

Notes on Informal Fallacies

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1 Introduction to Informal Fallacies

Informal fallacies are often divided into three categories: fallacies of *ambiguity*, fallacies of *presumption*, and fallacies of *relevance*.

1.1 Fallacies of Ambiguity

Fallacies of ambiguity occur when there is more than one way to interpret a word, a phrase, a sentence, or a group of sentences. When we have a fallacy of ambiguity, we have more than meaning.

1.1.1 Amphiboly

1. The structure of the sentence causes it to be read in two ways.
 - The announcement of the marriage between Mr. Jason Wilson and Ms. Anna Smith that appeared in this newspaper was a mistake and we wish to correct it. (*What was the mistake: The announcement or the marriage?*)
2. The incongruous juxtaposition of two sentences provides an expected and unexpected meaning.
 - Want to see a tragedy. Come see the production of Hamlet at Wilkins High School on June 1st. (*What is the tragedy? The play or the production?*)

1.1.2 Accent

This fallacy occurs when:

1. A sarcastic or ironic remark is treated as though it is spoken in a normal tone of voice.
 - The Detroit Tigers in 2003 were the best team in baseball. (*Either the speaker is sarcastic or they have no idea just how bad this team happened to be in 2003.*)
2. We fail to notice a stress or emphasis of a certain word. By emphasizing a certain word, we can shift the meaning of a sentence.
 - Well, I hope you stay for dinner. (*By stressing the word 'I', the speaker suggests that while he may hope you stay for dinner, no one else does.*)

3. We take a remark out of context

- **Professor:** This paper is amazing. I've never seen such a badly written paper in my life.
- **Student:** My professor said my paper was amazing.
 - (*By omitting the Professor's second sentence, the student suggests that she wrote an amazingly good paper, rather than an amazingly bad paper.*)

4. We emphasize certain information over other information.

- **Boss:** I had to fire Bulldog. He said my wife was a big fat slut.
- **Frasier:** Why that's outrageous. How could Bulldog say such a thing? Your wife isn't the slightest bit overweight.
 - (*By stressing the wife's weight, Frasier suggests that he doesn't completely disagree with Bulldog's remark.*)

1.1.3 Equivocation

1. A word shifts from one meaning to another meaning.

- Little green creatures from outer space are aliens. Maria Flynn is an alien. Therefore, Ms. Flynn is a little green creature from outer space. (*The word 'alien' has two meanings. It could mean a creature from outer space or it could mean someone from another nation on Earth.*)

2. A relative term is treated as a fixed term.

- An elephant is an animal. A small elephant is a small animal. (*An elephant is small compared to other elephants. A small elephant is still a large animal.*)

1.1.4 Composition

1. We describe a property that belongs only to the members of a class as belonging to the class itself.

- Each atom of the human body is invisible to human sight. Therefore, the human body is invisible to human sight. (*The property of invisibility belongs to the atoms that make up the body. This property does not belong to the body itself.*)

1.1.5 Division

1. We describe a property that belongs to the class as belonging to the members of that class.

- The human body is visible to human sight. Therefore, the atoms of the body are visible to human sight. (*The property of visibility belongs to the body. It does not belong to the atoms that make up that body.*)

1.2 Fallacies of Presumption

Fallacies of presumption occur when we accept unfounded assumptions as premises of our argument.

1.2.1 Sweeping Generalization—(accident)

1. We commit this fallacy when we treat a general rule as a universal rule. We apply a general rule to a case that is an exception to that rule.
 - We should help our friends. Therefore, I should help my friend steal this car. (*While we generally should help our friends out, there are cases where we should not help them. Stealing cars is one of those times.*)

1.2.2 Hasty Generalization—(converse accident)

1. We commit this fallacy when we base a rule on insufficient evidence or on exceptional cases.
 - Four ASU students were caught stealing bicycles on campus last Saturday night. ASU students are just thieves. (*This conclusion is based on just four individuals. These individuals are atypical of ASU students.*)

1.2.3 False Dilemma—(False bifurcation, black/white fallacy)

1. We present two alternatives when there is a third alternative. We present two extremes without presenting a position within those two extremes.
 - You're either an alcoholic or a teetotaler. (*We are provided with two alternatives. We are described as either a person who abuses alcohol or a person who abstains altogether; but there is another position. We could be moderate drinkers.*)

1.2.4 Begging the Question—(*Petitio Pricipii*)

1. We assume as a premise the very conclusion we are trying to prove. This assumption may be either explicit or implicit.
 - Today is Tuesday because today is Tuesday. (*The conclusion appears explicitly in the premise.*)
 - Why is John a bachelor? Because he is unmarried. (*The answer to this question repeats the same information that appears in the conclusion. We essentially have this: Why is John a bachelor? Because he is a bachelor.*)
2. We have a circular argument. We propose a series of arguments in which the conclusion of the last argument is a premise in an earlier argument.
 - **Jones:** Why is giving alms to the poor the right thing to do?
 - **Smith:** Because one is morally obligated to give alms to the poor.
 - **Jones:** Why is one morally obligated to give alms to the poor?

