah, only real sissy monkeys listen to that crap. Besides, Anthrax rules! It Rules!"

Bill: “Well, I don’t really like it that much. Anthrax is much better.”

Example #3:

Dorothy: “I think we do need social support in some cases. The pandemic really showed me that even hard-working people can get knocked down by events beyond their control.”

Karl: “So, you just mean during pandemics, right?”

Dorothy: “No, I mean even in normal times. If we ever have those.”

Karl: “Hah! That is absurd.”

Jan: “Yes, that is the kind of thing a communist would say.”

Fred: “Are you sure you want to be a member of the Young Republicans?”

Dorothy: “I do. I’m sorry. I didn’t really think it through.”

Perfect Analogy Fallacy

Description:

This fallacy occurs when an analogical argument is rejected in an unprincipled way, usually by setting the standards of similarity too high. Analogical arguments are discussed in some detail under the Fallacious Analogy entry, but I will recap the essential information here to explain this fallacy.

An analogical argument is an argument in which one concludes that two things are alike in a certain respect because they are alike in other respects. Put somewhat formally, an analogical argument (fallacious or not) has this structure:

Analogical Argument (need not be fallacious)

Premise 1: X and Y have properties P,Q,R.

Premise 2: X has property Z.

Conclusion: Y has property Z.

X and Y are whatever is being compared. P, Q, R stand for properties that X and Y share. Z stands for the property that X is known to possess and Y is concluded to have based on the similarity between the two.

The logical strength of such an argument depends on three factors. The first is that the more properties the two things have in common, the stronger the argument. The second is that the more relevant the shared properties are, the stronger the argument. Finally, the more dissimilarities and the more relevant they are, the weaker the argument.

In the case of a Fallacious Analogy, the conclusion is accepted because the application of standards is too lax. The Perfect Analogy fallacy is somewhat of the reverse, the argument is rejected because the standards are set too high.

While there can be reasonable disagreement about how alike two things must be for an analogical argument to be strong, the Perfect Analogy fallacy occurs when the standards are set unreasonably high. In the most extreme version, the analogy would need to be perfect. That is, the two things being compared would need to be

identical.

When this fallacy is committed in good faith, it occurs in ignorance. In such cases, the person is unwarranted in rejecting the analogy, but are unaware their standards of similarity are unreasonably high. In the case of bad faith, the use of the fallacy is intentional.

The fallacy usually takes the form of rejecting an analogical argument because of an alleged difference between X and Y. This reasoning is not inherently fallacious; showing that X and Y are too different to make a strong comparison would show that the analogical argument is weak. The fallacy occurs when the relevance and significance of the alleged difference are not adequately justified. In practice, a person using this fallacy will just assert there is a difference and reject the analogical argument. It has the following form:

Premise 1: Argument by analogy A concludes that Y has Z.

Premise 2: But D is a difference between X and Y.

Conclusion: Therefore, argument by analogy A is a weak (Fallacious) analogy.

The fallacy occurs when Premise 2 is not adequately supported because simply asserting there is a difference does not prove the analogical argument is weak. In some cases, the next step is to commit the Fallacy Fallacy by inferring that because a Fallacious Analogy has (allegedly) occurred, the conclusion of that argument is

false:

Premise 1: An argument by analogy A concludes that Y has Z.

Premise 2: Argument by analogy A is a Fallacious analogy, as per the previous argument.

Conclusion: Therefore, Y does not have Z.

This is fallacious for the usual reason that the Fallacy Fallacy is fallacious, a fallacious argument can have a true conclusion. A person can also save time by committing both fallacies at once:

Premise 1: An argument by analogy A concludes that Y has Z.

Premise 2: D is a difference between X and Y.

Premise 3: Therefore, argument by analogy A is a Fallacious Analogy.

Conclusion: Y does not have Z.

Another version of this fallacy uses a tactic analogous to Moving the Goal Posts and consists of repeatedly rejecting analogical arguments until the target gives up. At that point, an Appeal to Silence might be used. Like the standard Moving the Goal Posts, this is an interactive fallacy used in a discussion. In more detail, here is how a fully developed Perfect Analogy fallacy would occur.

The first step is the unprincipled rejection of an analogical argument by claiming that it does not meet the standards of an analogical argument. As would be expected, someone committing this fallacy will usually not thoroughly present the standards. They will usually just say there is some difference and infer that this disproves the analogy. But this might be done in a way that seems reasonable, to try to create the illusion that the criticism is being made in good faith and thus set the stage for the bad faith arguments to follow.

If the initial criticism is addressed by revising the original argument or presenting a new one, then the response will be to reject this argument, asserting that it also does not meet the standards. In practice, this usually just involves once again asserting there is a difference and the rejecting the analogy. The progression of the fallacy often reveals that the person is arguing in bad faith: the only analogy they will accept is a perfect one, effectively the comparison of the thing (Y) to itself. Anything that is different will be rejected because of that difference. But the person's goal is to "prove" that Y does not have Z, so they can be seen as attempting a form of Begging the Question because they do so by assuming that Y does not have Z:

Premise 1: Only Y is the same as Y.

Premise 2: Y does not have Z.

Conclusion: Y does not have Z.

This process will repeat until one side gives up. If the target gives up, this is often met with an Appeal to Silence. If the target does not give up, the exchange will often end in an Ad Hominem attack or insult as the discussion is abandoned.

Defense: To avoid committing this fallacy when you are assessing an analogical argument be sure to apply the three standards fairly and back up your assessment with reasons. You might find that the argument is weak or even fallacious, but if your assessment is warranted, then you have not committed this fallacy.

If you suspect this fallacy is being committed by someone else, the main defense is to consider whether their criticism of the analogical argument is based on a reasonable application of the three standards. If they are simply rejecting the argument by merely asserting the analogy does not hold, then they are probably committing this fallacy. In such cases, you should not accept the rejection of the argument based solely on their fallacious argument. As always, it would be the Fallacy Fallacy to infer that they are wrong simply because they have committed a fallacy.

Before accusing a critic of committing this fallacy you should determine if this charge has a foundation. After all, good faith criticisms of an argument by analogy involve questioning the similarity between the two things and raising questions about relevant differences. If the critic brings up a difference without support for their claim that it is relevant and significant enough to undercut the analogy, then

this would be grounds for suspicion. If they keep repeating the difference without supporting their claim or keep shifting to new, unsupported differences to reject the argument, then it would be reasonable to suspect they are engaged in this fallacy. Getting into a battle of endurance with someone engaged in this bad faith tactic is exhausting and usually pointless. To avoid getting dragged into this, a good defense is to point out that they seem to be using this fallacy and then directly asking what, if anything, they would be willing to accept as analogous. If they refuse or make a bad faith reply, the reasonable thing to do is end the discussion and expect an Appeal to Silence.

When trying to sort out good faith criticism from bad faith perfect analogy attacks there are two main things to look for. The first is, obviously enough, at least an attempt to argue that the claimed difference is relevant and significant. The second is to look for a willingness on the part of the critic to identify what similarities they would accept as relevant. If they refuse or require an unreasonable (or even impossible) level of similarity, then they are likely to be using this fallacy. It should also be noted that people can fall into this fallacy unwittingly: they do not have a conscious bad faith strategy; they simply believe that asserting a difference exists suffices to undercut the analogy. They would be reasoning in error, but not in bad faith. In such a case, they should be willing to correct their reasoning.

Example #1

Mike: “Okay, I do get that you are against mask mandates. I am somewhat infamous for my opposition to the tyranny of pants, so I am sympathetic to wanting to oppose the state trying to make us wear things.”

Randy: “Um, what do you mean about this pants thing? Do you go around naked or something?”

Mike: “Nah, I am always wearing something in public. It is kind of a joke, but also kind of serious. Whenever I go back to teaching in person, I say that I am back under the tyranny of the pants. That is, I must wear pants and a shirt in the classroom. I would prefer to just teach in a t-shirt and running shorts.”

Randy: “That would seem unprofessional.”

Mike: “Yeah. But I am a philosopher. But back to the masks. To be upfront about it, I don’t like wearing them, but I think the state has the legal right to compel us to wear them in public. Since I love analogies as much as I hate pants, do you think the state has the legal right to prevent me from running around naked in public?”

Randy: “Of course, no one wants to see that.”

Mike: “So, you should agree that that the state has a legal right to impose mask mandates. If it has the right to make us wear clothes, then it would seem to follow that it has the right to make us wear masks.”

Randy: “No! The pants thing is so people do not have to look at your junk. Especially jiggly runner junk.”

Mike: “You seem to have helped my argument here.”

Randy: “What?”

Mike: “Well, if the state can compel us to wear clothes just so people will not be offended or disgusted, then it should have the right to compel us so people will not get sick.”

Randy: “Um...those are different! I don’t want to see your junk, but I can tolerate your face. Mostly. The mask thing is about safety. Or so the libs say.”

Mike: “Well, what do you think about laws requiring people to use seat belts?”

Randy: “I don’t like wearing them, but yeah they seem legally okay.”

Mike: “Well, the mask mandate is like the seatbelt law; the state is using its legal right to require people to wear something to protect themselves and others.”

Randy: “Well, people don’t wear their seatbelts on their faces!”

Mike: “Well, except Jason.”

Randy: “True.”

Mike: “Okay, what about the laws requiring food workers to wear things like hairnets? Those are close to the face.”

Randy: “Close but not on the face. Also, the mask is a medical device. Hairnets are not medical.”

Mike: “But they serve the same purpose, namely protecting people.”

Randy: “Well hairnets protect people from...hair...in their food. So not the same.”

Mike: “So, is there anything like a mask?”

Randy: “Keep trying.”

Example #2

Rick: "I'm doing a paper on the ethics of police killbots."

June: "The police have killbots?"

Rick: "Well, **in 2016 Dallas police killed a suspect using a robot**. So, yes."

June: "Wow! Are they going to rebel against us and kill us all?"

Rick: "The Dallas police?"

June: "No, silly. The robots."

Rick: "The robot they used was not autonomous, it was remote controlled. And that is the basis of my argument. I am going to argue that killing a person at a distance with a remote-controlled robot is morally the same as killing them with a gun. Both the gun and robot are machines for killing people at a distance, so morally the same."

June: "I disagree. One is a robot, and the other is a gun. You need to redo the argument. If I can shoot it down like that, your professor is going to give you an F."

Example #3

Joe: "Look, Jack, we regulate cars to protect people, so we should also regulate guns in the same way. Licenses, registration and so on."

Jack: "Seat belts?"

Joe: "Yes...No. Well, sort of. Child safety locks. They are kind of gun seat belts."

Jack: "Look, you can't regulate guns like cars. We have a Constitutional right to keep and bear arms; we don't have a right to keep and drive cars. So much for your plan, Joe."

Example #4

Joe: “Look, Jack, we regulate cars to protect people, so we should also regulate abortion

Jack: “Look, you can’t regulate abortion like cars. We have a right to abortion; we don’t have a right to keep and drive cars. So much for your plan, Joe.”

Post Hoc

Also Known as: Post Hoc Ergo Propter Hoc, False Cause, Questionable Cause, Confusing Coincidental Relationships With Causes

Description:

Post Hoc is a causal fallacy in which it is concluded that one thing must have caused another simply because the first occurred prior to the second. It has the following form:

Premise 1: A occurred before B.

Conclusion: Therefore, A is the cause of B.

The Post Hoc fallacy derives its name from the Latin phrase “post hoc, ergo propter hoc.” This has been traditionally interpreted as “after this, therefore because of this.” This fallacy is committed when it is concluded that one event causes another simply because the alleged cause occurred before the alleged effect. More formally,

the fallacy involves concluding that A causes or caused B because A occurs before B and there is not sufficient evidence to warrant such a claim. As with any fallacy of reasoning, the conclusion could be true.

In some cases, it is obvious that A occurring before B does not indicate a causal relationship. For example, suppose Jill, who is in London, sneezed at the exact same time an earthquake started in California. Almost no one would believe that her sneeze caused the earthquake. In many cases, though, this fallacy can be quite appealing. For example, there are often cases in which there might be a connection. For example, if a person's computer crashes after they install new software, they would reasonably suspect that the software. But if they concluded the software caused the crash simply because it was installed before it occurred, then they would be committing the Post Hoc fallacy.

The fallacy occurs because the evidence provided fails to justify acceptance of the causal claim. As noted earlier, the fallacy can be committed when A really does cause B. This is because the error is taking A occurring before B as adequate evidence that A caused B. The mistake is not that a person concludes A causes B when it does not; they could be right about that but would be right despite and not because of their poor reasoning.

Post Hoc resembles Hasty Generalization in that it involves making a leap to an unwarranted conclusion. In the case of the Post Hoc fallacy, that leap is to a causal claim instead of leaping from an inadequately sized sample to a generalization.

Not surprisingly, some superstitions might be based on Post Hoc reasoning. For example, suppose a person buys a good luck charm, does well on his exam, and then concludes that the good luck charm caused him to do well. This person would have fallen victim to the Post Hoc fallacy. This is not to say that all alleged superstitions have no basis at all. For example, some traditional cures do work and are not mere Post Hoc cases.

Post Hoc fallacies are often committed due to a lack of care in causal reasoning. Leaping to a causal conclusion is always easier and faster than thoroughly investigating a phenomenon. They can also be motivated by a form of Wishful Thinking; a person might really want something to work and thus fall victim to Post Hoc reasoning. Like most fallacies, the Post Hoc can be committed in good faith. In such cases the person does not realize they are committing a fallacy. They can also be committed in bad faith. For example, a person might use this fallacy to convince someone that a fake cure works so they can sell it to them.

This fallacy is similar to Cum Hoc Ergo Propter Hoc and both are causal fallacies. The difference is that the error in Post Hoc reasoning is that A occurring before B is inferred to prove that A caused B and the error in Cum Hoc reasoning is that A correlating with B is inferred to prove that A caused B. These errors can be combined, this would involve inferring that A caused B merely because A occurs before and correlates with B.

Defense: Because Post Hoc fallacies are committed by drawing an unjustified causal conclusion, the key to avoiding them is careful investigation. While it is true that causes precede effects (outside of time travel, anyway), it is not true that mere precedence makes something a cause of something else. Because of this, a causal investigation should begin with finding what occurs before the effect in question, but it should not end there. Good causal reasoning includes testing an alleged causal connection to determine if it can be consistently repeated and this can sometimes reveal that an alleged connection is Post Hoc.

Example #1:

“I had been running so slow this track season. Then my girlfriend gave me these neon laces for my spikes, and I won my next three races. Those laces must be good luck...if I keep on wearing them, I can’t help but win!

Example #2:

Bill: “So, I got this new PC, and it has been working fine for months. Then I got this new game, and it keeps crashing.”

Ted: “You think the game is the cause?”

Bill: “Absolutely. I installed it and the next day, crash!”

Example #3:

Joan: “Helen, do you remember when your cat scratched me?”

Helen: “Yes. You poked her with a pencil, and she cut you.”

Joan: “Well, I have a fever now. I am sure that your filthy cat gave me cat scratch fever.”

Example #4:

Yancy: “So, the Republicans passed that tax law that benefited wealthy Americans. Then the economy tanked.”

Nancy: “So, should we blame the Republicans?”

Yancy: “Yes. Tax law then tank. It’s obvious.”

Example #5:

Yancy: “So, the Democrats passed that tax law that increased the taxes on wealthy Americans. Then the economy tanked.”

Nancy: “So, should we blame the Democrats?”

Yancy: “Yes. Tax law then tank. It’s obvious.”

Example #6:

Kevin: “The picture is all fuzzy on the TV.”

Jim: “Here, let me smack it.”

Kevin: “It cleared up! That did it!”

Example #7:

Jane: “I’ve got this nasty wart on my finger.”

Bob: “Yuck. I always suspected you were a witch.”

Jane: “Hah. But what should I do about the wart?”

Bob: “Cut a potato in half, rub it on the wart and then bury it under the light of a

full moon. Let me know what happens.”

Jane, a month later: “It worked! My wart shrank and vanished!”

Bob: “Huh, I was just messing with you. I didn’t think you’d do that.”

Jane: “I did, and it worked!”

Example #8:

Joe gets a chain letter that threatens him with dire consequences if he breaks the chain. He laughs at it and throws it in the garbage. On his way to work he slips and breaks his leg. When he gets back from the hospital, he sends out 200 copies of the chain letter, hoping to avoid further accidents.

Example #9:

When investigating a pond students found a severe drop in the fish population. Further investigation revealed the fishes’ food supply had been severely reduced. At first the students believed the lack of food was killing the fish, but then they realized they had to find what was causing the decline in the food supply. The students suspected acid rain was the cause of both the reduction in the fish population and food supply. However, the local business council insisted it was the lack of food that reduced the fish population. Most of the townspeople agreed with this conclusion since it seemed obvious a lack of food would cause fish to die

Prediction Fallacy

Description:

This fallacy occurs when someone uncritically rejects a prediction or the effectiveness of the responses to it when the predicted outcome does not occur:

Premise 1: Prediction P predicted outcome X if response R is not taken.

Premise 2: Response R was taken (based on prediction P).

Premise 3: X did not happen, so Prediction P was wrong.

Conclusion: Response R should not have been taken (or there is no longer a need to take Response R).

The error occurs because of a failure to consider the obvious: if there is an effective response to a predicted outcome, then the prediction will appear to be “wrong” because the predicted outcome will not occur.

