

# Critical thinking midterm notes

Science



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Pseudoscience is where a claim is set forth as a reason for believing another claim but that is either logically irrelevant to the truth of the other claim or otherwise fails to provide reasonable support. In this part of the course we are beginning to examine arguments, or, stated more accurately, "would-be arguments," where people advance reasons for their beliefs that in fact do not support them. There are two main types of pseudoscience: those that appeal to emotions and those constructed like real arguments but failing in the essential task of providing real support.

Lessons 10 and 11 will examine extemporaneous types that appeal to emotions. Lesson 12 will study extemporaneous types constructed like real arguments. Because extemporaneousness is defined negatively (what it is not) it does not lend itself to technical categorization. The classification offered in these lessons are not exhaustive and may overlap or fail to capture precisely what has gone wrong in an argument. While we must have a common language to communicate about different types of pseudoscience, the point of these lessons is to alert you to a number of ways in which reasoning fails.

When you have finished this course, you may quickly forget the many names and labels but remain alert to failures in reasoning. Common Forms of Pseudoscience/Fallacies

1. Smokescreen/Red Herring
2. The Subjectivist Fallacy
3. Appeal to Belief
4. Common Practice
5. Peer Pressure and Bandwagon
6. Wishful Thinking
7. Scare Tactics
8. Appeal to Pity
9. Apple Polishing
10. Horse Laugh/Ridicule/Sarcasm
11. Appeal to Anger or Indignation
12. Two Wrongs Make a Right

The above list is not exhaustive.

Each will be explained In the next section. Definitions/Descriptions of Extemporaneousness Types 1 .

Smokescreen/Red Herring: Most pseudonymous Introduce Irrelevant considerations Into a discussion, but a smokescreen or red herring does not fit Into one of the more specific categories. Typically It Involves the deliberate Introduction of Irrelevant topic or consideration In order to throw the discussion off course. Example: Professor Conway complains of Inadequate parking on our campus. Duty did you know that last year Conway carried on a torrid love affair with a member of the English Department? Enough said about Conway. Notice the change from the stoic of inadequate parking to the irrelevant topic of a torrid love affair 2.

The Subjectivist Fallacy: The structure of this fallacy is " That may be true for you, but it is not for me," fact and matters of opinion. In the subjective world of pure opinion (for example, what I think of a particular movie), I am entitled to my opinion. However, in the objective world of facts (for example, the day of the week), I do not enjoy the same latitude. I am not entitled to my own facts. 3. Appeal to Belief: The pattern is: " X is true because everyone (many people, most societies, others) think that it is true. " It is a distorted version of the reasonable practice of accepting the claim from a reasonable authority.

Because people may in fact be experts on a subject, you must take care in distinguishing between good and bad versions of this reasoning. For example, " Physicians consider food high in saturated fat unsafe," is a good appeal to belief. On the other hand, " Physicians consider overseas stocks

unsafe," is a bad appeal to belief. 4. Common Practice is where an action is defended by calling attention to the fact that the action is a common one (not to be confused with appeals for fair play). It seeks to justify an action on the grounds of its familiarity or typicality.

It differs from appeal to belief in that it specifically aims at calling an action acceptable, without mentioning the beliefs people may have about what they commonly do. The most common form of this pseudoscience is, " Everyone does it. " For example, " Everyone cheats on their taxes," is used as justification for mecheatingon my taxes. 5. Peer Pressure/Bandwagon is a pattern of pseudoscience in which you are in effect threatened with rejection by your friends, relatives, etc. , if you don't accept a certain claim. People often act in a certain way because their friends do.

A rood has often been swept up behind a candidate or consumer product, the victim of fashion. But this behavior in itself is not pseudoscience. When you go along with friends or a mob to gain social acceptance, you are reasoning correctly about what will get you accepted, whether or not that acceptance is what is best. The phenomenon turns into pseudoscience only when one cites the peers' or crowd's activity as a reason for the truth of a claim. Voting for the most popular political candidate in order to feel at one with your community is, though unwise perhaps, not pseudoscience.

