

Informal Fallacies

The starred items are also contained in the Answer Key in the back of *The Power of Logic*.

Exercise 4.1

Part A: Formal and Informal Fallacies

- *1. Argument against the person or *ad hominem* fallacy (abusive). “Bonehead” is the key word.
2. Appeal to pity or *ad misericordiam* fallacy. “I am an orphan” involves an appeal to pity.
3. Straw man. “Genetic engineering is . . . playing God.”
- *4. Appeal to the people or *ad populum* fallacy (“hot new thinkers” . . . “new wave in ethics”).
5. Not a fallacy.
6. Appeal to ignorance or *ad ignorantiam* fallacy (“not been able to demonstrate . . .”).
- *7. Straw man (“seeking the power to kill anyone who has a serious illness”).
8. Formal fallacy: All A are B. No C are A. So, no C are B. (Counterexample: All dogs are animals. No cats are dogs. So, no cats are animals.)
9. Straw man. Opponents of prayer in public schools do not necessarily make the assumptions listed.
- *10. Appeal to pity or *ad misericordiam* fallacy (“I stayed up all night,” “I’ll be put on . . . probation”).
11. Not a fallacy.
12. Appeal to ignorance or *ad ignorantiam* fallacy (“none has been able to disprove”).
- *13. Appeal to force or *ad baculum* fallacy (“I can make good on that threat”).
14. Argument against the person or *ad hominem* fallacy (abusive). “Fool” is the key word.
15. Formal fallacy: If A, then B. B. So, A (affirming the consequent).
- *16. Argument against the person or *ad hominem* fallacy (abusive) (“immature and cold-hearted”).
17. Straw man. Attributes extreme views to all Republicans.
18. Appeal to the people or *ad populum* fallacy (“real men”).
- *19. Argument against the person or *ad hominem* fallacy (circumstantial). The view is rejected because the person who holds it would benefit if more people held the belief.
20. Appeal to the people or *ad populum* fallacy (“everybody that’s anybody”).
21. Formal fallacy: If A, then B. Not A. So, not B (denying the antecedent).
- *22. Appeal to ignorance or *ad ignorantiam* fallacy (“nothing in his file to disprove that he’s a communist”).
23. Argument against the person or *ad hominem* fallacy (circumstantial). The view is rejected because those who hold it were poor students in high school.
24. Appeal to the people or *ad populum* fallacy (“intelligent, refined people”).
- *25. Appeal to the people or *ad populum* fallacy (“if you want to fit in around here”).
26. Appeal to force or *ad baculum* fallacy (“we have ways of making communists see the error of their ways”).
27. Argument against the person or *ad hominem* fallacy (abusive). “Her brains are falling out” is an insult.
- *28. Appeal to ignorance or *ad ignorantiam* fallacy (“no one has succeeded in proving” the conjecture).
29. Argument against the person or *ad hominem* fallacy (*tu quoque*). It is suggested that there is some inconsistency or hypocrisy in demanding black jurors via a nonblack attorney.
30. Appeal to ignorance or *ad ignorantiam* fallacy (“no one has been able to prove that God exists”).

Part B: Formal and Informal Fallacies

- *1. Straw man. No prochoice advocate would accept this description of his or her views.
2. Appeal to pity or *ad misericordiam* fallacy. The appeal to the needs of the family is not relevant to the issue of desert.
3. Appeal to force or *ad baculum* fallacy (“Dad will cut you out of the inheritance if . . .”).
- *4. Argument against the person or *ad hominem* fallacy (circumstantial). Persons who claim clairvoyant experiences stand to benefit by receiving lots of attention.