While a prediction that turns out to be “wrong” is technically wrong, the error here is to uncritically conclude that this proves the response was not needed (or there is no longer any need to keep responding). The initial prediction assumes there will not be a response and is usually made to argue for responding. If the response is effective, then the predicted outcome will not occur, which is the point of responding. To reason that the “failure” of the prediction shows that the response was mistaken or no longer needed is thus a mistake in reasoning.

To use a silly analogy, imagine that we are in a car and driving towards a cliff. You make the prediction that if we keep going, we will go off the cliff and die. So, I turn the wheel and avoid the cliff. If backseat Billy gets angry and says that there was no reason to turn the wheel or that I should turn it back because we did not die in a fiery explosion, Billy is falling for this fallacy. After all, if we did not turn, then we would have probably died. And if we turn back too soon, then we will probably die. The point of turning is so that the predicted outcome of death will not occur.

A variation on this fallacy involves inferring the prediction was bad because it turned out to be “wrong”:

Premise 1: Prediction P predicted outcome X if response R is not taken.

Premise 2: Response R was taken based on prediction P.

Premise 3: X did not happen.

Conclusion: Prediction P was wrong about X occurring if response R was not taken.

While the prediction would be “wrong” in that the predicted outcome did not occur, this does not disprove the prediction that X would occur without the response. Going back to the car example, the prediction that we would die if we drove off the cliff if we do not turn is not disproven if we turn and then do not die. In fact, that is the result we want.

Since it lacks logical force, this fallacy gains its power from psychological force. Sorting out why something did not happen can be difficult and it is easier to go along with biases, preconceptions, and ideology than it is to sort out a complicated matter.

This fallacy can be committed in good faith out of ignorance. When committed in bad faith, the person using it is aware of the fallacy. The intent is often to use this fallacy to argue against continuing the response or as a bad faith attack on those who implemented or argued for the response. For example, someone might argue in bad faith that a tax cut was not needed to avoid a recession because the predicted recession did not occur after the tax cut. While the tax cut might have not been a factor, simply asserting that they were not needed because the recession did not occur would commit this fallacy.

Defense: To avoid inflicting this fallacy on yourself or falling for it, the main defense is to keep in mind that a prediction based on the assumption that a response will not be taken can turn out to be “wrong” if that response is taken. Also, you should remember that the failure of a predicted event to occur after a response is made to prevent it would count as some evidence that the response was effective rather than as proof it was not needed. But care should be taken to avoid uncritically inferring that the response was needed or effective because the predicted event did not occur.

Example #1

Julie: “The doctor said that my blood pressure would keep going up unless I improved my diet and started exercising.”

Kendra: “How is your blood pressure now?”

Julie: “Pretty good. I guess I don’t need to keep eating all those vegetables and I can stop going on those walks.”

Kendra: “Why?”

Julie: “Well, she was wrong. My blood pressure did not go up.”

Example #2

Robert: “While minority voters might have needed some protection long ago, I am confident we can remove all those outdated safeguards.”

Kelly: “Why? Aren’t they still needed? Aren’t they what is keeping some states from returning to the days of Jim Crow?”

Robert: “Certainly not. People predicted that would happen, but it didn’t. So, we obviously no longer need those protections in place.”

Kelly: “But, again, aren’t these protections what is keeping that from happening?”

Robert: “Nonsense. Everything will be fine.”

Example #3

Lulu: “I am so mad. We did all this quarantining, masking, shutting down, social distance and other dumb thing for so long and it is obvious we did not need to.”

Paula: “I didn’t like any of that either, but the health professionals say it saved a lot of lives.”

Lulu: “Yeah, those health professionals said that millions of people would die if we didn’t do all that stupid stuff. But look, we didn’t have millions die. So, all that was just a waste.”

Paula: “Maybe doing all that was why more people didn’t die.”

Lulu: “That is what they want you to think.”

Proving X, Concluding Y

Also Known As: Missing the Point, Irrelevant Thesis

Description:

This fallacy occurs when a conclusion is drawn from evidence that does not support that conclusion but does support another claim. The form of this reasoning is as follows:

Premise 1: Evidence E for claim X is presented.

Conclusion: Therefore, Y

While all fallacies of reasoning are cases where the evidence fails to adequately support the conclusion, what distinguishes this fallacy is that the evidence presented does provide support for a claim. However, it does not support the conclusion

presented.

This fallacy typically occurs when the evidence for *X* *appears* connected or relevant to *Y* in a logical way but is not. It is this seeming relevance or connection that provides the psychological force for the fallacy. This fallacy can be inflicted on others or oneself and committed in good or bad faith. When committed in good faith, the person is ignorant of the fallacy. When committed in bad faith, the fallacy is intentionally committed.

When a person uses this fallacy in bad faith, they exploit the illusion of logical connection between the evidence and the conclusion to mislead someone into accepting the reasoning. This could, perhaps, be called “the bait and switch fallacy.” For example, a politician might advance evidence that a problem exists, then use that evidence to “prove” that some other vaguely similar problem exists.

Obviously, this fallacy (like all fallacies of reasoning) is a case of non-sequiter (“does not follow”) in which the conclusion does not logically follow from the premises. However, this specific sort of mistake is common and interesting enough to justify giving it its own name and entry.

Defense: The defense against this fallacy is also a good general defense against bad reasoning: before accepting a conclusion, carefully consider whether the evidence provided supports *that* conclusion.

Example #1

“I am troubled by the reports of binge drinking by college students. According to the statistics I have seen about 19% of college students are binge drinkers and this leads to problems ranging from poor academic performance to unplanned pregnancies. Since people often drink in response to pressure, this shows that professors are putting their students under too much pressure and hence need to make their classes easier.”

Example #2

“Our product testing revealed that 60% of the people on Acme Diet Master reported that they felt less hungry when using the product. This shows that 60% ate less when using our product. I think we have our next big product!”

Example #3

“High tax rates for individuals leave them with far less money to spend. High tax rates for business often leads them to lower salaries, which means people have far less money to spend. In these troubled economic times, revitalizing the economy requires that Americans spend more. Therefore, the obvious solution is to abolish all taxes.”

Rationalization

Description:

Rationalization occurs when a person offers a reason in support of a claim when it is not their actual reason for accepting the claim. This claim might be, for example,

that they were right in taking some action. To distinguish this from straightforward lying, rationalization involves self-deception. As a fallacy it occurs when rationalization is accepted as evidence that a claim is true, or an action is justified. It has the following general form:

Premise 1: Reason R1 is presented by person P for claim C or Action A.

Premise 2: P's real reason for accepting C or doing A is R2.

Premise 3: P attempts to deceive themselves that they believe C or did A because of R1.

Conclusion: Therefore, (P accepts that) C is true or A as justified based on R1.

While someone can aid another in rationalizing, this fallacy is typically self-inflicted. In the standard version, a person engages in self-deception about their true reason for accepting a claim. For example, a politician might support a bill because they dislike the people targeted by the bill but tell themselves that they are doing it “for the children” or “for the people.”

This fallacy can resemble Noble Motive. This is because it uses a laudable reason to justify an action or acceptance of a claim when the person's actual motivation would not sound as good to themselves or others. The difference between the two fallacies is that Noble Motive involves inferring that a claim is true, or something is correct because of an alleged noble motive for believing the claim or acting.

In the case of Rationalization, a person is trying to convince themselves and perhaps others that their reason for believing or doing something is good (or at least not bad). They could then go on to use a Noble Motive fallacy to claim that because their professed (but not true) motive is good, their claim is true, or their action is good.

What distinguishes Rationalization from simple lying is that rationalization is usually characterized as involving an attempt at self-deception. That is, the person rationalizing accepts, at least on some level, the professed reason as being the actual reason.

Rationalizing can blur the boundary between good faith and bad faith reasoning. On the one hand, the person rationalizing would usually have some understanding of what they are doing and thus be acting in bad faith. But if they deceive themselves successfully, then they would believe they are acting from the professed reason, which might seem like good faith.

Some people define “rationalization” in a way that does not require self-deception but merely the presentation of a reason that is not the person’s actual reason. In this case, showing that a person is rationalizing does not require showing that self-deception is involved. All that is needed is evidence that the actual and professed reasons are not the same. This would, of course, be a case of simple lying.

Defense: Determining when a person is Rationalizing can be challenging. Doing so

requires establishing that the person's professed reason is not their true reason and that they are engaged in self-deception. This would generally require knowing the person well enough to understand their real reason and to recognize they are engaged in self-deception. In some cases, a person's professed reason will conflict with other claims or actions, which might indicate they are Rationalizing. But it might also indicate other fallacies or simple inconsistency. When assessing alleged motives, be sure to avoid the trap of appealing to an unknown fact. This involves claiming, without adequate evidence, to know the "real reason" a person believes or is doing something. For more on this, see the Straw Man fallacy.

If someone is trying to determine if they are Rationalizing, the difficulty of doing so depends on their capacity for honest self-reflection. When people rationalize, they often find it difficult to accept that they are doing so. After all, they will be putting effort into convincing themselves that their actual reason is their professed reason. While it can be difficult, it is wise to be on guard against this tendency to avoid self-deception. The basic defense is to ask yourself: "is this why I believe this?" or "is this really why I am doing this?"

Example #1

Rick: "Man, gas prices are going up."

Mick: "They sure are. I've been driving less."

Rick: "I'm going to buy a motorcycle. They get excellent gas mileage. I'll save a lot

of money.”

Mick: “Good idea. Are you selling your car?”

Rick: “Well, no. I’ll need it when the weather is bad and to transport stuff.”

Mick: “Makes sense. So, what kind are you getting? Since you are trying to save money, I assume you’ll be getting the least expensive bike.”

Rick: “This is the one I’m looking at.”

Mick: “Hmm, that is a \$25,000 sports bike.”

Rick: “It gets better mileage than my car. I’ll save a ton of money on gas.”

Mick: “But it is \$25,000...”

Rick: “Look at this, that is the helmet I ordered. I also got a full racing grade riding suit and these top-grade leather boots. The motorcycle trailer is on back order, but it should get here in two weeks.”

Mick: “You’ll sure save a lot of money with all that stuff.”

Rick: “Yup. See, here is the gas mileage for the bike. Way better than my car. Heck, it is even better than a Prius.”

Mick: “Hey, you could buy one of those and save even more money.”

Rick: “A Prius? Seriously? I might as well get neutered.”

Example #2

Jack: “Happy birthday! I got you the new PlayStation and a 4K TV!”

Cynthia: “But I don’t play video games. You do. But the TV is nice. I can put it in my workout room.”

Jack: “Um, the TV is for the PlayStation.”

Cynthia: “Um, why would you be playing your PlayStation in my workout room?”

Jack: “I won’t. The TV and the PlayStation are for my man cave.”

Cynthia: “How is this a present for me?”

Jack: “Well, you are always complaining that I am playing my video games when you want to watch TV. This way you get a great gift: I’ll be in my man cave playing my PlayStation on the 4K TV while you are watching TV on the old TV.”

Cynthia: “My, this is the best present ever.”

Jack: “I know! I just knew that this would be the best gift for your birthday!”

Red Herring

Also Known as: Smoke Screen, Wild Goose Chase

Description:

A Red Herring is a rhetorical technique in which an irrelevant topic is presented to divert attention from the original issue. This tactic is commonly used when a person wants to avoid an embarrassing, unpleasant or damaging subject. For example, a politician being questioned about a scandal might use a Red Herring to get reporters to switch to a different subject.

As a bad faith fallacy, a red herring is an attempt to “win” an argument by diverting attention to another subject. A person can also commit the fallacy in good faith by being unaware that they are leading the argument off topic.

Presented as a fallacy of reasoning, it would have the following structure

Premise 1: Issue A is being discussed or argued.

Premise 2: B, which is not relevant to A, is introduced as if it were relevant to A.

Conclusion: Issue A has been resolved.

This is fallacious reasoning because diverting attention from the original issue does not resolve it.

The rhetorical Red Herring can be used in combination with other fallacies. For example, a Red Herring can be used with Moving the Goal Post to distract a target while the goal post is moved. It can also be used with a Gish Gallop to distract the target as the galloping continues. It can also be used with Appeal to Silence by asserting that the issue has been resolved because the distracted person is now silent on that issue.

Like many philosophers, I told my students that the “red herring” name came from a technique for training hunting dogs. The story was that a stinky fish would be dragged across the trail of whatever the dogs were being trained to hunt. If the dogs were distracted, they would fall for a red herring and fail the training exercise.

It turns out that this story is not exactly true. Fortunately, the tale is just relevant to the name, not the fallacy itself.

A variant of the Red Herring is the Smokescreen. Like the Red Herring, its intent

is to distract attention from the original issue, and it can be used for the same reasons as a Red Herring. The difference is that a Smokescreen involves piling on complexities and irrelevancies until the original issue is lost in the rhetorical smoke.

Like a Red Herring, a Smokescreen can be used in good or bad faith. Some people, such as philosophy professors, tend to pile on complexities and seeming irrelevancies without bad intentions. They might not even realize what they are doing.

When used in bad faith, the person knows they are trying to obscure the original issue in rhetorical smoke. In addition to the usual goal of distraction, the Smokescreen can be used as a defense. In this manner it functions like the military or police use of a smokescreen, to hide something (such as a ship or soldiers) from sight. Of course, the Smokescreen does not provide a true defense and hiding something behind the rhetorical smoke does not prove or disprove anything.

A Smokescreen can be used in conjunction with other fallacies. For example, someone might use a Smokescreen while engaged in a Gish Gallop. This could involve combining the methods: piling on complexities for the purposes of distracting the target and putting out so many claims and arguments that the target will be unable to reply. As with a Red Herring, it can also be combined with an Appeal to Silence, with the target's failure to reply fallaciously taken as evidence that a claim is true.

Defense: When engaging someone, the main defense against a Red Herring or Smoke Screen is to stick with the original issue or subject and not allow the distraction to work. You can also point out the attempt and try to get back on topic.

If you are merely observing the Red Herring, the defense is to recognize that the issue has been switched without resolution. In the case of a Smokescreen, the defense is to recognize when someone is attempting to pile on complexities and irrelevancies. This can require knowledge of the subject, but sometimes the tactic is easy to spot (especially when the person spewing smoke is not knowledgeable).

Since it is normal for people to change topics in a conversation you should be careful to distinguish between a Red Herring and normal conversational drift. This involves considering the context and intent of the person who seems to be engaged in a Red Herring.

Some people are naturally inclined to pile on complexities and irrelevancies without any intention to commit a fallacy, and this can be addressed by trying to get them back on topic. If they are acting in good faith, they might cooperate.

It is also worth noting that a person might seem to be using a Smokescreen, but the complexities are unavoidable, and the seeming irrelevancies are relevant. In cases where someone is ignorant of a subject or has only a simple understanding, it is easy for them to think someone is using a Smokescreen when they are not.

Example #1:

“We admit that this bond measure is popular. But we also urge you to note that there are so many bond issues on this ballot that the whole thing is getting ridiculous.”

Example #2:

“You know, I’ve begun to think that there is some merit in the Republicans’ tax cut plan. I suggest that you come up with something like it, because If we Democrats are going to survive as a party, we have got to show that we are as tough-minded as the Republicans, since that is what the public wants.

Example #3:

“I think there is great merit in making the requirements stricter for the graduate students. I recommend that you support it, too. After all, we are in a budget crisis, and we do not want our salaries affected.”

Red Herring: Now is Not the Time

Description:

Now is Not the Time is a rhetorical technique in which someone attempts to end a discussion, divert attention from the original issue, or conclude that something should not be done by asserting that “now is not the time” or some variation of that phrase. It can be considered a variant of the Red Herring but is common and distinct enough to merit its own entry.

As an attempt to end discussion or divert attention, the fallacy would have this form:

Premise 1: Issue A is being discussed or argued.

Premise 2: Person P asserts that now is not the time to discuss A.

Conclusion: Issue A should not be discussed now.

Alternatively,

Premise 1: Issue A is being discussed or argued.

Premise 2: Person P asserts that now is not the time to discuss A.

Conclusion: The discussion should switch to the issue of when the time would be right to discuss A.

Both are fallacious arguments because simply asserting that now is not the time does not prove that discussion of the original issue should cease.

When used to fallaciously argue that something should not be done now, it would have this general form:

Premise 1: Person A proposes doing X.

Premise 2: Person B asserts that now is not the time to do X.

Conclusion: X should not be done now.

This is poor reasoning because simply saying that something should not be done now does not prove that it should be done now (this can also be seen as circular reasoning).

While this fallacy has no logical force, it can have considerable psychological force. This fallacy is most often used in the aftermath of some terrible event, such as a school shooting. In such cases, it can draw psychological force from the belief that there should be a period of mourning or reflection after a terrible event. The fallacy is also often phrased in a way that makes it appear that doing X now would be exploiting or misusing the event. For example, in response to a gun control proposal made after a school shooting, a politician might say “now is not the time to score political points.”

This fallacy can also gain an illusion of reasonability because there can be good reasons as to why now is not the time. For example, strong emotions can lead to poor decision making (see the various fallacies involving emotional appeals) and hence a case can be made for waiting for the feelings to cool. As another example, decisions made in haste can also prove defective, so taking the time to consider and reflect can be reasonable. The problem with the fallacy is, of course, that the person committing it is not offering these reasons; they are relying on psychological rather than logical force to support their conclusion. But what if someone does offer those reasons?

If relevant reasons are advanced that support the claim that now is not the time,

then there would no longer be a fallacy of reasoning. For example, if someone presented credible evidence that laws hastily created in response to an awful event, such as a terrorist attack or particularly gruesome murder, often have serious negative (often unintended) consequences, then this would provide a good reason to wait on passing such laws. But even this can be misused in bad faith.