Arguing that the candidate is the best one on the grounds of that popularity is pseudoscience. 6. Wishful Thinking: Believing that something is true because you want it to be true (or believing that it is false because you don't want it to be true). For example, I refuse to believe that too much exposure

to the sun causes skin cancer, because I would have to give up my habit of sunbathing at the beach. 7. Scare Tactics is a pattern of pseudoscience in which someone says, in effect, " X is so because of Y (where Y induces fear in the listener). The emotion being appealed to is fear. However, you need to watch for the difference between Justified and unjustified appeals to fear. " If you don't check your parachute before jumping out of the plane, you may die" is an excellent argument. But the pressure used by a car salesperson, for example, indicating that the deal offered is only available today usually involves scare tactics, the inducing of fear in order to make a sale. 8. Appeal to Pity is where someone tries to induce acceptance of a claim by eliciting compassion or pity.

The appeal to pity works exactly like a scare tactic, except for the different emotions at stake. As in the appeal to pity, this appeal becomes pseudoscience when the pity is irrelevant. Logic and Critical Thinking does not hold to the notion that you can show no pity and pity is not always irrelevant! 9. Reason for accepting a claim. ( It also has less " flattering" names! ) Note that apple polishing can take subtle forms, for example, " You're too intelligent to believe in mental telepathy. " Appeals to flattery have fewer legitimate versions than the last two (appeals to fear and pity), but they do exist.

For example, " You should wear the gold sweater instead of the red one, because it brings out your beautiful eyes. 10. Horse Laugh/Ridicule/Sarcasm is a pattern of pseudoscience in which ridicule is disguised as a reason for rejecting a claim. It is a way to avoid arguing about a position by simply laughing at it. " Support the Equal Rights Amendment? Sure, as soon as the <https://assignbuster.com/critical-thinking-midterm-notes/>

ladies start buying the drinks! Ha, ha, ha. " Rush Lumbago relies heavily on this one. 11. Appeal to Anger or Indignation: A pattern of pseudoscience in which someone tries to induce acceptance of a claim by arousing indignation or anger.

It obscures the relevant issues by arousing one's anger, particularly at some person or group. Keep in mind that expressions of anger (like emotionally charged language) do not by themselves make something an appeal to anger or indignation. The appeal to anger or indignation counts as pseudoscience because it reverses the appropriate relationship between wrongdoing and anger. It is one thing to get angry because you see something wrong being done; but the appeal to anger tries to make you call something wrong because you feel angry.

Most commonly, such appeals arouse anger against a person before getting to the specifics of the argument, rather than giving vent to indignation after showing that something wrong has been done, a common tactic in the rhetoric of politicians. 12. Two Wrongs Make a Right pattern: " It's acceptable to A to do X to B because B would do X to A," said where A doing X to B is not necessary to prevent B's doing X to A. One Justifies some action that hurts another person on the grounds that the other person has done (or is likely to do) the same kind of harm.

Because many people will see Justice in cases of returning harm for harm, this kind of pseudoscience is difficult to distinguish from legitimate reasoning. " Two wrongs make a right" is not identical with revenge, UT applies specifically to those circumstances in which the revenging act is

illegitimate. Responding to rude service at a restaurant by telling your friends not to eat there may be vengeful, but does not fall under this category of pseudoscience. But if you slip out without paying and justify yourself on the grounds that the waiters were rude, you are engaging in pseudoscience.

Unnamed Classify the pseudoscience in the following examples: 1. " I can't believe the mayor wants to use the Police Department as security guards for our schools. While he's at it, why not have them collect our garbage? 2. Biker: I refuse to buy Japanese motorcycles. I don't believe in doing business with Communist countries. Reporter: But Japan isn't Communist. Biker: Well to me they are. 3. Officer: Excuse me, sir. Do you know how fast you were going? Driver: I never get over the sight of you mounted policemen. How do you leap down off the horse's back so fast? And you must have them well trained, not to run away when you dismount. . " Dear Editors: When AH Saccharin wrote in to criticize city workers, he didn't mention his occupation. Maybe he's a millionaire without a care in the world, that he has the time to criticize people working for him if he's even a taxpayer. " 5. Ladies and gentlemen of the Jury: My client stands before you accused of three bank robbery, who will have a hard time getting food on their table if their daddy goes to prison. 6. My opponent would like to see TV networks label their programming, on the grounds that violent shows make children who watch them violent. But everyone knows a couple of shows can't change your personality. . I had to get a garage built last summer. Who wants to be the last person on the block to park his car in the open air? 8. There must be life on other planets. Imagine how lonely we'll find the universe if we

discover that we're the only ones here. 9. Judge Cunningham keeps striking down our state gun control laws. She had better say good-bye to any hopes for a Supreme Court appointment, as long as we have a democrat in the White House. 10. My opponent would like to see TV networks label their programming, on the grounds that violent shows make children who watch them violent.

