

**The Little Logic Book**  
**Hardy, Ratzsch, Konyndyk De Young and Mellema**  
**The Calvin College Press, 2013**

*Exercises for The Little Logic Book may be downloaded by the instructor as Word documents and then modified for distribution to students; or students may be instructed to download the exercises and then told which ones to answer. This is an exercise bank; it is not assumed that students will do all the exercises for any one chapter. Comments, questions or suggestions for Chapter One of The Little Logic Book can be sent to [logic@calvin.edu](mailto:logic@calvin.edu)*

**Exercise Bank for Chapter Ten:**  
**Informal Fallacies**  
**(Posted February 2014)**

**1.0 Basic Concepts**

Define or identify the following:

- 1.1 *Post hoc ergo propter hoc*
- 1.2 *Petitio principii*
- 1.3 *Ad hominem*
- 1.4 *Tu quoque*

**2.0 Informal Fallacies Basics**

Indicate whether the following statements are true or false.

- 2.1 With any two arguments that have the same form, if one is an informal fallacy, then so is the other one.
- 2.2 Premises that may not constitute good reason to conclude that what someone says is false may nonetheless constitute good reason to refrain from believing that what that person says is true.
- 2.3 Melissa is probably at this moment on her way to buy ant extract.
- 2.4 Slippery slope reasoning is not always fallacious.
- 2.5 Appeal to authority is always a bad way to support a claim.

**3.0 Informal Fallacies**

- 3.1 Name at least two types of *ad hominem* fallacy.
- 3.2 Any argument that begs the question is deductively valid. Why, then, are arguments that beg the question classified as fallacies? What exactly is wrong with them?
- 3.3 What exactly is the basic difference between formal and informal fallacies?
- 3.4 In identifying arguments as informal fallacies, we typically must look beyond the form to the \_\_\_\_\_ of the argument.
- 3.5 Construct an example of an argument that *looks* like an informal fallacy (has the form of one of the informal fallacy categories), but which actually is not a fallacy.

**4.0 Name That Fallacy**

For each of the following passages, *name the most obvious fallacy (if any)*. You need not defend your answer if you identify a fallacy. If you believe that there is no fallacy, state that explicitly, then name the fallacy the passage may resemble, and very briefly indicate why you think that despite appearances no fallacy is committed.

4.1 She obviously had not cheated on her taxes, since the IRS could not make the charges stick.

4.2 Time heals all wounds. Since time is money, money heals all wounds.

4.3 If there was a buffalo in this room, then we would have evidence of that fact. We don't have any such evidence, so there isn't.

4.4 The oil-producing countries have no right to lower production in order to raise profits, since our standard of living depends upon that oil.

4.5 We do not allow dogs in this establishment. If we did that, Mary would want to bring in her little lamb, then next someone would come in with their pet potbellied pig, then pretty soon we'd be up to our ears in musk oxen and buffalo.

4.6 Critic: "This medication is unsafe for human use."

Manufacturer: "Wait a minute. Can you prove that?"

Critic: "Don't pull that on us. Can you demonstrate that it *is* safe?"

Manufacturer: "Well, no, that is, uh, not completely."

Critic: "Mr. Chairman, that establishes my initial point. I do not think that these hearings need to proceed any further."

(Case 4736-bj, October 1992, Health Department of Lower Salicia)

4.7 The president of the Enormous Tobacco Company says that cigarettes don't cause gum warts, but I'm not going to accept that just on *her* say so.

4.8 Telephone companies should not be allowed to charge for calls, since the constitution guarantees free speech.

4.9 You can either come into this exam thoroughly prepared or you can flunk.

4.10 The entertainment industry's claim that there is no connection between violent programs/movies and violent crime is simply false—after all, that is exactly what one would expect *them* to say.

4.11 Of course he's powerful—he's a member of Congress, the most powerful body of people on the planet.

4.12 Here's a line from the song "You Got Trouble" from *The Music Man* by Meredith Wilson. A man selling musical instruments in a small Iowa farm town tries to convince its good citizens that they need to get their children out of the pool hall and into a band:

[Kids are hanging out in a pool hall] and I call that sloth,

the first big step on the road to the depths of degradation—

I say first medicinal wine from a teaspoon, then beer from a bottle,

then the next thing ya know your son is playin' for money in a pinched-back suit

listenin' to some big outta town jasper, hearin' him tell about horse race gamblin' .

