

Spot the Flaw

Each argument below has a flaw in its reasoning. Pick the flaw from the list of possible fallacies (two won't be used), then explain in your own words why the reasoning doesn't make sense.

Possible Fallacies

- Attacks the Person (Ad Hominem)
- Black and White (False Dilemma)
- Correlation $\neq$ Causation (Cum Hoc)
- Twisted Argument (Straw Man)
- Bandwagon
- Circular Reasoning
- Slippery Slope

1. Ms. Hernandez told her class that the mystery novel they're about to read is one of the most gripping books she's ever encountered. Marcus leaned over and whispered that Ms. Hernandez wears the most boring beige loafers imaginable — so clearly she has terrible taste, and the book will be awful.

Flaw: _____

Explain why the reasoning doesn't make sense.

2. Nadia suggested that the third-grade art club buy one box of neon glitter for the bulletin board. Leo objected, saying that filling the entire classroom with five feet of blinding glitter so nobody could open the doors would destroy the school.

Flaw: _____

Explain why the reasoning doesn't make sense.

Spot the Flaw, continued

3. Ranger Chen warned that if visitors feed even one chip crumb to a squirrel, the squirrels will develop a taste for salt, demand vending machines in the forest, organize an armed takeover of the ranger station, and eventually force humans to forage for acorns.

Flaw: _____

Explain why the reasoning doesn't make sense.

4. The Maplewood Public Library noticed that on days when the librarian plays classical music softly in the reading room, more books are checked out than average. Library board member Ms. Holt declared that classical music is proven to make people want to read more.

Flaw: _____

Explain why the reasoning doesn't make sense.

Spot the Flaw, continued

5. Over a thousand apprentices signed up for Professor Bumble's levitation workshop this semester. It must be the most effective way to learn flight magic in the kingdom.

Flaw: _____

Explain why the reasoning doesn't make sense.

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Ignaz Semmelweis

Vienna, 1847



If the man is considered to be insufferable, are his conclusions wrong?

In the 1840s, Ignaz Semmelweis, a physician at the Vienna General Hospital, noticed that the maternity ward run by doctors and medical students lost about one mother in ten to childbed fever, while the ward run by midwives lost far fewer. The doctors, unlike the midwives, often arrived at deliveries straight from performing autopsies. Semmelweis had them disinfect their hands in a chlorinated lime solution, and mortality in his ward dropped roughly tenfold. He reproduced the result after moving to a hospital in Budapest.

The evidence was strong and repeatable, and the profession largely rejected it. Some of the resistance was legitimate: there was no accepted theory of why it worked, since germ theory was still decades away. But much of it focused on Ignaz himself instead of his argument. Accepting the finding meant conceding that doctors' own hands had been killing patients. Rather than engage that possibility, colleagues went after the man. He was abrasive, eccentric, foreign, and unscientific. Those descriptions were largely accurate, and all were beside the point: the mortality figures did not depend on whether Semmelweis was easy to work with.

He was forced out, deteriorated, and died in an asylum in 1865, at forty-seven, of an infection. Germ theory arrived shortly after and confirmed he had been right. For years the profession answered the question, "Is Semmelweis insufferable?" instead of the question that mattered, "Is he correct?"

Talk It Through

1. Semmelweis's critics said he was rude, odd, and foreign. Even if all of that was true, why doesn't it answer whether hand-washing saved lives?

2. What evidence could his critics have looked at instead of looking at him?

3. Some doubts were fair, since nobody yet knew about germs. How is “we don't know why it works yet” different from “he's insufferable”?

4. Think of a time someone's idea was ignored because of who said it. What happened?

Answer Key

1. Attacks the Person (Ad Hominem)

What Ms. Hernandez wears on her feet has absolutely nothing to do with whether a mystery novel is actually gripping. A person's shoe choices and their literary judgment are completely unrelated. Dismissing a recommendation by attacking the person's fashion sense instead of reading the book is an attack the person (ad hominem) fallacy.

2. Twisted Argument (Straw Man)

Nadia only asked for one box of glitter for a display board. Leo pretended she wanted to flood the room with feet of glitter and argued against that instead. Distorting the original idea into an absurd disaster is a twisted argument fallacy.

3. Slippery Slope

Ranger Chen leaps from a single chip crumb to full squirrel world domination, with no evidence that any step in the chain would actually lead to the next. Each link — vending machines, armed takeover, humans foraging for acorns — is assumed inevitable rather than argued for. Treating one small action as the trigger for an unstoppable catastrophic sequence is a slippery slope fallacy.

4. Correlation $\neq$ Causation (Cum Hoc)

Higher checkouts and classical music both show up on certain days, but other things could explain the pattern — those might be days with popular new arrivals or better weather keeping people inside. Two things appearing together doesn't establish cause. That's a correlation $\neq$ causation fallacy.

5. Bandwagon

This is a bandwagon fallacy. The sheer number of enrolled students proves the workshop is popular or heavily advertised, but it does not prove the teaching method is effective. Popularity cannot substitute for evidence of actual learning outcomes.