Next they won't allow any shows from France, on the grounds that children who watch them will become French. 11. I'm a disabled Vietnam veteran. Why can I only get a six-month license to sell pretzels from my pushcart? You have to be a foreigner with a green card to make a living in this country. 12. The United States is under no obligation to pay its debts to the United Nations. Here we are, the biggest contributor to the UN budget, and we only get one vote out of 185. 13. How can Moslems be opposed to alcoholic beverages? People have been drinking them since before the beginning of history. 4. Why do you take a bus to work when most people drive? 15. Give that woman a dollar. I see her on this corner every day crying. And she seems to be ill. 16. Ladies and gentlemen, that concludes my proposal. You know that I trust and honor your judgment. Even if you do not approve my request, I am happy just to have had the chance to present this proposal to such qualified experts. Thank you. 17. Letter to the editor: Your magazine expresses sympathy for Annie Larson, a putative "fashion victim" because "animal rights terrorists" splashed paint on her mink coat.

But when I think of those dozens of animals maimed and anally electrocuted to satisfy someone's vanity, I know who the real victims are, and who's the terrorist. Answers to Exercise Questions 1. Horse laugh. 2. Subjective fallacy  
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3. Apple polishing. This also counts as smokescreen, but that's not the best answer here 4. Appeal to indignation. 5. Appeal to pity. 6. Appeal to belief. 7. No pseudoscience. The person wants to keep up with the neighbors, but is not asserting that a garage is a good thing in itself. 8. Wishful thinking. 9. Scare tactic. 10. Horse laugh 11. Appeal to anger and appeal to pity. 12. Two wrongs make a right 13.

Common practice. 14. Common practice. 17. Two wrongs make a right.

Unrepresentative Persuasion: An attempt to win acceptance for a claim, but not giving reasons in support. Instead of reasons, devices in the claims themselves are relied upon, such as, emotive language, positive or negative. Political campaign literature makes generous use of emotive language, with few reasons presented in support of the issues or candidates. For example, Copal, a conservative Republican support group, developed a directory of words to be used in writing literature and letters, in preparing speeches, and in producing material for the electronic media.

When writing about your own candidate or issue, emotively positive words (commonsense, courage, dream, duty, family, strength, truth, vision, liberty) are recommended. However, negatively charged words (betray, cheat, disgrace, failure, excuses, liberal, welfare self-serving) are used when defining your opponent. It is a valuable exercise for this class to examine some campaign literature. You may find some interesting material on the web. If you do, share it with us on the bulletin board. Some words of caution: Our writing should not be boring.

An argument couched in emotive language is not necessarily false, but runs the risk of adding more heat than clarity to the issue. Using the information in this section increase sensitivity to the difference between illegitimate unrepresentative persuasion and appropriate use of lively or emotively charged language. Slattern: Linguistic device used to affect opinions, attitudes, and behavior without argumentation. It does not necessarily mean that slattern mislead, rather we primarily examine slattern to become aware of the shadings of language.

Good arguments may come in slanted language, but such arguments should not be accepted uncritically. 1. Euphemisms (good sounds) are words used as substitutes for expressions that may offend, for example, naturalization is substituted for assassination, freedom fighters for guerrillas. By substituting guerrillas with the emotively positive words "freedom fighters," emotively positive words, you want to build support for them. Euphemisms are entirely acceptable when they foster civility or diplomacy, for example, "passing away" as opposed to "died" when speaking of a recent bereavement. .

Dismisses: The opposite of euphemism is dismisses, that is, words are used to produce a negative effect or attitude. For example, freedom fighter is a euphemism for guerrilla or terrorist, while terrorist, a negatively charged word, is a dismisses. 3. Persuasive comparisons, definitions, and explanations are used to slant what they say. A persuasive comparison slants, positively or negatively, by linking our feeling about a person or thing to the person or thing we compare it to: "Her complexion is as pale as whale blubber," or "Her complexion is like new fallensnow. 4. A persuasive definition uses loaded language when defining a term: "Abortion is the killing

