Speculative Logic

Lecture for PHI100: Introduction to Philosophy
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OVERVIEW & PURPOSE

Logic is a skill that strengthens and develops the rational powers of the mind free of empty formulas, arbitrary rules, artificial proceedings, which are neither consistent with themselves nor with the things to which they are applied. false habits, and distorted facts, all of which are influenced by the past, old habits, self-serving interests, tradition, ignorance, indifference, impatience, and disappointment. Logical fallacies is an error in reasoning. A fallacy is an argument that gives premises to a conclusion but, it the premise does not support the conclusion. We will explore how to support an argument properly and detect errors in other arguments.

OBJECTIVES

1. Critically examine premise/conclusion arguments and issues related to Logical Fallacies
2. Compare different Logical Fallacies ranging from Ad Hominem to Straw Man
3. Critique differences between deductive and inductive arguments
4. Recognize Logical Fallacies in new media

Definitions:

- A deductive fallacy is a deductive argument that is invalid (it is such that it could have all true premises and still have a false conclusion).
- An inductive fallacy is less formal than a deductive fallacy.
- A premise is a statement (a sentence that is either true or false) that is offered in support of the claim being made, which is the conclusion (which is also a sentence that is either true or false)[1].

Key Philosophers:

- Aristotle
- John Stuart Mill
- Georg Hegel
- Rene Descartes

Key Questions:

- What is a deductive and inductive fallacy?
- What is a logical conclusion?
- Why should I recognize a fallacy when I see it?

Sources:

1. Labossiere, D. M. (1995, January 1). Fallacies. *Fallacies*. Retrieved July 3, 2014, from http://www.nizkor.org/features/fallacies/

2. Dowden, Bradley. "Internet Encyclopedia of Philosophy." *Fallacies*. N.p., n.d. Web. 05 July 2014.
3. Gambrill, Peter. "Effective Argumentation: Premises and Conclusions." (n.d.): n. pag. Web. 7 Feb. 2017. <http://www.sjsu.edu/writingcenter/docs/handouts/Argumentation.pdf>.
4. Durant, Will. "The Life of Greece". Simon and Schuster. New York. 1966 Print.
5. Vera, A. *Introduction to Speculative Logic and Philosophy*. The Journal of Speculative Philosophy. Vol VII. April 1873. No 2.

Lecture:

It's fair to say you believe your ideas, theories, and beliefs are based on sound logic. Surely you would not condone actions that are wrong or illogical. Thus, it's safe to assume your logic is sound. But, logic arrives in many forms and it's probably not as sound as you think. Philosophy has a particular language it speaks and its writings follow a particular philosophical flow. This lecture will help you understand how to think logically and how to write, philosophically. First, we will establish and explain the language of philosophy and then we will discuss how you will write out your thoughts and ideas.

Logical Science: Process of Thinking

Logic is a science embracing within its boundaries the whole range of human knowledge and activity (Vera). Nothing comes before thought, thus, how you think must be logical and sound.

Think about that for a moment. As you read, you are processing information into categories. You are not actively doing it but rather, your mind is doing it automatically for you. 'Thought' happens before anything else happens. Can you think of a time when thought is not the first thing that happens in an activity? Probably not. Then, if thought happens automatically, what is controlling it and what is the process of thinking?

Philosophers such as Aristotle, Descartes, Kant, and Hegel believed the mind subconsciously categorizes information within the mind for later use. For example, if you encounter a tree for the first time, the mind received the information via your senses, otherwise known as, raw sense data. Your eyes see the tree, your nose smells the sap, bark, and leaves, and your hands record the smoothness or roughness of the tree. The mind categorizes the experience and begins to formulate a criterion for 'understanding future trees'. In order for future trees to be associated as a 'tree', the sense data will be compared to previous information already stored in the mind. If the new data matches the old data, it will categorize the experience as 'encountering a tree'. But, what if you come upon a bush. A bush has bark, leaves, and smells similar but, your eyes record new data such as a smaller size and shape. Now the mind must create a new category for bushes. This process happens automatically without your intervention, and you can't stop it. *Try it... try not thinking*. It's impossible to not think ....unless you're dead. No matter what you do, no matter what situation you are in, simulated or real, you're as Descartes claimed, "A thinking being".

The very idea that you are thinking being, with the power to influence those around you, stresses the point that you must think logically and soundly. Learning to strengthen and develop the rational powers of the mind will sharpen your skill of Logical Thinking (Vera).

You will come to learn that through logical thinking you can write an educated assertion with ease. First, let's explore what is *not* logical thinking and how it happens.