A person can provide good reasons that now is not the time but do so in bad faith. In this case, the person's intent is to use a reasonable argument in a bad faith to divert attention, end discussion, or conclude that nothing should be done. This tactic is often used to delay until memory and feelings have faded in the hopes that nothing will be done. This has the following general form:

Premise 1: Person A proposes doing X.

Premise 2: Person B gives reasons that now is not the time to do X.

Conclusion: B says that X should not be done now, but their intent is that X should never be done.

As would be suspected, the person using this tactic will not reveal that their goal is that X never be done. Instead, they will pretend that they just want a delay. As such, they are operating in bad faith.

While determining bad faith can be challenging, if someone uses this tactic repeatedly for the same issue and never get around to addressing it, then that can be

evidence they are operating in bad faith. For example, if a politician always responds to gun control proposals made after school shootings and other mass shootings with “now is not the time”, then it is reasonable to suspect that they are operating in bad faith and are using this rhetorical tactic. If that same politician quickly exploits other awful events, such as a murder committed by someone who entered the country illegally, to advance their own legislative agenda, then it would be even more reasonable to suspect they are operating in bad faith when they say “now is not the time.”

Defense: The main defense against this fallacy is to check to see if a relevant reason is being offered as to why now is not the time. If no such reason is offered, then there is no reason to accept the conclusion. It is also, as always, sensible to consider if the person is operating in bad faith; exposing this can help weaken the psychological appeal of the fallacy.

If someone does offer a relevant reason that now is not the time, you should still consider whether they are using this argument in bad faith. Most commonly this involves arguing that now is not the time when their bad faith intent is to delay until interest fades, thus preventing anything from being done.

Example #1

Senator Bedfellow: “As a nation, we all mourn the loss of these schoolchildren to a

crazed gunman. It is a tragedy that they were killed. But now is not the time to get caught up in the politics of gun control to score partisan points. It is a time for thoughts and prayers.”

Example #2

Senator Bedfellow: “As a nation, we all mourn the loss of those killed yesterday. It is a tragedy that they were killed by a terrorist. But now is not the time to get caught up in the politics of anti-terrorism to score partisan points. It is a time for thoughts and prayers.”

Example #3

Senator Bedfellow: “As a nation, we all mourn the loss of the young person killed last month. It is a tragedy that they were killed by a person in this country illegally. But now is not the time to get caught up in the politics of immigration to score partisan points. It is a time for thoughts and prayers.”

Refusal to Generalize

Also Known As: Bad Apple Fallacy

Description:

This fallacy involves uncritically dismissing a significant number of examples or statistical evidence without adequately considering whether they would support a general claim. It has the following general form:

Premise 1: A significant number of examples or statistical evidence exist for generalization G.

Premise 2: The examples or statistical evidence is dismissed.

Conclusion: G is false.

This is fallacious because dismissing, without justification, a significant number of examples or statistical evidence does not prove that a claim is false. Refusing to consider such evidence for a general claim is as much a fallacy as leaping from inadequate evidence to accepting a general claim.

Since this fallacy has no logical force, its persuasive power must come from psychological sources. For example, someone who does not want to believe a general claim will be inclined to accept this fallacy. This fallacy can be used in conjunction with others. For example, someone might use an Ad Hominem attack to undermine the source of the examples, evidence or sample they are dismissing. As another example, someone might also fall for Wishful Thinking when rejecting a general claim they want to be false.

This fallacy is most often used in bad faith; the person using it is intentionally refusing to generalize. It can also be used in good faith, in cases of ignorance or carelessness. For example, someone might note example after example of problems in their organization, yet not grasp the general implications of having so many problems.

The fallacy also occurs when a person explicitly refuses to accept an adequate sample. An adequate sample is one that is large enough and representative enough to create a strong inductive generalization. This can be seen as the opposite of a Hasty Generalization (accepting a conclusion based on a sample that is too small). It has this form.

Premise 1: Sample S adequately supports generalization G.

Premise 2: S is ignored

Conclusion: G is not true.

This is poor reasoning because ignoring an adequate sample does not disprove a general claim. This is one case in which the error does indicate that the conclusion of a fallacy is probably false. If G is supported by a strong inductive generalization, then it is probably true. There is a version of this fallacy in which evidence is explicitly considered but is explained away; this is the Bad Apple Fallacy.

The Bad Apple Fallacy occurs when a significant number of examples or statistical evidence for a general claim is rejected by explaining away the examples or evidence as being rare cases, isolated incidents, or bad apples. It has the following two forms:

Premise 1: A significant number of examples or statistical evidence exist for generalization G.

Premise 2: The examples or statistical evidence is explained away as being rare cases,

isolated incidents, or bad apples.

Conclusion: G is false.

Alternatively,

Premise 1: Sample S adequately supports generalization G.

Premise 2: S is explained away as being made up of rare cases, isolated incidents, or bad apples.

Conclusion: G is not true.

The fallacy can occur when it is uncritically assumed that explaining the examples or evidence away disproves the general claim. In this case, the person committing the fallacy is not taking due care when rejecting the evidence. This can be done in good faith ignorance. As with any fallacy, the conclusion could turn out to be true; the problem is that it is not justified by the premises. If the examples or evidence is properly assessed and found to be inadequate, then this would not be fallacious reasoning.

The fallacy can also occur in bad faith when the person committing it is lying about the examples, statistical evidence or sample being made up of rare cases, isolated incidents, or bad apples. In this case, the error of reasoning is joined by the act of deceit. This tactic can be very effective when the target audience is ignorant of the evidence or wants to believe the conclusion.

For example, someone might not want to believe that sexual assault is a problem in United States military and hence be inclined to reject examples and data as isolated incidents or a few bad apples.

The use of the phrase “a few bad apples” is popular when someone commits this fallacy while attempting to explain away or dismiss evidence or examples of bad behavior. This can be an effective rhetorical strategy. When the person admits that there have been problems, they can seem reasonable and create a more defensible position: they are not claiming that there are no problems. Explaining away or dismissing the problems as bad apples can be appealing, especially when the target audience is ignorant of the facts or already inclined to want to reject the general claim, perhaps because of a favorable or unfavorable view of the subject of the generalization. Ironically, while the bad apple phrase is used to claim that there is not a general problem, the original phrase is “one bad apple spoils the whole barrel.”

Defense: The main defense against inflicting this fallacy on yourself is to be careful about rejecting examples or statistical evidence too quickly. While it is an error to rush to a Hasty Generalization or accept Anecdotal Evidence, being excessively cautious about generalizing can lead to committing this fallacy.

To avoid falling for this fallacy when used by others, the defense is to consider whether they are dismissing examples, statistical evidence, or a seemingly adequate

sample without due care. While terms such as “isolated incidents” and “bad apples” can be used in good faith, these terms are often red flags indicating that the fallacy is being employed. If there are repeated “isolated incidents” and a barrel of “bad apples” being dismissed, then this suggests that the fallacy is being committed intentionally.

Example #1

Reporter: “Your opponent says they support police reform because they are concerned with the number of cases involving excessive use of force, including lethal force. What is your reply?”

Senator Wiggum: “While there have been regrettable incidents, these are very rare and no reason to be worried about policing in general. That is why I support re-funding the police.”

Reporter: “What about all the incidents that have been reported and documented?”

Senator Wiggum: “Those are just bad apples.”

Reporter: “That seems more like a spoiled barrel.”

Senator Wiggum: “Hah. Fake news.”

Example #2

Reporter: “Your opponent says they support legislation that will forbid insider trading by members of congress. What do you think of that?”

Speaker Nancy: “While there have been some unfortunate incidents, these are very

rare and no reason to be worried. The existing laws are working.”

Reporter: “What about all the incidents that have been reported and documented?”

Speaker Nancy: “Those are just a few bad apples.”

Reporter: “That seems more like a spoiled barrel.”

Speaker Nancy: “Hah.”

Example #3

Malcolm: “Racism is still a serious problem in America.”

Jefferson: “I agree it was a problem in the 1960s, but there is not much racism today.”

Malcolm: “I’ve compiled a database of evidence, complete with documentation and cited sources. If you have a few hours, you can skim through it.”

Jefferson: “Well, in a big country there will be some racists. But racism is not a big problem today.”

Example #4

Malcolm: “Men face some serious problems today.”

Lacy: “Oh God, are you going to go into some rant about how men are the real victims?”

Malcolm: “No. My point is that men face some serious issues because they are men. I am not downplaying the problems women face. But I think that issues involving men such as violence, wages, education, and parental rights are often ignored. I’ve compiled a database of evidence, complete with documentation and cited sources. If you have a few hours, you can skim through it.”

Lacy: “Well, in a big country some men will face real problems. But it is absurd to think that men, in general, face such problems. I mean, this is a patriarchy. Men have it easy.”

Example #5

Harvey: “I’m concerned about the number of birds being killed by wind turbines.”

Celina: “Oh, a few birds do get killed now and then. That is sad, but hardly a massacre.”

Harvey: “I’ve seen some credible estimates that place it over 200,000 per year. And that might just be a sample. There could be even more.”

Celina: “That sounds way too high. I am sure that it just speculation by people who hate renewable energy or are being paid by the fossil fuel industry.”

Harvey: “At least look at the data.”

Celina: “Nah, I am sure it is biased.”

Reification, Fallacy of

Also Known As: Fallacy of Hypostatization

Description:

This fallacy occurs when an abstraction is assumed to be a real, concrete entity and a conclusion is drawn from this assumption. The fallacy has the following form:

Premise 1: Abstraction A is treated as if it were a real, concrete entity.

Premise 2: Treating A as real is taken to entail C.

Conclusion: Therefore, C is true.

The mistake is to treat an abstraction as real entity without adequate justification and then using this to support a conclusion.

This fallacy commonly occurs when abstract entities such as nature, fate and political or social entities are treated as being real entities with intentions, desires, needs and motivations of their own. Attributing such human qualities to objects is sometimes called the Anthropomorphic Fallacy or the Pathetic Fallacy.

This fallacy also occurs when human institutions, such as states, are treated as real entities on par with (or being) natural (or supernatural) forces. This reification is often used to justify actions or policies for or against the institution. For example, the state might be reified to argue that it must be obeyed. This view is popular with some fascists. As another example, a person who pirates electronic media might reify companies to argue that their theft is not morally wrong.

In some cases, what counts as reification is a matter of serious philosophical debate. Thinkers have often argued for the reality of what others regard as purely abstract entities. For example, philosophers such as Aristotle and Aquinas attributed purpose to natural forces and to dismiss their arguments without consideration would be an error.

As such, showing that this fallacy has been committed requires showing that the abstraction has been assumed to be a real entity without adequate support. If an

argument for treating an abstraction in this manner has been provided, then this argument must be engaged rather than merely dismissing the reasoning as fallacious.

Defense: The main defense against this fallacy is to check to determine if any good reasons have been advanced to accept that the abstract entity as being real. If not, then the fallacy has been committed. Even if arguments do exist somewhere for the abstract entity being real, this fallacy can still be committed by a person who fails to support their view. For example, while there are many philosophical arguments aimed at showing that the natural world is purposeful, someone who simply reifies nature would be committing this fallacy.

Example #1

Rick: “Homosexuality only occurs in humans and only by choice. In nature, there are no homosexuals. This shows that nature is opposed to homosexuality and hates it. Therefore, homosexuality is morally wrong for what nature opposes is evil.”

Emile: “I’m pretty sure there are gay animals.”

Hugo: “Yes, years ago I saw a show about gay penguins. I mean, they all wear tuxes, and you know who wears tuxes, right?”

Emile: “Grooms?”

Hugo: “Right. And you know what grooms do?”

Emile: “Get married.”

Emile: "Spot on. Since all the penguins wear tuxes, that means they are all grooms.

So, penguins are practicing gay marriage."

Rick: "No, they are not! And if they were, they'd go to hell!"

Hugo: "Yup. And it would be extra bad for them. They are, after all, accustomed to the cold."

Emile: "Those poor dead gay penguins..."

Rick: "Don't pity them! They got what they deserved!"

Example #2

Kyle: "You know, I feel bad doing this experiment. I know they signed a release and all but zapping them with electric shocks doesn't feel right."

Gina: "I understand. This is hard on me, too. But the experiment requires that we go on and do what we must."

Kyle: "Well, if the experiment requires me to do it, then I must. I get my \$15 right?"

Gina: "Of course, the experiment always keeps its word."

Kyle: "It better. Why are you having me shock people?"

Gina: "Oh, we're doing an experiment on reification."

Kyle: "Is that a fancy term for zapping people?"

Gina: "As far as you know."

Kyle: "Zap!"

Example #3

"Why do you waste your energy trying to oppose the State? You otherwise seem to

be a sensible man. You do not stick your head into a fire and try to resist its burning. You don't run out in a storm and shake your fist at the tornado. You do not try to oppose gravity. Be sensible and do not resist the State. It only wants what is best for you, so even if you could someone resist, then you would only be hurting yourself. Be sensible. Come back to the loving embrace of the State. Even now, the State will forgive you your sins."

Example #4

Lulu: "I used to feel a bit bad about liberating software, music, videos and eBooks."

Sasha: "You mean 'pirate', right?"

Lulu: "Such a harsh word. But anyway, I don't feel bad at all about it now. After all, when I liberate...or pirate...stuff, I am not hurting individuals. I am just pirating from the corporation. It has plenty of money and does all kinds of bad things. So, it is fine for me to pirate from it."

Sasha: "Well, would you steal a candy bar from the corner store?"

Lulu: "No way. That would be stealing from Mr. Whipple. That would be wrong."

Sasha: "But stealing from a corporation is okay? What about the artists who create the work or the people who distribute it?"

Lulu: "Yeah, it is fine. I'm not hurting those people. I'm sticking it to the corporation."

Relativist Fallacy

Also Known as: The Subjectivist Fallacy

Description:

The Relativist Fallacy is committed when a person (or group) rejects a claim by simply asserting that the claim might be true for others but is not for them. This reasoning has the following form:

Premise 1: Claim C is presented.

Premise 2: Person (or group) A asserts that C might be true for others but is not true for them.

Conclusion: Therefore, A is justified in rejecting C.

In this context, relativism is the view that truth is relative to R (a person, time, culture, place, etc.). This is not the view that claims will be true at different times of the year (“today is Halloween”) or about different people, but the view that a claim could be true *for* one person (or group) and false for another at the same time. To illustrate, believing that moral truths depend on one’s culture would be a form of relativism. Believing that different cultures profess different moral values would not be relativism.

Often, when people say, “X is true for me” what they really mean is “I believe X” or “X is true *about* me.” A claim is true *about* a person if the claim describes the person correctly. For example, “Bill has blue eyes” is true about Bill if Bill has blue

eyes.

To make a claim such as “X is true for Bill” is to say that the claim is true for Bill and that it need not be true for others. For example: “ $1+1=3$ is true for Bill” would mean that, for Bill, $1+1$ does equal 3, not that he merely *believes* that $1+1=3$. As another example, “the claim that the earth is flat is true for Bill” would mean that the earth really is flat for Bill, not just that he believes it. In that case, Bill would exist in a different reality.

These examples are intentionally silly to show that it should not be assumed that truth is relative to groups or individuals, although beliefs certainly are.

While it might be thought that this fallacy cannot be committed when truth is relative, this is not the case. The fallacy can still be committed provided that the relativity or subjectivity of truth is uncritically assumed in the reasoning.

Some things are uncontroversial in their relativity or subjectivity. For example, if Bill says that the room is too warm and Sally says it is too cold, they can both be right: it feels too warm for Sam and too cold for Sally. As another example, if Ted says that goat milk is delicious and Sandy says that it is yucky, they can both be right: Ted’s subjective experience of goat milk is pleasant while Sandy’s is not. But these are still cases where something is true *about* someone rather than being true for them.

The relativity or subjectivity of truth is a matter of significant philosophical debate and hence its truth or falsity cannot simply be assumed. For example, moral

relativists argue that morality is relative to the culture and moral subjectivists contend that morality is relative to the individuals. But there are good arguments against these views. Aesthetics, the branch of philosophy dealing with art and beauty, also sees debate over subjectivity and relativity. While it is often assumed that “beauty is in the eye of the beholder”, this subjective view of beauty should not simply be assumed as correct.

As a bad faith tactic, people sometimes pretend to be relativists or subjectivists and then use this fallacy to reject a claim. While the reasoning is the same fallacy, the bad faith element adds an element of deceit. For example, a person might reject a moral criticism of their actions in bad faith by asserting “who is to say what is wrong or right?”

Defense: The main defense against this fallacy is to determine if a reason has been given to accept that the matter at hand is a true case of relative or subjective truth. If not, then the fallacy has been committed if a claim is rejected by a mere appeal to relativism or subjectivism.

Example #1:

Jill: “Look at this, Bill. I read that people who do not get enough exercise tend to be unhealthy.”

Bill: “That may be true for you, but it is not true for me.”

Example #2:

Jill: "I think that so called argument you used to defend your position is terrible. After all, a fallacy hardly counts as an argument. "

Bill: "That may be true for you, but it is not true for me."

Example #3:

Bill: "Your position results in a contradiction, so I can't accept it."

Dave: "Contradictions may be bad in your Eurocentric, oppressive, logical world view, but I don't think they are bad. Therefore, my position is just fine."

Example #4:

Sam: "So, you cheated on your wife and stole her credit card to pay for the hotel room. You also got your...I guess mistress...pregnant and made her get an abortion. But, as a legislator, you have been trying to ban abortion. You are a bad person doing bad things."

