Informal Fallacies: A Guided Tour

Contents

Critical Thinker Academy

Introduction

There is a small industry devoted to identifying and classifying fallacies of reasoning. A comprehensive list of recognized fallacies would run into the hundreds.

This course introduces the concept of a fallacy and discusses some common fallacy types, but it in no way aims to be comprehensive. Instead the focus is on how any given fallacy can be understood using the basic concepts of argument analysis introduced in earlier courses.

The only classification scheme I use distinguishes logical or formal fallacies, fallacies that arise from false or implausible premises (what I call "content fallacies"), and fallacies that are best understood as violations of one of the necessary conditions for having a rational argument at all. Many textbooks refer to fallacies in the later two categories as "informal fallacies".

The focus of this course is informal fallacies. I review a selection of formal fallacies in the course titled "Formal Fallacies: Introduction to Valid and Invalid Argument Forms".

Part 1: Introduction

1. What is a Fallacy?

Here a very general definition of a **fallacy**:

> A fallacy is an argument of a type that is generally recognized to be bad.

So, first and foremost, a fallacy is a **bad argument**.

But not every bad argument should be labelled a fallacy. What makes it a fallacy is that the argument has certain *general features* that allow you to characterize it as a *type*, and it is these general features that are responsible for the argument being bad.

This allows you to say that a given argument is bad because its an example or instance of a particular KIND of argument that is generally recognized to be bad.

Here's an example we've seen already.

> "If John exercises every day and watches what he eats, then he'll lose weight. John lost weight, so he must be exercising every day and watching what he eats."

This argument is bad because the logic is weak. From the fact that John has lost weight it doesn't follow that he's exercising every day AND watching what he eats. He could be restricting his diet and not exercising at all. Or he could be exercising and not changing his diet. Or he could be sick and bed-ridden and he's lost weight for that reason. And so on.

What makes this a fallacy is that we can recognize that this is an argument of a certain general type — it's an instance of the invalid conditional argument form known as "affirming the consequent". For this reason, this is called "the fallacy of affirming the consequent".

1. If A then B
2. B

Therefore, A

1. If John exercises every day and watches what he eats, then he'll lose weight.
2. John lost weight.
Therefore, John exercised every day and watched what he ate.

This is an example of what is called a "**formal**" or "**structural**" **fallacy**, **because the argument *form* is invalid**. But not all fallacies are formal in this way.

Here's an example:

"It's okay to lie on your taxes. Everyone does it."

This is a bad argument, but it's not bad because of its structural form. It's bad because it relies on an assumed premise that most of us would reject.

Here's how you might reconstruct this argument, filling in the natural assumed premise:

1. If everyone does something, then it's okay to do it.
2. Everyone lies on their taxes.
Therefore, it's okay to lie on your taxes.

When you reconstruct the argument in this way, the logic is perfectly fine, it's a valid argument. The problem is with that first assumed premise. Most people would reject the view that an action is morally alright as long as everyone does it. What if you lived in a slave culture and everyone practiced slavery? What would that make slavery morally okay?

This is sometimes called the "bandwagon" fallacy, or "the appeal to common practice", and it's an example of what is usually called a "**content**" **fallacy**.

A content fallacy is a fallacy that relies on a false or dubious premise of a certain kind.

Note that here the second premise is false too; not everyone lies on their taxes. But simply having a false premise isn't enough to make an

argument guilty of a content fallacy. It's a content fallacy only if the major premise that the argument is relying on is of a certain general type that would be judged as false or dubious in the particular case in question. In this case it's the first premise, the general premise that relates common practice to moral acceptability, that is responsible for this being a fallacious argument.

An important point to remember about fallacies is that you can't judge an argument based on its superficial form as given, since we often leave out parts and rely on our audience to fill in the gaps.

So if I give an argument like this …

"Whales can't breathe underwater. They're mammals."

... it would be unfair to say, for example, that it's bad because it's logically weak, since there's no stated connection between being a mammal and being able to breathe underwater.

In other words, it would be unreasonable to evaluate the argument based on this interpretation ...

1. Whales are mammals.
Therefore, whales can't breathe underwater.

… and argue that the logic is weak.

Why? Because it's *obvious that the argument relies on an implicit premise*, "Mammals can't breathe underwater". Only after you add this premise can you then evaluate the argument. And in this case the argument is good. Both premises are true and the argument is valid.

So, let's summarize:

1. A fallacy is an argument of a type that is generally recognized to be bad.
2. You should evaluate an argument only after the argument has been reconstructed to include any implicit or assumed premises. Very often, the fallacy only becomes obvious after you've reconstructed the reasoning.

2. Categorizing Fallacies: Pros and Cons

Fallacies are often categorized into different groups or families. We've already seen one type of categorization, between formal or structural fallacies and content fallacies.

If you search online it's not hard to find long lists of fallacies grouped into hierarchies, like a biological classification scheme. Here's one example. This is Gary Curtis's website: **FallacyFiles.org**. It's a great resource, tons of information on different types of fallacies.

Now if you click on the link titled "Taxonomy" then you go to a page that has over a hundred different fallacies organized into a hierarchy. I'm going to grab some images to show you parts of the hierarchy:

As you move from left to right you have general fallacy types, then sub-types of that type, that sub-sub types of that type, and so on.

So, within the category of **formal fallacies** there are a variety of sub-types, including **fallacies of propositional logic**. Within this category you

can see some that you should recognize if you've followed the lectures on common valid and invalid argument forms. In particular we looked at **affirming a disjunct**, **affirming the consequent** and **denying the antecedent**.

As you can see, you could spend a lot of time just looking at formal fallacies.

Now let's shift down a bit. This is a section of the hierarchy rooted in the category of **informal fallacies**:

"Informal fallacy" is another way of identifying fallacies where the problem with the argument doesn't come down to an issue of logical

form. The problem has to do with the **content** of what's actually being asserted, or with other aspects of argumentation.

Notice here you can find the **bandwagon fallacy** that I mentioned in the previous lecture. It's been categorized as sub-type of the category of **red herrings**.

Pros and Cons of Studying Fallacy Types

Now, why am I showing you this?

It's to make a point about the pros and cons of learning logic and argumentation by studying fallacy types.

There's no doubt that you can learn a lot about logic and critical thinking by studying and memorizing fallacy types. And when you're given a classification scheme like this it can help you to understand how different types of fallacies relate to one another.

There are some downsides, however.

The Cons

- First, it's **easy to get lost** in all of this. There are so many fallacies, it's hard to remember their names, it's easy to get confused.
- Second, it's **easy to lose sight of the basic principles of argument evaluation** if your focus is entirely on memorizing fallacy types.

  Every fallacy is just a bad argument, and arguments are bad either because they have weak logic, or they rely on a false premise, or they violate some other basic principle of argumentation. In principle you should be able to analyze any argument in terms of a small handful of basic principles. But you can lose sight of these basic principles if you start thinking of argument analysis as essentially an exercise in pigeon-holing arguments into fallacy types.

The Pros

But there are some important up-sides to studying fallacy types.

1. Critical Thinking Literacy

Some fallacy types are very well-known and commonly referred to by their names, like "**straw man**" and "**red herring**" and "**ad hominem**". It's important for basic *critical thinking literacy* to know some of these more common fallacy types.

2. Pattern Recognition Skills

A fallacy type is a kind of *pattern*. At first, learning to categorize arguments into fallacies can be hard, because you haven't yet internalized the logical patterns, you find yourself needing to check and re-check the definitions to make sure you've got the right one.

But after a while *you do start to internalize the patterns*, and then something cool happens. You can be given an argument and you'll be able to recognize a fallacy in it without doing a lot of conscious analysis in your head —you can just "see" it, because your brain has learned to recognize and respond to the pattern.

I think it's harder to develop this pattern recognition skill if you're always starting your argument analysis from first principles. **So this is another reason, and I think the best reason, why studying fallacy types is important for developing critical thinking skills.**

* * *

So, we'll be looking at few of the more common fallacy types in this tutorial course.

I'm not going to make a big deal about categorizing fallacies into a hierarchy of types. Why not? Well, first, because we're not doing a comprehensive survey of fallacy types.

And second, because **there isn't a universal consensus on how to categorize fallacies**. If you look at different online sources or at different

textbooks, you'll find a range of classification schemes. Some categories are universally used, but others aren't, and I don't want to waste time arguing about classification schemes.

One thing I will try to do is **show how each fallacy type can be analyzed using basic principles of argument analysis**, to make it clear where and how each fallacy violates the basic definition of a good argument.

I think this helps avoid the problem of focusing too much on definitions of fallacies and losing touch with the basic logical principles that underly them.

Once you see this, you see that identifying fallacies by name isn't really what's important. What's important is being able to recognize a bad argument and understand why it's bad.

3. The Rules of Rational Argumentation

Formal or structural fallacies involve problems with the logic of an argument. They violate what we've called the "Logic Condition".

Content fallacies involves problems with the truth or plausibility of one of the premises of an argument; they violate what we've called the "Truth Condition"[1].

But some fallacies don't fit into easily into either of these categories. Sometimes an argument is bad because the arguer either isn't willing or isn't able to reason well. This is a different kind of problem than what we've seen before.

In Part 3 of this lecture series we'll be looking at fallacies that fall into this category, that are best viewed as **violations of the basic rules or principles on which rational argumentation depends**. In this lecture we'll introduce a few of these rules.

Rule #1:

> **You can't argue with someone who is intentionally trying to mislead or deceive you.**

In short, if someone is willing to lie to persuade you of their position — to assert a premise as true when they know it's false, or vice versa — and you know that they're intentionally misleading you, then there's no point in engaging their argument, unless it's to uncover the lies and unmask the deception.

Genuine argumentation requires that all parties be open to rational persuasion, and a willingness to lie or mislead indicates that the person really is more interested in rhetoric and persuasion than offering and responding to good reasons.

---

1. The terms "Logic Condition" and "Truth Condition" are discussed at length in the tutorial course titled "Basic Concepts in Logic and Argumentation".

Rule #2:

You can't argue with someone who is UNWILLING to reason well.

Rule #1 is really just a special case of this rule. This is very broad, I know, but I'm thinking of cases where someone's mind is clearly made up, and their main aim is to convert people to their side, or undermine opposing views, by whatever means that are judged to be most effective.

We can all think of examples of people or occupations that are prone to this — strongly ideological politicians come to mind; paid spokespersons and spin doctors; lawyers advocating for a client; religious ideologues — anyone who is invested in a certain position or outcome, who is not genuinely open to rational persuasion from opposing viewpoints, and who is willing to use rhetorical devices in place of good argumentation to further their case.

In cases like this, it really makes no sense to argue with such people, because even though they may deploy arguments on occasion, *they're not really engaged in argumentation.*

Rule #3:

You can't argue with someone who is UNABLE to reason well.

Here I'm thinking of cases like, if someone is very upset or very emotional, they're often not able to reason well, and if that's the case, arguing with them really isn't appropriate.