of innocent human life," or " Abortion is a safe and effective reoccurred for relieving a woman of an unwanted burden. " To facilitate seeing an issue from all sides, avoid definitions that slant the discussion. 5. Persuasive explanations use similarly loaded language to tell the reason for an event: " He lost the fight because he lost his nerve" or " He lost because he was too cautious. " 6. Assuming that every member of the class has the same set of characteristics: " All women are poor managers," or " All liberals are fiscally irresponsible. " 7. Innuendo involves the insinuation of something derogatory: " She is competent, in many ways," r " He told the truth - this time," or " Far be it from me to suggest that my opponent is lying. " 8. A loaded question follows the logic of innuendo, illegitimately suggesting something through the very existence of the question: " When did you stop beating our wife. The secret to understanding loaded questions is to recognize that there are two questions involved. In the example above the two questions are 1) Did you beat your wife, and 2) When did you stop beating her. The loaded question illegitimately assumes a positive answer to number 1) and then illegitimately expects n answer to number 2). 9. A weaseled is a linguistic method of watering down or weakening of a claim in order to spare it criticism. Words like " may" and " possibly," and qualifying phrases like " as far as we know" or " within reasonable limits," are some common examples of weasels afoot.

Weasels, often used in advertising, suck out all the strength a claim to the point of saying little or nothing: " Three out of four dentists surveyed recommend sugarless gum for their patients who chew gum. ". 10. A downplayed is a linguistic device to make something seem less important

than it ally is: " Evolution is merely a theory," or using such words as " however" and " although. " 11. Proof surrogates: expressions used to suggest there is evidence or authority for a claim without citing it. For example, " informed sources," " it's obvious that" or " studies show. When writing research papers be careful to cite your sources and avoid the charge of proof surrogate. 12. Hyperbole is an extravagant overstatement. For example, describing a hangnail as a major injury, or a teenager describing parents as " fascists" because of a midnight curfew. Note: Is there a method for telling one kind of slanted from another? You will find that the distinctions are partial, often overlapping, and to some extent vague. The organization of slattern into types is meant to assist critical reasoning, not to replace it with role acts of labeling.

In order to arrive at the best name for the slanted in a given example, eliminate those possibilities whose very form gives them away: A loaded question must be in the form of a question; a persuasive comparison is a comparison; persuasive definitions and explanations are definitions and explanations before they are anything else. If none of these categories fits the example, the slanted assuming there is one - must be euphemism, dismisses, stereotype, innuendo, weaseled, downplayed, hyperbole, or proof surrogate. So, look for the obvious structural cues, loaded (emotive) language, and the intended effects.

The process of elimination will lead you to the best description of the slanted. Exercise 9-1 Determine which of the numbered, italicized words and phrases are used as slattern in the following passage: The bigmoneyguys (1) who have smuggled (2) the Rancho Vaccine development onto the <https://assignbuster.com/critical-thinking-midterm-notes/>

November ballot will stop at nothing to have this town run just exactly as they want (3). It is possible (4) that Rancho Venin will cause traffic congestion on the east side of town, and it's perfectly clear that (5) the number of houses that will be built will overload the sewer system. But (6) a small number of individuals have taken up the fight. 7.

Can the developers be stopped in their desire Innuendo, dismisses 1.

Dismisses, 2. Hyperbole 3. Weaseled 4. Proof surrogate 5. No slanted in this instance. 6. Loaded question. See if you can identify the two questions

involved. Exercise 9-2 Identify any slattern you find in the following

selections: 1. It's possible that your insurance agent misfiled your claim.

Surely he would not have lied to you about it. 2. " NationalHealthCare: The

compassion of the IRS and the efficiency of the post office, all at Pentagon

prices. " 3. We'll have to work harder to get Representative Burger reelected

because of this little run-in with the law. . During World War II, the United

States government resettled many people of Japanese ancestry in

internment camps. 5. Morgan has decided to run for state senator. I'm sorry

to hear that he's decided to become a politician. 6. I'll tell you what

capitalism is: Capitalism is Charlie Manson tinting in Folsom Prison for all

those murders and still making a bunch of bucks off T- shirts promoted by

Guns N' Roses. Answers to Exercise 9-2 1 . Innuendo (bringing up the subject

of lying while being able to deny that the accusation is being made). 2.

Persuasive definition. 3.

Euphemism (little run-in with the law). 4. Euphemism (resettled, and

internment camps), To statement avoids the fact that Japanese were forced

into concentration camps, not resettled voluntarily. 5. No slanted. You might

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disagree! Give your input on the bulletin board or by e-mail. 6. Persuasive definition. Information Tailoring and the News One major way of influencing a person's behavior or attitude is select the information one receives. In an open society it is difficult to dictate the information people receive. At the same time, if you get your information from one source this is what happens.