- **Smith:** Because it is the right thing to do.
 - (*Note that we are now back at our starting point we have gone in a circle.*)

1.2.5 Complex Question

1. We ask a question where we have already presupposed the answer to an earlier question. Two questions are presented as one, the answer to the previous question is already presupposed.
 - Are you still beating up your little brother?
 - We have two questions:
 - (a) Have you ever beaten up your little brother?
 - (b) If So, are you still beating him up? The person who asks this question already presupposes the answer to the first question is affirmative.

1.2.6 Special Pleading

1. We commit this fallacy when we apply a verbal double standard the same behavior is described in two ways. One description is favorable, the other unfavorable.
 - I save my pennies because I am frugal and thrifty. Jones saves her pennies because she is cheap and miserly. (*We are both saving our pennies. But in my case, this action is described favorably frugality and thrift are virtues. In Jones' case, this action is described unfavorably.*)

1.2.7 Slippery Slope

1. We illicitly assume that a proposed first step will set off a chain reaction of events that will lead inevitably to an undesirable outcome. We have no justification for thinking that chain reaction will actually occur.
 - Don't let your kids learn to add and subtract. If you do, the next thing you know, they'll become accountants that justify some shady business dealings with some shady operators. (*Most people learn to add and subtract without going on to become crooked accountants.*)

1.3 Fallacies of Relevance

We commit of relevance when we accept premises that provide no evidence for the conclusion of our argument. These premises are usually based on emotion rather than evidence.

1.3.1 Genetic

1. We attack an idea or a position or an institution on the basis of its origin.
 - The United States will never settle down. It was founded by a bunch of rabble-rousers. (*The speaker is making a point about the United States now on the basis of its founding.*)

1.3.2 Abusive—(*Argumentum ad Hominem*)

1. We attack the character of a person rather than their position or their qualifications.
 - Don't tell me that O.J. Simpson was a great football player. I'm thoroughly convinced that he killed his wife. (*The speaker is attacking O.J. Simpson's character to undermine his accomplishments on the football field. Simpson may still be a good football player even if he has a bad character.*)

1.3.3 Circumstantial—(*Argumentum ad Hominem*)

1. Rather than attacking a person's argument or position, we point out the connection between their belief and their circumstances. We accuse someone of acting in their self-interest by holding a certain belief.
 - Of course, Steve Forbes favors a flat tax. He'd save a bundle every April 15th. (*The speaker accuses Forbes of acting in his self-interest by favoring a certain tax policy. But Forbes may have a good argument for a flat tax.*)

1.3.4 *Tu Quoque*—(you too)

1. Rather than attacking a person's argument or position, we accuse that person of hypocrisy. We accuse them of saying one thing while doing another; or we accuse them of doing something if they had the chance.
 - Don't tell me smoking is bad. You smoke five packs a day. (*A person who smokes five packs of cigarettes a day may still have good arguments against smoking.*)
 - Why are you always complaining about atrocities carried out by our soldiers when other soldiers of other countries are just as bad. (*We are accusing someone of being hypocritical they cannot accuse the soldiers of one country without accusing soldiers of other countries. The problem is that two wrongs don't make a right; and we are not examining the person's argument.*)

1.3.5 Mob Appeal—(*Argumentum ad Populum*)

1. We use mob appeal when we appeal to certain emotions—the desire to be admired or to be accepted—of a group of people to justify a certain conclusion.
 - (a) direct appeal. A speaker excites the emotions of a crowd to reach a certain conclusion.
 - Why is our basketball team going to win the State Championship this weekend? Because we have the greatest fans in the state. (*The speaker wants the crowd to feel as though they belong to an important group; but state championships are won by players, not by fans.*)
 - (b) indirect appeal. A speaker focuses on certain individuals in a group and emphasizes some aspect of their relationship within that group.
 - i. bandwagon: We should adopt a position because the majority accepts it.