How the Mind Reasons

The mind itself is a robot that does nothing more receive and release information via electrical impulses. But, buried deep within the recesses of the mind is a 'thing', an 'it', or 'something' that helps the mind comprehend raw sense data, let's call it 'reason'. If I lay an object on the ground, for example, a metal object with a sharp point, perhaps it has a wooden handle and a shining exterior. Further, I lay down a child next to it and walk away. After the mind finishes categorizing the experience, reason begins to assess the situation. Reason sees the metal object with the sharp point and wooden handle and concludes, that it is a knife. Further, reason concludes that a knife by itself is not a dangerous object but, by placing a child next to it the danger rises exponentially. MOVE THE CHILD!! That would be a logical conclusion.

What if reason didn't reach that conclusion. What if reason decided it's best to let the child learn for themselves the dangers of sharp objects? Is that sound reason? Is that logical? I believe most of us would argue that is not sound logic. Why would someone believe such a thing? There are a number of reasons why someone's beliefs or ideas are illogical.

Illogical Thinking and Logical Thinking

Beliefs that consist of nothing but empty formulas, arbitrary rules, artificial proceedings, which are neither consistent with themselves nor with the things to which they are applied, false habits, and distorted facts are all considered illogical beliefs. The path to illogical thinking tends to be ideas influenced by the past, old habits, self-serving interests, old traditions, ignorance, indifference, impatience, disappointment, and an overall difficulty of embracing the real meaning of a theory (Vera).

Logic is thus a universal science extending and comprehending all areas of thought, form, content, and categories of knowledge ending with a sound proposition.

Philosophy uses the language of logical propositions accumulating from sound premises. For example, if I were to say Socrates were a mortal man. I am offering an educated assertion in the form of a proposition, based on sound two or more premises. First, premise one, which was 'all men are mortal'. Then, I thought about Socrates. Premise two could be "if Socrates is a man' then, I could conclude that Socrates was a mortal being because he was a man. So my assertion, or conclusion, holds up against the scrutiny of deductive reasoning. All men are mortal, Socrates was a man, thus Socrates was mortal.
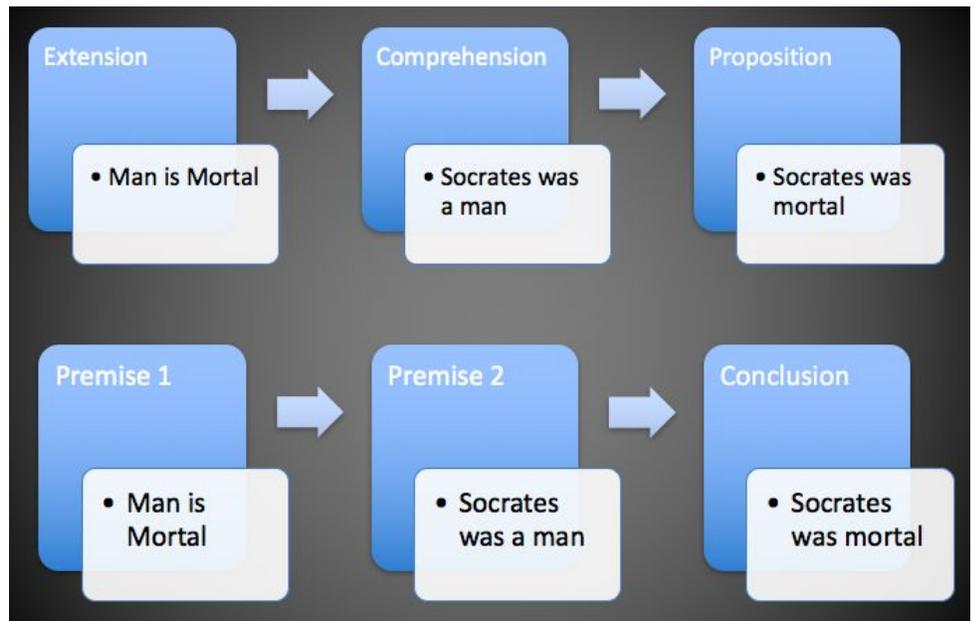
Logical reasoning demands we show logical and sound premises, and when we do that, we will arrive at a logical and natural conclusion. Further, in the lecture, we will discuss what happens when the premises and conclusions to do match, and produce logical fallacies.

Written Educational Assertions

For the moment, let's discuss how to write your discussions and papers. The structure will not be in the 'spoken' form, like this lecture, but instead, it will have a formal and asserted tone. Your discussions will run about 8-10 sentences at minimum.

Paragraph structure
- Sentence (1) The Assertion
  - An assertion is the logical proposition of your premises.