Lex: "Who is to say what is good or bad?"

Sam: "Huh, she just texted me to say that your car appears to be on fire and that she is breaking up with you."

Lex: "Why that evil little b..."

Sam: "Language. Also, who is to say what is good or bad? Oh, another text. It looks like the fire is out."

Lex: "Good!"

Sam: "Well, it is out because the car is now in your pool."

Lex: “Bad!”

Slippery Slope

Also known as: The Camel’s Nose

Description:

The Slippery Slope is a fallacy in which a person argues that one thing must inevitably follow from another without adequate support for this conclusion. It can also occur when there is not a claim of inevitability; if the inference that one thing will follow from another is not adequately supported, then the fallacy occurs.

Most commonly, the fallacy occurs when there are a series of steps or gradations between one thing and the other and no reason is given as to why the intervening steps or gradations will be bypassed. This reasoning has this form:

Premise 1: X has occurred (or will or might occur).

Conclusion: Therefore, Y will occur.

This is fallacious because an argument gives no reason to believe that one thing must or will follow from another. This is especially clear in cases in which there are a significant number of steps or gradations between one thing and another.

A person might commit this fallacy in error, or they might do so intentionally. For example, a social media executive might claim that government regulation of

social media content would lead to the end of all free expression. As another example, a politician might claim that if social media companies are able to ban users, then this will spell the end of free expression.

This fallacy is often used to argue that X should be prevented to prevent Y. In such cases, Y is something that the target audience is supposed to believe is bad. For example, someone might claim that any censorship would lead to the banning of all books to argue that there should be no censorship. This reasoning can be presented as an extended argument:

Argument 1

Premise 1: X might happen.

Conclusion: If X happens, then Y happens.

Extended Argument

Premise 1: If X happens, then Y happens (conclusion of argument 1).

Premise 2: Y is bad

Conclusion: X needs to be prevented.

While it is reasonable to prevent bad things, the extended argument rests on the unsupported conclusion that Y must (or will) happen if X does. Since this reasoning lacks logical force, it gets its influence from psychological force. This psychological

force is often created by using hyperbole to present Y in an exaggerated manner.

Other fallacies can also be used in conjunction with the Slippery Slope, such as using a Straw Man for Y or employing Appeal to Fear or Appeal to Spite to make the target audience afraid or angry about Y. Y can also be a complete fabrication. The goal is to use the target audience's emotional response to Y to convince them both that X will lead to Y and that X must be stopped.

While they are rare, there can be what might be called Positive Slippery Slope fallacies. These would use the Slippery Slope logic, but Y would be presented as good, and the conclusion would be that X should be done to bring about Y. For example, a con artist might claim that if someone invests a little in their scam, then they will inevitably get a huge return. This fallacy could also be committed in good faith, where the person committing it really believes that good will result despite not having any clue about the steps involved.

What can create some confusion is that non-fallacious Slippery Slope arguments are also called Slippery Slope arguments. In fact, people sometimes exploit this confusion in bad faith. A non-fallacious Slippery Slope is an argument in which adequate reasons are advanced that support the claim that if X happens, then Y will (or is likely to) happen. This reasoning has this form:

Slippery Slope (Non-Fallacious)

Premises: The steps or connection between X and Y are presented and adequately supported.

Conclusion: If X occurs, then Y will occur.

Provided that the connection between X and Y is adequately established, this can be a strong inductive argument. For example, one could make a good Slippery Slope argument that experimenting with highly addictive drugs could lead to addiction. As another example, one could make a good Slippery Slope argument about how eroding certain rights can set a precedent for eroding more rights. Good Slippery Slope arguments are often boring, since they involve presenting the intervening steps and showing how they are connected. A fallacious Slippery Slope will almost always have far more persuasive power, which is one reason why the fallacious versions are more common.

Defense: Since a Slippery Slope fallacy involves asserting that one thing follows from another without adequate evidence being provided, the defense is to see if such evidence is presented. If not, then the fallacy has been committed.

Since those intentionally using this fallacy will usually try to make Y appear especially awful or scary, it is also important to be on guard against the psychological influence of this tactic. One should ask whether they have been given a reason that this will or must occur, or is there merely an attempt to use fear, anger, etc. to cover up a lack of evidence for the alleged connection?

Example #1:

We must stop the tuition increase! The next thing you know, they'll be charging \$100,000 a semester!"

Example #2:

"Europe shouldn't get involved militarily in other countries. Once they send in a few troops, then they will send in thousands to die."

Example #3:

"You can never give anyone a break. If you do, they'll walk all over you."

Example #4:

"We've got to stop them from banning pornographic web sites. Once they start banning that, they will never stop. Next thing you know, they will be burning all the books!"

Example #5

"We can't allow same-sex marriage; if we allow that, then people will be marrying their cars."

Example #6

"We can't allow different-sex marriage; if we allow that, then people will be marrying their cars."

Example #7

"Media companies need to stand strong against the woke mobs who want more trans characters in shows and movies. The next step is brainwashing our kids to get

sex changes!”

Example #8

“Media companies need to stand strong against the mobs who want more straight characters in shows and movies. The next step is making all our kids straight!”

Example #9

“Look, if we do not pass this law that requires people to have state IDs in order to vote, then the next thing that happens will be millions of illegals voting in every election.”

Example #10

“I’m against this tax cut. If I do, the next thing you know there will not be any taxes. That might sound great, but that also means no roads. The entire country would collapse!”

Example #11

“We cannot allow any restrictions on abortion. If we allow even one, then it will be the Handmaiden’s Tale! Only for real!”

Some of My Best Friends Are

Description:

As a rhetorical tactic, Some of My Best Friends Are is to attempt to refute an accusation of bigotry or prejudice against a group by claiming to have a positive relationship with a member of that group. As a fallacy of reasoning, the error is to infer that such an alleged relationship proves that a person is not bigoted or biased against that group. The generic form of the fallacy is as follows:

Premise 1: Person A says or does X, which seems to be bigoted or prejudiced against Group G.

Premise 2: Person A claims they have a positive relationship with a member of Group G.

Conclusion: Person A (or X) is not bigoted or prejudiced against Group G.

This is fallacious because even if a person does have a positive relationship with a member of a group, it does not follow that they, what they said or did is not prejudiced or bigoted.

Probably the best-known use of this fallacy is when someone responds to an accusation of racism against Black people by asserting that **some of their best friends are Black**. This fallacy is also used in cases of sexism, such as when a man claims that they, what they said or what they did cannot be sexist because they have a daughter, a wife, or a mother that they love. Naturally, it would also be a fallacy if a woman asserted that they, what they said or what they did cannot be sexist because they have a son, a husband, or a father that they love.

Since this reasoning lacks logical force, it relies on psychological force. This fallacy can easily occur in good faith when a person honestly believes that their positive relationship with a member of a group means that they are not prejudiced against that group. In such cases, a person might do or say something that is bigoted out of ignorance. While sorting out the ethics of such ignorant and unintentional bigotry is certainly worthwhile, it is still bigotry. As such, the fallacy would still occur in such cases.

This fallacy is also used in bad faith in varying degrees. People are complicated and a person can sincerely have a positive relationship with a member of a group while also being prejudiced against that group. Slave owners often claimed to love or care for their slaves, and some of them might have been sincere while also seeing the slaves as property. A sexist can love their spouse while also thinking of them as inferior. People can, of course, also lie about such relationship being positive and thus engage in multiple acts of bad faith when using this fallacy. But whether the

claim of a positive relationship is sincere or a calculated lie, the reasoning is still flawed.

Defense: To avoid inflicting this fallacy on yourself, the main defense is to be aware that even if you do have a positive relationship with a member of a group, this does not entail that you cannot be or do or say something bigoted. In this case, honest assessment is the best defense. To avoid falling for the fallacy when it is used against you, the main defense is keeping in mind that even if a person does have a positive relationship with a member of a group, this does not entail that they cannot be a bigot or that what they said or did is thus not prejudiced.

As always, sorting out whether the person using the fallacy is acting in bad faith can be useful is reducing its psychological force. This involves assessing whether they do have such a positive relationship and whether they are knowingly using this tactic.

Example #1

Governor: “I know those college photos of me in **blackface** look bad, but I assure you I am not a racist. I grew up in a diverse town and had black friends as a kid. When I went to college, I had black friends. I have black friends now and many of my fellow Democrats are black.”

Example #2

Reporter: “Senator, there are critics who say that your bill is sexist and will hurt women in many ways.”

Senator: “Name one way this bill will hurt women.”

Reporter: “Well, the critics say it cuts funding for programs like WIC and redefines sexual harassment so narrowly that...”

Senator: “Well, I say to my critics that I love my wife and two daughters. How could a man who loves his daughters so much be a sexist? Or do anything to hurt women?”

Reporter: “Well, your critics say you could do that by passing this bill.”

Senator: “You lame stream media are the real problem.”

Example #3

Diocletian: “**We need to remove the Christians from the army** as part of my Make Rome Great Again plan. Plus, I have many ideas, such as dealing with those **Manicheans.**”

Dionysus: “That seems a bit prejudiced.”

Diocletian: “Nonsense! Some of my best friends are Christians. In fact, my favorite slave is a Christian.”

Dionysus: “So why remove them from the army?”

Diocletian: “All part of restoring the glory of the empire.”

Special Pleading

Description:

Special Pleading is a fallacy in which a person claims there is an exemption to a general or universal principle (rule, law, policy, etc.) without adequately justifying this exemption. The fallacy has the following general form:

Premise 1: Principle P applies generally or universally.

Premise 2: No reason or irrelevant reason R is given that P does not apply to A.

Conclusion: A is an exception to P.

This is fallacious reasoning because simply asserting that there is an exception to a general or universal principle does not support this conclusion. This fallacy most commonly occurs when a person attempts to exempt themselves (or someone else) in an unjustified way from a principle (or principles) they accept as generally applying to the circumstances in question. This version can be presented with this form:

Premise 1: Person A accepts Principle P and applies it in circumstance C.

Premise 2: Person A is in circumstance C.

Premise 3: Person A offers no reason or an irrelevant reason R for an exemption to P.

Conclusion: Therefore, Person A is exempt from S.

The person committing Special Pleading is claiming that he is exempt from

certain principles or standards yet provides no or an irrelevant reason for this exemption. That this sort of reasoning is fallacious is shown by the following extreme example:

Premise 1: Jane accepts that all murderers should be punished for their crimes.

Premise 2: Although she murdered Bill, Jane claims she is an exception because she really would not like to be punished.

Conclusion: Therefore, the standard of punishing murderers should not be applied to her.

This is a blatant case of special pleading. Since no one likes being punished, this cannot justify the claim that Sally alone should be exempt from punishment. If it did justify an exception, it would apply to everyone and thus undercut the general principle. Since this fallacy occurs when the justification for the exception is inadequate, this leads to the obvious matter of determining when the exception is warranted. When addressing this, philosophers generally turn to the Principle of Relevant Difference.

From a philosophic standpoint, the fallacy of Special Pleading violates the principle of relevant difference. According to this principle, two people should be treated differently if and only if there is a relevant difference between them. This principle seems reasonable; since it would not seem rational to treat two people

differently when there is no relevant difference between them.

To use a silly example, it would be odd for a parent to insist on making one child wear size 5 shoes and the other wear size 7 shoes when the children are both size 5 and there is no reason at all for the difference in treatment.

The principle of relevant difference does allow for different treatment. For example, if Henry barely works and Nancy is a very productive worker the employer would be justified in giving only Nancy a raise. This is because productivity is a relevant difference.

Since it can be reasonable to treat people (and other things) differently, there will be cases in which some people will be exempt from the usual standards. For example, if it is Bill's turn to cook dinner and Bill is very ill, it would not be Special Pleading if Bill asked to be excused from making dinner. Bill is offering a relevant reason for the exemption, and it would be a good reason for anyone who was ill and not just Bill.

While determining what counts as a relevant and reasonable basis for exemption can be a difficult task, offering no reason at all for an exemption would clearly be Special Pleading. Thus, unless a clear and relevant justification for exemption can be presented, a person cannot reasonably claim to be exempt. This does lead to the normative and practical problem of determining when a difference is relevant and can justify an exemption.

Sorting out such matters goes far beyond "pure" logic and into the realm of the

normative (ethics, law, religion, etc.). Because of this, there can be considerable disagreement about whether a pleading is special or not. Such disagreement can even occur in good faith. For example, when I went to college, I had to prove that I was registered with the **Selective Service** to get my federal financial aid. Female college students did not; American women are exempt from signing up for Selective Service. Obviously, some people believe that a person's sex is a relevant difference for being required to register but it could be argued that this difference is not relevant, and this is a case of Special Pleading.

While Special Pleading usually involves a person trying to get an unjustified exemption, this fallacy could also technically be used against someone to fallaciously argue that they are exempt from something they want to apply to them. For example, someone might accept a general principle of free expression, but engage in Special Pleading to fallaciously argue that it does not apply to those they dislike. If they offered no reason, there would be no disputing the fallacy has been committed. But if they offer a reason, then the question arises as to whether the reason warrants the exemption.

Defense: To avoid committing the fallacy yourself, be sure to consider whether you really have a justification for the exemption you want to claim. To avoid falling for this fallacy when used by others, check to see if they are offering a relevant reason that justifies the exemption. This can take you beyond the realm of “pure” logic and

into a debate in the normative realm, such as ethics or law. Be careful to not assume that just because you disagree with someone's reasons that they must be committing Special Pleading. Likewise, be on guard assuming that a person is not engaged in Special Pleading just because you like the reason they give.

Example #1

Bill and Jill are married. Both Bill and Jill have put in a full day at the office. Their dog, Rover, has knocked over all the plants in one room and has strewn the dirt all over the carpet. When they return, Bill tells Jill that it is her job to clean up after the dog. When she protests, he says that he has put in a full day at the office and is too tired to clean up after the dog.

Example #2

Jane: "Turn off that stupid stereo, I want to take a nap."

Sue: "Why should I? What are you exhausted or something?"

Jane: "No, I just feel like taking a nap."

Sue: "Well, I feel like playing my stereo."

Jane: "Well, I'm taking my nap. You have to turn your stereo off and that's final."

Example #3

Mike: "Barbara, you've tracked in mud again."

Barbara: "So? It's not my fault."

Mike: "Sure. I suppose it walked in on its own. You made the mess, so you clean it up."

Barbara: "Why?"

Mike: "We agreed that whoever makes a mess must clean it up. That is fair."

Barbara: "Well, I'm going to watch TV. If you don't like the mud, then you clean it up."

Mike: "Barbara..."

Barbara: "What? I want to watch the show. I don't want to clean up the mud. Like I said, if it bothers you that much, then you should clean it up."

Example #4

Student: "Did you grade the paper I turned in?"

Professor: "I did. It was great. I really liked it."

Student: "So I got an A?"

Professor: "No, an F. That is why we are having this talk."

Student: "But why did you give me an F?"

Professor: "Well, I think the paper is great and I really liked it because I wrote it I guess you did not check to see who wrote it."

Student: "I agree that plagiarism is wrong, but I really do not want to flunk this class."

Professor: "No one does."

Spotlight

Description:

The Spotlight fallacy is committed when a person uncritically generalizes based on the amount of attention or coverage something receives in the media (including social media). A common instance of this fallacy involves erroneously inferring that the instances focused on by the media represent the qualities of the general population. This reasoning has this form:

Premise 1: Xs with quality Q receive extensive attention or coverage in the media.

Conclusion: Therefore, all or most Xs have quality Q.

This line of reasoning is fallacious since the mere fact that someone or something attracts the most attention or coverage in the media does not mean that it must represent the general population of which it is a member. For example, suppose a mass murderer from Old Town, Maine received a great deal of attention in the media. It would hardly follow that the town has a significant population of mass murderers.

This fallacy can also involve drawing an inference about the likelihood of something occurring based on the extent of the attention or coverage it receives in the media. The flaw in the inference is to conflate the amount of attention something receives with the probability that something will occur. It has this form:

Premise 1: X receives extensive attention or coverage in the media.

Conclusion: Therefore, X is likely to occur.

This is fallacious reasoning because the amount of coverage or attention something receives in the media is distinct from how likely something is to occur. To use a silly example, if a person won two major lotteries, got hit by lightning and bit by a shark on the same day, they would get a lot of media attention. But no one would think that the coverage indicates how likely it is all those things would occur. But in other cases, people do fall for this fallacy.

One reason is that the **availability heuristic** cognitive bias fuels this fallacy. This bias is the tendency to confuse the availability of information with its importance or significance. If people already know that an event is improbable or its improbability is emphasized in the coverage, then this bias can be overcome. But if people are unaware of the likelihood of an event or the coverage tries to create the impression that it is likely, then people can easily fall for it.

The Spotlight Fallacy derives its name from the fact that receiving a great deal of attention or coverage is often referred to as being in the spotlight. It is like Hasty Generalization, Biased Sample and Misleading Vividness because the error being made involves generalizing about a population based on an inadequate or flawed sample. In many cases, the Spotlight Fallacy will combine all three of these other

fallacies: the sample will be too small to warrant the conclusion, the sample will be biased because of how (social) media attention is directed, and the focus will be on things that are vivid or extreme. For brief discussions of adequate samples and generalizations, see the entries for Hasty Generalization and Biased Sample.

This fallacy can also be fueled by bias. If someone is biased against a group, they will be inclined to think that those who receive the most negative media attention represent that group. For example, if someone dislikes those who oppose abortion, they might be inclined to think, based on media coverage, that many anti-abortion activists are willing to kill for their cause. The bias can also be positive, so that a person will infer that positive media coverage of a group they like is representative of that group.

