

# Faulty Reasoning

## Chapter Objectives

### Irrelevant Premises

You will be able to

- recognize fallacies of irrelevant premises (genetic fallacy, appeal to the person, composition, division, equivocation, appeal to popularity, appeal to ignorance, appeal to tradition, appeal to emotion, red herring, and straw man).
- understand the concept of burden of proof and when it applies.

### Unacceptable Premises

You will be able to

- recognize fallacies of unacceptable premises (begging the question, false dilemma, slippery slope, hasty generalization, and faulty analogy).

## Chapter Summary

Certain types of defective arguments that occur frequently are known as **Fallacies**. Fallacies are often psychologically persuasive but are logically flawed. We can divide fallacies into two broad categories: (1) those that have **irrelevant** premises, and (2) those that have **unacceptable** premises.

Fallacies with irrelevant premises include the following:

- The genetic fallacy: arguing that a claim is true or false solely because of its origin
- Appeal to the person: rejecting a claim by criticizing the person who makes it rather than the claim itself
- Composition: arguing that what is true of the parts must be true of the whole
- Division: arguing that what is true of the whole must be true of the parts, or that what is true of a group is true of individuals in the group
- Equivocation: the use of a word in two different senses in an argument

- Appeal to popularity: arguing that a claim must be true merely because a substantial number of people believe it
- Appeal to ignorance: arguing that a lack of evidence proves something
- Appeal to tradition: arguing that a claim must be true or good just because it's part of a tradition
- Appeal to emotion: the use of emotions as premises in an argument
- Red herring: the deliberate raising of an irrelevant issue during an argument
- Straw man: the distorting, weakening, or oversimplifying of someone's position so it can be more easily attacked or refuted

Fallacies with unacceptable premises include the following:

- Begging the question: the attempt to establish the conclusion of an argument by using that conclusion as a premise
- False dilemma: asserting that there are only two alternatives to consider when there actually are more than two, or when the two supposed alternatives are not really distinct
- Slippery slope: arguing, without good reasons, that taking a particular step will inevitably lead to a further, undesirable step or steps
- Hasty generalization: the drawing of a conclusion about a group based on an inadequate sample of the group
- Faulty analogy: an argument in which the things being compared are not sufficiently similar in relevant ways

## Answers to Select Textbook Exercises

Please note: These answers are for some of the questions that were not answered in Appendix B of *The Power of Critical Thinking*, Fifth Canadian Edition.

### Exercise 5.1

7. *Tu quoque*
12. One form says that a claim must be true because it hasn't been shown to be false, and another form says that a claim must be false because it hasn't been proved to be true.
21. The fallacy of arguing, without good reasons, that taking a particular step will inevitably lead to further, undesirable steps.

### Exercise 5.2

7. An appeal to the masses with a touch of appeal to tradition
8. Appeal to tradition
16. Appeal to ignorance
22. Appeal to tradition

### Exercise 5.3

1. Slippery slope
7. False dilemma

#### Exercise 5.4

7. There are only two options for Quebec. Either Quebec stops complaining about its place in Canada and finally fully commits to being part of this country, or Quebec should separate once and for all. But Quebec will never stop complaining, so Quebec should separate from Canada.

### Study Questions

1. What is a fallacy? Provide an example that illustrates how the cost of committing a fallacy can sometimes be very high.
2. According to the text, what are the two broad categories of fallacies?
3. What is the genetic fallacy? Is the origin of a claim ever relevant to the truth of a claim?
4. What is the fallacy of composition? What is the fallacy of division? What is the difference between these two fallacies?
5. What is appeal to the person? Why is it usually regarded as a special case of the genetic fallacy? What are the two forms that this fallacy can take? How does the *ad hominem* tactic known as “poisoning the well” illustrate this association?
6. What is the fallacy of *tu quoque*?
7. What is the fallacy of poisoning the well?
8. What is the fallacy of equivocation?
9. What is appeal to popularity? What is unique about this specific type of appeal to popularity? Can what many people say on a subject ever be reason enough to believe a claim?
10. What is appeal to tradition?
11. What is appeal to ignorance? What are the two types of appeal to ignorance?
12. What is the burden of proof? On which side of a disagreement does the burden of proof usually rest?
13. What is appeal to emotion? What is rhetoric? Is there anything inherently wrong with using rhetoric to persuade someone? When is the use of rhetoric fallacious?
14. What is the red herring fallacy?
15. What is the straw man fallacy?
16. What is the fallacy of begging the question? What is the easiest way for someone to subtly beg the question?