- **Sentence (2-4) Logic Approach**
  - You would relate your premises and how they logically arrived at your conclusion.
- **Sentence (5+): Supporting Details**
  - Sentences 1-4 should be supported by a philosopher. In the moments that follow your assertion and explanation, you will relate how your logic is not new, in fact, philosophers before you asserted the same conclusion. You would recall their words and explain them to us. This may take more than two sentences but, be brief and precise, and only offer enough of supporting words to strengthen your assertion. Refrain from long-winded quotes. Instead, offer only the most ardent portions of the quote. It's prudent, in the subsequent paragraphs, to have a contrasting opinion from another philosopher and show how you can refute it using logic.
- **Sentence (*8): Concluding Remarks**
  - Concluding remarks should not introduce new ideas or research; it should firmly conclude your ideas and thoughts, and should never be a question.

Seems complicated but really, once you get the hang of it, you'll be a pro! ***You do not have to follow this paragraph exclusively but, it's in your best interest to offer your assertions, formally, and with sound examples and conclusions.***

Take a look at this excerpt from the magazine ***Philosophy Now*** titled, "What Are Human Rights?" By Tim Dare

"Human rights are, of course, rights of a certain kind, and rights are specific kinds of moral, political or legal claims. Consider the following cases. Suppose I lose my wallet and won't be able to get home unless I come up with $5.00 for the train. I might ask a colleague for a loan, pointing out that, were he to agree, he would display the virtues of generosity and kindness, and would also promote utility, since his $5.00 would create more happiness in my hand than sitting unused in his wallet for the night. However, I cannot insist he help me, even if I am right about what virtue and utility recommend. He has no duty to make the loan.

Suppose alternatively that discovering the absence of my wallet reminds me that last week I lent $5.00 to another colleague on the condition that she would pay me back today. I go to her office and ask her for the $5.00. Given our agreement, I have a right to the money, and she has a duty to give it to me. On this account, rights-based claims – by contrast with claims based on utility or virtue – are always accompanied by correlative duties. If someone has a right, then some other person or group of persons has a duty to give or allow the rights-holder to have or do that to which the rights-holder has a right.

I was able to demand my $5.00 'as of right' because my colleague and I had entered into an agreement. My right depended upon a convention or practice and we can easily imagine the convention being different. It could have been the case that promises to repay loans, like contracts for the purchase of land in many countries, were only enforceable if written.

If all rights were conventional, then what rights people have would depend upon what conventions particular communities or groups had adopted. What appeared on a list of rights and who had them would depend upon particular and changeable conventions." *Tim Dare*

If we section this off, you can see he is following a similar flow.

Paragraph structure
- **Sentence (1) The Assertion**
  - *Human rights are, of course, rights of a certain kind, and rights are specific kinds of moral, political or legal claims.*
- **Sentence (2-4) Logic Approach**
  - *Consider the following cases. Suppose I lose my wallet and won't be able to get home unless I come up with $5.00 for the train. I might ask a colleague for a loan, pointing out that, were he to agree, he would display the virtues of generosity and kindness, and would also promote utility, since his $5.00 would create more happiness in my hand than sitting unused in his wallet for the night. However, I cannot insist he help me, even if I am right about what virtue and utility recommend. He has no duty to make the loan.*
- **Sentence (5+): Supporting Details**
  - *Suppose alternatively that discovering the absence of my wallet reminds me that last week I lent $5.00 to another colleague on the condition that she would pay me back today. I go to her office and ask her for the $5.00. Given our agreement, I have a right to the money, and she has a duty to give it to me. On this account, rights-based claims – by*

contrast with claims based on utility or virtue – are always accompanied by correlative duties. If someone has a right, then some other person or group of persons has a duty to give or allow the rights-holder to have or do that to which the rights-holder has a right.

- Sentence (*8): Concluding Remarks
  - I was able to demand my $5.00 'as of right' because my colleague and I had entered into an agreement. My right depended upon a convention or practice and we can easily imagine the convention being different. It could have been the case that promises to repay loans, like contracts for the purchase of land in many countries, were only enforceable if written. If all rights were conventional, then what rights people have would depend upon what conventions particular communities or groups had adopted. What appeared on a list of rights and who had them would depend upon particular and changeable conventions

Now, let's explore how you can arrive at educated sound assertions.