While this fallacy is usually self-inflicted, people can encourage others to fall for it by using various other fallacies, rhetorical techniques or simply by lying to enhance the psychological force of the fallacy. One particularly insidious way this fallacy is used is when someone releases bad faith information through the media and then uses the coverage to “prove” their bad faith claims by referring to how much media coverage it is getting. Attempting to intentionally inflict this fallacy is a common practice in the media and it is often done to advance a bad faith narrative. For example, it would be easy to create the impression **that shoplifting is a major threat** by getting media to shine the spotlight on the matter and thus encourage people to fall for this fallacy.

While less common than the standard version of this fallacy, a person can also fall for a Reverse Spotlight. This occurs when someone uncritically infers that something must be unlikely or that a sample is not representative because it is getting extensive coverage. This fallacy is often fueled by a distrust of the media source. For example, someone might infer that school shootings are less likely to occur than they are because they think the media is pushing an anti-gun agenda and hence focusing on such stories. While it is wise to be rationally critical of all media, it is also wise to avoid falling for this fallacy.

Defense: The main defense against this fallacy is being aware that the extent of media coverage or attention is not a reliable indicator of how likely it is that something will happen. It is also not the basis for a good sample from which to generalize. One way to help defend against this is to remember that it is usually unusual, rare, or extreme cases that get the most media coverage. But you should be careful to avoid “reversing” this fallacy and inferring that something is unlikely or that a sample must not be representative just because the media is covering it.

As with defending against Misleading Vividness, knowledge of the subject is also useful. For example, being aware of crime statistics can provide the foundation of a defense against falling for this fallacy when there is a campaign to create the impression that there is an epidemic of shoplifting.

Example #1

Bill: "Jane, you say you are a feminist, but you can't be."

Jane: "What! What do you mean? Is this one of your stupid jokes or something?"

Bill: "No, I'm serious. Over the summer I saw feminists appear on several talk shows and news shows and I read about them in the papers. The women were bitter and said that women were victims of men and needed to be given special compensation. You are always talking about equal rights and forging your own place in the world. So, you can't be a feminist."

Jane: "Bill, there are many types of feminism, not just the brands that get media attention."

Bill: "Oh. Sorry."

Example #2

Joe: "Man, I'd never want to go to New York. It is all concrete and pollution."

Sam: "Not all of it."

Joe: "Sure it is. Every time I watch the news, they are always showing concrete, skyscrapers, and lots of pollution."

Sam: "Sure, that is what the news shows, but a lot of New York is farmlands and forest. It is not all New York City; it just receives most of the attention."

Example #3

Ann: "I'm not letting little Jimmy go online anymore!"

Sasha: "Why not? Did he hack into the Pentagon and try to start World War three?"

Ann: “No. Haven’t you been watching the news and reading the papers? There are perverts online just waiting to molest kids! You should keep your daughter off the internet. Why, there must be hundreds of thousands of sickos out there!”

Sasha: “Really? I know we should monitor our kids’ online activities, but that seems like a huge number.”

Ann: “I’m not sure of the exact number, but if the media is covering it so much, then most people who are online must be dangerous predators.”

Example #4

Melinda: “They are closing that Walgreens this week.”

Jackie: “Why?”

Melinda: “Well, shoplifting has been a big problem. For months I’ve been seeing all these stories and posts about how shoplifting is running rampant. Have you seen those videos of people just looting stores?”

Jackie: “I have; usually the same few videos over and over. I was curious, so I looked up the crime statistics.”

Melinda: “Boring! Look, if shoplifting is making the news so much, it must be a real problem.”

Straw Man

Also Known As: Straw Person, Aunt Sally

Description:

A Straw Man is made when a distorted, exaggerated, or misrepresented version of something is substituted for the original. The substitute (the straw man) is then attacked, and on this basis, it is concluded that the original is defective.

One version of the Straw Man fallacy occurs when a distorted, exaggerated, or misrepresented version of a claim or argument is substituted for the original. It has the following pattern:

Premise 1: Person A makes claim or argument X.

Premise 2: Person B presents Y (a distorted version of X).

Premise 3: Person B attacks Y.

Conclusion: Therefore, X is false/incorrect/flawed.

This is fallacious because attacking a distorted version of a claim or argument does not constitute a criticism of the original. This fallacy often involves hyperbole, a rhetorical device in which one engages in exaggeration.

Another version of the Straw Man creates a straw person of a person by exaggerating or distorting their qualities, beliefs, actions, etc. This version has the following form:

Premise 1: Person A has or is P, Q, R.

Premise 2: Person B presents X, Y, Z (distorted versions of P, Q, R, or even complete fabrications).

Premise 3: Person B attacks A on the basis of X, Y, Z.

Conclusion: Therefore, person A is defective/bad.

This is fallacious because attacking a distorted version of a person does not show there is anything wrong with the person.

This tactic is most effective when the attack matches the audience's biases, fears, or stereotypes. They will feel that the distorted version is the real version. This tactic is common in politics and is often used to set up Ad Hominem attacks against the straw man.

The Straw Man tactic can be used against other targets as well, using the same basic method of presenting a distorted or exaggerated version of the target in place of the original. For example, a concept or theory could be targeted by this fallacy. In the United States, political rhetoric is rife with straw man versions of political and economic theories.

Straw Man attacks often make use of an appeal to an unknown fact. This involves claiming to know the "real reason" a person or group believes the straw version. This "reason" is often presented as a Wicked Motivation. While the appeal to an unknown fact can be made in ignorant good faith, it is most often used in bad faith when the person using it knows that they do not know but also know it can have a

psychological impact on their target audience.

For example, suppose that a climate scientist recommends reducing meat production to help slow climate change. In response, someone might craft a Straw Man by claiming the scientist wants to ban hamburgers because they hate capitalism. As another example, a conservative who favors providing tax breaks to those investing in underfunded communities might be targeted by a Straw Man in which it is claimed that they want to pay the rich to take over poor neighborhoods because they hate the poor.

While a person or group *might* have a wicked motive they are keeping secret, evidence would be needed to support such a claim. And even if a person or group did have an evil motive, this would not prove that their claim is false, or their argument is bad. To think otherwise would be to fall for the Wicked Motivation fallacy.

In general, any type of Straw Man can be effective because the target audience is unaware that the fallacy is being used because they are ignorant about the truth about the target.

The audience might also be willfully ignorant and actively avoid critically assessing the Straw Man. This can be due to the influence of other fallacies. If the target accepts the Straw Man because they want to believe it, this could be Wishful Thinking. If they accept it out of fear or anger, it could be the result of an Appeal to Fear or Appeal to Anger. Other fallacies, such as the various Ad Hominem

fallacies, the Genetic Fallacy or Appeal to Group Identity can also motivate people to accept the straw version as the real thing. These and other fallacies can also be used to motivate the audience to reject efforts to criticize the Straw Man

The audience can also believe the Straw Man version because they are being misled by a fallacious Appeal to Authority or Appeal to Authoritarian. For example, the audience might believe in a Straw Man because a media personality or politician they mistakenly trust tells them to believe in the straw version. If the audience distrusts credible sources of information, they are likely to believe that there is no reason to doubt the misinformation from sources they trust.

Defense: The defense against a Straw Man, self-inflicted or not, is to take care to get a person's claim or argument right. This involves applying the principle of charity and the principle of plausibility.

Following the principle of charity requires interpreting claims in the best possible light and reconstructing arguments to make them as strong as possible. There are three reasons to follow the principle. The first is that doing so is ethical. The second is that doing so avoids committing the straw man fallacy. The third is that the criticism of the best and strongest versions of a claim or argument also addressed the lesser versions.

The principle of charity must be tempered by the principle of plausibility: claims must be interpreted, and arguments reconstructed in a way that matches what is

known about the source and in accord with the context. For example, reading quantum physics into the works of our good dead friend Plato would violate this principle. A person can overdo the principle of charity, committing the Steel Man fallacy.

Example #1

Prof. Jones: “The university just cut our yearly budget by \$10,000.”

Prof. Smith: “What are we going to do?”

Prof. Brown: “I think we should eliminate one of the teaching assistant positions. That would take care of it.”

Prof. Jones: “We could reduce our scheduled raises instead.”

Prof. Brown: “I can’t understand why you want to bleed us dry like that, Jones.”

Example #2

“Senator Jones says that we should not fund the Super Poseidon attack submarine program. I disagree entirely. I can’t understand why he wants to leave us utterly defenseless.”

Example #3

Bill and Jill are arguing about cleaning out their closets:

Jill: “We should clean out the closets. They are getting a bit messy.”

Bill: “Why, we just went through those closets last year. Do we have to clean them

out every day?”

Jill: I never said anything about cleaning them out every day. You just want to keep all your junk forever, which is just ridiculous.”

Straw Man: Balloon Man

Description:

The Balloon Man is a variant of the Straw Man fallacy in which the target is redefined in an excessively broad or vague manner. This expanded definition, the Balloon Man, is taken to include a wide range of (usually) bad things. This Balloon Man is then attacked, and it is concluded that the original is defective on this basis.

Premise 1: A has an established definition D.

Premise 2: Person B provides an excessively broad or vague definition V of A in place of D.

Premise 3: Person B criticizes V.

Conclusion: Person B concludes that A is defective (false, bad, incorrect, flawed, etc.).

While this fallacy is usually aimed at an audience, it can be self-inflicted: a person can unwittingly make a Balloon Man. This can be done through innocent ignorance or due to the influence of prejudices and biases.

While the Straw Man has long been a political tool, it has proven exceptionally

effective in modern American politics and the Balloon Man variant has become a go-to tool.

It should be noted that redefining something need not be a Balloon Man fallacy. The fallacy occurs when the redefinition is excessively broad or vague and is done in an unprincipled manner. As would be suspected, there can be good faith debate about whether a redefinition is better or worse than the original definition.

A good definition must be clear, plausible, and internally consistent. It must also either be in correspondence with our intuitions or be supported by arguments that show our intuitions are mistaken. Since people differ in their intuitions about meanings this can be a problem. When in doubt about whether a definition is intuitively plausible or not, it is preferable to argue in support of the definition. A definition that fails to meet these conditions would be defective.

A good definition must avoid being circular, being too narrow, being too broad or being too vague. Definitions that fail to avoid these problems are defective.

A circular definition merely restates the term being defined and thus provides no progress in the understanding of the term. For example, defining “goodness” as “the quality of being good” would be circular.

A definition that is too narrow is one that excludes things that should be included and so it leaves out too much. For example, defining “person” as “a human being” would be too narrow since there might well be non-humans that are persons. Angels or aliens, for example, might also be people.

As another example, defining “stealing” as “taking physical property away from another person” is also too narrow. After all, there are types of theft (such as stealing ideas) that do not involve taking physical property. There might also types of theft that do not involve stealing from a person. For example, if there is no after-life, then grave robbing would not be stealing from a person (since the person is gone). However, it might still be a theft. Naturally enough, there can be extensive debate over whether a definition is too narrow or not. For example, a definition of “person” that excludes human fetuses might be regarded as too narrow by someone who is opposed to abortion while a pro-choice person might find such a definition acceptable. Such disputes would need to be resolved by argumentation.

A definition that is too broad is one that includes things that should not be included. It allows for the term to cover too much. For example, defining “stealing” as “taking something you do not legally hold title to” would be too broad. A person in a life raft fishing in international waters does not legally hold title to the fish but catching them would hardly seem to be stealing.

As with definitions that are too narrow there can be significant debate over whether a definition is too broad or not. For example, a definition of “person” that includes apes and whales might be taken by some as too broad. In such cases the conflict would need to be resolved by arguments.

While it might seem odd, a definition can be too broad and too narrow at the same time. For example, defining “gun” as “a projectile weapon” would leave out

non-projectile guns (such as laser guns) while allowing non gun projectile weapons (such as crossbows).

Definitions can also be too vague. A vague definition is one that is not precise enough for the task at hand. Not surprisingly, vague definitions will also tend to be too broad since their vagueness will generally allow in too many things that do not really belong. For example, defining “person” as “a being with mental activity” would be vague and too broad. And that is just scratching the surface of debating definitions in good faith.

Defense: As with any Straw Man type fallacy, the main defense against falling for the Balloon Man is to check to see if a misrepresentation is being substituted for the original. In the case of the Balloon Man, the specific thing to watch for is the bad faith redefinition of something using a definition that is excessively broad or vague. As such, having a decent grasp of what counts as a good definition provides considerable defense against this fallacy.

Example #1

Christopher Rufo: “The goal is to have the public read something crazy in the newspaper and immediately think “critical race theory.” We have decodified the term and will recodify it to annex the entire range of cultural constructions that are unpopular with Americans.”

Example #2

“The goal is to have the public see something crazy on social media or the news and immediately think "racism" or “sexism.” We have expanded the term to include a vast range of behaviors that are unpopular with Americans.”

Example #3

“Of course, I oppose feminism. Feminism is just a big bad burrito of all the man-hating, all the women whining about why they cannot have everything they want for nothing, all the false accusations against men, and all that other stuff.”

Example #4

“Of course, I oppose capitalism. Capitalism is just a big bad burrito of theft, racism, sexism, war, and everything bad in the world. Is something bad happening? Well, that is probably capitalism.”

Straw Man: Nut Picking

Description:

Kevin Drum coined the term “nut picking” to refer to a variant of the Straw Man. In this variant, a Straw Man is created from fringe and non-representative statements by or members of a group. This Straw Man is then presented as representing the irrationality or incompetence of the group, which can also be seen as like a Hasty Generalization. This version is also sometimes presented as

combining an Ad Hominem with the Fallacy of Composition (what is true of the extreme or fringe parts is true of the whole). It can also be taken as making use of Guilt by Association, since it associates the fringe and extreme members of a group with the other members.

It can be presented in the following form:

Premise 1: Person A selects statements by or members of Group G that are fringe and non-representative of G.

Premise 2: Person A presents these statements or members as being mainstream and representative of G.

Conclusion: Therefore, group G is irrational, incompetent, or otherwise defective.

Alternatively, it can be presented more bluntly in the spirit of the nut picking name. Put this way, the fallacy involves selecting the “nuts” (fringe or extreme members) of a group and asserting that these members represent or speak for the mainstream of the group. This presentation would usually look like this:

Premise 1: N, the “nuts” (extreme or fringe members) of group G, are selected.

Premise 2: N, the “nuts” are presented as representing group G.

Conclusion: Therefore, group G holds the views of N or does what N does.

For example, a Democrat might nut pick avowed white supremacists in the Republican party to conclude that the Republican Party is a white supremacist party. As another example, a Republican might nut pick avowed Marxists in the Democratic party to conclude that the Democratic party is Marxist.

It is obviously not a fallacy to infer that a group is fringe or extreme if its views are fringe or extreme. It is also not a fallacy to infer that a group is fringe or extreme if that is the mainstream of the group.

Sorting out what the real views of a group are or who counts as a mainstream or true member of the group can be challenging. The difficulty of making such distinctions is often compounded by other fallacies, such as the Purity Fallacy, which can be seen as the reverse of Nut Picking. In Nut Picking, a group is taken as being defined by its fringe or extreme members. In the Appeal to Purity Fallacy, what might be seen as fringe or extreme members are excluded, in an unprincipled way, from the group.

Groups that hold extreme or fringe views sometimes attempt to defend themselves by accusing their critics of committing this fallacy. For example, a white supremacist group might claim that their critics are focusing only on their members who have swastika tattoos and thus are Nut Picking. But if the sample used is representative of the group (large enough and not biased), then this would not be Nut Picking but an accurate characterization of the group.

As the example shows, a false accusation of Nut Picking can, ironically, involve a

form of internal Put Picking: the defenders of the group select their most extreme members and claim that unless the entire group is as extreme as the most extreme members, then the group is not extreme. But, continuing the example, claiming that a group that publicly holds to white supremacist ideology is not a white supremacist group because only their most fringe members have swastika tattoos would not be good reasoning.

Defense: To avoid committing or falling victim to this fallacy, be sure to consider whether the evidence offered that a group is extreme or fringe does not consist only of fringe or extreme examples that differ from the mainstream of the group. As always, you should be especially cautious when considering groups that you have strong feelings about. But you should also be careful to watch for bad faith attempts to accuse people of using this fallacy.

Example #1

“I saw some people at the rally for that Republican who had swastika tattoos. That confirms what I have long believed, the Republicans are all white supremacists.

Example #2

“I saw some people at the rally for that Democrat who were waving around a hammer and sickle flag. That confirms what I have long believed, the Democrats are Marxists!”

Example #3

Ted: “Look at those anti-choice lunatics. I bet most of them are fine with killing doctors and even women who get abortions.”

Sally: “Why do you think that?”

Ted: “Well doctors have been killed by these so-called pro-life nuts. So, it is reasonable to think that they think killing doctors is just fine. Hypocrits.”

Example #4

Ted: “Look at those pro-choice lunatics. I bet most of them are fine with killing babies at 8 or even 9 months.”

Sally: “Why do you think that?”

Ted: “Well, I did see this person at a rally who had a sign saying, “abortion on demand at any time!” They were endorsing abortions at any time. No one told her to put away that sign, so I am sure all those so called pro-choice anti-life feminazis agree with her. They are all fine with abortions at any time.”

Straw Man: Weak Man & Hollow Man

Description:

While a Straw Man fallacy always involves a misrepresentation, there are two variations developed by Robert Talisse and Scott Aikin. They call the classic Straw Man the Representative Form and their variations the Selection Form (or Weak Man) and the Hollow Man.