Also, younger children don't have as developed a capacity for reason as adults, so arguing with them is often not appropriate either.

And we have to admit that some adults can have a very difficult time following the logic of more complex arguments. In such cases just repeating the argument isn't helpful, some other strategy is called for — maybe simplifying the argument, or tutoring the person on how the logic works using other examples that are easier to grasp. But when we're tutoring or educating we're not arguing anymore, we're doing something different.

Rule #4:

An argument has to give reasons for believing or accepting the conclusion.

Of course this is obvious, it's part of the definition of an argument. But as we'll see, there are whole categories of fallacies where the main problem is that the argument doesn't actually give its intended audience any reasons to accept the conclusion.

So, the take-home message is that if these rules are violated, then the conditions for genuine argumentation simply aren't present.

And the final point to note, which we'll see in Part 3 of this lecture series, is that there are some important fallacies that are really best understood as violations of the rules of rational argumentation. We'll look at the **strawman** fallacy, the **red herring** fallacy, and the fallacy of **begging the question**, as examples.

Part 2: Some Important Content Fallacies

1. Ad Hominem (Abusive)

"***Ad hominem***" is the name of a well known fallacy type. The name is derived from Latin meaning "to the man", or "to the person". It's the fallacy of rejecting a claim or an argument given by someone because we don't like something about the person. We're mistaking criticism of a *person* with criticism of a *claim* or an *argument*.

There are several different kinds of *ad hominem* fallacies. In this video we'll look at the most blatant form of *ad hominem*, the **abusive** *ad hominem*.

* * *

Here's the most blatant form of this most blatant form of *ad hominem*.

"Your argument is bad because YOU SUCK."

This is a fallacy because even if it's true that you suck, your sucking isn't relevant to the goodness or badness of your argument.

If your argument is bad it's bad because it has a dubious premise, or it has weak logic, or some other necessary condition for an argument to be good is violated. Your sucking might be a reason not to *like* you personally, but it's not a reason to reject your argument.

Here's a less blatant and more challenging example:

1. Hitler argued for the superiority of the Aryan race and the inferiority of the Jews.
2. But Hitler was a murderous, megalomaniacal anti-semite.
Therefore, we should reject Hitler's arguments.

In his book *Mein Kampf,* Adolph Hitler gives his account of race and history and famously argues for the superiority of the Aryan race and the inferiority of Jewish people.

Now, what if I said that we should reject Hitler's arguments because he was a **mass murderer**, or an **insane megalomaniac**, or **racist** and a**nti-semitic**, or whatever other nasty thing you want to say about him.

And let's say that these nasty things are all true. Would these true facts about Hitler's *character* give us good reason to reject Hitler's arguments about racial differences?

Here's a case where a lot of people, maybe most people, will say that this DOES give us good reason to reject his arguments.

But, if we accept that the *ad hominem* is indeed a fallacy, that it's a mistake to reject an argument based solely on qualities of the person giving the argument, then we have to reject the argument given here. This does not give us good reason to reject Hitler's arguments.

Now, I think Hitler's arguments are bad, I'm hoping that most people viewing this do too, but the point is t*hey're not bad because Hitler was bad*; **they're bad because they violate one or more of the necessary conditions for an argument to be good**.

This works the other way too, of course. If Mother Theresa gives an argument for giving charity and aid to the poor, and we think Mother Theresa is a moral saint, that shouldn't *by itself* count as a reason to accept her argument for giving aid to the poor.

We wouldn't normally call this an *ad hominem* fallacy, of course, since the term is usually associated with criticism rather than praise, but it's still a fallacy, and for the exact same reasons. The problem isn't with criticism or praise, it's with **confusing the judging of a person with the judging of an argument.**

Argument Analysis

Now, let's look at this example from an **argument analysis** perspective. Let's ignore the fact that we've already labelled it an *ad hominem* fallacy and ask ourselves how we would normally assess this argument using the tools we've learned so far.

Well, there are two basic questions to ask: Does the argument satisfy the Truth Condition, and does it satisfy the Logic Condition? In other words...

1. Are all the premises true or plausible?

and

2. Is the argument valid or strong?

If the answer to either of these is "no" then the argument is bad.

Well, premise 1 is clearly true, and premise 2, while it uses a lot of loaded and judgmental language, would be regarded as true or at least defensible by many people. As the argument is given, the problem isn't with the truth of the premises. **As given**, **the problem is with the logic**. If those two premises are true, the conclusion doesn't follow either with certainty or with high probability. In other words, the **logic** of the argument is neither valid nor strong — it's **weak**.

So, one way to evaluate this argument is simply to say that, as given, it's bad because the logic is weak. And that's true. But I want you to recall now the discussion about putting arguments in standard form way back in the first tutorial course on Basic Concepts in Logic and Argumentation.

There we emphasized that arguments are often presented as *incomplete* and rely on background assumptions to be interpreted correctly; an argument might be weak a*s given*, but it might be relying on a background premise that would make it strong or valid. **So in general you're always encouraged to look for implicit background assumptions like this, and only evaluate the argument after you've reconstructed an argument, and that means making explicit any background assumptions that the argument is relying on**. Only then should you go ahead and evaluate whether the argument is good or bad.

So, does this argument rely on a background premise that makes the argument valid or strong? Well, it's not hard to see what would be required to make the logic work. You can often use a simple conditional

claim, if A then B, or a generalization like All A are B, to fix the logic of an argument.

So here you might add a conditional claim like this:

> **"IF Hitler was a murderous, megalomaniacal anti-semite, then his arguments on racial superiority are (very likely) bad."**

If you add the "very likely" then the argument is just strong, if you take it out then it's valid.

It's acceptable to add an assumed premise like this because it's clear that we're not putting words into the arguer's mouth — it reflects what the arguer is trying to get at. We have every reason to think that someone advancing this argument would accept a premise like this.

So with this reconstruction we've fixed the logical problem. It's not appropriate anymore to say that the argument is bad because the logic is weak. *The logic is fine*.

The problem, now, is with the plausibility of that assumed premise. If this argument is bad, it's bad because this assumed premise is false or dubious.

Now, this is a hard case for some people because it's still very tempting to think that this kind of character flaw is relevant to assessing the goodness of the arguments given, but by now I hope its clear why this is a mistake.

An argument is a collection of claims, linked by relations of logical entailment or support. The plausibility or implausibility of those claims, and the validity or invalidity of the argument given, isn't determined by facts about the moral character of the person asserting the argument.

I grant that in cases like this it's tempting to make the slide from criticism of a person to criticism of an argument, but that's a mistake. The value of discussing a hard case like this is that if you can see the fallacy here, then you've probably understood the essence of the fallacy. Facts

about someone's moral character, by themselves, don't make it any more or less likely that their arguments are good or bad.

So our final assessment is that this is a bad argument, and it's bad because the background assumption necessary to make the argument valid or strong is false or dubious. So it violates the TRUTH CONDITION, as we've defined that term.

This might seem like a long-winded way of saying that the argument is fallacious, but **the point of this discussion is to show *why* it's a fallacy**, why *ad hominems* in general are fallacies, by showing how the argument violates one of the basic conditions for an argument to be good.

To sum up, we can say a few things in general about *ad hominems*.

(1) When you reconstruct them, ad hominem arguments typically rely on the following types of assumed premise:

> **Almost any CLAIM that a person makes about topic X is (probably) FALSE, because of some feature of that person.**

or

> **Almost any ARGUMENT that P gives about X is (probably) BAD, because of some feature of that person.**

The *ad hominem* is a fallacy whenever these implicit premises are false or dubious.

If you include the terms in brackets you get a more qualified version of the premise that would make the argument strong, rather than valid.

Now, the characterization given here is somewhat broader than your typical abusive *ad hominem* — you get your typical *ad hominem* when you base your objection on a criticism of someone's character. But this broader characterization is helpful because it also covers *ad hominem* cases that don't necessarily involve insulting a person or criticizing their character, as we'll see in the next couple of lectures.

(2) Finally, I want to direct your attention to the "whenever" in that final statement. You commit an *ad hominem* fallacy when you give an argument that relies on premises of this type, *but it's only a fallacy if the premise is false*. I want to point this out because, as most textbooks will tell you, premises of this type aren't always false, and in these cases, the arguments don't commit the ad hominem fallacy.

Here's an example:

1. Johnny says that he saw Mrs. Jones stab her husband.
2. But Johnny is a known liar and has a motive to lie in this case.
Therefore, Johnny's testimony does not give good reason to conclude that Mrs. Jones stabbed her husband.

Johnny is on the witness stand testifying against Mrs. Jones in a murder case. He says that he saw Mrs. Jones stab her husband. The argument for her guilt relies solely on his testimony.

Now, in a case like this, *where an argument relies on trusting someone's testimony*, facts about a person's character and motives ARE relevant to assessing the argument. If it's true that Johnny is a known liar, and he has a motive to lie in this case — maybe he himself is a suspect in the murder — then it makes perfect sense to reject an argument that is based solely on Johnny's testimony.

So, while this argument for rejecting Johnny's testimony does rely on claims about Johnny's character, it *doesn't* commit the *ad hominem* fallacy, because in this case the claim about his character is relevant to assessing the argument.

This example shows why we needed to qualify our characterization of the *ad hominem*. We commit the *ad hominem* fallacy whenever the argument relies on premises like these, *and the premises are fals*e — it's a fallacy because the argument violates the Truth Condition. But premises like these aren't always false.

In this case, the implicit assumption we're making about Johnny's testimony is that it's probably false, or at least we don't have good reason

to think it's true, because Johnny has a record of false testimony and a motive to lie in this case.

And in this case it's a perfectly reasonable assumption. So the argument doesn't violate the Truth Condition, and consequently doesn't commit the *ad hominem* fallacy.

Now, this discussion raises the question of whether there are any general rules for deciding when the relevant assumptions are true or false. Well, to my knowledge this is still a subject of debate among experts on the philosophy of argumentation.

But on a case-by-case basis it's not hard to spot exceptions to the fallacy, so your best guide, I think, is to look at cases as they come up and ask yourself whether the truth or plausibility of a central premise in the argument really does turn on facts about the arguer. The best examples are arguments that rely solely on the authority or testimony of an individual, but context matters a great deal too.

2. Ad Hominem (Guilt By Association)

Ad hominems can come in a variety of forms. The most blatant forms involve personal attacks — these are the "abusive" *ad hominems*. But some forms are more subtle. A very common form of *ad hominem* fallacy involves **guilt-by-association**.

I was inspired to do a tutorial on this after the 2008 federal election in the US which culminated in the election of Barack Obama as President. Criticism of candidates based on their associations has always been a part of politics, but the number and frequency of guilt by association arguments that we heard in this campaign was notable (in my experience at least).

We saw it most often with criticisms of Barack Obama from various conservative circles, where it was argued that Obama had many "radical associations" and that these indicated that he himself was much more socially and politically radical than he was letting on.