Inductive and Deductive Reasoning

"*For every belief comes either through syllogism or from induction*." Aristotle

We need to establish what is a syllogism and induction, and why are they important to Philosophy:

"A false argument depends on the first false statement in it. **Every syllogism is made out of two or more premises**. If then the false conclusion is drawn from two premises, one or both of them must be false: for a false syllogism cannot be drawn from two premises."[5]

"Now **induction**, or rather the syllogism which springs out of induction, consists in establishing syllogistically **a relation between one extreme and the middle by means of the other extreme**, e.g. if B is the middle term between A and C, it consists in proving through C that A belongs to B. For this is the manner in which we make inductions. "[4]

Recognizing a Logical Fallacy will develop your analytical skills and ability sift through the hogwash presented before you. There is always a purpose behind every argument you will encounter. You should take the time to consider the motivation of the argument and what they are asking of you. Recognizing logical fallacy is a workout for your reason, similar to doing pushups for your arms.

Ask yourself this, have you ever heard something and thought to yourself, something just isn't right? You may have heard a logical fallacy. The study of logic explores all the various ways an argument goes wrong. There are millions of ways the argument can derail but let's focus on two particular ways, (1) premise is false and (2) inference is bad. We have to remember, it's not enough to say an argument is false, you always have to intelligently say why.

Logical Fallacy

First, what is a Logical Fallacy? A logical fallacy is an argument, often plausible, that uses erroneous inferences to derive a conclusion that does not follow validly from the argument's premises. Recognizing a logical fallacy on a news site will help you see an invalid argument in mainstream media. Searching search through three major news sites, CNN.com, FoxNews.com, and BBC News, I was able to locate many Logical Fallacies. For one example, by Stephen Moore, published June 25, 2014 at FoxNews.com, featured an article about the decline of jobs in the US, *"Nearly everyone knows the real unemployment rate is far above the "official" 6.3 percent rate because of the disappearance of Americans over the age of 16 from the workforce*." This could be seen as a Circumstantial ad Hominem. A CAH is a fallacy of self-interest where the circumstances do not fit the truth of the matter; purely stated for self-interest with no studies, facts, or evidence to back it up. Guilt by Association was present on an article on the Al Jazeera News site when Presidential candidate Abdullah Abdullah claimed he would reject a tally-vote based solely on the overseeing committee, "*From now onwards, since [the election authorities] have not responded to our legitimate demands ... everything they do and the result of their activities will not be accepted by us*," Abdullah said on June 20, 2014 (http://alj.am/VFVkSo).

Aristotle was first to categorize our 'errors in reasoning' into a list of thirteen logical fallacies. He designed a trio of propositions where the third one logically followed the previous two, called a Syllogism. This is a form of inductive reasoning. I always thought of him as the father of Logic and Reason.

"Men will frequently fall into fallacies through not setting out the terms of the premises well, e.g. suppose A to be health, B to be disease, and C to be man. It is true to say that A cannot belong to any B (for health belongs to no disease) and again that B belongs to every C (for every man is capable of disease). It would seem to follow that health cannot belong to any man. The reason for this is that the terms are not set out well in the statement, since if the things which are in the conditions are substituted, no syllogism can be made, e.g. if 'healthy' is substituted for 'health' and 'diseased' for 'disease'. For it is not true to say that being healthy cannot belong to one who is diseased. But unless this is assumed no conclusion results, save in respect of possibility: but such a conclusion is not impossible: for it is possible that health should belong to no man."[5]

Taking a look at Aristotle's break down, we see A and B together could never equal each other. You could never have a healthy person and a diseased person at the same time. That would be like having the temperature both hot and cold. He further states no matter how you arrange the premises, you will never have a sound conclusion.

Aristotle's *Organon and Syllogism format*

He had such a curious mind and inquisitive nature but, only in the form of total natural objectivity. He even went as far as defining the word 'define', "the specification of an object or idea by naming the genus or class to which it belongs" (Durant 526). Among his vast array of treatises he wrote, it was his six volume treatise on logic called, *Organon*, more specifically, *Prior Analytics, Posterior Analytics.* and *Sophistical Refutations*, that is of interest for this lecture. The books have an interesting story behind them, and well worth the read if you get the chance. The works were lost to time, survived wars, translated into many different languages, and then finally revived during the Enlightenment.[5] At any rate, Aristotle divided the fallacies into two section:, Verbal and Material fallacies. The Verbal Fallacies constituted an error on behalf of *how* the argument was presented while Material fallacies are the *topic* at hand. (A complete list of Aristotle original thirteen are located at the end of the lecture in the handouts section.) The material itself is quite a laborious read but I have pulled excerpts out that pertain to our Logical Fallacies discussion.