The Select Form/Weak Man substitutes a partial and weaker version of the target in place of the original. As in a classic Straw Man, this weaker version is attacked, and it is fallaciously claimed that the original has been refuted.

If the Weak Man target is a claim or argument, this reasoning has this form (it would be adjusted for other targets):

Premise 1: Person A makes claim or argument X.

Premise 2: Person B presents Y (a partial and weaker version of X).

Premise 3: Person B attacks Y.

Conclusion: Therefore, X is false/incorrect/flawed.

In some cases, this fallacy occurs when a relative weak opponent is selected as representing their entire side. The fallacious inference is that the defeat of this weak opponent refutes their side. This version can be presented in the following form:

Premise 1: Person A is a relatively weak proponent of X.

Premise 2: Person B defeats A.

Conclusion: Therefore, X is false/incorrect/flawed.

As an illustration, an experienced debater with a law degree might engage an ill-prepared and inexperienced conservative college freshman during the question-and-answer session after their speech. After the lawyer out debates the student about tax

cuts, this episode might be uploaded to YouTube as proof that conservatives are wrong about this. It could turn out that the conclusion is true, but more would be needed to prove this than defeating a weak proponent of a view. To use an analogy, if someone beat a weak wrestler on team, then it would be an error to infer that they thus beat the entire team.

The fallacy can also occur when the weakest (or weak) arguments for an opponent's side are criticized to refute that side. This reasoning has this form:

Premise 1: Side A claims C.

Premise 2: Person B selects W, a weak argument for C, and ignores S, a stronger argument for C.

Premise 3: Person B criticizes W.

Conclusion: Therefore, C is refuted.

As an example, atheists sometimes present the weakest arguments for God (such as the Appeal to Belief argument) and attack those, claiming that they have thus refuted the arguments for God. Or even that they have shown that God does not exist. Theists sometimes do the same sort of thing right back to atheists, selecting the worst arguments against God and refuting those to try to disprove atheism.

While the Weak Man fallacy does present claims or arguments that someone makes, what about cases of complete fabrication? That takes us to the Hollow Man.

A Hollow Man follows the general pattern of the classic Straw Man but is based on a complete fabrication rather than a misrepresentation. This fabrication is attacked, and this is fallaciously taken to refute or discredit the original.

If the Hollow Man target is a claim or argument, this reasoning has this form (it would be adjusted for other targets):

Premise 1: Person A makes claim or argument X.

Premise 2: Person B presents Y (a complete fabrication).

Premise 3: Person B attacks Y.

Conclusion: Therefore, X is false/incorrect/flawed.

This fallacy can also be presented as having this form:

Premise 1: Person B fabricates Y.

Premise 2: Person B attributes Y to person A or Group G.

Premise 3: Person B criticizes Y.

Conclusion: Therefore, person A or group G has been refuted/shown to be wrong.

There can be some debate about the distinction between complete fabrications and extreme exaggerations. After all, almost any sizable group has a chance of having a member who does believe what the creator of the fallacy believed they were fabricating. For example, a leftist might make up the idea that members of a

conservative group believe that Jews are constructing space lasers to start forest fires to fake climate change and then be surprised to find out that such a person exists. On the face of it, that notion seems too absurd to attribute to anyone. But it might **turn out that a conservative believes this**. As such, while the idea is a bad faith fabrication, it would just so happen to be true of one person, thus making it an odd sort of true lie.

Fortunately, we do not need to draw an exact line between complete fabrications and extreme exaggerations. From a practical standpoint, there is generally not a need to determine whether an instance is a classic Straw Man or a true Hollow Man, since the reasoning is fallacious in either case.

This fallacy is commonly used to manufacture outrage over something no one has done or said. **The manufactured outrage over the video game Cuphead is a good example of this fallacy**. One part of the manufactured outrage was that vaguely defined group of social justice warriors was falsely claimed to be calling Cuphead a racist game. This fabrication was then used to “refute” that vaguely defined group.

The Hollow Man fallacy usually relies heavily on vaguely defined groups and vague attributed views. One reason for this is that if specific groups and views were identified, then someone could check on the claims in the Hollow Man and easily refute them. Complete fabrications also allow the Hollow Man fallacy to be perfectly tailored for the target audience. The person using it can simply make up whatever they think would work the best.

While you might think the Hollow Man fallacy would be ineffective because it would often be easy to point out that it is based on fabrication, it can be a powerful persuasive tool. This is because the intended target will often either want to believe the fabrication or is unlikely to investigate. For example, someone who loathes supporters of Donald Trump is less likely to take the effort to confirm a fabrication about these supporters, especially if the fabrication matches their biases and the stereotypes they accept.

In some cases, members of the target audience know that it is a Hollow Man and are on board with spreading it. This might be because they agree with the claim the fallacy is alleged to support or they simply like trolling.

Spreading an instance of this fallacy can help create the illusion of truth and make the fallacy that much more effective. For example, if a Hollow Man attack on a Trump supporter spread to various blogs, Tweets, Facebook posts and YouTube videos, this can create the appearance that the claim is true. If a person does a search on the claim, they will get results that will superficially seem to provide evidence of the claim. This can be convincing, unless, of course, they take the effort to check this content critically.

Defense: The defense against these variants of the Straw Man is essentially the same as the defense against the classic Straw Man. For the Weak Man fallacy, the specific defense is to check to see if that side has stronger arguments than the one being

attacked. Sometimes a critic will present a weak argument in good faith by making it clear that they know the argument is weak and that they are criticizing it to address those who use that weak argument. In that case, the Weak Man fallacy is not committed.

For the Hollow Man fallacy, there are two main parts of the defense. The first is to check to see if the group being criticized exists in a meaningful way or is itself a straw group. If a group is vaguely defined or poorly identified, then this is a red flag. For example, if someone is criticizing social justice warriors, conservatives, the rich, the poor, men, women, or feminists in broad terms, then they might be committing this fallacy. But not all sweeping generalizations and vague group references are this fallacy (or any fallacy).

The second is to see if any actual person in the targeted group did or said what is attributed to them. For example, if it is claimed that conservatives have been setting fire to vehicles that display BLM stickers, then you would want to check credible sources to see if this is really happening. If you cannot find any credible source to confirm this claim, that would also be a red flag for this fallacy. It must be kept in mind that even if the claim is true, another fallacy such as Straw Man: Nut Picking could be occurring. For example, you might be able to find a case where a conservative did set fire to a car because it had a BLM sticker, but that would hardly prove the general claim that conservatives are engaged in that behavior.

Example #1 (Hollow Man)

“Trump supporters have been setting fire to vehicles displaying BLM stickers! This proves what we have known all along: Trump supporters are violent white supremacists.”

Example #2 (Hollow Man)

“Biden supporters have been setting fire to vehicles displaying Trump stickers! This proves what we have known all along: Biden supporters are violent criminals!”

Example #3 (Weak Man)

“So, today on Genius Atheist Philosopher we will be looking at the usual Christian proof for God. Christians will say that God exists because most people believe in God. But as anyone who knows logic gets, this is just the Appeal to Belief fallacy. So, that just about wraps it up for God and shows what dummies these Christians are.”

Example #4 (Weak Man)

“So, today on Genius Theist Philosopher we will be looking at the usual atheist attack on God. Atheists will always say that God does not exist because the only argument for God is an Appeal to Belief and that is a fallacy. But those stupid atheists never get that we have other arguments, like **St. Aquinas’s Five Ways**. That just about wraps it up for the atheists and shows what dummies they are.”

Steel Person

Also Known As: Gilded Person

Description:

The Steel Person fallacy involves ignoring a person's actual claim or argument and substituting a better one in its place. The intent is to defend the original claim or argument. It has the following pattern:

Premise 1: Person A makes claim or argument X.

Premise 2: Person B presents Y (a better/stronger version of X).

Premise 3: Person B defends Y.

Conclusion: Therefore, X is true/correct/good.

This is fallacious because presenting and defending a better version of a claim or argument does not show that the actual version is good. A Steel Person can be effective because people often do not know the real claim or argument being defended.

The fallacy is especially effective when the Steel Person matches the audience's positive biases or stereotypes. They will *feel* that the improved version is the real version and accept it. The difference between applying the principle of charity and committing a Steel Person fallacy lies mainly in the intention: the principle of charity is aimed at being fair, the Steel Person fallacy is aimed at making a person's claim or argument appear much better than it is and so is an attempt at deceit.

As such, this fallacy should not be confused with correctly using the principle of charity. This principle requires interpreting claims in the best possible light and reconstructing arguments to make them as strong as possible. But this must be tempered by the principle of plausibility: claims must be interpreted, and arguments reconstructed in a way that matches what is known about the source and the context in which they were made. The principle of charity is aimed, in part, at avoiding the Straw Man. The principle of plausibility is aimed, in part, at avoiding the Steel Person.

A variant of this fallacy is the Just Kidding fallacy. This occurs when a person asserts, in bad faith, that the claim or argument they or someone else made was just a joke or that they were not serious. The target is supposed to believe this and thus accept that the person's professed belief is better than what their claim or argument indicates. This is often used in response to being embarrassed or called out for (typically for bigotry or prejudice). This variant has the following form:

Premise 1: Person A makes claim or argument X.

Premise 2: X receives a negative response.

Premise 3: X is claimed to be "just kidding" or a joke.

Conclusion: Therefore, X does not represent Person's A real view.

This is a type of Steel Man because turning the claim or argument into an alleged

joke makes it appear better than the person's claim or argument taking as being serious. While people do make jokes that do not accurately represent their real views, it does not follow that just because a person (or their defender) claims they were joking that they really were. This tactic is often used when a bigot is recruiting; if they get a positive response, then they can escalate. If they face criticism, they can claim, in bad faith, that they were joking and maintain their cover. This tactic is also commonly used in response to the embarrassment that can arise from making a claim in ignorance or presenting a bad argument.

Defense: While this fallacy is generally aimed at an audience, it can also be self-inflicted: a person can unwittingly make a Steel Person out of a claim or argument. This can be done entirely in error (perhaps due to ignorance) or due to the influence of positive biases. The defense against a Steel Man, self-inflicted or not, is to take care to get a person's claim or argument right and to apply the principle of plausibility.

As with any fallacy, it should not be inferred that the conclusion of a Steel Person argument must be false. In fact, when someone makes a Steel Man they will often present a plausible claim or good argument. While the substituted steel claim or argument does not prove anything about the original, the substituted claim or argument should be assessed on their own merits and not simply rejected because they are part of a fallacy. In the case of the Just Kidding variant, the defense is to be

on guard against people attempting to dismiss claims or arguments as jokes. Unfortunately, it can be difficult to know when a person is committing this fallacy since doing so requires knowing that they were not, in fact, joking. However, it is possible to use what you do know about a person to assess such claims.

Example #1

Reporter: “Was the President serious when he said that if ‘you want to keep someone away from your house, just fire the shotgun through the door?’”

Press Secretary: “First, the President was obviously joking when he made that remark. Second, what he meant by that remark is that a shotgun would be sufficient for home defense and therefore there is not a legitimate need for assault weapons, like the Assault Rifle-15.”

Reporter: “You mean ‘ArmaLite Rifle-15.’”

Press Secretary: “Sure.”

Example #2

Reporter: “Was the President serious when asked if disinfectants could be used in COVID cures?”

Press Secretary: “Obviously he was just joking. He was being sarcastic.”

Reporter: “What about when he asked about using light to treat COVID?”

Press Secretary: “Also joking. He is such a kidder.”

Example #3

Ben: "Have you ever noticed how many Jews work in Hollywood? That explains a lot."

Sheryl: "Like what?"

Ben: "Like how they are controlling the media. Ever notice how many Jews are bankers? International bankers?"

Sheryl: "That sounds antisemitic. I can see where this is probably going."

Ben: "Hey, I am just kidding!"

Sunk Cost Fallacy

Also Known as: Concorde Fallacy, Vietnam Fallacy

Description: This fallacy occurs when it is concluded that additional investment should be made in something simply because one is already invested in it. The fallacy has the following general form:

Premise 1: Person/Group A has invested resources in X.

Conclusion: Person/Group A should invest additional resources in X.

This is a fallacy because it does not follow that one should continue expending resources on something simply because resources have already been expended on that thing. This fallacy lacks logical force but has considerable psychological force.

A variant of this fallacy, sometimes known as the Vietnam Fallacy, occurs when

it is concluded that one must stick to a course of action simply because one has already started on that course. It has the following form:

Premise 1: Person/Group A has been on course of action C.

Conclusion: Person/Group A should stay on course C or C is a good course of action.

This is poor reasoning because the fact that one has been on a course of action does not prove that it is good or should be continued. To use a silly example, if someone has gotten lost and run three miles down the wrong trail, it does not follow that it is a good idea to keep going down that trail.

Another variant of this fallacy, which is often expressed by the phrase “don’t change horses midstream”, is that one should stick with a leader or policy simply because they have been the leader or the policy. Midstream is often a metaphor for a time of crisis or problems. This variant has this form:

Premise 1: Leader L has been leading or Policy P has been followed.

Conclusion: Therefore, leader L should be retained, or Policy P should continue to be followed.

This is a fallacy because it does not follow that a leader should be kept simply

because they are currently the leader or that a policy should be continued simply because it has been followed. Since it is usually used in times of crisis of problems, it can gain psychological force from a psychological desire to avoid change in such times. But this provides no logical force. To take the metaphor literally, if the horse you are on is committed to plunging over the waterfall, you should get off that horse. While these variants differ from the standard sunk cost fallacy, they all rely on the notion of sunk cost.

A **sunk cost** is a cost that has already been paid and cannot be recovered. In contrast, a prospective cost is a future cost that could be avoided by acting. Economists generally hold that a sunk cost is not rationally relevant to future decisions since the cost cannot be recovered. Prospective costs, on this view, are rationally relevant to decisions since these costs can be avoided. For example, the money I spent to have my truck's fuel pump replaced is a sunk cost (although I can obviously sell my truck). If my transmission fails, then that would present a prospective cost: I can avoid that cost by not getting a replacement. If I concluded that I should buy a transmission simply because I have already paid for a fuel pump, then I would have committed this fallacy. This is because the fact that I spent money on the pump does not, by itself, prove that it is a good decision to spend more money on the transmission. It also does not prove that it is a bad decision.

There are various psychological factors that fuel this fallacy. One is loss aversion, a cognitive bias in which people emphasize what they perceive as a loss when

deciding. In the case of the sunk cost fallacy, the error is considering the sunk cost as a loss when deciding a future course of action. For example, having invested in a new fuel pump for my truck, I could be averse to losing that investment and thus decide, on that basis, to replace the transmission when it fails. While there could be good reasons to get the transmission replaced, the money I spent on the pump would not be one of these (on certain theories of rationality).

Another factor is the influence of a feeling of responsibility for the past investment and that not continuing would be irresponsible. And, of course, not following up an investment with more investment might seem wasteful. For example, if I did not get the transmission replaced in my truck, I might feel that I wasted the money I spent on the fuel pump. While it is rational to factor in concerns about waste, the sunk cost fallacy is fueled by an unwarranted perception of waste. Habit and familiarity are also factors that can come into play, especially in the case of deciding to continue a bad job or bad relationship.

As an error of reasoning, the sunk cost fallacy is straightforward: by itself, the fact that a sunk cost has been paid does not entail that investment should continue and it is an error to make this inference. Matters get rather complicated when considerations turn to the broader question of when it is rational to continue to invest in something. While this matter goes far beyond the scope of this work, it should be noted that there can be good (logical) reasons to follow up on an investment, persist on a course of action, or stick with a leader. In these cases, there

are reasons beyond the mere existence of a sunk cost.

As an illustration, I have met students who have been only a few classes short of graduation, but who were considering not finishing. If I had told them that they should finish simply because they have already invested all that time and money, then I would have been urging them to fall for this fallacy. Instead, my response has always been to talk to them about their reasons and then point out the advantages of finishing their degree. For example, I will note that if they do not finish, then they are giving up access to better jobs and better pay since most employers do not say “heck, 90% of a degree is good enough for me.”

Defense: The main defense against the sunk cost fallacy is to recognize when a cost is a sunk cost and when the only reason given to continue to invest or stay on a course is this sunk cost.

This fallacy is often self-inflicted and can be fueled by powerful psychological factors. In these cases, recognizing the fallacy and avoiding it can be challenging.

This fallacy can also be used against you to get you to continue to invest, follow a leader, agree with a policy, or stay the course. **One particularly pernicious version of this is the exploitation of the sunk cost fallacy by some video game developers.** For example, most free-to-play games with microtransactions have core mechanisms built around trying to get players to fall for this fallacy.

The main defense against having the fallacy used against you is to be on guard

against likely attempts and to know how this fallacy works. But it can be difficult to resist this fallacy, since doing so is more than just a matter of recognizing the bad logic, it also requires being able to overcome the psychological force of the appeal. But being aware that the fallacy is being used against you is a good first line of defense.

Example #1

Nancy: "It might be none of my business, but Penny treats you badly. I don't get why you stick with her."

Ashley: "You are right, it is none of your business. But we have been together for years. I've put a lot of time into this relationship."

Example #2

David: "And this is our Computer Assisted Advising System Portal. We call it CAASP. Here, try clicking on the link to your students."

Mark: "Huh, I just get an error."

David: "Yup. So, try clicking on the Report button."

Mark: "It crashed the browser."

David: "Yup."

Mark: "Why are you showing me this?"

David: "Well, as new faculty you need to do some university service. So, I added you to the CAASP committee. I served on the committee when I started here twenty

years ago. It is your turn.”