This has the structure of a "guilt-by-association" argument. X believes A, X has an association with Y, and you conclude that Y probably also believes A.

Not everyone classifies guilt-by-association as an *ad hominem* argument, but it's easy to see how the main ideas can be used to generate an *ad hominem*-type argument.

1. **Obama says X.**
2. **But Obama is associated with people who say Y, which contradicts X.**

Therefore, Obama probably believes Y instead of X.

This is one way of phrasing the reasoning. Obama says X, but he's associated with people who seem to deny X, or say other things, Y, that seem to contradict X.

So we conclude that Obama probably doesn't believe X, or is more sympathetic to Y than he lets on.

The conclusion of an argument like this usually isn't very specific, but its primary use is to ground a charge of hypocrisy or misrepresentation, and this is generally how it was used against Obama.

I don't want to suggest, by the way, that only Republicans are guilty of this sort of reasoning. One of Obama's main political tactics was to stress John McCain's associations with President Bush and the policies of his administration.

But one could argue that guilt-by-association was a much more more prominent feature of the campaign against Obama than it was in the campaign against McCain. Certainly there was more media discussion of the use of this argument form against Obama than there was of its use against McCain.

Argument Analysis

Now, back to our main concern: is this a fallacy?

Looking at the argument above, it's clear that, as stated, the argument is bad, and it's bad because the logic is weak — the conclusion simply doesn't follow from those premises.

Why doesn't it follow? Two reasons.

First, it's missing a premise that connects being associated with someone who believes Y, with the conclusion that you probably believe Y too. So you'd have to add a premise to that effect to fix the logic.

Second, the term "associated with" is too vague to be informative. Any defensible version of this argument would have to get very specific about the kind of association that is at issue, and the added premise to fix the logic would have to say something specific about how that particular association gives reason to believe that a person is lying about their stated beliefs.

Now, in principle this is doable. Certain kinds of associations may give good reason to question someone's honesty. But very often these details

aren't given, and the argument relies on vague and general claims like the one above.

Under these conditions, the argument is bad and guilty of the *ad hominem* fallacy of "guilt-by-association".

But I said that in principle one could make an argument like this work if you were more specific about the kind of association you have in mind, and how that association supports the conclusion.

The problem with this strategy is that the additional premises needed to make the logic work tend to rely on generalizations that aren't very plausible, or claims of a specific nature for which there just isn't good evidence.

To make the point, let's look at some examples:

1. Obama says he has always condemned the bombing of public buildings conducted by the Weather Underground in the 1960s and 70s (the group that Bill Ayers helped to found).

2. Obama has had casual but friendly relations with Ayers since 1995, and has served on a couple of administrative boards with him.

Therefore, Obama probably condones the actions of the Weather Underground.

In the case of Bill Ayers, one of the ways that the guilt by association argument has played out looks like this. The Weather Underground was a radical protest group that Ayers co-founded in the 60s, and in the 60s and 70s they were responsible for some bombings of government buildings as part of their protest against the Vietnam war.

Ayers is now a Professor of Education at the University of Chicago, and for many years he's been active in education reform and the fight against poverty in the Chicago area. He and Obama met in Chicago in the mid-1990s while Obama was working as a community organizer. They've served on a couple of boards together and by both of their admissions,

have generally had friendly though not particularly close relations over the years.

Now, if the conclusion we're after is that in virtue of this association with Ayers, we have good reason to think that Obama actually condones the bombings of those government buildings carried about by the Weather Underground, then it's obvious that that the logic is still weak. To fix it, you'd need a premise like this:

> **"Anyone who has friendly relations with a person (of the sort described in premise 2) probably condones the actions of that person."**

This would fix the logic and make the argument strong. **However, this premise, as a generalization, is wildly implausible**. We can all think of examples of friends and acquaintances who have have done bad things in the past that we judge to be wrong, but nevertheless remain friends or acquaintances with them.

The same applies for political affiliations. Having friendly relations with people who lean strongly to the left doesn't by itself give good reason to think that you lean strongly to the left. This is what I mean when I say that guilt-by-association arguments often rely on generalizations about people that are implausible.

Now, maybe Obama *is* more sympathetic to radical views than he lets on. My point is that *this kind of argument* doesn't give good reason to think so.

For the sake of contrast, an argument that WOULD give us good reason might look like this:

1. Obama says he has always condemned the bombing of public buildings conducted by the Weather Underground in the 1960s and 70s (the group that Bill Ayers helped to found).

2. But we have tape recorded evidence of Obama speaking to Ayers in private, where he admits that in fact he condones the radical actions of the Weather Underground, and admires the people who had the courage to take them, but realizes that he can't say so in public.

Therefore, Obama condones the bombings of government buildings carried about by Ayers and his associates.

If we knew — maybe because we have tape-recorded evidence — that Obama had private meetings with Ayers, where he *admits* that he condones the activities of the Weather Underground, but acknowledges that he can't say this in public without destroying his political career, then of course we'd have good reason to accept the conclusion. If the premises were true, this would be a good argument. But this is the problem: we don't have any evidence that this new premise is true.

Also note that when your association is very specific like this, and contains information that directly supports the conclusion, then *you're really not dealing with a guilty-by-association argument anymore*, since the *mere association* with Ayers isn't what's driving the inference, it's the *tape-recorded evidence of Obama's own words* that is driving the inference.

I think this is a common pattern with guilty-by-association arguments. If the argument is running solely on the association, then it's generally a bad argument. But if the association is specific enough and contains information that directly supports the conclusion, then it's really not a guilt-by-association argument anymore, it's an argument based on more tangible and relevant forms of evidence.

The upshot is that guilty-by-association is a fallacy when the argument relies entirely on the association do drive the conclusion; but if it relies on other kinds of information, then it's not a guilt-by-association argument anymore.

3. Appeal to Hypocrisy (*tu quoque*)

An **"appeal to hypocrisy"** is a type of *ad hominem* where you reject someone's conclusion or someone's argument because that person is somehow being **inconsistent** or **hypocritical**. The Latin term for this is the *tu quoque* fallacy, which means something like "you, too", or "you, also".

Here's a typical setup:

> **"Jason, you spent an hour last week lecturing me on the evils of eating factory-farmed meat products. But I saw you buying a McDonald's hamburger yesterday!"**

This isn't a fallacy yet. It's not even an argument. You get the fallacy when you conclude something like

> **"Why should I take your arguments seriously, since you're obviously a hypocrite!"**

This is a fallacy if the suggestion is that Jason's *arguments* against meat-eating are bad, or that his *conclusions* are false, *simply* because Jason himself is a hypocrite.

Argument Analysis

Now, why is this a fallacy?

Well, because whether Jason's *arguments* are good or bad is *independent* of his own beliefs or behavior.

The charge of hypocrisy might be justified, but that alone won't change a true premise into a false premise, or a valid argument into an invalid argument. To think otherwise is to mistake the person for the argument.

Here's a schematic version of the fallacy:

1. X gives argument A for conclusion C.
2. X does not believe the conclusion C, or acts in ways that are inconsistent with C.

Therefore,

A is a bad argument and should be rejected.

or

C is false and should be rejected.

A person X gives an argument A for conclusion C. We discover that X, the person giving the argument, doesn't actually believe the conclusion, or maybe acts in ways that are inconsistent with the conclusion (like buying and eating a hamburger at McDonald's after arguing that eating factory-farmed animal products is wrong).

Then we infer from this that the argument is bad and should be rejected, or that the conclusion is false and should be rejected. So we're moving from claims about the *person* making the argument, to claims about the *argument itself*.

From an argument analysis standpoint, as given, this argument form is bad because *the logic is weak*. The conclusion simply doesn't follow from those premises.

Now, to fix the logic you could always add a premise like this:

"If X doesn't believe their own conclusion, or acts in ways that are inconsistent with that conclusion, then A is (probably) a bad argument, or C is (probably) false."

This is a conditional claim that ties together the premises and the conclusion. IF I don't believe my own conclusion, or act in ways that are inconsistent with my conclusion, THEN my arguments this conclusion are probably bad, or my conclusion is probably false.

But now the problem with the argument is with this additional premise. **We just don't have any reason to think it's true**. Facts about ME and MY beliefs are irrelevant to whether my ARGUMENT is good or bad.

If I say that eating factory-farmed animals is bad because, say, factory-farming methods cause unnecessary suffering to animals, and it's wrong to inflict unnecessary suffering on animals, then *what makes* these claims true (if they are true) isn't anything to do with *me*. What makes them true is facts about factory-farming methods, or facts about the moral status of animals and their suffering. I could be a closet sadist and enjoy torturing animals in private, but that has no bearing on the truth or falsity of the claims being made in the argument.

But this is just to repeat what we've been saying about *ad hominem* arguments all along, that they're based on a false belief that facts about a person are relevant to assessing facts about arguments.

* * *

On the other hand, like with our previous examples, there are cases where charges of hypocrisy are relevant.

They're relevant when the issue at hand is either about someone's character, or about the consistency of the views they hold.

So, in the case of Jason, the moralizing anti-factory farming guy who secretly enjoys the occasional McDonald's hamburger, his behavior would be relevant if the issue is, say, whether Jason *has integrity* or is a *good public spokesperson* for the animal rights movement, but it's not relevant if the issue is whether factory farming is good or bad.

4. Appeal to Popular Belief (or Practice)

An **appeal to popular belief** says that an argument is good or bad, or a claim is true or false, because it is widely believed to be so. An **appeal to popular practice** is similar except we're dealing not with beliefs but with practices, things you do, like giving to charity, or spanking your kids.

Here's an example. As tax season approaches, you might hear the expression "well, everyone lies on their taxes". So if our unscrupulous Jason says "Yeah, there was some income that I didn't declare on my taxes. But look, everyone lies on their taxes.", this would be an appeal to common or popular practice.

Putting the argument in standard form, and adding the key premise, it looks like this:

1. If (almost) everyone lies on their taxes, then it's okay to lie on your taxes.
2. (Almost) everyone lies on their taxes.

Therefore, it was okay for me to lie on my taxes.

The key premise is the first one, this is the premise that asserts that if everyone or almost everyone does something, then it's acceptable to do it.

Appeals to popular belief or popular practice are fallacies if that first major premise is false, or dubious. The logic works fine, it's the truth of the premises that is at issue.

In this case I think most of us would agree that even if everyone did lie on their taxes, that by itself wouldn't justify lying on your taxes. Would we want to say that if everyone stole things that didn't belong to them, then stealing would be okay, or if everyone, or the majority, believed that slavery was acceptable, then slavery would be acceptable?

Here's an example of appeal to popular belief.

"Surveys tell us that over 90% of the population believes in some form of God or higher power. Surely we can't ALL be wrong."

This is an appeal to popular belief rather than popular practice because the issue is whether a claim is true or false, not whether a practice is acceptable or unacceptable.