A = Health
B = Disease
C = Man

Health and Disease are Man

The traditional Philosophy 'formula' for an argument is as follows:

premise 1: "Premises are assertions that, when joined together, will lead the reader to the conclusion."[3]
premise 2:
conclusion: " A conclusion can be any assertion that your readers will not readily accept. A conclusion must have at least one premise supporting it."[3]

Here's a popular example to illustrate a correct argument:

P1: *All mammals feed their young with milk.*

P2: *All human are mammals.*

C: *Therefore, all humans feed their young with milk*

Here's a popular example to illustrate an invalid argument:

P1: *The President of the United States must be 35 years of age or older.*
P2: *Baby Elizabeth, born 30 days ago, will be 35 years of age or older one day.*
C: *Therefore, Baby Elizabeth, born 30 days ago, is President of the United States.*

Dr. Michael C. Labossiere, the author of a Macintosh tutorial, **Fallacy Tutorial Pro 3.0**, beautifully defined key terms relating to logical fallacies,

"In order to understand what a fallacy is, one must understand what an argument is. Very briefly, <u>an argument consists of one or more premises and one conclusion</u>. A premise is a statement (a sentence that is either true or false) that is offered in support of the claim being made, which is the conclusion (which is also a sentence that is either true or false). There are two main types of arguments: deductive and inductive. A deductive argument is an argument such that the premises provide (or appear to provide) complete support for the conclusion. An inductive argument is an argument such that the premises provide (or appear to provide) some degree of support (but less than complete support) for the conclusion. If the premises actually provide the required degree of support for the conclusion, then the argument is a good one. A good deductive argument is known as a valid argument and is such that if all its premises are true, then its conclusion must be true. If all the argument is valid and actually has all true premises, then it is known as a sound argument. If it is invalid or has one or more false premises, it will be unsound. A good inductive argument is known as a strong (or "cogent") inductive argument. It is such that if the premises are true, the conclusion is likely to be true. A fallacy is, very generally, an error in reasoning. This differs from a factual error, which is simply being wrong about the facts. To be more specific, a fallacy is an "argument" in which the premises given for the conclusion do not provide the needed degree of support. A deductive fallacy is a deductive argument that is invalid (it is such that it could have all true premises and still have a false conclusion). An inductive fallacy is less formal than a deductive fallacy. They are simply "arguments" which appear to be inductive arguments, but the premises do not provide enough support for the conclusion. In such cases, even if the premises were true, the conclusion would not be more likely to be true."[1]

As you move through the fallacies, try to pull out the most commonly used fallacies and commit them to memory; you never know when someone will pull the wool over your eyes.

Deductive Reasoning

When we discuss propositional truths it logically follows that the final proposition given is valid based on its premises. In other words, the argument logically followed from A to Z without an error in between. However, where deductive reasoning differs from inductive reasoning is the possibility of (2) bad inferences.

For example:

All dogs are mammals
All mammals have hair
All dogs have hair

or

Having just arrived in Ohio I saw a white squirrel
All Ohio squirrels are white

In both cases, we have bad inferences. Of course, assumptions are ok and have had a positive effect on areas of science - and of course the power of What If. Where the assumption turns ugly is when they are false the original poster of the arguments refuses to see it.

Below you will find three logical fallacies descriptions and examples that will help get you going in the right direction.

(1) Ad Hominem: an argument that attacks the man, not the argument
For Example:
Bill: "I believe that abortion is morally wrong."
Dave: "Of course you would say that you're a priest."
Bill: "What about the arguments I gave to support my position?"
Dave: "Those don't count. Like I said, you're a priest, so you have to say that abortion is wrong. Further, you are just a lackey to the Pope, so I can't believe what you say."

(2) Consequence of a Belief (wishful thinking): consequences of a belief have no bearing on whether the belief is true or false[1], and should not change the outcome of the argument
For Example:
(b) "God must exist! If God did not exist, then all basis for morality would be lost and the world would be a horrible place!"

(3) Appeal to Pity: argument to make you do something by making you feel pity for the situation
For Example:

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

As you will see, logic and reasoning are paramount to philosophical studies. As you continue with your studies be diligent and aware of your own arguments and that of others. For a humorous look into fallacies, visit http://existentialcomics.com/comic/9.

Traditionally in class, we would play a little game to test your awareness, instead, see if you can match which picture goes with definition.