5. Appeal to force or *ad baculum* fallacy (implied threat of being denied a promotion).
6. Not a fallacy.
- *7. Appeal to ignorance or *ad ignorantiam* fallacy (“No one has ever shown . . .”).
8. Formal fallacy: If A, then B. Not A. So, not B (denying the antecedent).
9. Argument against the person or *ad hominem* fallacy (*tu quoque*). The argument against hunting deer might be sound even if the person giving it eats hamburger (and so is hypocritical or perhaps fails to see an inconsistency between what he’s arguing and how he acts).
- *10. Not a fallacy.
11. Appeal to ignorance or *ad ignorantiam* fallacy (“No one has been able to demonstrate . . .”).
12. Formal fallacy: No A are B. Some C are B. So, no A are C. (Counterexample: No dogs are cats. Some animals are cats. So, no dogs are animals.)
- *13. Two fallacies here. Straw man—hardly a standard formulation of the doctrine of the Trinity (i.e., the view that there is one God but three divine persons, Father, Son, and Holy Spirit). Argument against the person or *ad hominem* fallacy (abusive), the key word being “fools.”
14. Not a fallacy.
15. Two fallacies here. Argument against the person or *ad hominem* fallacy (abusive), the key words being “worse sort of uptight prude.” Appeal to ignorance or *ad ignorantiam* fallacy (“No one has ever proven . . .”).
- *16. Formal fallacy: No A are B. All B are C. So, no A are C. (Counterexample: No dogs are cats. All cats are animals. So, no dogs are animals.)
17. Appeal to pity or *ad misericordiam* fallacy. “I’ve had a rough day” has no logical bearing on whether a traffic ticket is deserved.
18. Not a fallacy.
- *19. Appeal to the people or *ad populum* fallacy. (“Real men” and “wimps” are key words/phrases.)
20. Two fallacies. Appeal to pity or *ad misericordiam* fallacy (“I’ve had a lot of bad luck”). Appeal to force or *ad baculum* fallacy (“since I’m pointing a gun to your head”).
21. Two fallacies. Appeal to ignorance or *ad ignorantiam* fallacy (“dualists have never been able to show . . .”). Argument against the person or *ad hominem* fallacy (abusive). “It’s just crazy to suppose” is the key phrase.
- *22. Straw man. The views of the evolutionist are being distorted here.
23. Appeal to ignorance or *ad ignorantiam* fallacy. (The efforts at proof have “failed miserably.”)
24. Three fallacies here. First, argument against the person or *ad hominem* fallacy, abusive (“don’t have much patience with stupidity”). Second, appeal to force or *ad baculum* fallacy (“you really don’t want to die young”). Third, there is a formal fallacy: If A, then B. Not A. So, not B (denying the antecedent).
25. Argument against the person or *ad hominem* (abusive). “Overdosed on dumb pills” is an insult.

Exercise 4.2

Part A: Fallacies Involving Ambiguity

- *1. Amphiboly. We shall wear no clothes at all, or we shall wear no *distinctive* clothes?
2. Composition.
3. Equivocation. In its first occurrence, the word “ham” means “a person with an exaggerated theatrical style.” In its second occurrence, “ham” refers to a type of meat.
- *4. Composition.
5. Division.
6. Amphiboly. Did the witness see a photograph that was lying on the coffee table, a photograph that happened to be of the defendant? Or did the witness see a photograph that was taken of the defendant while he was reclining on the coffee table?
- *7. Division.
8. Not a fallacy.
9. Composition.
- *10. Equivocation. In premise (2), “reason to believe” means “something to gain by believing”; but in premise (3), “reason to believe” means “evidence in favor of the belief.”
11. Amphiboly. Does the quoted sentence mean that St. Mary’s and Krazykids Preschool are *each* promised \$1000 and best wishes? Or does the sentence mean that St. Mary’s will get the \$1000 and Krazykids will get only the best wishes?