In standard form the argument might look like this:

1. If (almost) everyone believes X, then X is (probably) true.
2. (Almost) everyone believes in some form of God or higher power.

Therefore, it's (probably) true that there exists some form of God or higher power.

Here I've written the key premise as a statement form with X as a placeholder for whatever claim is at issue. **Every appeal to popular belief relies on a premise of this or a similar form, whether it's explicitly stated or not.**

Once again, the point to note is that the logic isn't the problem with an argument like this, *the problem is with the truth or falsity of the premises*. That's what makes it a "content" fallacy rather than a logical fallacy.

Let's assume the second premise is true. In this case, the argument is fallacious just in case that first major premise is false.

And in most cases where the claim at issue makes an assertion about what exists or doesn't exist objectively in the world, this premise is going to be false. Simply believing that something exists doesn't make it exist.

On the other hand, sometimes the claim at issue is about what people believe, like this example:

"Vanilla is the most popular flavor of ice cream in the world."

If this is true, it's true simply in virtue of the fact that more people prefer vanilla to any other flavor of ice cream. So the appeal to popular belief is relevant because what's at issue is precisely what people believe.

So if you surveyed people and found out that this was the case, then of course you wouldn't be guilty of this fallacy.

On the other hand, there's obviously another sense in which whether or not vanilla IS the most popular ice cream ISN'T determined solely by popular belief about the issue.

If you just ask people what they think the most popular ice cream is, and the majority says "chocolate", that doesn't by itself make chocolate the most popular ice cream, since the majority could easily be mistaken about what the actual preferences of people are. It's possible that in fact more people prefer vanilla to chocolate, but more people think that chocolate is the more popular flavor.

We're not being contradictory here, because we're saying too very different things. In the first case, we're saying that if more people actually prefer vanilla to any other flavor of ice cream, then vanilla really is the most popular flavor, since this is what it means for it to be the most popular.

And this is clearly true, so there's no fallacy here.

In the second case, we're saying that if more people believe that vanilla is the most popular ice cream, then vanilla really is the most popular ice cream. But this is clearly false. An argument that relied on THIS kind of premise would be guilty of a fallacious appeal to popular belief.

So, to sum up, appeals to popular belief or popular practice generally rely on major premises like these, whether they're stated explicitly or not:

"If (almost) everyone believes X, then X is (probably) true."

"If (almost) everyone does X, then X is (probably) okay or acceptable."

These arguments are fallacious when the major premise is judged to be false or dubious.

5. Appeal to Authority

An **appeal to authority** says that an argument is probably good or bad, or a claim is probably true or false, because an authority says so.

The authority in question is often a person, but it can also be a book, or a website, or an institution. What makes it an appeal to authority is that the justification for the inference rests primarily on the authority of the source.

Not all appeals to authority are fallacious. The trick is to figure out when they are and when they aren't.

* * *

Here's an appeal to authority:

Two kids are talking about life on other planets and one reports that his Dad says that Venus is too hot to have life on it. The other kid is dismissive, he says "So, what does he know?". The first kid responds that *his dad is a planetary scientist who works for NASA*.

Assuming that he's not lying and his Dad really is a planetary scientist, this looks like it could be a good appeal to authority.

On the other hand, if he'd said **"Oh, my dad looked it up on a website,"** then the argument wouldn't be as convincing. Now the claim rests on the authority of a nameless website. Without anything else to go on, this is a bad argument, since we don't know anything about the reliability of the website. It could be right, the internet is full of reliable information, but it's also full of false information and crackpot sites — "the world wide web", as a collective body, can't be treated as a reliable authority on anything.

Every appeal to authority relies on a claim like the following:

"(Almost) anything that A says about S is (probably) true."

where A is the authority and S is the subject matter in question.

An appeal to authority is good just in case a claim of this sort can be plausibly defended. If it's true, then you can use a claim like this as a premise and use it infer the truth of claims about S, the subject matter in question.

On the other hand, if we have don't have good reason to think the claim is true, then it's a bad appeal to authority, and guilty of a fallacy.

So our planetary scientist example might look like this:

1. (Almost) everything that a planetary scientist says about the conditions necessary for life to exist on a planet are (probably) true.

2. James is a planetary scientist.

3. James says that Venus is most likely too hot for life to exist.

Therefore, Venus is most likely too hot for life to exist.

The conclusion follows, the logic is fine. The only question is whether that first premise that makes the authority claim is plausible or not. If we think it's plausible then we should judge the argument to be good, if we don't then we should judge it bad, that it's a fallacious appeal to authority.

Unfortunately there's no easy rule for judging authority claims. It rests entirely on our *background knowledge*. To judge this claim we have to know something about what planetary scientists do, what their area of expertise is, how close the claim in question is to their area of expertise, and so on.

In this case my first reaction is that a planetary scientist is a very good authority on this kind of question. It seems right up their alley.

I've had students challenge this example though. They think that the term "life" is too broad, and they'd want to restrict the authority claims of a scientist to "life as we know it". Maybe organic life as we know it can't exist on Venus, but maybe there are other kinds of living things that could evolve or survive on Venus, maybe non-organic life forms that operate on very different physical principles than organic life on earth does. A

planetary scientist isn't necessarily an expert on all possible forms of life -- maybe NO ONE is an expert on this.

So they would reject premise 1 as it stands, but they would accept an amended form of the argument like this ...

1. (Almost) everything that a planetary scientist says about the the conditions necessary for life *as we know it* to exist on a planet are (probably) true.

2. James is a planetary scientist.

3. James says that Venus is most likely too hot for life as we know it to exist.

Therefore, Venus is most likely too hot for life as we know it to exist.

… where we've restricted the claim at issue to life "as we know it".

Now (according to my students) we've got a good appeal to authority.

I'll buy this. This seems like a reasonable amendment to the original argument. And it illustrates nicely the kind of thinking you might have to do when evaluating appeals to authority. You really have to think hard about whether the proposed authority really has relevant expertise on the matter in question.

In lots of cases the answer is obvious. My daughter's eleven year old friend isn't going to be a reliable authority on quantum field theory, but she may well be an authority on who the popular and unpopular kids are in her class at school.

In other cases the judgment isn't so obvious and people's initial reactions may differ.

Here's an example where the claim at issue is what happens to us after we die:

"The Pope says that when we die, if we've lived a good life, we go to Heaven."

When the POPE makes a claim about this, how should we judge his authority on the matter?

Well, a devout Catholic may well treat the Pope as an authority on such things, and they would judge the argument to be good.

But you might find that even among practicing Catholics there is disagreement about what kind of authority the Pope really has, and certainly among non-Catholics and atheists you're not likely to find many who take the Pope to be an authority on the afterlife. Many might question whether anyone could be an authority on a question like this.

This just highlights a fact that we discussed in the very first tutorial course on basic logical concepts — **judgments about the plausibility or implausibility of premises can vary from audience to audience, depending on the background assumptions that different audiences bring to the table**.

There's no getting around it, and appeals to authority are particularly sensitive to this kind of variation.

So, to sum up:

1. Appeals to authority rest on claims that assert that
   "Anything, or almost everything, that A says about S is true, or probably true."
   This is the "authority claim".
2. An appeal to authority is good when the authority claim is plausible; it's fallacious when the authority claim is not plausible.
3. Judgments about the plausibility of authority claims are sensitive to differences in the the experience and background of different audiences.

One audience might recognize A as an authority on a subject while another audience might reject A, or at least be skeptical about A as an authority. In cases like this, if you want to pursue an appeal to authority then you'll need additional argumentation to defend the authority claim.

Now, let me make a final comment about appeals to authority that you might encounter if you browse other sources on fallacies.

You'll commonly find people saying that certain kinds of appeals to authority are *always* fallacious.

Probably the most common example is about the authority of claims about a commercial product coming from the lips of a paid spokesperson for the product. Many sources will tell you that you should always treat celebrity endorsements as fallacious appeals to authority, since these people are being paid for their endorsement, so they have a motive to be biased, and on top of that they probably don't have any special expertise in the pros and cons of the product in question as compared to rival products on the market.

My response is that this is good advice as far as it goes, but I can't see a rationale for turning this into an absolute rule.

Sometimes paid spokespersons are very well informed about the pros and cons of a product, and sometimes they really are good authorities on the subject matter.

Yes, a paid endorsement introduces concerns about bias that an unpaid endorsement avoids, but I prefer to treat this as just one of many factors that people have to take into consideration when evaluating appeals to authority.

For any appeal to authority you should always be asking questions like:

- "is the source biased, or is there some reason to mislead?"
- "how does the source's claim compare with expert opinion on the subject?"
- "is the claim plausible or implausible on its face?"
- "is the source being cited correctly or is the claim being taken out of context?"

You need to consider many factors when judging appeals to authority.

6. False Dilemma

"False dilemma" is also known as **"false dichotomy"**. I've also heard it called the **"either-or" fallacy**.

You're given two options, and told that you should certainly reject one of them, so you're forced to accept the remaining option. This is a fallacy when the options you're given don't include all the real options.

Here's an example:

"My dad is voting Democrat in the next election."
"How do you know?"
"Because I overheard him say he's definitely not voting Republican."

Now, looking at this in purely logical terms, there's nothing wrong with this argument:

1. He's either voting Democrat or Republican.
2. He's not voting Republican.

Therefore, he's voting Democrat.

In fact, this is an instance of one of the valid argument forms we saw in the tutorial course called "common valid and invalid argument forms". This is called "**disjunctive syllogism"**, or **"disjunctive argument"**:

1. A or B
2. not-B

Therefore, A

The problem here isn't with the logic. **The problem is with the assumption that the only two options are voting Democrat or Republican**.

Maybe his dad is going to vote for the "green" candidate, or the "libertarian" candidate. Maybe he'll decide not to vote at all. There are lots of other possibilities.

So the problem is with the truth of that first premise. It sets up a **false dilemma**, or **false dichotomy**. Either A is true or B is true, there's no third option. But there *are* other options.

Note that you can't fix this argument simply by including the other options, because then the logic wouldn't work:

1. A or B or C or D
2. not-B
Therefore, A or C or D

If you add other options then you can't infer any single option, just that one among the remaining options must be true. If the options are that he'll definitely vote Democrat or Republican or Green or Libertarian, and you know that he's not voting Republican, then all we can infer is that he's going to vote Democrat or Green or Libertarian.

Here's the summary version of the fallacy. False dilemma involves mistaking an argument of this form:

1. A or B or C or D
2. not-B
Therefore, A or C or D

for an argument of this form:

1. A or B [this premise asserts the "false dilemma"]
2. not-B
Therefore, A

This is a content fallacy and not a logical fallacy, so detecting it requires that you evaluate the truth or falsity of the major premise, the one that sets up the dilemma.

This fallacy can be hard to detect because it relies so much on your background knowledge to judge whether the dilemma is plausible or not, and it's subject to the same relativity that any judgment of plausibility is subject to — different audiences may judge the premise to be plausible or implausible, depending on their background knowledge and their preconceptions about the issue.