- 95% of Americans use Brand X. Shouldn't you use it too? (*The reason why we are supposed to use Brand X is because the majority of Americans use it; but this may not be a good reason for us to use it.*)
- ii. snob appeal or appeal to vanity. We should adopt a position because a certain group is associated with this position.
 - A. Not everyone can appreciate the qualities of Snobikoff Cigars. Are you among the discriminating few? (*This suggests that consumers with good taste can appreciate this brand of cigars. The advertiser is appealing to our sense of snobbishness or vanity. This may not be a good reason to buy these cigars.*)

1.3.6 Appeal to Pity—(*Argumentum ad Misericordium*)

1. We support a conclusion on the basis of sentiment rather than fact. We support our conclusion by trying to evoke pity or sympathy.
 - Please, Professor Hardnose, I know I didn't do any work or pass any exams; but you have to give me a B for this course. If you don't, I'll be put on academic probation. My parents will be so disappointed and my 98 year old granny will cry for a week. It may even cause her to give up on life altogether. (*We may feel sad for this student. She's faced with academic probation, disappointed parents, and possibly the death of her granny; but grades should be based on performance.*)

1.3.7 Appeal to Fear—(*Argumentum ad Baculum. Appeal to force*)

1. We support our conclusion by threatening anyone who opposes our views.
 - You don't have to agree with me, Mr. Smith; but then, you don't have to keep your job, either. (*Mr. Smith may very well agree with the speaker; but he will be not agreeing with the speaker on the merits of the speaker's case. Rather, Mr. Smith may prefer to have a job rather than being unemployed.*)

1.3.8 Appeal to Ignorance—(*Argumentum ad Ignorantium*)

1. We support our conclusion by arguing that no one has shown otherwise. We either argue that our position is true because no one has shown it is false or we argue that our position is false because no one has proven it true.
 - Joe Schmo is a superhero because no one has shown he's not. (*We are not providing any positive evidence for our conclusion. We are just pointing out that no one has proven otherwise.*)

1.3.9 Appeal to Authority—(*Argumentum ad Vericundiam*)

1. We support our conclusion by illicitly bringing up the following sorts of authorities.
 - (a) We cite someone who may be famous but who is not an expert in anything.
 - The theory of relativity must be true. Paris Hilton accepts it. (*Paris Hilton is famous; but is she an expert in anything?*)

- (b) We cite someone who is an expert but an expert in another area.
 - Feynman, who won the Nobel Prize in physics, had this to say about the President's new economic policy. (*Someone who is an expert in physics may not be an expert in economics.*)
- (c) We cite an outdated authority.
 - Of course, the sun and the planets orbit around the Earth. Just consult Aristotle and Ptolemy. (*When it comes to astronomy, Aristotle and Ptolemy are a bit outdated. Their view have been superceded by later discoveries.*)
- (d) We cite an appropriate expert in their area of expertise; but we fail to acknowledge that we are citing our expert's opinion in an area where the experts disagree.
 - Argument from the 1950's: Of course, the universe is stationary. Fred Hoyle, the noted astronomer, says that the universe is stationary. (*The speaker has an appropriate expert. The problem is this: During the 1950's experts disagreed on whether the universe was expanding or stationary. By using Hoyle's opinion, the speaker gives the impression that other experts agree with Hoyle. Incidentally, if we give this argument today, Hoyle would be an outdated authority.*)

2 Examples of Informal Fallacies

2.1 Fallacies of Ambiguity

2.1.1 Amphiboly

1. The wife of the famous tunesmith was too unhappy to compose herself.
 - *Was the wife unable to compose music or was she unable to regain her composure?*
2. Wanted: A chair for a child with a cane seat.
 - *Which has the cane seat? The child or the chair?*
3. Leaking badly, manned by a skeleton crew, one infirmity after another overtakes the little ship.
 - *Is it the case that the crew is facing one disaster after another; or are infirmities acting as pirates to overtake the ship?*

2.1.2 Accent

1. **Politician X:** Some tobacco company scientists will claim, with a straight face, that there is no proven link between smoking and lung cancer...But the weight of the evidence proposed accepted by the overwhelming preponderance of scientists is that smoking does indeed cause cancer.
Opponent: Politician X said, "There is no proven link between smoking and lung cancer."