The best way of defending yourself against unrepresentative persuasion is to be well informed and to read widely, using many sources. We get most of our information on a daily basis from the mass media BBC, CBS, NBC, CNN and the major newspapers. A newspaper professes to present the facts objectively. However, all information must pass through the subjective mind, so objectivity is an ideal rather than a strict reality. The tabloids do not strive for the same level of objectivity by checking their sources. The same can be said for many of the TV news magazine programs, which have grown in popularity in recent years.

From the television stations point of view, they are an excellent source of profits, because they are cheap to produce and remain popular for a dwindling audience. Keep in mind that the media are private businesses and as such are in the business of making money. For his reason the media cannot afford to offend their constituents: readers, advertisers, or the government, who provides them with licenses to operate or can make life difficult by withholding information, and the over zealous application of tax laws. Main stream views are promoted, while the controversial is left to smaller news stories.

Most of the information is given to them in press releases from politicians, Congress, the White House, local police forces, and local city halls.

Companies of any size also issue press releases on a regular basis. A new source of information is the WWW. You might take the opportunity in this course of taking a look at the web site of newspapers in other parts of the world and compare how a particular story is covered differently than in the U. S. Media. Also, peruse your local newspaper and note where their information comes from.

You may be surprised to see that much of the information is from other newspapers around the country and from UPS and other news wire services. CNN is a major news source for local TV newscasts. Beware of media bias, slanting, playing up and playing down of stories, sensational headlines, and the use of emotive language. Advertising: Advertising is useful to sell products, sell political candidates and ideas, make announcements, and so on. It also is a major offender in engaging in unrepresentative persuasion. Ads often exaggerate, mislead and even lie.

Some products are advertised so heavily that they skew choices. The psychology of ads is that they play on our fears, desires, prejudices and weaknesses. No expense is spared, and weasel words (fights bad breath, helps control dandruff with regular use, gets dishes virtually spotless) are generously used, especially in the fine print. There are two basic kinds of ads: those that give reasons, and those that do not. All ads are guilty of suppressed evidence, that is, they never give you sufficient information about a product whether it be a commodity or political candidate (30 second spots, for example).

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Ads will never tell you what is wrong with the product (for example, the commonly experienced mechanical problems of a particular model car). Ads give weak promises (your clothes will be "brighter" if you use a particular soap), use vague comparisons (good, better, best), and make illegitimate appeals to the authority of the crowd (most people use the product) or to the authority of a particular individual (Steve Young in the ad for David). Ads that provide reasons, promise ads, submit reasons for buying the product. They tell us more than that the product exists, but not much more.

Usually the promises are vague (Gillie's gin promising "more gin taste"). So, even ads that present reasons for buying a product do not in themselves justify our purchase of the item. If I have done all my homework ahead of time and then see a particularly good price on an item in an ad, then I would be justified in eyeing the product - assuming I have a genuine need of it. Ads invite us to think fallaciously, which we will see more about in the next three lessons. There is no substitute for the application of the skills of logic and critical thinking, especially a careful analysis of unrepresentative persuasion. In advertising. Exercise You might take a particular ad that you like and see how it measures up under the scrutiny of logic and critical thinking. Feel free to share your findings on the bulletin board! Pseudoscience 2 Introduction: Many of the common types of pseudoscience go by the name of fallacy. As a rule, Hess attempts at argumentation do not begin with a psychological response to an issue (whether relevant to the truth of the claim or not). In many cases -false dichotomy, slippery slope they follow the structure of a good argument, but hominid, the pseudoscience resembles a smokescreen.



The speaker makes a genuine argument, but one that lacks a proper connection with the truth-claim at hand. The categories presented here cover the most frequently occurring kinds of pseudoscience. These occur so frequently, in fact, that the major terms have entered everyday spoken English. The pseudoscience covered in this lesson often assembles good reasoning more than the examples presented in earlier lessons. These cases contain few or no appeals to emotion or other psychological motive. Very often the fallacies listed here garble the structure of a good argument, and may even be altered to become good arguments.