For example:

"Either you believe in God or you believe in evolution, you can't have it both ways. Well, I believe in God. That's why I don't believe in evolution."

Structurally, this argument looks like this:

1. Either (God) or (evolution)
2. God
Therefore, not-(evolution)

This is a pretty common argument about God and evolution that you may have encountered. Before we talk about the plausibility of that first premise, let me make a note about the logical form being used.

If you recall the tutorial on common valid and invalid argument forms, then you might remember these argument forms that use "OR", the disjunction.

You get the following form …

1. A or B
2. not-A
Therefore, B

… when you assert that A or B must be true, and then deny one of the disjuncts, which allows you to infer that the remaining disjunct must be true. This is a valid argument form.

Now, our example above *doesn't* have this form. In premise 2 we're affirming one of the disjuncts and using this to infer that the remaining disjunct must be false. That is, we're making an argument of this form:

1. A or B
2. A
Therefore, not-B

But we know that this argument isn't valid if the "OR" is an **inclusive** OR. *It's only valid if the OR is an **exclusive** OR*. To say that the OR is inclusive is to say that it's possible that A and B could BOTH be true, that it includes this possibility. With an exclusive OR you're excluding this

possibility, you're saying that either A is true or B is true, but they're mutually exclusive, they can't both be true.

So, should we treat this argument about God and evolution as making an exclusive OR claim or an inclusive OR claim? It's important, because if it's an inclusive OR then the argument as given is invalid; if it's an exclusive OR claim then the argument is valid.

In this case it's not too hard to see that the arguer is intending this as an exclusive OR. The key phrase is **"you can't have it both ways"**. So we're looking at an argument that is intended to function like the valid form.

On this reading, the argument is valid, it satisfies the Logic Condition. The only question that remains is whether it satisfies the Truth Condition, whether that "exclusive OR" disjunctive premise is plausible or not.

This is our question: **is it TRUE that belief in God is incompatible with belief in evolution?**

If you think it's false, then this argument is guilty of posing a false dilemma. If you think it's true, then it's not posing a false dilemma, it's posing a *genuine* dilemma.

Now, one thing we can say for sure is that, as phrased, the meaning of that first premise is ambiguous, too ambiguous to be allow us to properly evaluate the claim. How you answer this will depend on what specifically you think belief in God entails, and what belief in evolution entails.

For example, if you interpret belief in God and belief in evolution like this …

> **(God) = The God of the Old Testament exists and created the world and all living organisms in six literal days as described in Genesis.**
>
> **(evolution) = The earth is billions of years old, all organisms are evolutionarily descended from a common ancestor, and the primary mechanism of evolutionary change is natural selection.**

… the way a biblical literalist would, then you do have a real incompatibility. A literal reading of Genesis really is incompatible with

the orthodox Darwinian conception of the origins and evolution of life on Earth.

So, for an audience who holds these beliefs, this argument does NOT commit the fallacy of false dilemma. Given this reading of the premises, this is a real dilemma.

But it would be different if the conception of God at issue was something like this ...

> **(God) = An all-knowing, all-powerful, all-good being is responsible for the existence of the universe and the laws of nature.**
>
> **(evolution) = The earth is billions of years old, all organisms are evolutionarily descended from a common ancestor, and the primary mechanism of evolutionary change is natural selection.**

On this reading, the God hypothesis merely entails the view that there is an all-knowing, all-powerful, all-good being who is responsible for the existence of the universe and the laws of nature. It doesn't say anything about the Bible or creation in six days.

Now, if someone offered this argument using *this* conception of God and evolution, *they'd be guilty of posing a false dilemma*. Why? Because there's no reason to think that these are mutually exclusive claims. A creator God like this might exist, OR the conventional evolutionary story about the origins of life on earth might be true, **or BOTH might be true**. This is, in fact, the view held by many religious people and religious scientists. This view is consistent with the official position of the Catholic church, for example.

So, whether or not this argument commits the false dilemma fallacy depends on how you interpret each of the horns of the proposed dilemma. Vague or ambiguous language allows for multiple interpretations.

In my view, **this is one of the ways that false dilemmas acquire the persuasive power that they have.** When the claims at issue are clear and precisely articulated, it's easier to see on their face whether they're logically compatible or not, or whether there are other alternatives that

aren't being considered. If they're vague or ambiguous, different interpretations can get muddled in your head, which makes it easier for a false dilemma to come across as a genuine dilemma.

Here are some examples that illustrate a couple of general points about false dilemmas.

First, as we've seen, **not all dilemmas or dichotomies are false**:

> **"Every POSITIVE NATURAL NUMBER is either even or odd."**

This is true. This is just the number sequence 1, 2, 3, 4, 5, and so on, forever. Every number in this set is either even or odd.

But this claim is different:

> **"Every REAL NUMBER is either even or odd."**

This claim is false. "Even" and "odd" only apply to integers. The real numbers include all the integers, so some real numbers are even or odd, but the reals also include decimal numbers like 2.5 or 1.99, and these are neither even nor odd. So this poses a false dilemma.

Second, one of the most common forms of the fallacy occurs when a choice is presented that really represents the **two ends of a continuum of possibilities**. For example, when someone says …

> **"Either you support minimal government and free markets or you're a socialist."**

... they're setting up the dilemma as a choice between libertarianism — which is associated with minimal government, free markets and minimal state interference in the lives of citizens — and socialism, which is associated with collective ownership, state regulation of the economy, and forced redistribution of wealth from the rich to the poor.

This setup *ignores the range of intermediate possibilities between these two poles*, such as the various forms of classical "welfare liberalism" that try to strike a balance between libertarianism and socialism.

When false dilemma shows up in this form, it's sometimes called the **fallacy of "black-and-white thinking"**, for obvious reasons. It sets up a choice in terms of stark contrasts and ignores the various shades of grey that might exist in between.

This is, I think, **the most common and worrisome form of the false dilemma fallacy**. Unfortunately, because the fallacy isn't a purely logical one, diagnosing it requires that you actually know something about the subject matter, and that's not something that can be taught in a logic class.

7. Slippery Slope

The last "content fallacy" that we're going to look at is **"slippery slope"**.

Here's a pretty extreme example of a slippery slope fallacy.

A high school kid's mom insists that she study on Saturdays. Why? Because if she DOESN'T study on Saturdays then her **grades will suffer** and she **won't graduate high school with honors**, and if she doesn't graduate with honors then she **won't be able to get into the university of her choice**, and ... well, the rest isn't clear, but the result of all this is that she'll end up **flipping burgers for the rest of her life**, and surely she doesn't want THAT, so she'd better darn well get serious and study!

I've actually heard a version of this discussion between two wealthy mothers who were talking about which preschool to send their kids to. The gist was that if they didn't get their kid into a prestigious preschool then they'd be disadvantaged from that point forward in ways that could ultimately threaten their future life prospects, so this was not a decision to be taken lightly!

I did not envy those kids.

Here's the **schematic form of a slippery slope argument**.

1. If A then B
2. If B then C
3. If C then D
4. not-D
Therefore, not-A

It's a series of connected conditional claims, to the effect that if you assume that A is true or allow A to occur, then B will follow, and if B follows then C will follow, and if C follows then D will follow. But **D is something nasty that we all want to avoid**, so the conclusion is that **if we want to avoid D, we need to reject A, or not allow A to happen**.

Note that, as stated, the logic of this argument is fine. In fact, this is a valid argument form that we've seen before, we've called it **"hypothetical syllogism"** or **"reasoning-in-a-chain" with conditionals**.

Slippery slopes are fallacious *only if the premises are false or implausible*. Everything turns on whether these conditional relationships hold. Sometimes they do, and if they do, it's not a fallacy. But very often then don't, and when they don't we've got a slippery slope fallacy.

An Important Caveat

Now, there's a caveat to this way of analyzing slippery slopes. **It's usually the case that slippery slope arguments aren't intended to be valid**. That is, they're not intended to establish that the dreaded consequence will follow *with absolute certainty*. Usually the intent is to argue that if you assume A, then D is *very likely* to follow, so what's being aimed for is really a *strong* argument.

And that means we shouldn't really be reading the conditional claims as strict conditionals, with every link in the chain following with absolute necessity. We should be asking ourselves, **how likely is it that D will follow, if A occurs?** If it's very likely, then the logic is strong, if not then it's weak. So in a sense we're evaluating the logic of the argument, but it turns out that in cases like this, the strength of the logic turns on the content of the premises, so in the end we are evaluating the plausibility of premises, which makes this a content fallacy, and not a logical or formal fallacy.

For our example the chain of inferences looks like this:

Doesn't study on Saturdays →
Doesn't graduate high school with honors →
Doesn't get into a top university →
Winds up working in a fast food restaurant (or similar "working class" career")

This argument is obviously bad, at every stage of the reasoning.

It's possible that not studying on Saturdays could make a difference to whether the student gets on the honor roll, but there's no evidence to suggest that this is likely.

Yes, if you're not on the honor roll then maybe this will affect your chances of getting into a top university, but without specifying what counts as a top university, and what other factors may or may not be operating (like, for example, whether the student is a minority or an athlete and might be eligible for non-academic scholarships of various kinds), then it's impossible to assess the chances of this case.

The last move, from failing to get into a top university to flipping burgers for a living, is obviously the weakest link in the chain, this is just wildly pessimistic speculation with nothing to support it.

So each link in the chain is weak, and the chain as a whole simply compounds these weaknesses.

By saying this we're saying that premises 1, 2 and 3 are not plausible, and so the inference from A to D is not plausible. **We have no reason to think that this slope is "slippery".**

* * *

Now, there's *another* obvious way that one can attack a slippery slope argument. You might be willing to grant that the slope is slippery, **but deny that what awaits at the bottom of the slope is really all that bad**.

This would be to challenge premise 4, "not-D". "not-D" says that D is objectionable in some way, that we don't want to accept D. But this might be open to debate. If what awaits at the bottom of the slope is "and then you die a painful death", or "and then all our civil rights are taken away", then sure, just about everyone is going to agree that that's a bad outcome.

But it's not as obvious that everyone will find flipping burgers objectionable, or whatever this notion stands for — working in the service industry, or working in a low-paying job, or whatever.

What's important in evaluating a slippery slope argument is that t*he intended audience of the argument* finds the bottom of the slope objectionable. So this is another way to criticize a slippery slope argument — by arguing that the outcome of this chain of events really isn't as objectionable as the arguer would like you to think.

Summary

So, just to summarize what we've said so far, there are **two ways of challenging a slippery slope argument**.

1. **Challenge the strength of the conditional relationships that the argument relies on**. When people say that a slippery slope argument is fallacious, they usually mean that this chain of inferences is weak.
2. **Challenge the "objectionableness" of whatever lies at the end of the chain**. If it's not obvious to the intended audience that this is actually a bad thing, then the argument will fail to persuade, regardless of how slippery the slope may be.

