

Chapter 8 – Generalization, analogy, and causation

Getting familiar with . . . causal arguments

A. Complete each of the following arguments by supplying a causal claim for the conclusion.

1.

1. I have released this pen 750 times.
2. Every time, it has fallen to the floor.
3. Thus, . . .

2.

1. As I press the gas pedal on my truck, it accelerates.
2. As I release the gas pedal, the truck decelerates.
3. Therefore, . . .

3.

1. In the past, when I thought about raising my arm, it raised.
2. So, . . .

4.

1. On the mornings I drink coffee, I am more awake than on the mornings I drink nothing.
2. Similarly, on the mornings I drink black tea, I am more awake than on the mornings I drink nothing.
3. But on the mornings I drink milk, I am not more awake than drinking nothing.
4. Therefore, . . .

5.

1. The label says ginkgo biloba increases energy.
2. I have taken ginkgo biloba every day for two months.
3. I notice no increase in energy.
4. Thus, . . .

B. Explain whether each of the following is a causal argument or an explanation.

1. The window is broken, and there is a baseball in the pile of glass. Therefore, the baseball probably broke the window.

2. The window broke because the baseball was traveling at a velocity high enough to break the chemical bond holding the molecules of glass together.

3. The sun rises every morning because the Earth rotates on its axis once every twenty-four hours. As it turns toward the sun, we experience what we colloquially call “the sun’s rising.”

4. He got sick for three reasons: he was constantly around sick people; he never washed his hands; and he was always touching his face.

5. He ran off the road because the cold medicine made him drowsy. Running off the road caused him to hit the lamppost. The lamppost caused the head trauma. Thus, driving while on cold medicine can lead to serious injuries.

C. Explain the mistaken identification of causation in each of the following examples. Give an explanation of what might really be happening.

1. “I flipped five tails in a row. That’s highly improbable! The universe must be telling me I need to go to Vegas.”

2. “After each Alcoholics Anonymous meeting, I crave hamburgers. Those meetings are going to make me fat.”

3. “There is a strong positive correlation between being poor and being obese. This tells us that poverty causes obesity.”

4. “Every night, just after I sit down to eat, I get a phone call. I don’t understand why the universe is treating me this way.”

5. “I see the same woman in the elevator every morning. And we take the same bus into town. Fate must be trying to put us together.”