4.13 "Any self-evident proposition—like  $a+b=b+a$ —just has to be true. If you don't believe me, just think about the proposition "Any self-evident proposition has to be true" and you'll realize it's self-evident too; it has to be true!"

4.14 "Science tells us that a table is really made up of atoms. Atoms are invisible. So the real table is invisible. That's the scientific view. What we see is not the real table, but just an appearance or image of the table."

4.15 Consider these two headlines:

"Drunk gets nine months in violin case."

“Killer sentenced to die for second time in 10 Years.”

Which sentence is ambiguous because of a specific word, which one is ambiguous because of its grammar? Explain the source of the ambiguity in each case.

4.16 After another tragic slaughter of innocent people by a demented person wielding an assault rifle, this comment was recorded in the Grand Rapids Press:

“The NRA better stand firm. They had better stand firm,” said Hal McGinnis, 46, a Houston engineer and Army veteran in town on business. “Any time people talk about banning any type of gun, it’s a very slippery slope. What happens when they ban all AR-15s? Then someone does a shooting with a pump shotgun. Do we then ban pump shotguns? Then we can’t have deer hunting.” (GR Press, Dec 23, 2012, B3)

Mr. McGinnis refers to a “slippery slope” here. Has he committed the informal fallacy of the slippery slope?

4.17 Sign in a hardware store window: “If we don’t have it, you don’t need it.”

4.18 God is love. Love is blind. Therefore God is blind.

## 5.0 A Stretch

5.1 Jeff Speck, an urban designer, notes a strong correlation between low-density development typical of suburban sprawl and obesity. He is inclined to say that low-density development is one of the causes of obesity (his causal theory: people drive more and walk less at the suburban edge, burning fewer calories in the course of a day, thus they are prone to gaining weight). Comment on the following passage from his book, *The Walkable City*, where he argues for the health benefits of urban environments:

“I am wary of confusing causality with correlation, and it would be fair to say that heavier people are probably more likely to prefer driving over walking and are therefore also more likely to prefer sprawl over urban neighborhoods. It is theoretically possible that, rather than suburbs making people fat, fat people make suburbs. But only a soulless pundit funded by the automobile industry—and there are several—would claim that people are not more likely to be healthy in environments that invite walking.”

5.2 Below are the opening lines from an editorial column that appeared in the *Grand Rapids Press*, (Aug 15, 2013, A18):

“Among the successes of taxpayer-subsidized ethanol—which are hardly worth celebrating—is its mere survival, despite being a profoundly immoral waste of money. It’s so clearly harmful that it puts big-government zealot Paul Krugman and his fiercest free-market critics (like me) on barstools next to next each other, nodding in agreement. Even the *New York Times*’ crazed stimulus supporter isn’t gullible enough to waste a nickle on biofuels. In 2008, Krugman wrote that “Demon Ethanol” was bad for the economy, consumers, and the planet. He’s right.”

Evaluate the quality of his argument against the use of ethanol in this opening salvo. What specific fallacy is being committed here, if any?

5.3 Comment on the relation between correlation and causality being discussed below. What is the correlation? Which way is the arrow of causality going in the common “oft cited” view? Which way is the arrow of causality going in the alternate view of Mr. Wilson. What is the causal theory that supports the arrow in the common view? In Mr. Wilson’s view?

“A quarter-century ago Mr. Wilson, a distinguished sociologist, famously argued that the postwar movement of employment out of city centers to the suburbs dealt African-American families, concentrated in those city centers, a heavy blow, removing economic opportunity just as the civil rights movement was finally ending explicit discrimination. And he further argued that social phenomena such as the prevalence of single mothers, often cited as causes of lagging black performance, were actually effects — that is, the family was being undermined by the absence of good jobs.” (Paul Krugman NYT, “Stranded by Sprawl,” July 28, 2013.)