Some Comments on Assessing the Plausibility of Conditional Claims

Before wrapping up, I'd like to make a few points about assessing the plausibility of conditional chains. Fallacious slippery slope arguments often succeed at persuading their audience because people misjudge the strength of the chain of inferences. They're prone to thinking that the chain is stronger than it actually is.

It's important to realize two things. First, **a chain of conditional inferences is only as strong as its weakest link**. The weakest conditional claim, the one that is least likely to be true, is the one that sets the upper bound on the strength of the chain as a whole. So even if some of the inferences in the chain are plausible, the chain itself is only as strong as the weakest inference.

Second, **weaknesses in the links have a compounding effect, so the strength of the whole chain is almost always much weaker than the weakest link**. To see why this is so, you can think of conditional claims as probabilistic inferences — If A is true, then B follows with some probability, and this probability is usually less than 1, or less than 100%.

So the probability of D following from A, the probability of the whole inference, is actually a *multiplicative product* of the probabilities of each of the individual links.

The odds of a coin landing heads on a single toss is 1/2, or 50%. The odds of a coin landing heads twice in a row is 1/2 times 1/2, or 1/4, which is 25%. Conditional inferences compound in a similar way.

So, if the odds for each link in the chain were, let's say, 90%, then the odds of the whole chain being true, of D actually following from A, would only be 0.73, or 73%, and this number will go down further with each additional link in the chain.

People, in general, are very bad at estimating compound probabilities, and we'll tend to overestimate them.

What's the estimate if the one of the links is weaker than the rest, say, 0.6, or 60%. The probability of D following from A actually drops below 50%, a very weak inference, but very few people will read the probabilities this way. Their attention will focus on the highly probable bits of the story and their estimate of the overall odds will be anchored to these bits, especially if they're either at the very beginning or at the very end of the chain, since these make the biggest impression.

So, human beings in general are quite vulnerable to slippery slope reasoning, and knowing these facts should motivate you to be more critical when you encounter these kinds of arguments.

Part 3:
Fallacies that Violate the Rules of Rational Argumentation

1. Straw Man

We're moving on now to fallacies that involve what I've called violations of the **rules of rational argumentation**.

The rules in question are things like, being able and willing to reason well, not being willing to lie or distort things simply to win an argument, and so on.

The first fallacy of this type that we'll look at is more commonly known as the **"straw man" fallacy**. The name comes from the practice of using human figures made of straw as practice dummies in military training. Obviously it's easier and safer to practice certain combat techniques when your opponent is made of straw.

The fallacy works like this:

- Alice offers an argument to Bob, she wants to convince him of something.
- Let's say that Alice's argument is really pretty strong (imagine a tough boxer). Bob isn't sure he can handle this argument.
- So instead of trying to refute Alice's actual argument, Bob decides to engage a *different* argument. He decides to engage a "straw man". What is the straw man? It's a *weaker, distorted version of Alice's original argument*.
- Because it's weaker, Bob is easily able to refute the straw man version of Alice's argument. The straw man fallacy is complete when Bob does the dance of joy and claims that he has successfully refuted Alice's original argument.
- But of course Bob hasn't refuted the original argument, he's only refuted a distorted misrepresentation of it.

This is the straw man fallacy.

This fallacy is often categorized as a "fallacy of relevance", because the attacks made on the weak straw man are irrelevant to judging the actual strengths and weaknesses of the original argument, and this is correct, but I prefer to think of it as a violation of the rules of rational argumentation, especially when it involves knowingly and willfully misrepresenting an argument.

When someone is willing to do this, they're no longer playing by the rules, they're more concerned with the appearance of winning than with argumentation itself.

When you see this going on, you should try to correct the misrepresentation and get the discussion back on track. If it's an honest mistake and the arguer is willing to correct their misunderstanding, that's great, but if you catch them doing this again and again then there's probably no point in engaging argumentatively with this person, because they've shown you that they're not willing to play by the rules.

An Example

Let's look at an example.

Jennifer has just finished giving her argument against mandatory prayer in public schools. Let's assume that her argument focused on separation of Church and State in the First Amendment and the importance of respecting religious diversity in a multicultural society.

Bob responds like this:

> **"It's clear from your argument that you're really advocating for atheism. But we've seen what state-sanctioned atheism does to societies. Look at Russia under Stalin or China under Mao! Is that what you want for this country? The suppression of religious freedom and the replacement of God by an omnipotent state?!"**

It's clear that Bob isn't responding to Jennifer's original argument, he's responding to a *distorted misrepresentation of it*, a straw man. Appeals to

religious diversity or separation of Church of State are just as often made by religious people as by non-religious people.

But if Bob can reframe the argument so that it looks like an argument for atheism and abolishing all forms of religious expression, then that's a much easier argument to refute.

Rhetorically, this kind of move can be very powerful, and that's why straw man arguments are so common in public debates on hot-button topics. But from a logic standpoint, they represent a willful refusal to engage in genuine argumentation.

2. Red Herring

"Red Herring" is another well-known fallacy type, but it's easily confused with **"straw man"**, so I here I want to highlight the differences between the two.

The name "red herring" comes from an old method of training dogs for fox hunting. The goal is to train the dogs to follow the fox's scent, even if the dogs encounter other smells that are potentially distracting.

So what they do is they let the fox go, so the fox leaves a scent trail. Then, before letting the dogs go, they drag a bunch of smelly red herrings across the fox's trail.

Then they release the dogs. When the dogs hit the herring trail they'll be distracted by the smell and some will be inclined to follow the herring trail instead, so the trainers try to get the dogs to stay on the fox trail and resist the urge to follow the herring.

So, how should we interpret this metaphor?

Well, the **fox** is some argument, **the original argument that is at issue in a debate.**

The **dog** can represent **anyone who is interested and engaged in this argument.**

The **red herring** is something that **distracts you from following the trail of the original argument**. It might be a new and different argument that raises a different issue, or simply an irrelevant comment that distracts from the main issue. What's important is that it's distracting enough to make the audience want to follow this new trail, away from the original argument and the main issue.

So, putting all this together, **you commit the red herring fallacy when, in an argument, you divert attention away from the main issue or the main line of argumentation by introducing something that *changes the subject*, that *raises a new issue* that isn't relevant to the preceding line of discussion.**

The fallacy really occurs when you then conclude something from this different issue, or presume that some conclusion has been established, and use this to claim that you've won the argument or said something relevant about the original argument.

Red Herring or Straw Man?

In this respect the fallacy is very much like a straw man fallacy, in that you're mistakenly or misleadingly saying that you've won an argument or refuted an argument when all that you've really done is avoid engaging the original argument.

But it's different from the straw man in that a straw man involves distorting or misrepresenting some original argument, and then knocking down the distorted argument.

In a red herring, the arguer ignores the opponent's argument, and subtly changes the subject. So, *to distinguish between the two, you need to ask yourself whether the arguer has knocked down a distorted argument or simply changed the subject.*

Here's a summary of the points just made.

- **Straw Man**:
  Arguer misrepresents an opponent's position.
- **Red Herring**:
  Arguer tries to distract the attention of the audience by raising an irrelevant issue.

To illustrate the difference, consider this example:

> **"I overheard my friend John argue that the Bible has errors in it. Funny, I never figured him for an atheist."**

This is a straw man, not a red herring, since the conclusion being drawn is related to the main argument that his friend is making about the Bible, but it's clearly working off of a distorted or exaggerated version of it if it equates biblical fallibilism with atheism.

Now compare that to this one:

> **"My opponent has argued that there's an urgent need to reduce greenhouse gases in order to minimize global warming. But the most serious problem facing future generations is the risk posed by nuclear weapons in the hands of rogue states and terrorists. This is where we need to focus our attention and resources."**

This is a red herring. The original issue was about greenhouse gases and the urgency of global warming. This response side-steps that issue and introduces a new issue.

To avoid committing a red herring, the arguer would need to show that global warming isn't an urgent problem, or that reducing greenhouse gas emissions won't be effective in reducing it, or something like that. Nuclear weapons in the hands of terrorists is certainly a serious issue, but that fact does nothing to undermine the original argument about global warming.

3. Begging the Question (Narrow Sense)

Begging the question is a very important fallacy. In my mind, it might be the most important fallacy to understand on this whole list, because it bears directly on what it means to offer someone reasons for believing something.

I'm going to split this topic into two discussions. The first one will focus on begging the question in what I call it's **"narrow sense"**, which is basically synonymous with **"circularity"** or **"circular reasoning"**; and the second one will focus on what I call the **"broader sense"** of begging the question, which is maybe less familiar but arguably even more important.

Terminology: "To Beg the Question"

Let me first make a note about another way in which the expression "to beg the question" is often used in ordinary language.

Here's a recent headline on a car blog:

> **"Honda recalls 1.3 million Yaris models, which begs the question: What's the plural of Yaris?"**

And here's a Seth Myers joke from Weekend Update on Saturday Night Live:

> **"A walrus at a zoo in Turkey has become a major attraction after learning to play the saxophone. Which begs the question: How bored are Turkish zookeepers that they're just strapping instruments to animals and seeing what takes?"**

So, in this context, "to beg the question" means something like "to raise the question", or "to inspire the question".

People use this expression all the time, *there's nothing wrong with it*, but what I want to emphasize here is that this is NOT the sense that's intended when we talk about "begging the question" as a fallacy of argumentation.

Just like the terms "valid" and "invalid", there's a common usage in ordinary language and there's a more formal logical usage, which we want to keep separate.

But unlike the logical sense of the term "valid", the logical sense of "to beg the question" is fairly widely known and used outside of logic.

So both this more colloquial sense and the logical sense that we'll look at next are "in play" in ordinary language. But some people use the term almost exclusively in the sense of "to raise or inspire a question" and aren't even aware of the logical sense, so my advice is to be on the lookout for confusions that might arise from misunderstanding the sense in which you're using this term.

To Beg the Question (Narrow Sense) = Circularity

In logic, we say that an argument **begs the question** when, in some way or another, **it assumes as true precisely what is at issue in the argument.**

Another way to put this is that the argument **contains a premise that in some way asserts or presumes to be true what is being asserted in the conclusion.**

Another common way of saying the same thing is that **the reasoning in the argument is "circular"**.

Here's the basic logical form of an argument that begs the question in this sense.

Premise P1
Premise P2
Premise P3
:
Premise Pi → means the same thing as conclusion C
:
Premise Pn
Therefore, conclusion C

You've got an argument with premises P1, P2, and so on, down to Pn, and one of them means the same thing as the conclusion, C, or asserts something that is logically equivalent to C.

If this happens, then we'd say that **this premise "begs the question"**, meaning that **it assumes as true precisely what it is at issue**, namely, whether the conclusion C is true or not.

We call this **"circular"** because the conclusion C is supposed to be drawing logical support from this premise, but the premise is simply restating the conclusion, so the argument as a whole involves nothing more than repeating the conclusion without giving any additional reasons to believe it.