12. Composition.
- *13. Not a fallacy.
14. Not a fallacy.
15. Two fallacies. Equivocation: In its first occurrence, “free” means “politically free,” while in its second occurrence “free” means “able to choose between good and evil.” Appeal to the people or *ad populum* fallacy (“Every real American . . .”).
- *16. Division.
17. Equivocation. In its first occurrence, “public interest” means “best interest or the common good,” while in its second occurrence “public interest” merely indicates what the public is curious about.
18. Division.
- *19. Amphiboly. “All men are not losers” may mean either “not all men are losers” or “all men are nonlosers.”
20. Equivocation. “Created equal” may mean “having equal rights” (presumably the meaning in the Declaration of Independence) or “having all the same qualities.”
21. Argument against the person or *ad hominem* fallacy (circumstantial). It is claimed that Peterson’s circumstances (he’s an embittered veteran) destroy the force of his argument.
- *22. Composition.
23. Equivocation. In its first use, “want” means “want to do, *all things considered*,” while in its second use “want” means merely “have a desire to do” (which allows that there might be stronger desires to do other things).
24. Two fallacies. Equivocation: In the statement that America is not a democracy and never has been, “democracy” seems to mean “direct rule by the majority,” but it can also mean “indirect rule by majority,” and the electoral college is arguably an example of indirect rule by majority. Appeal to the people or *ad populum* fallacy (“all good people . . .”).
- *25. Amphiboly. The sentence structure allows “fish” to be taken as either a verb or a noun.
26. Amphiboly. The first statement can be taken to mean that the whole conditional, “If Edwin Hubble is an astronomer, then he’s a scientist” is necessarily true. On this interpretation, the first premise is true, but the inference to the subconclusion is invalid. On the other hand, the first premise can be taken to mean that, if Hubble is an astronomer, then the statement “Hubble is a scientist” is necessarily true. The latter reading renders the first premise false. Of course all astronomers are scientists, but the people who are astronomers don’t have to be astronomers, and they don’t have to be scientists either (they are free to choose other professions or roles).
27. Two fallacies. Argument against the person or *ad hominem* fallacy (abusive). “Fat cats” is the key phrase. Appeal to ignorance or *ad ignorantiam* fallacy (“no one has proved . . .”).
- *28. Amphiboly. “That which can not-be at some time is not.” Does this mean that those things that can fail to exist will all fail to exist at the same time (call it time “T”)? Or does it mean that each thing that can fail to exist will fail to exist at some time or other? The inference drawn assumes the former interpretation, but the latter interpretation makes the first premise much more plausible.
29. Equivocation. If the argument is to be valid, the word “is” in premise (1) must be read as the “is” of identity (i.e., “God is one and the same thing as love”). But this is not what religious people normally mean in saying that “God is love.” They mean that “God is loving” (i.e., “God has the attribute of being loving”), in which case what’s intended is the “is” of predication (or attribution). Similarly, “The chair is red” normally means “the chair has the attribute of being red,” not “the chair is one and the same thing as redness.”
30. Division.
- *31. Equivocation on “your home.” In the premise it means “the home of the driver who has been involved in an accident.” In the conclusion “your home” means “the home of the person being addressed.”
32. Equivocation on “on drugs.” Presumably, by a speech “on drugs,” the instructor meant a speech “about drugs.” But in the conclusion, the arguer means a speech “under the influence of drugs.”
33. Amphiboly. Was it the selling that was illegal, or the testing? The arguer unjustifiably takes it to be the testing.
- *34. Amphiboly. The previous employer presumably meant that *the recommendation* did not need to be qualified with statements indicating areas of concern about the applicant. The interviewer takes the previous employer’s statement to mean that *the applicant* has no qualifications (experience, skills, etc.) needed to do the job.
35. Amphiboly. In the premise, the sentence, “A good marriage takes more than just two people in love” presumably means something like, “Being in love, though important, does not by itself guarantee that a couple will have a good marriage.” In the conclusion, the sentence is interpreted to mean, “In order for a marriage to be good, it must involve more than two people who are in love with one another.”