17. What is the false dilemma fallacy?
18. What is the slippery slope fallacy? When is an argument that looks like a slippery slope fallacy not fallacious at all?
19. What is the fallacy of hasty generalization?
20. What is the fallacy of faulty analogy?

## Self-Assessment Quiz

*Scroll down for answers.*

### Passages for Evaluation

For each of the following passages, identify the fallacy committed. Briefly support your response.

1. My last boyfriend was an atheist, and he was morally reprehensible. I would never go out with an atheist again—they're all a bunch of moral imbeciles!
2. There has never been any proof that the Lake Okanagan monster, “the Ogopogo,” does not exist. Therefore, I think that we can safely infer that it exists.
3. It is important to resist the intrusions on our free speech proposed by the government. First, they will stop speech intended to incite violence. That will lead to prohibitions on speech that hurts someone’s feelings. Eventually, we won’t be able to disagree with others, lest the cops come dragging us away late in the evening.
4. All the girls on my daughter’s soccer team are excellent players. Therefore, the team is excellent.
5. The best choice in this election is the Liberal Party. There is just too much against voting for the Conservatives!
6. I’m sure that the guys in One Direction will each have successful solo careers. They were very successful as a group.
7. My teacher told us not to end sentences with prepositions, but she did it right on my report card. I guess it really is okay.
8. Gay marriage is just wrong. I don’t know how we could allow it in Canada. Marriage has always been between a man and a woman—it was Adam and Eve, not Adam and Steve!
9. Same-sex marriage is wrong because marriage should only be between a man and a woman.

10. Some people have been lobbying for more lenient liquor laws in BC. They're crazy! If they start selling alcohol at every corner store, it will be far too easy for children to buy booze.
11. We need to put a stop to this gay marriage madness. First it will be gay marriage, then we will have polygamy. Eventually there will be marriage between people and their pets.
12. It is wrong to eat meat. Animals can feel pain, and it is wrong to eat anything that feels pain.
13. You probably won't like Indian food. You don't like Japanese cooking.
14. Power corrupts. Knowledge is power. Therefore, knowledge corrupts.
15. The study found that 80 per cent of women who took the drug daily had no recurrence of breast cancer. But that doesn't mean anything. The study was funded in part by the company that makes the drug.
16. I argue the government should not continue the fight against ISIS. Islamophobia is reaching epidemic levels and we cannot continue to support the fight against Islam.
17. All of my friends are going to attend Western University. And my teachers think it is a great school too. I guess it really must be the best place!
18. I am against legalizing pot. My brother-in-law smokes that stuff and he's been a real bully to my sister. I can't stand the stuff. So no, I don't think we should legalize it!
19. Can you prove that there are no angels? Of course not! There has never been any proof that angels don't exist.
20. Please don't cut my son from the team. He's not always prepared for practice and he doesn't try very hard in the games, but he's a good kid deep inside and he just broke up with his girlfriend. He needs to feel a sense of achievement.
21. Connor McDavid amassed more points than any other player in the NHL last season. So, it stands to reason that McDavid got more points than Nazim Kadri, in the two games he played against the Leafs.
22. If you love the taste of pickles, and you love the taste of ice cream, then surely you'll love the taste of our new pickle-flavoured ice cream.
23. Only men can be Catholic priests. It's always been that way.
24. It sure is a cold one out there today. So much for this phoney "global warming" baloney.
25. If these migrants are truly "seeking asylum," perhaps we should grant their wish and put them in a lunatic asylum, along with the prime minister!
26. I see no reason to doubt that Colombian drug lords and/or the Central Intelligence Agency framed O.J. Simpson for the murder of his ex-wife. How can you be so sure they didn't?

27. Trudeau claims his budget update demonstrates fiscal responsibility. But that's a laugh. Isn't he the guy who said "the budget will balance itself"?
28. You remember Lucy. She's the one who was spreading rumours about her ex-boyfriend Jian behind his back. Obviously, you can't trust anything she says!
29. You mean to tell me you haven't downloaded TikTok to your smartphone yet? Get with the times!
30. JFK was assassinated on Robert Groden's 18th birthday. So Groden wouldn't be the sort of person to make the case for conspiracy, unless it actually happened that way.