Examples:

"Capital punishment is justified for cases of murder because the state has a right to put someone to death for having killed someone else."

Maybe this doesn't sound too bad when said this way, but let's put this argument in standard form.

1. The state has a right put someone to death for having intentionally killed someone else.

Therefore, capital punishment is justified for cases of murder.

Notice that this is just a one-liner. And notice that, even though the wording is different, the single premise and the conclusion are asserting the same thing. After all, "the state has a right to put someone to death" *just means* "capital punishment is justified", and "for having intentionally killed someone else" *just means* "for cases of murder".

So saying this is just like saying

"Capital punishment is justified for cases of murder, therefore, capital punishment is justified for cases of murder."

But obviously this won't do as an argument. The issue is *whether* capital punishment *is* justified for cases of murder — that's the question that's being begged by this argument.

Here are some other examples:

"Sky-diving is dangerous because it's unsafe."

"Paper is combustible because it burns."

These are just different ways of saying the same thing. Of course if sky-diving is unsafe then it's dangerous, because that's just what "unsafe" means. And "combustible" just means "can burn". So the first begs the question "why is sky-diving unsafe?", and the second begs the question "why does paper burn?".

But these are pretty obvious examples. Here's a sneakier one...

"Murder is morally wrong. This being the case, then abortion must also be morally wrong."

Here we're not given a mere restatement of a premise, so the fallacy is a bit harder to detect. But when you put the argument in standard form, and fill in the background premise that the argument relies on, then you get this:

1. **Murder is morally wrong.**
2. **Abortion is murder.**

Therefore, abortion is morally wrong.

This argument relies on the assumed premise that abortion is murder. If we grant this premise then the conclusion follows immediately, since calling abortion "murder" implies that it's morally wrong, but this begs the question that is at issue, namely, *whether abortion should be classified as "murder"*. This argument *gives us no additional reason to accept the conclusion* — it would never persuade anyone who didn't already believe that abortion was wrong.

This is a good example of a very common way that circular arguments can pass themselves off as genuine arguments. You give an argument but leave out a key premise necessary to draw the conclusion, and let your audience fill it in. This key premise assumes precisely what is really at issue in the argument, it's the offending circular premise, but because it goes unstated, it's less likely to be called out and brought under critical scrutiny, and this helps to make the argument seem superficially persuasive.

So, to sum up, when we use the term **"begging the question"** in logic, we mean that an argument is guilty of assuming as true something that really needs to be argued for, if the argument can qualify as offering reasons to accept the conclusion. Arguments that beg the question don't offer any reasons to anyone who didn't already accept the conclusion.

When I say that an argument **begs the question *in the narrow sense***, I'm referring specifically to arguments that employ premises that are roughly equivalent in meaning to what the conclusion is asserting.

In the next tutorial I'll loosen this definition and examine how a *broader* class of arguments might be described as "begging the question". We'll see that the examples we're considering here are really just *special cases within this broader category.*

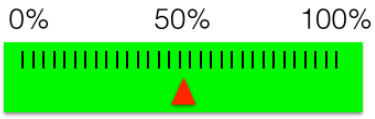
4. Begging the Question (Broad Sense)

Begging the question is usually associated with arguments where a premise or set of premises is logically equivalent to the conclusion, so the premises don't give any more support to the conclusion than the conclusion has all by itself. The argument essentially involves restating the conclusion in different language.

However, this idea can be applied to a broader range of arguments than the ones that are normally called "circular". I**n this broader sense, an argument begs the question whenever it uses premises that are no more plausible than the conclusion is already.**

This gets back to the basic question of what it means to offer reasons to believe something. For an argument to persuasive, the premises that you offer as reasons must be more plausible than the conclusion is already.

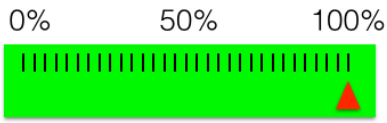
Let's assume that this green ruler is a "plausibility" meter.



A "plausibility meter"

It measures how plausible a particular claim is for a particular audience. Or in other words, how confident the audience is that the claim is true.

So if you're 100% certain that the claim is true then the marker would be up here:

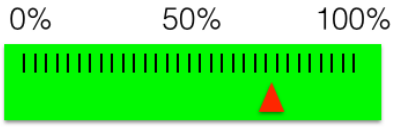


A "plausibility meter"

If you're only, say, 75% sure, it'll be shifted to the left a bit, and so on.

So, for the claim that corresponds to the conclusion of an argument, we'd like to know *how plausible that claim is*, for the intended audience of the argument, *before being given any premises to support it*. We want to know the "initial plausibility" of the claim.

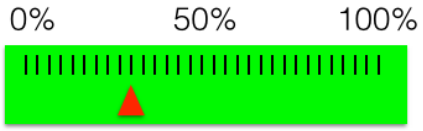
Now if this is a claim that is already widely accepted by the audience, then the plausibility meter reading will be high, like it is here.



A "plausibility meter"

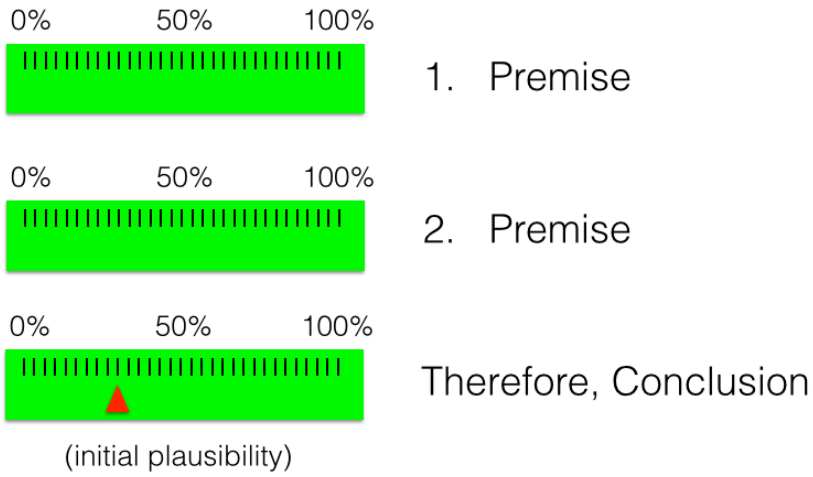
But of course if this the case, then *you're not going to need an argument to convince people to accept it, since they're already inclined to accept it*.

In order to have a situation where an argument is called for, the initial plausibility will be lower, reflecting the fact that there's some doubt about the claim. So let's do that.



Conclusion

This is a claim that the audience regards as (initially) not very plausible. So this is the sort of claim that could benefit from an argument to support it, to offer reasons for an audience to believe it.



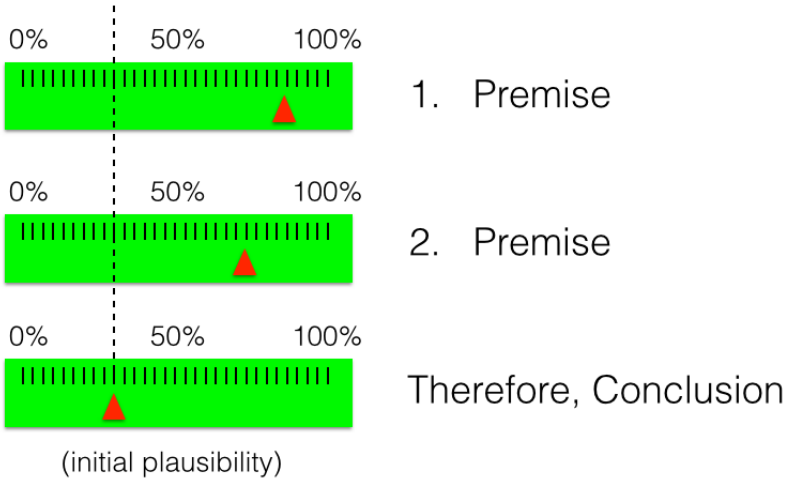
Let's assume that any argument we're going to give is VALID, so the premises will entail the conclusion.

Now we're talking about the plausibility of the premises. The question is, **what general condition do the premises have to satisfy for them to count as offering reasons to believe this conclusion**?

The general principle is this**:**

> **Any premises that are offered as reasons to accept the conclusion must be MORE plausible than than the conclusion was initially.**

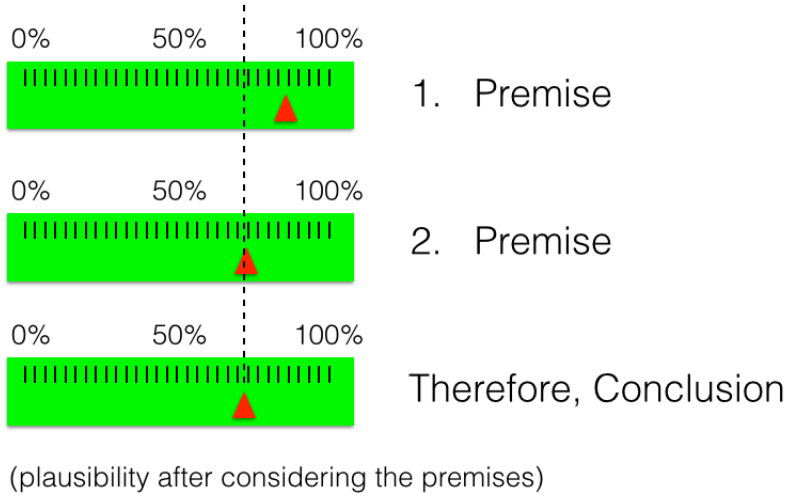
That is, the plausibility of each of the premises must be greater than the initial plausibility of the conclusion, like shown here.



This means that each premise will be regarded as more likely to be true, to the intended audience of the argument, than the conclusion was initially.

Our goal in argumentation is to get the audience to revise their plausibility judgments about the conclusion — their judgments about how likely it is that the conclusion is true — in light of the premises.

So, after being given the premises, we'd like to see an upward shift in the plausibility of the conclusion, maybe like this:



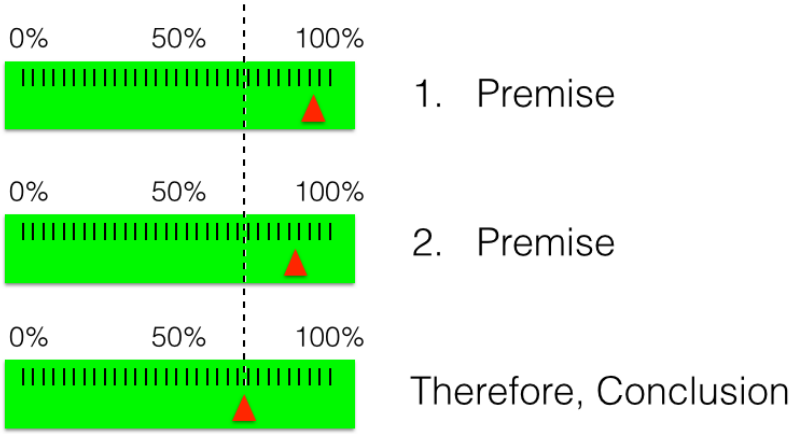
This would reflect an argument that was effective in making someone change their mind. After considering the argument they're more convinced that the conclusion is true than they were before.