Exercise 4.3

Part A: Identifying Fallacies

- *1. Appeal to unreliable authority or *ad verecundiam* fallacy. The president of General Motors is illegitimately assumed to be an authority on the country's religious and ethical moorings.
2. False dilemma. The unwarranted assumption is that all Americans are either Republicans or Democrats. Independent voters, Libertarians, socialists, and so on need to be taken into account.
3. False cause. The unwarranted assumption is that soda, being one common factor, is the cause. In fact there is another, more important common factor to consider, namely, alcohol.
- *4. Appeal to unreliable authority or *ad verecundiam* fallacy. The unwarranted assumption is that tobacco companies are reliable authorities on the harmfulness of smoking.
5. Begging the question. The premise ("sleeping pills cause people to go to sleep") is merely another way of stating the conclusion ("sleeping pills work"); thus, the argument assumes the point to be proved.
6. False cause. The unwarranted assumption is that if turn signals precede turns, turn signals cause turns.
- *7. False dilemma. The unwarranted assumption is that either men are superior to women, or women are superior to men, which ignores the possibility that men and women may be equal in ability, moral standing, and so on.
8. Appeal to unreliable authority or *ad verecundiam* fallacy. The unwarranted assumption is that Rev. Posner is an authority on the causal connections between art and sex crimes.
9. Complex question. The unwarranted assumption is that either Hannah or Hunt is fairest, when there are many other possible candidates.
- *10. Begging the question. The premise ("humans have the power to make choices") is merely another way of stating the conclusion ("humans have free will"); thus, the argument assumes the point to be proved.
11. Appeal to unreliable authority or *ad verecundiam* fallacy. The unwarranted assumption is that an authority on military history is an authority on the morality of war.
12. False cause. The unwarranted assumption is that if A and B are perfectly correlated, then B causes A.
- *13. Three fallacies. Composition ("each scene was excellent, so the whole play was excellent"). Appeal to the people or *ad populum* fallacy ("everybody who is anybody is raving about the play"). Begging the question: To say the play is superb is just another way of saying that it is excellent.
14. Two fallacies. False dilemma: The unwarranted assumption is that God must either create in six days or not at all, but surely God *could* create via the long, slow means of evolution. Appeal to the people or *ad populum* fallacy (no one wants to be labeled a religious fanatic).
15. Three fallacies. Begging the question ("killing is wrong because it is wrong to take a life"). Appeal to the people or *ad populum* fallacy ("not cool, not cool at all"). Argument against the person or *ad hominem* fallacy (abusive): the key word is "coward."
- *16. Complex question. The unwarranted assumption is that Harding was the best president of the first half of the 20th century.
17. False cause. The unwarranted assumption is that harsh punishment is the cause of lower rates of crime in Saudi Arabia (relative to the United States), when other factors must be considered, for example, the relative rates of poverty, the relative degree of racial and religious homogeneity, and perhaps the relative size of the population.
18. Three fallacies. Composition (moments are parts of time). Begging the question: "Time seems real but isn't real" is just another way of saying that "time is illusory." Appeal to the people or *ad populum* fallacy ("the best and the brightest people have always thought . . .").
- *19. Appeal to unreliable authority or *ad verecundiam* fallacy. The unwarranted assumption is that Einstein, who is an authority on physics, is *also* an authority on morality.
20. Not a fallacy.
21. Not a fallacy.
- *22. False cause (slippery slope variety). The unwarranted assumption is that the various links in the alleged causal chain are all strong, when in fact they do not appear to be so.
23. False cause. The unwarranted assumption is that "the soul's leaving the body" is the cause, when other possibilities need to be considered.
24. False cause. The unwarranted assumption is that if A and B are correlated, B causes A.
- *25. False cause. The unwarranted assumption is that if A precedes B, A causes B.
26. Complex question. The unwarranted assumption is that California is the best place to live.

27. False cause. The unwarranted assumption is that because the curse preceded the crash, the curse caused the crash.
- *28. Not a fallacy.
29. Two fallacies. Amphiboly: Is the painting in the storage bin, or is the painting one in which a woman is represented as being in a storage bin? Argument against the person or *ad hominem* fallacy (abusive); "his mind is clouded by greed."
30. False cause. The unwarranted assumption is that if the government holds tobacco companies liable for the addictions their products cause, then credit card companies, fast food chains, and so on will be held liable for the addictions their products cause. But there are surely differences in kind or degree here that call into doubt the allegation that holding tobacco companies liable will result in holding so many other kinds of companies liable.