1)

2)
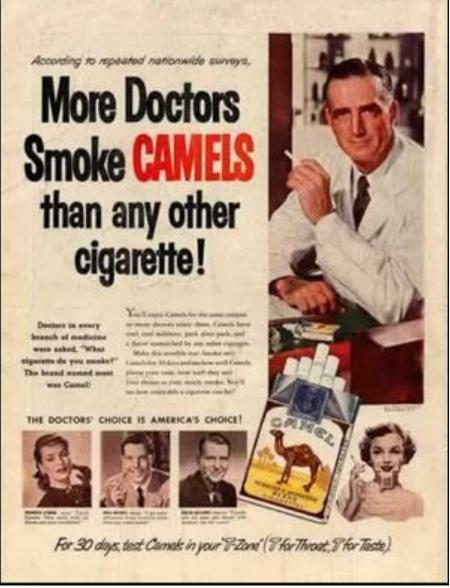
3)

A) False Dichotomy
B) Appeal to Pity
C) Appeal to Authority

1) _____
2) _____
3) _____

Let's see how you did. For #1, did you pick A, B, C, if you picked (b), you would be correct! Appeal to Pity is one of the most common logical fallacy used by popular media. Typically, what moves us to act is our emotions, and the best way to sell products or move an agenda is to attack the heartstrings. In this ad, a young lady holds a beautiful dog pleading with you to stop wearing fur jackets. Who can resist such a cute puppy, right? For #2, the correct answer is False Dichotomy. In a False Dichotomy, you're given only two possible options to choose from. For example, the ad states you have to choose either Religion or Science. However, there are many more options out in the world such as Paganism and Atheism; but not limited to. Another example, you might hear someone say, "you're either with us or against us", that too is a False Dichotomy. Finally, that leaves us with Appeal to Authority. The argument implies if I offer up a supposed authority figure to corroborate my position, then whatever I'm saying must be correct.

As you continue learning about Logical Fallacies, I challenge you to watch the media carefully, as well as listen carefully to arguments around you. The more you practice, the easier it will be to combat them.

Name that fallacy worksheet (answers at the end of this lecture)

Focus on understanding why the argument is fallacious. To do this, you must be able to separate the claim, evidence, and conclusion in each argument. All the premises should be taken on face—the key is whether the premises add up to the conclusion.

Arguments:

1) In support of her argument that global warming is damaging the environment, Susan cites Al Gore's movie *An Inconvenient Truth*. However, Gore was a terrible Vice President and his claims are falsified.

2) Nine months after George W. Bush took office January 2001, the economy took a nose-dive. Thousands of jobs were lost and the stock market dropped by more than 30%. This demonstrates that Bush was a poor economic leader.

3) All people have a right to freedom of speech because people should be able to say what they want to say.

4) If we allow the government to control health care, we lose the right to choose our treatment, if we allow the government to establish imminent domain, we lose the right to buy a house, and if we allow the government to ban handguns, we lose our second Amendment right.

5) The United States had no choice but to invade Iraq. Saddam Hussein had the opportunity to show that he had no weapons of mass destruction, but he failed.

6) It's perfectly acceptable for the government to treat Native Americans as second-class citizens. After all, the government has treated Native Americans poorly since 1776.

7) There can be no denying that global warming is damaging our ecosystem. Many well-known celebrities and public figures have said so publicly, including former Vice President Al Gore.

8) Environmentalists think global warming is so serious that we should stop burning all fossil fuels immediately, but doing so would crash the economy and leave millions to starve to death. The solutions to global warming are unfeasible.

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

10) "You know, I've begun to think that there is some merit in the Republican's tax cut plan. I suggest that you come up with something like it, because If we Democrats are going to survive as a party, we have got to show that we are as tough-minded as the Republicans, since that is what the public wants."

Various Logical Fallacies Examples:

Ad Hominem
Definitions: Like the appeal to authority and *ad populum* fallacies, the *ad hominem* ("against the person") and *tu quoque* ("you, too!") fallacies *focus our attention on people rather than on arguments or evidence*.
In both of these arguments, the conclusion is usually "You shouldn't believe So-and-So's argument." The reason for not believing So-and-So is that So-and-So is either a bad person (*ad hominem*) or a hypocrite (*tu quoque*). In an *ad hominem* argument, the arguer attacks his or her opponent instead of the opponent's argument.
Examples: "Andrea Smith has written several books arguing that pornography harms women. But Smith is just ugly and bitter, so why should we listen to her?" Smith's appearance and character, which the arguer has characterized so ungenerously, have nothing to do with the strength of her argument, so using them as evidence is fallacious.

Argument from Authority (affirming the consequence)
The basic structure of such arguments is as follows:
Professor X believes A, Professor X speaks from authority, therefore A is true.
Often this argument is implied by emphasizing the many years of experience, or the formal degrees held by the individual making a specific claim. The converse of this argument is sometimes used, that someone does not possess authority, and therefore their claims must be

false.