Now, note that I didn't move the plausibility meter for the conclusion all the way up to 100%. It's higher than it was initially, but it's no higher than the least plausible premise in the argument.

There's no reason for anyone to accept the conclusion with a higher degree of confidence than they accept the premises. If someone is only 75% confident that premise 2 is true, and this premise is offered as a reason to accept the conclusion, then it wouldn't be rational for someone to accept the conclusion with a higher degree of confidence than 75%.

In short, **a conclusion will only be as plausible as the least plausible premise in the argument.**

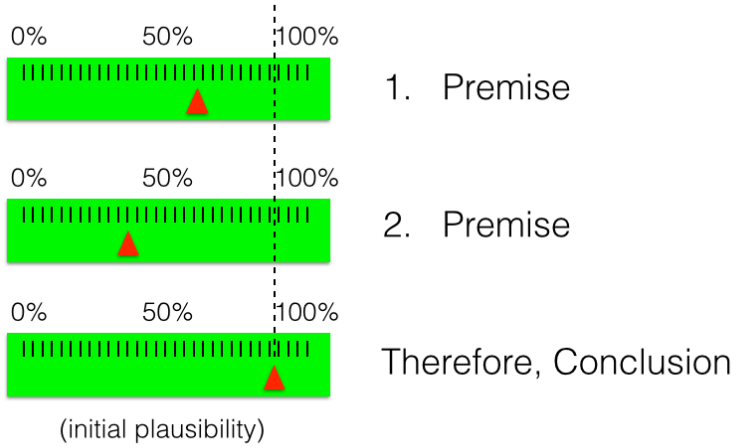
That means that if I wanted to convince someone of the conclusion even more strongly than this, then I'll need to use an argument with premises that are even more plausible, maybe like this:



(plausibility after considering the premises)

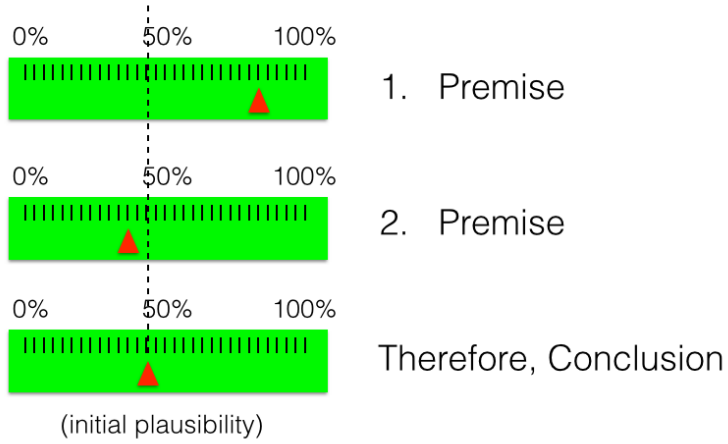
Now, let's talk about what happens when the premises are *less plausible* than the conclusion. Let's say my initial confidence in the conclusion is high, like it is here, but I'm willing to be persuaded that I should be even more confident in it.

Now let's say the premises I'm given look like this:



Each of the premises is less plausible than the conclusion is to me already. Even if the argument is valid, an argument like this could never be successful in persuading me to revise the initial plausibility of the conclusion upward.

The same principle would apply to an argument like this:



The initial plausibility of the conclusion is fairly low, so there's lots of room to move upward, and one of the premises is more plausible than the conclusion is, but the other one is less plausible than the conclusion.

An argument like this doesn't give me any reason to revise my confidence in the conclusion.

This is the general principle: **For an argument to be persuasive, all of the premises must be more plausible, to the intended audience of the argument, than the conclusion is initially.**

Now, what I want to say is, **arguments that violate this principle are guilty of "begging the question" in the broad sense of that term**[2].

Examples

Let's look at an example.

> **"Why is it wrong to kill chickens for food? I'll tell you why. Because all animals have divine souls, and it's wrong to kill and eat for food anything that has a divine soul."**

Interesting argument. Let's look at it in standard form.

1. **All animals have divine souls.**
2. **It's wrong to kill and eat for food anything with a divine soul.**
3. **Chickens are animals.**

Therefore, it's wrong to kill and eat chickens for food.

This argument is valid, there's no doubt that the conclusion follows from those premises. But we're interested in the relative plausibility of the conclusion and the premises.

Let's say I'm a meat eater, I eat chicken. So the initial plausibility of that conclusion is pretty low for me, but I'm willing to be convinced, I know some smart people who are vegetarians. So let's set the initial plausibility at the low end.

Working upward, let's look at premise 3. Are chickens animals? Yes, that's a very plausible premise, I'll shove that right up to the right end of the meter.

---

2. I should say that I'm borrowing this formulation from Richard Epstein and his textbooks on critical thinking (see his *Critical Thinking*, 2005, Wadsorth). The term certainly isn't always used in quite this sense, but I think it's a helpful way of thinking about what it means to beg the question.

Premise 2, is it wrong to kill and eat for food anything with a divine soul?

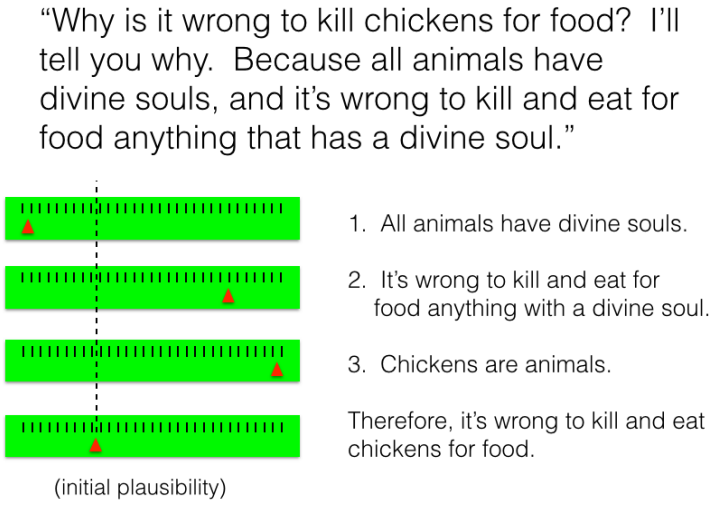
This premise is certainly less plausible to me than the claim that chickens are animals, but if I read it as a conditional, saying that "If a thing had a divine soul, THEN it would be wrong to kill and eat it for food", well, maybe that's plausible. Certainly there are lots of people who think that killing and eating humans for food is wrong for this very reason. So let's say I'm willing to grant this conditional premise, put the plausibility up above 50%.

So far so good. Two of our premises satisfy our general principle.

But this last premise, premise 1. Gosh, that's different. How plausible do I think it is that animals have divine souls?

Well, seeing as we already know that I'm a meat eater, and seeing as such a view would be extremely rare even among vegetarians and the very religious, I'd say that for myself, and for most audiences, that premise will rank very low on the plausibility scale.

So, this argument violates the general condition that was stated earlier. It relies on a premise is that less plausible than the conclusion is initially.



And the result is that *there isn't a chance in the world* that an argument like this would convince anyone to accept this conclusion *who wasn't already convinced of it initially*.

So, by our definition, this argument "begs the question" in the broad sense of that term. When used in this way, the question that is being begged is precisely whether all animals do in fact have divine souls — the argument can only succeed if the audience has reason to believe this is true, but no reasons are given.

"Broad" vs "Narrow"

Now, why do we call this "begging the question" in the "**broad**" sense?

We call it this because it isn't strictly begging the question in the "narrow" sense introduced in the previous lecture. It's not circular, in the sense that none of the premises is equivalent in meaning to the conclusion. The premises don't just restate the conclusion in slightly different language.

But what's *wrong* with this argument is *precisely the same* as what's wrong with arguments that beg the question in the narrow sense.

To illustrate, let's take a look at a blatantly circular argument.

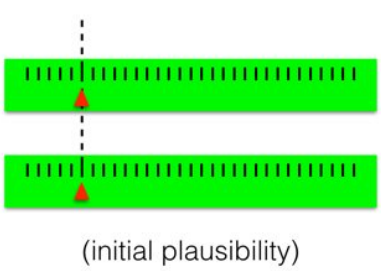
1. Abortion is the unjust killing of an innocent human being.
Therefore, abortion is morally wrong.

This is circular because calling abortion "unjust" in premise 1 automatically implies that it's morally wrong. The premise just restates the conclusion with slightly different wording. So this begs the question in the *narrow* sense.

Now, imagine that I'm a pro-choice person, so I go into this thinking that abortion is morally acceptable, or at least its not always unjust. For me, the plausibility of the conclusion is going to be low.

But notice that, because the argument is circular, *the premise can be no more plausible for me than the conclusion is initially, since they assert the same thing*. So by our definition, this argument also begs the question in the

broad sense, because it's relying on premises that are no more plausible than the conclusion is initially.



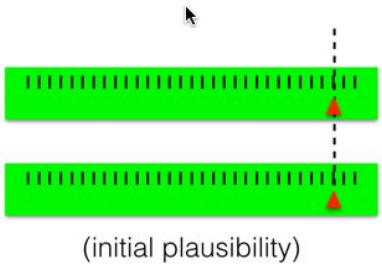
1. Abortion is the unjust killing of an innocent human being.

Therefore, abortion is morally wrong.

(initial plausibility)

And this captures exactly why begging the question in the narrow sense is a fallacy— because these kinds of arguments don't give you any reasons to accept the conclusion.

Notice also that *this argument would commit the fallacy even if I was a pro-lifer and thought the initial plausibility was very high*. Now the premise is very plausible to me, but *it still doesn't give me any more reason to accept the conclusion than I already had to start with*, because the premise and the conclusion are saying the same thing.



1. Abortion is the unjust killing of an innocent human being.

Therefore, abortion is morally wrong.

(initial plausibility)

* * *

To summarize, an argument **begs the question in the narrow sense** when it uses premises that simply restate what's being asserted in the conclusion, in slightly different language.

An argument **begs the question in the broader sense** when it uses premises that are no more plausible than the conclusion is already. To

avoid this fallacy, all the premises must be MORE plausible than the conclusion is initially.

Now, it's important to note that every argument that begs the question in the narrow sense ALSO begs the question in the broader sense. **The former category is a subset of the latter category because it's just a special case of the latter.**

So, the more fundamental fallacy is the broader one, because it reflects a necessary condition for any argument to be good. If you want your arguments to be persuasive, **they have to employ premises that are more plausible than the conclusion is already**.