

What's Wrong?

Faulty Reasoning

Directions: Read the following statements and explain why each shows faulty reasoning. (1 sentence each)

Reasoning is the ability to make a conclusion based on evidence or fact. Good reasoning makes writing stronger and more persuasive. **Faulty reasoning** occurs when there is not enough evidence or a judgement is incorrect. Adding personal opinion may also lead to faulty reasoning. Scientists, engineers, lawyers, and doctors are some professions that use good reasoning.

A) Overgeneralization – a conclusion based on too little data.



- I saw one flower blooming in December. Springtime must be here.
One flower does not represent a good sample; December is still very much winter.
- All kids like cabbage. Tony is a kid. Therefore, Tony likes cabbage.
It incorrectly assumes all kids like cabbage. This is most likely not true.
- All humans are mammals. All hamsters are mammals. Therefore, all humans are hamsters.
There are many distinct mammals with different characteristics. Hamsters and human are not the same.
- Jill hit the baseball farther with a wooden bat than aluminum. Wooden bats are better.
It may be better for Jill, but more data needs to be collected from other players.
- Lynn arrived at school with purple hair. It must be Crazy Hair Day at school.
More evidence needs to be gathered, like how many others have different hairstyles.

B) Personal Bias – a conclusion based on opinion, not facts.



- Gina washed her plate, and now she requests a larger allowance.
Gina may need to do more chores more frequently to earn an increase.
- The book was well written and is my favorite. You will like it, too.
The book is a liked by one person and may not have similar interests shared by others.
- I sold three cars this week at the car lot. I am the best salesperson in town.
This appears to be more of a brag, unless more evidence is produced showing sales in town.
- The detergent cleaned my socks. It is the world's best detergent.
It may be a good detergent, but the "world's best" claim is difficult to prove.
- The kids told Bigfoot stories around the campfire. They heard a strange noise. It must be Bigfoot.
The kids' conclusion needs proof and was probably influenced by their recent campfire stories.

C) Illogical Conclusion – a conclusion not based on evidence.

- Penguins are black and white. Some old TV shows are black and white. Penguins are old TV shows. *There are few connections between animals and electronics other than colors.*
- I do all my homework at the last minute, because then I'll be older and wiser.
Being older does not necessarily mean wiser, unless learning takes place.
- I flipped a coin 10 times and got heads each time. The next flip will also be heads.
Although there seems to be a trend, the probability is always 50% for heads.
- The Ravens won the basketball game because I cheered loudly. *A game mostly involves player skills, and cheering is usually a small factor.*
- I saw an object in the sky that I could not explain. It must be aliens. *When someone sees something unusual or unexplainable, there needs to be proof to claim it is aliens.*



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