- *The opponent took a remark made by Politician X out of context. Within this context, it is clear that x believes smoking does cause lung cancer.*
2. We should not speak ill of our friends. (But you can say whatever you want about them).
 - *The second sentence suggests that the word ‘We’ was stressed. This means that while we shouldn’t speak ill of our friends, other people can speak ill of them.*
 3. We should not speak ill of our friends. (But we can think whatever we want.)
 - *The second sentence suggests that the word ‘speak’ was stressed. This means while we shouldn’t say anything uncomplimentary about our friends, we can certainly think uncomplimentary things about them.*

2.1.3 Equivocation

1. A flea is an animal. A large flea is a large animal.
 - *A large flea is large compared to other fleas. It will still be a very small animal.*
2. We ought to do what is right. We have a right to eat nothing but chocolate. Therefore, we ought to eat nothing but chocolate.
 - *The word ‘Right’ is shifting its meaning. In the first sentence, we are talking about doing what is morally correct or morally good. In the second sentence, we are talking about a legal privilege.*
3. Rare things are difficult to find. Some steaks are rare. Thus, some steaks are difficult to find.
 - *In the first sentence, ‘rare’ is used to mean ‘few in number’. In the second sentence, ‘rare’ is used to describe how long a piece of meat is cooked.*

2.1.4 Composition

1. Each M&M candy has less than 50 calories. Therefore, this two pound bag of M&M candies has less than 50 calories.
 - *If only this were true. A property that belongs to an individual candy does not always belong to a group of those candies.*
2. Each sentence of this novel is well-written. Therefore, the novel is well-written.
 - *A property that belongs to individual sentences may not belong to the overall novel. A novel is considered badly written if it has clichéd characters, a plagiarized plot, and expresses hackneyed emotions. A novel can do all this even if it has well-written sentences.*
3. It is not going to help ease the energy crisis by having people ride buses rather than cars. Buses use more gasoline than cars.

- *What is true of each bus is not true of the whole group of buses and what is true of each car is not true of the whole group of cars. Since there are far more cars than buses, the group of cars uses more gasoline than the group of buses.*

2.1.5 Division

1. The Arizona Diamondbacks were the best team in baseball in 2001. Therefore, they had the best players at every position.
 - *The Arizona Diamondbacks may have had the two best starting pitchers in baseball; but they did not have the best catchers, the best infielders, or the best outfielders in baseball. The property that belongs to the team does not necessarily belong to each member of the team.*
2. This chocolate cake has more than 5,000 calories. Therefore, each bite of this cake has more than 5,000 calories.
 - *I'm thankful this is not true. Each bite of the cake probably has 25 calories. Taken together, the bites will add up to over 5,000 calories.*
3. Oxford is a famous historically important university. Therefore, each student at Oxford is famous and historically important.
 - *The university has this property. The students, who help made up Oxford, may not have the same properties.*

2.2 Fallacies of Presumption

When we assume the truth of some unproven assertion or statement, we commit a fallacy of presumption.

2.2.1 Sweeping Generalization

1. Exercise is important for a healthy lifestyle. Therefore, old Mr. Jenkins, who is 97 years old, should start an exercise program immediately.
 - *It is generally true that exercise is important, but perhaps not for anyone who is 97.*
2. If you attend class, do the homework, and turn in assignments on time, you can get good grades. So, if I attend class, do the homework, and turn in assignments on time for this graduate class in quantum mechanics, I will get a good grade, even though I have yet to take a single class in physics since high school.
 - *Generally, students who keep on top of their classes will do well; but attending class, doing homework, and turning in assignments on time may not be enough to do well in every class.*
3. Golden retrievers are friendly dogs. Thus, this golden retriever, who is growling and foaming at the mouth, is a friendly dog.

- *Golden retrievers are usually friendly dogs. But this particular dog does not sound all that friendly.*

2.2.2 Hasty Generalization

1. Michael J. Fox dropped out of high school and he became financially successful. Thus, the way to achieve financial success is to drop out of high school.
 - *Generally, high school drop-outs are less successful financially than graduates. Michael J. Fox is an exception to this rule.*
2. Timmy saw Shrek and he liked it. Thus, Timmy likes movies.
 - *We need more than one movie to justify this conclusion. Our sample is too small.*
3. It rained last weekend and it rained the weekend before last. It always rains on weekends.
 - *We need more than two weekends to justify this conclusion.*