Mark: “Why haven’t they switched to something that works? Like the one my grad school uses?”

Taylor: “Because we have invested millions into CAASP. We are not abandoning the project and throwing away all that money.”

Mark: “But that is just the sunk...”

Taylor: “Shh. We do not say those words here.”

Example #3

Mechanic: “Looks like your fuel pump is failing.”

Mike: “That sounds expensive.”

Mechanic: “About \$1,000 if you want a new one.”

Mike: “Well, I just spent \$4,000 on a new transmission and I don’t want to waste that money. So, okay.”

Example #4

Kelly: “The President has been doing a terrible job. Now he has gotten us into a recession and another war. I am voting for the other guy this fall.”

Sally: “Hey, you don’t want to change horses midstream. We need to stick with the President in this time of crisis and stay the course.”

Kelly: “Won’t he just keep doing the bad job he has been doing?”

Sally: “Stay the course.”

Suppressed Correlative

Also Known as: Fallacy of Lost Contrast, Fallacy of the Suppressed Relative

Description:

This fallacy occurs when a correlative (one of two mutually exclusive options) is redefined, in an unprincipled way, to include the other (thus eliminating it).

The fallacy has the following general form:

Premise 1: X and Y are correlatives.

Premise 2: X is (re)defined, without adequate justification, so that it includes Y.

Conclusion: There is no distinct Y.

This is fallacious because no adequate justification is given for accepting that Y must fall under the definition of X. A common example of this occurs in the debate over whether people are always selfish or occasionally altruistic. The usual error is to simply define “selfishness” so broadly that it eliminates all possibility of altruism.

To illustrate, someone might define “selfishness” in terms of doing something because you think it is in your interest and then claim that there is no altruism, because any rational action is done in what someone thinks is in their interest. As with any fallacy of reasoning, the conclusion might be true; but it is not supported by the argument given. In this example, it cannot simply be assumed that this (probably question begging) definition is correct. This fallacy will often rest on

definitions that are too broad (includes too much). For a short discussion of the basics of good definitions, see the Straw Man: Balloon Man fallacy.

This fallacy could also occur when the (re)definition of X does not eliminate Y, but expands X in an unprincipled way to include what would otherwise be a Y.

This fallacy can be committed in ignorance when the person doing so does not realize that they have failed to provide adequate support for their (re)definition. It can also be committed intentionally in bad faith. For example, someone might use this fallacy to intentionally commit this fallacy to argue that there is only selfish behavior to rationalize their own selfishness.

Defense: The defense against this fallacy is to not accept a (re)definition of a correlative without considering the justification being offered for this (re)definition. It should also be kept in mind that attempting to (re)define a correlative need not be fallacious; it is the unjustified (re)definition that is fallacious.

Example #1

Scrooge: “I believe that everyone is greedy. There is no generosity.”

Donald: “But people are often generous, even with strangers. People have helped me out a lot, even strangers who had nothing to gain.”

Scrooge: “Oh, they all got something. A person is greedy when they get something from doing something.”

Donald: “So what did they get? Like what did the person who gave me \$10 when I was short of money when I was buying my insulin?”

Scrooge: “They got to feel superior to you and show off in front of other people. ‘Oh, look at me! Look at how generous I am!’”

Donald: “Well, what about those anonymous donations I got when I had to do a fundraiser to afford medical treatment? They didn’t get any attention for that.”

Scrooge: “Heck, they got something better than attention: the smug feeling of thinking they did a good thing without any credit. They are greedy for that feeling.”

Example #2

Oscar: “Nature creates art.”

Immanuel: “Well, I suppose that could be true metaphorically.”

Oscar: “No, I mean literally. Art includes all that causes feelings in feeling beings!

And nature does that. Think of a sunset! Think of the sea!”

Immanuel: “Think of bee stings and earthquakes.”

Oscar: “Yes!”

Immanuel: “I don’t think those would be art.”

Oscar: “Nonsense! The sting of a bee creates feelings! An earthquake creates many feelings!”

Texas Sharpshooter Fallacy

Also Known as: Sharpshooter Fallacy

Description:

This fallacy occurs when it is concluded that a cluster in a set of data must be the result of a cause (typically whatever the cluster is clustered around). This fallacy has the following form:

Premise 1: A cluster L occurs in data set D around C.

Conclusion: Therefore, C is the cause of L.

This causal fallacy occurs because the conclusion is drawn without properly considering alternatives. One ignored alternative is that the cluster might be the result of chance. Another ignored alternative is that the cluster might be the result of *a* cause, but not the claimed cause.

A cluster can provide grounds for considering a causal hypothesis that can then be properly tested. However, this correlation does not establish causation. Given the role that correlation (in this case, clustering) plays, this fallacy could be considered a variation of the Cum Hoc Ergo Propter Hoc fallacy. However, Texas Sharpshooter has a history of its own that warrants its inclusion under its own name.

The fallacy's name is derived from a joke about a person (usually a Texan) who shoots at the broad side of a barn. He then paints a target around the biggest cluster of bullet holes and claims to be a sharpshooter. This creates the illusion that he is a good shot, just as focusing on clusters and ignoring the rest of the data can create

the impression of a causal connection. As such, this fallacy can also be seen as like Incomplete Evidence in that when a person “draws the target” what is outside the target is conveniently ignored. Since Texas sharpshooter is specifically a causal fallacy, it can be distinguished from the more general fallacy of Incomplete Evidence in this way.

This fallacy can be committed in good faith when someone is ignorant of how to engage in good causal reasoning. It can also be used intentionally in bad faith, to try to prove a claim. For example, a person trying to prove that something causes a disease might examine data until they find the clustering that appears to “prove” their claim. As with any fallacy of reasoning, the conclusion could be true. The problem is that the evidence offered fails to support it.

Defense: To avoid being taken in by this fallacy, the defense is to consider whether adequate evidence is offered for the data based causal claim or if the only evidence is the clustering. If you are unsure, the rational thing to do is suspend judgment. It is also important to not fall for applying the fallacy incorrectly. For example, a person who wants to reject a causal claim might wrongly insist that the clustering must be the result of this fallacy.

Example #1

Rich: “Hmm, this data shows that the number of cases of cancer in Old Town is

greater than the national average.”

Alice: “Interesting. Do you have any data that is more precise?”

Rich: “Indeed, look at this graphic. As you can see, it shows a significant clustering of cases near the paper mill.”

Alice: “Wow! Those poor people!”

Rich: “You know makes it really bad?”

Alice: “What?”

Rich: “The housing around the mill is for retired senior citizens!”

Alice: “Wait, what?”

Example #2

Michelle: “I was reading through the predictions of Nostradamus. He must have been able to see the future because his predictions came true.”

Hilda: “What did he get right?”

Michelle: “Well, he predicted Hitler. He said ‘Beasts wild with hunger will cross the rivers, The greater part of the battle will be against Hister. He will cause great men to be dragged in a cage of iron, When the son of Germany obeys no law.’”

Hilda: “Wow, that is amazing! ‘Hister’ is close to ‘Hitler’, he was German...well close enough anyway and he did cross rivers.”

Michelle: “Like I said, he made those predictions because he could see the future.”

Hilda: “Did all his predictions come true? That book you have is huge.”

Michelle: “Well, he did write hundreds of predictions and only a few have come

true. But he was seeing the future so it will take a while for them all to come true.

The important thing is that he got Hitler and some other things right so far!”

Fran: “You know that ‘Hister’ is just the Latin name for the Danube River, right?”

Also, your translation is a bit off. In any case...”

Michelle: “Shut up!”

Two Wrongs Make a Right

Description:

Two Wrongs Make a Right is a fallacy in which person A attempts to justify an action against person B by asserting that B would do the same thing to them, when the action is not necessary to prevent B from doing X to A. This fallacy has the following pattern:

Premise 1: Person B would do X to person A.

Premise 2: A’s doing X to B is not necessary to prevent B from doing X to A.

Conclusion: It is acceptable for person A to do X to person B

This reasoning is fallacious because even if B would do X to A, it does not follow from this that it is acceptable for A to do X to B.

In general, it would not be wrong for A to do X to B if X is done to prevent B from doing X to A or if X is done in justified retribution. For example, if Biff attacks

Sally while she is out for a run, Sally would be justified in attacking Biff to defend herself.

A variant of this fallacy is Two Bad. It has the following pattern:

Premises 1: A did X, which is bad.

Premise 2: B has also done X.

Conclusion: A doing X was not bad.

Alternatively,

Premises 1: A did X to B, which is bad.

Premise 2: B has also done X.

Conclusion: A doing X to B was not bad.

This reasoning is fallacious because it does not follow that something bad is not bad because someone else has also done the bad thing. Many legal systems recognize that this is fallacy; doing something illegal because someone else did something illegal does not (usually) transform the illegal into the legal. For example, if Sally breaks Ted's window with a rock, this does not make it legal for Ted to throw a rock through Sally's window. But, of course, things can get complicated. Reasoning about self-defense, retribution, revenge, and retaliation would quickly move away from "pure" logic into the realm of moral reasoning (and legal reasoning).

This fallacy can be self-inflicted or used against others. When self-inflicted, it can often be used in conjunction with Rationalization. When used against others, it is often combined with fallacies such as Appeal to Fear and Appeal to Spite.

Defense: To avoid this fallacy, the main defense is remembering that even if a person would do wrong to someone else, it does not follow that it would be acceptable to do wrong to them. For the Two Bad fallacy, the defense is remembering that the wrongdoing of one does not automatically transform the wrongdoing of another into not being wrong. That said, you will need to consider if the situation is one of self-defense or if the matter has been complicated by other aspects of moral (or legal) reasoning.

Example #1:

Bill: "Can I borrow your pen, Jane."

Jane: "Well...it was a gift and is quite expensive..."

Bill: "I just need to sign this form."

Jane: "Okay."

Hugh: "Jane, can you come to my office?"

Jane: "Yes."

Bill: "Hmm, I never gave her pen back. But she has a bad attitude, and I am sure she would have taken my pen. So free pen for me!"

Example #2:

Jane: "Did you hear about those terrorists killing those poor people? That sort of killing is just wrong."

Sue: "Those terrorists are justified. After all, their land was taken from them. It is morally right for them to do what they do."

Jane: "Even when they blow up busloads of children?"

Sue: "Yes."

Example #3:

Jill: "Huh, the store undercharged me. That video card was supposed to be \$399, but they just charged me \$39. I should go back and pay the right price."

Larry: "Don't do that. If they overcharged you and you didn't catch it, it is not like they would send you a check."

Jill: "Well, I guess you are right."

Example #4:

Jill: "Capital punishment is awful."

Bill: "I must disagree. Capital punishment is harsh, but just."

Jill: "It is just murder by the state."

Bill: "Look, the state is killing people who didn't have any qualms about killing other people. So, it is justice. Final justice."

Victim Fallacy

Description:

This fallacy occurs when a person uncritically assumes that the cause of a perceived mistreatment (such as not being hired or receiving a poor grade) is due to prejudice (such as sexism or racism) on the part of the person or persons involved in the perceived mistreatment. The reasoning is as follows:

Premise 1: Person P claims they are being mistreated by person/group M.

Premise 2: P is in group G and believes G is subject to prejudice or P believes that M thinks they are a member of G.

Conclusion: P's mistreatment is the result of M's prejudice against G.

This is a fallacy because merely being mistreated does not, by itself, prove that the mistreatment must be due to prejudice. Mistreatment might have no connection to the alleged prejudice.

For example, suppose that Jane is taking a chemistry class and always comes to class late and is very disruptive about finding her seat. She spends the class on her phone, reacting loudly to whatever she sees on social media. While she does earn a B in the class, the angry professor downgrades her to a C because of her behavior. While Jane would be right to conclude that she has been mistreated, she would not be justified in concluding that she was downgraded "just because she is a woman" and the professor is a sexist. Without any evidence of sexism, this would be poor

reasoning.

This mistake in reasoning is like the various causal fallacies. In these fallacies an uncritical leap is made from insufficient evidence to conclude that one thing caused another. In this case, a leap is being made without sufficient evidence to conclude that the alleged mistreatment was caused by prejudice.

Reasonably concluding that an alleged mistreatment is the result of prejudice involves establishing that the mistreatment is, in fact, a mistreatment and a plausible explanation for the mistreatment is prejudice. Without taking these steps, the person is engaging in poor reasoning and is not justified in their conclusion. As with any fallacy, the conclusion might be true, but this is because good reasoning is not just about getting a correct conclusion (this could be done accidentally by guessing) but by getting it in the right way.

If a person has reason to believe that the mistreatment is a result of prejudice, then the reasoning would not be fallacious. For example, if Jane was aware that she earned a B and was intentionally assigned a C, she would be justified in believing she was mistreated. If the professor made sexist remarks throughout the course and Jane knew he downgraded other women in the class and none of the men, then Jane would be justified in concluding that the mistreatment stemmed from prejudice.

Not surprisingly, the main factor that leads people to commit this fallacy in good faith is because the group in question has been subject to prejudice. From a psychological standpoint, it makes sense for someone who knows about prejudices

against their group to suspect cases of mistreatment would arise from that prejudice. People can also have a sincere false belief that they are victims of prejudice. This might arise from their view of what counts as being mistreated. For example, a group might think that being restricted in their ability to freely harm other groups they dislike is a form of mistreatment. Such a false belief could result from a fallacy, but the Victim fallacy does not require that the person be mistaken in their claims.

When considering a perceived mistreatment, it is certainly reasonable to consider the possibility of prejudice. However, until there is adequate evidence it remains just that, a possibility.

In addition to cases in which the fallacy is committed as an honest mistake, there are cases in which this reasoning is exploited as an excuse or even used as revenge. As an example of an excuse, a person who has done poorly in a class because of a lack of effort might tell his parents that “the feminist professor has this thing against men.” As another example, a student might assert that “the professor is a toxic man who hates smart women” to “explain” their bad grade.

The fallacy is often used as a bad faith tool in politics. The tactic is for a person or group to claim, in bad faith, that they are victims and then accuse those who disagree with them or oppose them of mistreating them because of their alleged prejudices. The fallacy can be misused by accusing people who are mistreated because of their group membership of committing it. This can take the form of falsely accusing them of “playing the victim card” or similar thing.

In addition to the fact that this fallacy is a mistake in reasoning, there are other reasons to avoid it. First, *uncritically* assuming that other people must be acting from prejudice is itself a prejudice. For example, to uncritically assume that all whites *must* be racists is as biased as uncritically assuming that all Jewish people must be covetous, or that all Blacks must be criminals. Unfortunately, people do exploit this and assert, in bad faith, that accusing someone of prejudice proves that the person is prejudiced. See the Ad Hominem: Accusation of Bigotry.

Second, use of this fallacy, especially as the “reasoning” behind an excuse can have serious consequences. For example, if a student who did poorly in a class because of a lack of effort concludes that his grade was the result of sexism and tells his parents, they might consider a lawsuit against the professor. As another example, if a person becomes accustomed to being able to fall back on this line of “reasoning” they might be less motivated in their efforts since they can “explain” their failures through prejudice.

Third, exploiting this fallacy in bad faith makes it difficult to have a good faith discussion of mistreatment and prejudice (which is often the intention behind using it in this way).

It must be emphasized that it is not being claimed that prejudice does not exist or that people are not victims of prejudice. It is being claimed that people need to be carefully in their reasoning when it comes to prejudice and accusations of prejudice. This is especially important since it is now a common tactic for bigots to accuse their

targets and opponents of “being the real bigots.”

Assessing this fallacy can get complicated because of debates over what counts as mistreatment, what counts as prejudice and what serves as evidence of prejudice. For example, some might think that a loss of advantages and privileges counts as mistreatment. As another example, some might think that being denied equal access to health care and education are not mistreatment.

As would be expected, there are often bad faith attempts to define these terms. And bad faith accusations that others are defining them in bad faith.

Defense: The main defense against this fallacy is considering whether there is evidence for prejudice beyond the (alleged) mistreatment. If there is not, then the inference that it is due to prejudice is not warranted. But you need to be careful to not “overcorrect” and ignore evidence of prejudice.

While the fallacy does not require that the claims in the argument be made in bad faith, exposing bad faith claims can sometimes decrease the psychological force of the fallacy and make it easier to expose it as poor reasoning.

Example #1

Sam: “Can you believe this! I got a C in that class.”

Jane: “Well, your work was average, and you didn’t put much effort into the class.

How often did you show up, anyway?”

Sam: “That has nothing to do with it. I deserve at least a B. That chick teaching the class just hates men. That’s why I did badly.”

Bill: “Hey, I earned an ‘A’, man.”

Sam: “She just likes you because you’re not a real man like me. I was raised to be a monster and now I am a victim. A victim because of how manly I am. Like the Frankenstein.”

Bill: “You mean Frankenstein’s monster. Frankenstein is the guy who created the monster.”

Sam: “Whatever.”

Example #2

Ricardo: “I applied for six jobs and got turned down six times!”

Ann: “Where did you apply?”

Ricardo: “Six different software companies.”

Ann: “What did you apply for?”

Ricardo: “Programming jobs to develop apps for Android.

Ann: “But you majored in philosophy and haven’t programmed anything. Is that why you didn’t get the jobs?”

Ricardo: “No. All the people interviewing me were white or Asian. A person like me just can’t get a job in the white and yellow world of technology.”

Example #3

Dave: “Can you believe that those people laughed at me when I gave my speech.”

Will: “Well, that was cruel. But you really should make sure that you have your facts right before giving a speech. As two examples, Plato is not a Disney dog and Descartes did not actually say ‘I think, therefore I am.’”