In practice this can be a complex logical fallacy to deal with. It is legitimate to consider the training and experience of an individual when examining their assessment of a particular claim. Also, a consensus of scientific opinion does carry some legitimate authority. But it is still possible for highly educated individuals, and a broad consensus to be wrong – *speaking from authority does not make a claim true.*
Example: This logical fallacy crops up in more subtle ways also. For example, UFO proponents have argued that UFO sightings by airline pilots should be given special weight because pilots are trained observers, are reliable characters, and are trained not to panic in emergencies. In essence, they are arguing that we should trust the pilot's authority as an eye witness.
There are many subtypes of the argument from authority, essentially referring to the implied source of authority. A common example is the argument ad populum – a belief must be true because it is popular, essentially assuming the authority of the masses. Another example is the argument from antiquity – a belief has been around for a long time and therefore must be true.

Appeal to pity
Definition: The appeal to pity takes place when an arguer tries to get people to accept a conclusion by making them *feel sorry for someone*.
Examples: "I know the exam is graded based on performance, but you should give me an A. My cat has been sick, my car broke down, and I've had a cold, so it was really hard for me to study!" The conclusion here is "You should give me an A." But the criteria for getting an A have to do with learning and applying the material from the course; the principle the arguer wants us to accept (people who have a hard week deserve A's) is clearly unacceptable. The information the arguer has given might *feel* relevant and might even get the audience to consider the conclusion—but the information isn't logically relevant, and so the argument is fallacious. Here's another example: "It's wrong to tax corporations—think of all the money they give to charity, and of the costs they already pay to run their businesses!"

Appeal to Tradition
Definition: Appeal to Tradition is a fallacy that occurs when it is assumed that something is better or correct simply because it is older, traditional, or "*always has been done*."
Example: "Sure I believe in God. People have believed in God for thousands of years so it seems clear that God must exist. After all, why else would the belief last so long?" or…
"Of course this mode of government is the best. We have had this government for over 200 years and no one has talked about changing it in all that time. So, it has got to be good."

Begging the Question
Definition: A complicated fallacy; it comes in several forms and can be harder to detect than many of the other fallacies we've discussed. *Basically, an argument that begs the question asks the reader to simply accept the conclusion without providing real evidence*; the argument either relies on a premise that says the same thing as the conclusion (which you might hear referred to as "being circular" or "circular reasoning"), or simply ignores an important (but questionable) assumption that the argument rests on. Sometimes people use the phrase "beg the question" as a sort of general criticism of arguments, to mean that an arguer hasn't given very good reasons for a conclusion, but that's not the meaning we're going to discuss here.
Examples: "Active euthanasia is morally acceptable. It is a decent, ethical thing to help another human being escape suffering through death." Let's lay this out in premise-conclusion form:
Premise: It is a decent, ethical thing to help another human being escape suffering through death.
Conclusion: Active euthanasia is morally acceptable.
If we "translate" the premise, we'll see that the arguer has really just said the same thing twice: "decent, ethical" means pretty much the same thing as "morally acceptable," and "help another human being escape suffering through death" means something pretty similar to "active euthanasia." So the premise basically says, "active euthanasia is morally acceptable," just like the conclusion does. The arguer hasn't yet given us any real reasons *why* euthanasia is acceptable; instead, she has left us asking "well, really, why do you think active euthanasia is acceptable?" Her argument "begs" (that is, evades) the real question.

Guilt By Association
Definition: Guilt by Association is a fallacy in which a *person rejects a claim simply because it is pointed out that people she dislikes accept the claim*. This sort of "reasoning" has the following form:

It is pointed out that people person A does not like accept claim P.
Therefore P is false
It is clear that sort of "reasoning" is fallacious. For example the following is obviously a case of poor "reasoning": "You think that 1+1=2. But, Adolf Hitler, Charles Manson, Joseph Stalin, and Ted Bundy all believed that 1+1=2. So, you shouldn't believe it."

The fallacy draws its power from the fact that people do not like to be associated with people they dislike. Hence, if it is shown that a person shares a belief with people he dislikes he might be influenced into rejecting that belief. In such cases the person will be rejecting the claim based on how he thinks or feels about the people who hold it and because he does not want to be associated with such people.

Red herring
Definition: Partway through an argument, the arguer goes off on a tangent, raising a side issue that *distracts the audience* from what's

really at stake. Often, the arguer never returns to the original issue.

Example: "Grading this exam on a curve would be the fairest thing to do. After all, classes go more smoothly when the students and the professor are getting along well." Let's try our premise-conclusion outlining to see what's wrong with this argument:

Premise: Classes go more smoothly when the students and the professor are getting along well.

Conclusion: Grading this exam on a curve would be the fairest thing to do.