2.2.3 False Dilemma

1. If you study hard, you will graduate with honors. If you don't study at all, then you won't graduate. Either you'll study hard or you won't study at all. Thus, you'll either graduate with honors or you won't graduate.
 - *Studying hard and not studying at all are two extremes. There's an intermediate position. Rather than studying hard and not studying at all is doing some studying.*
2. Humanity has arrived at a fork in the road crucial to its very survival. One way leads to utter devastation and despair. The other leads to extinction. Let us hope we have the wisdom to choose correctly. (Woody Allen)
 - *Let's hope that there is another alternative—maybe a way that leads to a brighter future devastation and despair or extinction. (By the way, this is supposed to be a humorous remark.)*
3. America: love it or leave it.
 - *This comment was intended to stifle any criticism of any American policies. Americans were supposed to love American unconditionally without any criticisms or to leave for another country. There is an alternative position. Loving America but working for a change in policies.*

2.2.4 Begging the Question

1. Taxes are unjust because taxes are unfair to the people who have to pay them.
 - *The words unjust' and unfair' are synonymous in this case. So, this sentence is saying that taxes are unjust because they are unjust. No new information is given.*

2. **Manager:** And how does our loan department know that you are reliable and honest?

Smith: Jones will vouch for my character.

Manager: Good; but can we trust the word of Jones?

Smith: Certainly, I personally can vouch for the honesty of Jones.

- *We have a circular argument. Jones will vouch for Smith's honesty. Smith will vouch for Jones' honesty.*

3. A cure for insomnia is a good night's sleep. (W.C. Fields)

- *This sentence is saying that the cure for insomnia is a cure for insomnia; or the way to get a good night's sleep is to get a good night's sleep.*

2.2.5 Complex Question

1. Are you still beating your spouse?

- *This is the second of two questions.*
 - (a) Have you ever beaten your spouse?
 - (b) If so, have you stopped?

2. Why isn't a nice girl like you married?

- *Again, this is the second of two questions.*
 - (a) Are you a nice girl?
 - (b) If so, why aren't you married?

3. When did you stop your misleading advertisements?

- *Again, this is the second of two questions.*
 - (a) Have you ever engaged in misleading advertisements?
 - (b) If so, have you stopped?

2.2.6 Special Pleading

1. Shelly Winter's opinion of on-stage nudity: I think it is disgusting, shameful, and damaging to all things American. But if I were twenty-two with a great body, it would be artistic, patriotic, and a progressive religious experience.

- *Same behavior, different descriptions.*

2. Dancer's glow. Business executives perspire. Wage slaves sweat.

- *Glowing is a very complimentary way of describing sweat or perspiration. All three groups are glowing, perspiring, or sweating; but glowing sounds nicer than sweating.*

3. When Jones refuses to spend money, he is frugal and thrifty. When Smith refuses to spend money, she's a penny pinching miser.

- *Same behavior, different description.*

2.2.7 Slippery Slope

1. You shouldn't eat that piece of chocolate. If you do, the next thing you know, you will have eaten the whole box.
 - *OK, maybe this is true in the case of certain people. But many people will eat just one piece of candy.*
2. b) I don't allow my students to ask questions in class. If I let one student ask a question, then another student will ask a question. Before you know it, our entire class period will consist of nothing of questions.
 - *Teachers who allow students to ask question generally do not spend their entire class period dealing with questions.*
3. c) Don't let your kids play card games. If you let them play Old Maid, then they'll want to learn to play poker. Then the next thing you'll know, they'll be compulsive gamblers spending all their time at the nearest casino.
 - *Learning one or two card games is not likely to cause most people to become compulsive gamblers.*

2.3 Fallacies of Relevance

2.3.1 Genetic

1. Australia cannot be a law-abiding nation. It was settled by convicts.
 - *We are using a certain fact about the origin of the nation to justify a claim about Australia today.*
2. Yao Ming can't be all that tall. He was less than 25 inches long when he was born.
 - *A property about Yao Ming at his origin does not necessarily hold now.*
3. We must take Schopenhauer's famous essay denouncing women with a grain of salt. He wouldn't have written this essay if he had had a better relation with his mother.
 - *We are focusing on the origins of this essay.*

2.3.2 Abusive

1. How can you describe Wagner as a great composer? He was an anti-Semite. He abandoned his first wife. He sponged off his friends. He was an egomaniac.
 - *Wagner's character does not affect his ability to compose music.*
2. Don't adopt Senator X's policy on third world debt reduction. Don't you remember, X admitted that he smoked pot in college?
 - *Senator X may have been a pot smoker in college; but this flaw in his character does not have any bearing on third world debt reduction.*

3. William F. Buckley has argued in favor of legalizing drugs such as marijuana. But, Buckley is just another one of those pointy headed intellectuals who is out of touch with the real America.