Part B: Identifying Fallacies

- *1. Complex question. The unwarranted assumption is that being a good boy involves eating spinach.
2. Begging the question. "They are dead because they are not alive."
3. Two fallacies. The appeal to unreliable authority or *ad verecundiam* fallacy is committed twice. The first unwarranted assumption is that "this very intelligent man" is an authority on whether astrology is a science. The second unwarranted assumption is that the astrologer is an authority on winning lottery numbers.
- *4. Three fallacies. False dilemma: The unwarranted assumption is that one must favor either rehabilitation or deterrence (one might favor retribution or preventive detention instead). Argument against the person or *ad hominem* fallacy (abusive): "Silly" is an insult. Straw man: Rehabilitationists do not hold that hardened criminals can be cured so easily.
5. Complex question. The unwarranted assumption is that we do know that there is life in other galaxies.
6. Two fallacies. Division ("Your church is wealthy, so you are wealthy"). Begging the question ("You have a lot of money" is just another way of saying "you are wealthy.")
- *7. Appeal to unreliable authority or *ad verecundiam* fallacy. The unwarranted assumption is that psychology professors are authorities on the existence of God.
8. Begging the question. In context, "He wouldn't lie to someone he loves" presupposes that he loves me.
9. False cause. The unwarranted assumption is that since reading Kierkegaard's book preceded the symptoms, it caused them.
- *10. Complex question. The unwarranted assumption is that the world contains ten times as much misery as happiness.
11. False dilemma. The unwarranted assumption is that one must either hate or love parties; in fact one might be lukewarm on the subject, neither hating them nor loving them.
12. Complex question. The argument presupposes that the Bible contains what God has said, but no support is provided for this presupposition.
- *13. Appeal to unreliable authority or *ad verecundiam* fallacy. The unwarranted assumption is that sociology professors are authorities on what's just.
14. Not a fallacy.
15. False cause. The unwarranted assumption is that since TV shows about illegal drugs are correlated with an increase in the use of illegal drugs, the TV shows have caused this increase.
- *16. False dilemma. The unwarranted assumption is that "either I was hallucinating, or he levitated." The possibility that I was tricked has been overlooked.
17. Not a fallacy.
18. False dilemma. The unwarranted assumption is that as regards ethics one must be either a relativist or a dogmatist. Surely one can avoid ethical relativism and yet admit that one's ethical beliefs are fallible.
- *19. False cause. The unwarranted assumption is that since rock music preceded the military defeat, rock music caused the defeat.
20. False dilemma. The unwarranted assumption is that nonhuman animals are either robots or just like humans in their thoughts and feelings. This overlooks the possibility that nonhuman animals have thoughts and feelings, but ones that are quite different from those of human beings.
21. Begging the question. The conclusion supplies a different way of saying that religion is the opiate of the people.
- *22. Two fallacies. Appeal to unreliable authority or *ad verecundiam* fallacy: The unwarranted assumption is that chemistry professors are experts on the relation between language and logic. Appeal to the people or *ad populum* fallacy ("any intelligent person will agree that").

23. False dilemma. The unwarranted assumption is that each person is either good or evil. This overlooks the possibility that a person may be partly good and partly evil.
24. Complex question. The unwarranted assumption is that being a gentleman involves not talking about politics.
- *25. False dilemma. The unwarranted assumption is that, for any doctrine, one must either believe it to be true or believe it to be false. This overlooks the possibility that one might suspend judgment.
26. Complex question. The unwarranted assumption is that all philosophical problems can be solved simply by defining terms appropriately. This overlooks the possibility that many philosophical disagreements are substantive.
27. Three fallacies. Appeal to the people or *ad populum* fallacy (“people will think you’re superstitious if . . .”). Argument against the person or *ad hominem* fallacy (abusive); the key word is “idiot.” False cause: The unwarranted assumption is that because reading horoscopes is correlated with weirdness in one known case, reading horoscopes causes weirdness.
- *28. Three fallacies. Argument against the person or *ad hominem* fallacy (abusive); “logic choppers” is a put-down. Appeal to ignorance or *ad ignorantiam* fallacy (the philosophical arguments against time travel prove nothing, so time travel is possible). Appeal to the people or *ad populum* fallacy (“just about everyone but philosophers thinks . . .”).
29. Straw man: A key qualification has been omitted from the definition of terrorism, namely, that terrorists intentionally and directly target non-combatants. According to traditional just war theory, there’s an important moral difference between (a) directly and intentionally targeting non-combatants and (b) killing non-combatants as the foreseen but unintended result of striking a military target. *Ad hominem (tu quoque)*: Even if Americans have committed some terrorist acts, it doesn’t follow that they are mistaken in condemning terrorism. Complex question: Assumes that American revolutionary war heroes were all terrorists. Evidence is needed to support the claim that the American revolutionaries directly targeted non-combatants as opposed to British military personnel.
30. Three fallacies. False cause: The unwarranted assumption is that if saying the mantras is correlated with “having a good day,” then saying the mantras causes one to have a good day. Begging the question (“mantras are effective” is just another way of saying “Mantras work”). Appeal to the people or *ad populum* fallacy (“mantras are recommended by many great movie stars”).