When we lay it out this way, it's pretty obvious that the arguer went off on a tangent—the fact that something helps people get along doesn't necessarily make it fairer; fairness and justice sometimes require us to do things that cause conflict. But the audience may feel like the issue of teachers and students agreeing is important and be distracted from the fact that the arguer has not given any evidence as to why a curve would be fair.

Slippery Slope

Definition: The arguer claims that a sort of chain reaction, usually ending in some dire consequence, will take place, but there's really not enough evidence for that assumption. The arguer asserts that if we take even one step onto the "slippery slope," we will end up sliding all the way to the bottom; he or she assumes we can't stop partway down the hill.

Example: "Animal experimentation reduces our respect for life. If we don't respect life, we are likely to be more and more tolerant of violent acts like war and murder. Soon our society will become a battlefield in which everyone constantly fears for their lives. It will be the end of civilization. To prevent this terrible consequence, we should make animal experimentation illegal right now." Since animal experimentation has been legal for some time and civilization has not yet ended, it seems particularly clear that this chain of events won't necessarily take place. Even if we believe that experimenting on animals reduces respect for life, and loss of respect for life makes us more tolerant of violence, that may be the spot on the hillside at which things stop—we may not slide all the way down to the end of civilization. And so we have not yet been given sufficient reason to accept the arguer conclusion that we must make animal experimentation illegal right now.

Like post hoc, slippery slope can be a tricky fallacy to identify, since sometimes a chain of events really can be predicted to follow from a certain action. Here's an example that doesn't seem fallacious: "If I fail English 101, I won't be able to graduate. If I don't graduate, I probably won't be able to get a good job, and I may very well end up doing temp work or flipping burgers for the next year."

Straw Man

Definition: One way of making our own arguments stronger is to anticipate and respond in advance to the arguments that an opponent might make. In the straw man fallacy, the arguer sets up a _weak version of the opponent's position and tries to score points by knocking it down_. But just as being able to knock down a straw man (like a scarecrow) isn't very impressive, defeating a watered-down version of your opponent's argument isn't very impressive either.

Example: "Feminists want to ban all pornography and punish everyone who looks at it! But such harsh measures are surely inappropriate, so the feminists are wrong: porn and its fans should be left in peace." _The feminist argument is made weak by being overstated_. In fact, most feminists do not propose an outright "ban" on porn or any punishment for those who merely view it or approve of it; often, they propose some restrictions on particular things like child porn, or propose to allow people who are hurt by porn to sue publishers and producers—not viewers—for damages. So the arguer hasn't really scored any points; he or she has just committed a fallacy.

ANSWER KEY:

1) Ad Hominem: This argument attacks the source of the claim rather than attacking the claim itself. Even if Al Gore lied about something in the past, it doesn't mean global warming is harmless to the environment.

2) Association Fallacy: Yes, the economy went down after Bush took office, but that doesn't mean it went down because of Bush. September 11 happened just 8 months into Bush's term, and it influenced the economy far more than his economic policies.

3) Circular reasoning, "Begging the Question": The claim ("all people have a right to freedom of speech") and the warrant ("people should be able to say how they feel") are identical. This is the same as saying "People should have freedom of speech because they should have freedom of speech." The argument includes no evidence.

4) Slippery Slope: Changing policy in one way doesn't necessarily mean that a policy will be changed in other ways. If we can draw the line today, why can't we draw it tomorrow?

5) Fallacy of Burden: It's impossible to prove that something doesn't exist. Saddam Hussein could have shown the world every nook and cranny in all of Iraq, but the US could still say, "You could be hiding weapons somewhere else." The burden of proof must belong to the accuser.

6) Appeal to Tradition: Just because something has been done for a long time doesn't mean it's good (or bad). It just means that it's been done for a long time.

7) Appeal to Authority: If Al Gore said alien parasites had infested your brain, would you believe him? The only time an appeal to authority is an acceptable warrant for a claim is if the authority is an expert in the relevant field. "There can be no denying that global warming is damaging our ecosystem. World-renowned ecologist E.O. Wilson made the case in his latest book," is an acceptable warrant.

8) Straw Man: The argument that global warming must be combated is weakened through overstatement. Most environmentalists don't advocate completely stopping fossil fuel burning immediately, but rather a gradual shift to cleaner energy.

9) Appeal to Pity: The information the arguer has given might *feel* relevant and might even get the audience to consider the conclusion—but the information isn't logically relevant, and so the argument is fallacious.

10) Red Herring: A "red herring" is one that distracts the audience from the issue in question through the introduction of some irrelevancy. This frequently occurs during debates when there is an at least implicit topic, yet it is easy to lose track of it.