- *Rather than focusing on Buckley's arguments, the speaker is insulting Buckley.*

2.3.3 Circumstantial

1. Former football star Joe Namath says in a television commercial that medicine x eases muscle pain. But since Namath is paid a large sum of money to appear in this commercial, we should discount what he says.

- *The speaker is suggesting that Namath endorses medicine x only because it is in Namath's self-interest.*

2. Of course, the Dean of Student Affairs is against student participation in this committee. Student participation would dilute the power of her office.

- *The speaker is suggesting that student participation is against the Dean's self-interest.*

3. You can't possibly accept Tom's views that the employees need a raise. After all, he is the executive secretary of a labor union, and he is paid to make such statements.

- *Again, the suggestion is made that Tom is acting in his self-interest.*

2.3.4 *Tu Quoque*

1. Don't tell me to study hard when you've never studied longer than five minutes in your life.

- *Studying hard may be good advice even from a hypocrite.*

2. If you think conserving fuel is a good idea, why are you driving that gas-guzzling SUV?

- *Again, the speaker is accusing someone of hypocrisy.*

3. Why does McCain complain about the state of campaign finance reform? Look at how McCain raises money for his campaigns.

- *McCain is being accused of hypocrisy. His argument in favor of campaign finance reform is ignored.*

2.3.5 Appeal to Many

1. Flying saucers must exist because thousands and thousands of people have seen them.

- *Thousands of people have "seen" lots of things that do not exist.*

2. One million Elvis fans can't be wrong.

- *Yes, they can.*

3. Watch NBC. More Americans do.

- *We should not do something only because a majority does so.*

2.3.6 Appeal to Pity

1. This athlete deserves a gold medal at the Olympic games. In the last year, her boyfriend dumped her. Her parents got a divorce. And her 20 year old pet cat died of old age.

- *Winning a gold medal should be a matter of the athlete's performance, not a reward for surviving a bad year.*

2. Please, Mr. Policeman Sir, don't give me a ticket. If you do, I won't be able to drive anymore; and my poor 93 year old Grandmother will have to walk five miles for her doctor's appointment.

- *The speaker is trying to get out of a ticket by making the policeman feel sad.*

3. Princess Diana deserves a Nobel Prize. Look at the horrible way she was treated by the press and by her husband.

- *Winning a Nobel Prize is a matter of one's accomplishments, not a sympathy prize for surviving an unpleasant situation.*

2.3.7 Appeal to Fear

1. You should change my grade to an A or my parents are going to sue.

- *The threat of a lawsuit is not a good reason for changing a grade.*

2. Nazi publishers used to send the following notice to German readers who let their subscriptions lapse: Our paper deserves the support of every German. We shall continue to forward copies to you, and hope you will not want to expose yourself to unfortunate consequences in the case of cancellation.

- *The reader is being threatened in order to renew their subscription.*

3. You don't have to accept my conclusions, Ms. Jenkins; but does your husband know what you are doing during your lunch hour?

- *The speaker is trying to convince Ms. Jenkins to adopt a position on the basis of blackmail.*

2.3.8 Appeal to Ignorance

1. The Goldbach conjecture is false. No one has proven it's true.

- *No positive reason is given to believe that the Goldbach conjecture is false.*

2. Weapons for bioterrorism exist in Smith's refrigerator. No one has proven they don't.

- *Considering some of the items found in refrigerators, perhaps some moldy food could be turned into some sort of weapon for bioterrorism. But the speaker gives no positive reason for this claim.*
3. Little green poodles with purple polka dots dance every night at the ShowBiz Theater. No one has shown that they don't.
 - *Again, the speaker gives no positive reason for this claim.*

2.3.9 Appeal to Authority

1. Please, Professor Mathwhiz, you should give me credit for this calculus problem. My roommate said it was correct.
 - *The roommate may not know any calculus.*
2. Space and time are absolute. Newton says so.
 - *Newton's views are a bit outdated. We are now in the era of Einstein where space and time are described as relative.*
3. How can you describe Jackson Pollack as one of the major painters of the 20th century? The noted political writer, George Will, says Jackson's paintings are horrible.
 - *A political writer may not be an expert on painting.*