Pseudoscience Types Part 2 1. Ad Hominid including Personal Attack, Circumstantial Ad Hominid, Sedimentation indisposing the Well. 2. Genetic Fallacy 3. Burden of Proof including Appeal to Ignorance 4. Straw Man 5. False Dilemma including Perfectionist Fallacy and Line-Drawing Fallacy 6. Slippery Slope 7. Begging the Question. Each will be defined/described in the following section Pseudoscience 2 - Definitions/Descriptions Ad Hominid Basic to the ad hominid (to the person) fallacy is the confusing of the message with the messenger.

A claim or an argument is rejected because of some fact about the author or source of the claim or argument. The fallacy can take a number of forms, but they all share a confusion (often deliberate) between the truth of a claim under discussion and the person or group who put it forward. Since people may hold true beliefs even when their characters are unreliable, or when they belong to a group that automatically holds those beliefs, the ad hominid dismissal is pseudoscience. The most obvious form of the ad hominid is the personal attack.

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As the name indicates, it maligns a person in order to dismiss the person's beliefs; there is something about the person who put forward the argument we do not like or of whom we disapprove. The circumstantial ad hominid attempts to discredit a person's claim or argument by referring to the person's circumstances rather than the claim or argument. This after becomes abusive, for example, " Of course he thinks the economy's fine. He's a Republican, and they don't care about poor people. But abusive treatment to the group in question is not essential to a circumstantial ad hominid. Mydoctorsays that homeopathic cures don't work, but that's what they get drilled into them in medical school. " You may like your doctor despite saying this; but though the statement contains no abuse, it becomes an ad hominid by refusing to consider the truth of the doctor's opinion. A more complex form of ad hominid is sedimentation. The pattern is : " I reject your claim because you act as if you think it is false," or " You can't make the claim now because you have in the past rejected t. " In this case, one dismisses a claim on the grounds of the other person's inconsistency.

Inconsistency does bring down a claim or argument , if a person is advocating both a truth-claim and its denial at the same time. For example, when I it wears down my organs, you can dismiss my claims on the basis of their inconsistency. One variety of sedimentation is where the contradiction between two beliefs reaches back to something a person said in the past: " How can you say caffeine makes people sleepless, when back in high school I remember you claiming it had no effect at all? Another more common variety finds an inconsistency between people's statements and their behavior. You may say you are against drugs, but I notice you drinking alcohol everyday. "

The person may be a hypocrite, but drugs can be dangerous nevertheless. Poisoning the well, another form of ad hominid, attempts to discredit in advance what a person might claim by relating unfavorable information about the person. Poisoning the well has the effect of giving anything else that person says an unreliable sound; thus you may think of it as blanket ad hominid in advance. The fact that a person is on death row and committed many murders does not dismiss that person's argument against the death penalty; the argument stands on its own merits.

Genetic fallacy: The belief that a perceived defect or deficiency in the origin of a thing discredits the thing itself. Strictly speaking, the ad hominid is a specific form of the genetic fallacy. It rejects a claim solely on the grounds of its source, its origins, or its associations. In conversation, the genetic fallacy may sound as broad as " You Just think that's wrong because you were brought up that way. " Burden of Proof: A form of pseudoscience in which the burden of proving a point is placed on the wrong side, or places the burden of proof more heavily on one side than it should be.

One version occurs when a lack of evidence on one side is taken as evidence for the other side, in cases where the burden of proving the point rests on the latter side. Often a discussion of some issue can turn into a discussion of which side faces the greater burden of proof. It helps to have reasonable grounds for assigning the burden of proof properly. All other things being equal, the greater burden of proof sets with someone whose claim has less initial plausibility. Suppose one person claims that the earth is flat, while another denies it.

This claim will strike most people as implausible, so the first person faces the greater burden of proof. All other things being equal, the greater burden of proof rests with someone making an affirmative claim, rather than with the one denying that claim. Be careful when someone defends an affirmative claim by throwing the burden onto the other side, calling a claim true simply because it has not been shown to be false. This special variety of ruder-of-proof pseudoscience is called an appeal to ignorance (for example, God exists because no one has proved the opposite. Straw Man: The Straw Man pseudoscience is where someone ignores an opponent's actual position and presents in its place a distorted, exaggerated, or misrepresented version of that position. There is a deliberate distorting of an opponent's position in order to make it easier to attack. A straw man fallacy typically involves a smokescreen, because recasting another person's opinion in distorted form amounts to changing the subject. At the same time, such faulty thinking can occur without any intent to