Dave: “They wouldn’t have laughed if a straight guy had said those things!”

Will: “Really?”

Dave: “Yeah! They laughed just because I’m gay!”

Will: “Well, they didn’t laugh at me, but I actually did my research.”

Dave: “Maybe they just don’t know you’re gay.”

Will: “Yeah, that must be it.”

Example #4

Bill: “Christians are the real victims in America!”

Jesus: “What? America is mostly Christian.”

Bill: “Look, there is a war against Christmas. Some cities don’t let people put up nativity scenes on government land unless other religions get to put up stuff! Also, people say “happy holidays” sometimes! This is all obviously because Christians are victims of prejudice. They hate us!”

Jesus: “Who are they?”

Bill: “They. You know.”

Jesus: “But Christmas is a federal holiday. You can start buying Christmas stuff in September in almost any store.”

Bill: “Yes, *almost* any store! More proof of the war on Christmas and Christians.”

Jesus: “Gotta go, need to talk to my dad.”

Whataboutism

Description:

Whataboutism is an umbrella term for a collection of rhetorical tools and fallacies used to respond to a criticism with a counter accusation presented in the form of a question.

Ad Hominem fallacies are often used in a Whataboutism. The general tactic is to attempt to refute a criticism by attacking something about the person making the criticism. If a group is the target, this would be the Genetic Fallacy. The general form of the Whataboutism Ad Hominem is:

Premise 1: Person/Group A makes critical claim X about Person/Group B doing or claiming Y.

Premise 2: B asks, “what about A doing, being, or claiming Z?”

Conclusion: Therefore, X is false.

This reasoning is flawed because attacking something about the source of a criticism does not refute the criticism.

Probably the most common Whataboutism fallacy is a version of the Ad

Hominem Tu Quoque. Presented as a Whataboutism it has this form:

Premise 1: Person/Group A makes critical claim X about Person/Group B doing or claiming Y.

Premise 2: B asks, “what about A doing or claiming Y?”

Conclusion: Therefore, X is false.

Another variant has this form:

Premise 1: Person/Group A accuses Person/Group B of doing or claiming Y.

Premise 2: B asks, “what about the accusation that A did or claimed Y?”

Conclusion: Therefore, B did not do Y (or B was not wrong in doing Y).

This is fallacious because a person’s inconsistency in their claims or between their actions and claims does not prove any specific claim they make is false. This Whataboutism can have considerable psychological force especially when the target audience already dislikes the target of the fallacy. For example, Democrats might find the use of this Whataboutism on a hated Republican by a fellow Democrat very appealing.

The Common Practice fallacy can also be used in Whataboutism. Used in this manner, it has the following general form:

Premise 1: Person/Group A makes critical claim X about Person/Group B doing Y.

Premise 2: B asks, “what about A doing Y?”

Premise 3: Y is commonly done (both A and B do Y)

Conclusion: X is not wrong/correct/justified/etc.

This is fallacious for the same reason that the standard Appeal to Common practice is fallacious. Concisely put, it does not follow that a practice is correct just because it is commonly done.

False Equivalency is also commonly used in Whataboutism. If the target of the Whataboutism has not done or said anything equivalent, then a bad faith solution is to find something they have done or said and draw a False Equivalence. The use of a Straw Man or simple lying are also options that can replace a False Equivalence. One version is to use a False Equivalency and Common Practice together:

Premise 1: Person/Group A makes critical claim X about Person/Group B doing Y.

Premise 2: B asks, “what about A doing Z which is just as bad as Y?” (When Y and Z are not equivalent).

Premise 3: Y is commonly done (both A and B do Y).

Conclusion: X is not wrong/correct/justified/etc.

The False Equivalency can also be used in conjunction with the Two Bad variant of Two Wrongs:

Premise 1: Person/Group A makes critical claim X about Person/Group B doing Y.

Premise 2: B asks, “what about A doing Z which is just as bad as Y?” (When Y and Z are not equivalent).

Conclusion: X is not wrong/correct/justified/etc.

Two Bad can also be used on its own, without the False Equivalence. In this case, Y and Z would be equivalent.

Whataboutism can also use (or be) a Red Herring to distract attention from the original issue:

Premise 1: Person/Group A makes critical claim X about Person/Group B doing or claiming Y.

Premise 2: B asks, “what about A doing or claiming Y?” (When this is not relevant to the issue).

Conclusion: X has been refuted or X should be ignored.

As with a standard Red Herring, distracting attention from the original issue does not resolve it. This tactic can be very effective when the target audience dislikes or hates the target.

The above discussion is not exhaustive, there are many other ways to engage in a Whataboutism.

While Whataboutism is fallacious, this does not entail that all comparisons that resemble Whataboutism are. When comparing two things (people, political parties, laws, whatever) then it is relevant to consider the flaws of both. For example, if the issue is whether to vote for candidate Joe or Don, then it is reasonable to consider the flaws of both Joe and Don in comparison. As another example, if you are deciding on a major, you should certainly consider the negative aspects of all majors when comparing them.

However, the flaws of A do not show that B does not have flaws and vice versa. Also, if the issue being discussed is the bad action of A, then asking about B's bad action does nothing to mitigate the badness of A's action. Unless, of course, A had to take a *seemingly* bad action to protect themselves from B's unwarranted bad action. For example, if Joe is accused of punching a person and it is shown that this was because Don tried to kill Joe, then that would be relevant to assessing the ethics of Joe's action. But, if Joe assaulted women and Don assaulted women, asking about Joe in a Whataboutism to defend Don would be an error in logic. They could both

be terrible people.

Defense: As a general defense, you should be on guard against the use of “what about” and similar phrases. While not always used in this fallacy, they are indicators. For the specific versions of Whataboutism, the defenses are the same as the more general fallacies. For example, if someone is using an Ad Hominem Tu Quoque, then you should remember that an inconsistency between a person’s actions and their claim does not show that their claim must be false.

You should also be on guard against mistaking something that merely looks like a Whataboutism for a Whataboutism. In some contexts, it can be relevant and non-fallacious to ask “what about X” when engaged in a comparison. For example, in an election in which you must choose between the Democrat and the Republican, then making good faith comparisons to determine which is worse would be reasonable.

Example #1

Deana: “The Russians were wrong to invade Ukraine. They have no moral justification for it.”

Tucker: “Yes, but what about when the United States invaded Mexico? Here in New Mexico we are living in what was, well, once just part of Mexico.”

Example #2

Bill: “Your Republican candidate, Smith, has numerous credible allegations of sexual

assault, embezzlement, and bank fraud against her. She should be in jail and not in office.”

Tucker: **“Buttery Males!”**

Bill: “What?”

Tucker: “Sorry, habit. What I meant to say is what about your Democratic candidate, Jones? What about the allegations against them? People are saying they are groomers.”

Bill: “Yeah, you are saying that. Got any evidence?”

Tucker: “Lots of people are saying it. Look, I am just asking questions, like what about Jones being a pedophile?”

Example #3

Tucker: “Your Democratic candidate, Smith, has numerous credible allegations of sexual assault, embezzlement, and bank fraud against her. She should be in jail and not in office.”

Bill: “What about your Republican candidate, Jones? What about the allegations against them? People are saying they are racists.”

Tucker: “Yeah, you are saying that. Got any evidence?”

Bill: “Lots of people are saying it. Look, I am just asking questions, like what about Jones being a racist?”

Wicked Motive

Description:

This fallacy occurs when an (alleged) wicked motive is taken as proof that a claim is untrue, or an argument is flawed. It is the “reverse” of Noble Motive. This reasoning has the following general form:

Premise 1: Person P makes claim C or argument A.

Premise 2: Person P’s motivation for making C is (alleged to be) wicked.

Conclusion: Claim C is false, or argument A is flawed.

While motives are relevant in normative assessment (such as in law and morality), they are irrelevant to the truth of a claim or the quality of an argument. A person can make a true claim or a good argument, even if they have a wicked motive for doing so. For example, someone might reveal another person’s secret because they want to hurt and embarrass that person. But their motive does not make their claim untrue.

The following example illustrates why this is a fallacy:

Premise 1: Sally tells Sam that deer ticks carry Lyme disease.

Premise 2: Sally’s motive is to torment Sam, a hypochondriac who has found a tick on his skin.

Conclusion: Therefore, deer ticks do not carry Lyme disease.

While Sally should, perhaps, be condemned for tormenting Sam, her wicked motive does not disprove the fact that deer ticks can carry Lyme disease.

In some cases, this fallacy gains its psychological force because the (alleged) wicked motive causes a feeling of dislike that can influence the target audience of the fallacy. The target audience can be the person committing the fallacy; it can be self-inflicted or targeted at others. For example, a Democrat who thinks that a Republican is supporting a bill out of a racist motive might commit this fallacy.

The fallacy can also occur when the wicked motive is assumed to undermine the person's credibility. While considering factors that undermine credibility is not fallacious, inferring that a person whose credibility has been undermined *must* be wrong would be. For example, imagine a couple involved in a bitter divorce. One spouse might reveal a secret about the other to hurt and embarrass them, which would be a wicked motive. With such animosity in play, it would be reasonable to be skeptical of the spouse's claim, they do have a reason to say untrue things. But it does not follow that they are lying.

This fallacy can be made in good and bad faith. There are two ways to commit this fallacy in bad faith. The first is that the person is using the fallacy intentionally. The second is that the person is lying about the wicked motive. But lying is not required for this to be a fallacy. The logical error is not lying but the inference from motive to truth or quality of argument.

When made in good faith, the person committing the fallacy believes their target is acting from a wicked motive and they are unaware of this fallacy. But, of course, they would still be committing this fallacy.

Defense: The defense against this fallacy is to remember that a person's motives are irrelevant to the truth of their claims or the quality of their argument. Motives are often relevant to normative assessment, such as in law and ethics. But this sort of assessment goes far beyond "pure" logic. Motives are also relevant in assessing credibility, so it is reasonable to take them into account when assessing a claim. Because of this, it is wise to be careful to distinguish between reasonable assessment of credibility and this fallacy. For example, a lawyer who provides evidence that a witness has relevant wicked motives to undermine their credibility would not commit this fallacy. Unless they concluded that the witness' claim must be false because of this alleged wicked motive.

It is also reasonable to consider whether the allegation of wicked motives is true, although the fallacy occurs whether the allegation is true or false. Exposing the allegation as false can sometimes help reduce the psychological force of the fallacy.

This fallacy can be self-inflicted, so it is wise to be on guard against it especially when judging someone you think has wicked motives, such as someone whose politics or ethics you dislike. The fallacy can also be inflicted by someone else on you, so you will want to be on guard against that as well.

Example #1

“The Democrats claim that Judge Smith is unfit for the Supreme Court because of his alleged history of sexual assault. But we all know that the Democrats hate this man and just want to steal a seat on the court from our beloved President with their lies.”

Example #2

“The Republicans claim that Judge Smith is unfit for the Supreme Court because of his alleged history of sexual assault. But we all know that the Republicans hate this man and just want to steal a seat on the court from our beloved President with their lies.”

Example #3

Kelly: “Wow, did you hear what that famous actor said about her husband? She claims he abused her for years. That is why she has filed for divorce.”

Sally: “Yeah. She is just trying to make him look bad so the judge will award her more money. She hasn’t had a good job in years, and he has been bringing in all the money. Also, she is probably also jealous of him.”

Kelly: “Well, she does have a reason to lie...”

Sally: “Yup. So, she is definitely lying.”

Example #4

“These green energy fools hate capitalism and hard work. That is why they claim wind and solar should replace coal and oil. All their talk about the alleged benefits of renewable energy is driven by this hate, so they are lying. Lying to try to destroy America.”

Example #5

“These fossil fuel energy fools hate the environment and poor people. That is why they claim coal and oil are still needed. All their talk about needing them is driven by this hate, so they are lying. Lying to try to destroy America.”

Formal (Deductive) Fallacies

As noted in the introduction, a formal (or deductive) fallacy is an invalid deductive argument. An invalid deductive argument is one that *can* have all true premises and a false conclusion at the same time. It is this quality that makes all invalid deductive arguments fallacious. Some authors do prefer to exclude invalid arguments from being deductive arguments and so only consider valid arguments as deductive. For various practical reasons, I still classify invalid deductive arguments as deductive. Fortunately, there is no meaningful difference in the classification system beyond the choice of names.

While this might seem odd to some, an invalid deductive argument can have all true premises and a true conclusion. This does make sense when you think about it:

a person can reason badly about true things. So, the problem with an invalid argument is that the reasoning is defective and not that it is made up of falsehoods. Of course, an invalid argument can also have false premises and a false conclusion, but this has nothing to do with its invalidity.

Unlike with informal fallacies, there are definitive tests to determine whether a deductive argument is invalid (fallacious) or not. These methods include truth tables, proofs, and Venn diagrams.

If an argument form is invalid it is always invalid, so deductive fallacies are structural fallacies. That is, you can determine that an argument is invalid by examining the pattern of reasoning. Likewise, if an argument form is valid, that form is always valid. So, if you know some valid and invalid forms, you will be able to spot those good and bad arguments.

In theory, there are an infinite number of invalid arguments. Fortunately, there are only a few formal fallacies that are common enough to be named. They often trick people because they are “evil twins” of valid arguments that are also used often enough to get names. Three of the common formal fallacies are given below along with their “good twins.”

Affirming the Consequent

This argument is an “evil twin” of the valid argument affirming the antecedent (more formally known as modus ponens)

Affirming the Consequent (Invalid, fallacy)

Premise 1: If P, Then Q

Premise 2: Q

Conclusion: P

Example #1

Premise 1: If Sally had seen Star Wars episode IV, then she would know who Darth Vader is.

Premise 2: Sally knows who Darth Vader is.

Conclusion: So, Sally has seen Star Wars episode IV.

Example #2

Premise 1: If Ted gets a 60 on the final, then he will pass the class.

Premise 2: Ted passed the class.

Conclusion: Ted got a 60 on the final.

Example #3

Premise 1: If Sally is a socialist, then she is in favor of national health care.

Premise 2: Sally is in favor of national health care.

Conclusion: Sally is a socialist.

Affirming the Antecedent (Valid, not a fallacy)

Premise 1: If P, Then Q

Premise 2: P

Conclusion: Q

Denying the Antecedent

This argument is an “evil twin” of the valid argument denying the consequent (more formally known as *modus tollens*).

Denying the Antecedent (Invalid, fallacy)

Premise 1: If P, then Q.

Premise 2: Not P

Conclusion: Not Q

Example #1

Premise 1: If Sally buys *Halo Infinite*, then she can play *Halo Infinite*.

Premise 2: Sally did not buy *Halo Infinite*.

Conclusion: Sally cannot play *Halo Infinite*.

Example #2

Premise 1: If Sam gets a 60 on the final, then he passes the class.

Premise 2: Sam did not get a 60 on the final.

Conclusion: Sam did not pass the class.

Example #3

Premise 1: If the dog had eaten the cake, the cake would be gone.

Premise 2: The dog did not eat the cake.

Conclusion: The cake is not gone.

Denying the Consequent (Valid, not a fallacy)

Premise 1: If P, then Q.

Premise 2: Not Q.

Conclusion: Not P.

Undistributed Middle

This argument is an “evil twin” of the valid argument hypothetical syllogism (also sometimes known as chain argument).

Undistributed Middle (Invalid, fallacy)

Premise 1: If P, then Q.

Premise 2: If R, then Q

Conclusion: If P, then R

Example #1

Premise 1: If you eat fish, then you are a carnivore.

Premise 2: If you are an omnivore, you are also a carnivore.

Conclusion: So, if you eat fish, you are an omnivore.

Example #2

Premise 1: If Bill passes the final, then he will pass the class.

Premise 2: If Bill gets a 100 on the final, then he will pass the class.

Conclusion: If Bill passes the final, then he will get a 100 on the final.

Example #3

Premise 1: If Fenris is a wolf, then he is a mammal.

Premise 2: If Morris is a cat, then he is a mammal.

Conclusion: If Fenris is a wolf, then Morris is a cat.

Hypothetical Syllogism/Chain Argument (Valid, not a fallacy)

Premise 1: If P, then Q.

Premise 2: If Q , then R

Conclusion: If P , then R

About the Author

Dr. Michael LaBossiere is a runner from Maine who went to school in Ohio and ended up a philosophy professor in Florida.

While acquiring his doctorate in philosophy at Ohio State University, he earned his ramen noodle money by writing for Chaosium, GDW, R. Talsorian Games, and TSR. After graduate school, he became a philosophy professor at Florida A&M University. His first philosophy book, *What Don't You Know?*, was published in 2008. He continues to write philosophy and gaming material. He is also a blogger, but these days who isn't?

When not writing, he enjoys running, gaming and the martial arts. Thanks to a quadriceps tendon tear in 2009, he was out of running for a while, but returned to the trails and wrote a book about it, *Of Tendon & Trail*. He can be contacted at ontologist@aol.com. His Amazon author page is <http://amazon.com/author/michaellabossiere>.

Other Philosophy Books by the Author

42 Fallacies

30 More Fallacies

76 Fallacies

Envy & Class Warfare

For Better & Worse Reasoning

Moral Methods

Philosophical Provocations Volume 1

Philosophical Provocations Volume 2

A Philosopher's Blog: 2012-2013: Philosophical Essays on Many Subjects

A Philosopher's Blog: 2014: Philosophical Essays on Many Subjects

A Philosopher's Blog 2015: Philosophical Essays on Many Subjects

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A Six-Gun for Socrates

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