## Answers to Self-Assessment Quiz

### Passages for Evaluation

1. **Hasty generalization.** The speaker is generalizing about all atheists on the basis of one bad apple.
2. **Appeal to ignorance/misplaced burden of proof.** The burden of proof usually lies on the side making a positive claim—so, in this example, on the side claiming that the monster really exists. Not being able to prove that it does not exist is not evidence that it does exist.
3. **Slippery slope.** It is perhaps wise to resist weakening the right to freedom of speech, but that chain of consequences indicated here is not inevitable. One can stop the slide down this slope.
4. **Composition.** There is more to a good soccer team than having individually strong players (which is not to say that it doesn't help!).
5. **False dilemma.** Even if the speaker is correct that one ought not to vote Conservative, there are options other than the Liberals—one could vote Green, NDP or Libertarian.
6. **Division.** A successful career as a group does not automatically support the claim that the members of the group will be individually successful.
7. **Tu quoque.** It doesn't follow, from the fact that the teacher made an error, that it is okay for you to do so.
8. **Appeal to tradition.** Sometimes a tradition is wrong, so we cannot appeal to tradition in order to defend a practice or institution.
9. **Begging the question.** One would not accept the premise if one did not already accept the conclusion. This argument should convince no one who is not already convinced that same-sex marriage is wrong!
10. **Straw man.** Few people are arguing that liquor should be sold at every corner store.
11. **Slippery slope.** Clearly, this chain is not inevitable. We can have laws in place that prevent it from happening.
12. **Begging the question.** The premise that it is wrong to eat anything that feels pain is not likely to be accepted by someone who did not already accept the conclusion.
13. **False analogy.** Indian and Japanese cuisines are quite dissimilar, even though they are both Asian. Not enjoying Japanese food is not an indication that one will not enjoy Indian food.
14. **Equivocation.** In the first premise, “power” refers to political power. In the second, it refers to one's capacity to do things.
15. **Genetic fallacy.** Perhaps one should be wary of this research and seek out independent support, but one cannot reject all research from drug companies on this basis. Sometimes this will be good research.
16. **Red herring.** Islamophobia is wrong, but resistance to ISIS is not tantamount to hating or fearing Islam. This could perhaps also be the **straw man fallacy**, as the fight against ISIS is not defended as a fight against Islam.
17. **Appeal to popularity.** No doubt Western will be a good choice for the prospective student, but the agreement of one's friends and teachers is not adequate evidence. One would need to look at the quality of programs and professors, for example.
18. **Red herring.** The fact that one's pot-smoking brother-in-law is a bully is not relevant to the issue of marijuana legalization.
19. **Appeal to ignorance/misplaced burden of proof.** The burden of proof here is on the side trying to establish the existence of angels.
20. **Appeal to emotion (pity).** Cutting the player might be sad, but in most cases the relevant issue is the player's ability to contribute to the team's success relative to other potential candidates.

21. **Division.** Just because McDavid got more points than any other player over the course of the whole season, does not mean he got more points than any other player in any given game, or pair of games which make up the season.
22. **Composition.** Just because pickles and ice cream might each taste good on their own, does not mean it is a good idea to combine them.
23. **Appeal to tradition.** Just because it has always been that way does not mean it necessarily should be that way in the future.
24. **Hasty generalization.** The arguer generalizes from observations about local weather on a particular day, to a claim about average global temperature over a significantly longer time frame (decades; centuries).
25. **Equivocation.** The arguer conflates two distinct senses of the word “asylum” over the course of their argument. In the first sense, someone seeking asylum is a political refugee in search of protection within the nation they are migrating to. In the second, outdated, sense, an “asylum” is an institution offering shelter and support to someone facing challenges with mental health.
26. **Appeal to ignorance.** The arguer offers lack of evidence that Colombian drug lords and/or the CIA did not frame O.J., as evidence to think (or not to doubt) that they did frame O.J.
27. **Appeal to the person.** (*ad hominem*) The arguer criticizes Trudeau himself, specifically with regards to a statement made in the past, instead of critically examining his argument.
28. **Appeal to the person** (poisoning the well) The arguer claims that anything Lucy has or might claim can be dismissed out of hand due to the fact that she allegedly started a rumour about her ex-boyfriend, Jian.
29. **Appeal to popularity** (appeal to common practice) The arguer insists you should download the TikTok app on to their phone because it is a currently common practice among young people.
30. **Genetic fallacy.** The arguer believes that there was a conspiracy to kill JFK, because the claim that he was comes from Robert Groden, whose 18th birthday happened to be the same day that Kennedy was shot. These personal details about Groden, along with the fact that the claim came from him, are irrelevant to the question of whether his claims of conspiracy are true.