

Types of Evidence

&

Refutation vs. Rebuttal

Four Types of Evidence

Adapted by Dr. Philip N. Howard from Seech, Z. (1993). *Writing Philosophy Papers*. Belmont, Calif.: Wadsworth Pub. Co.

There are basically four types of evidence:

1. Anecdotal
2. Testimonial
3. Statistical
4. Analogical

Four Types of Evidence

1. Anecdotal Evidence

- Considered “soft evidence”
- The description of one, or a few, examples
- It’s usually very weak 'positive' evidence, so it’s better used as 'negative' evidence or as a counterexample
- Example: “Orca live a long time—Granny, is estimated by some whale researchers to be 104 years old.” Sources: Bender; Luba; Ellison.

Four Types of Evidence

2. Testimonial Evidence

- Considered “hard evidence”
- Moderately strong or supportive evidence
- A reference to an established or trustworthy authority
- Example: “Accounting for mortalities from shootings and toxic contamination from pollutants, the data show that orca lifespans are about equivalent to human lifespans.”
Source: Orca Network

Four Types of Evidence

3. Statistical Evidence

- Considered “hard evidence”
- Moderately strong or supportive evidence
- Reference to empirical analysis, or to the results of methodical or scientific experiments or investigations
- Example: “Scientists estimate that the *average, or mean*, life expectancy for a female orca is 30 years and a male orca is 19 years in the Pacific Northwest.” Source: Sea World, quoting Peter F. Olesiuk, 2012

Four Types of Evidence

4. Analogical Evidence

- Considered “soft evidence”
- Fairly strong or supportive evidence (of a sort)
- Explanatory “modeling” of one phenomenon by means of a comparison with another the audience already understands
- Example: “Using a human analogy: just because one man in Japan lived to be 116, we wouldn’t say people have a lifespan of 116. We know that in the U.S., the average lifespan is 76.”
Source: Sea World

Refutation vs. Rebuttal

Refutation vs. Rebuttal

“When you *rebut* someone’s argument you argue against it. To *refute* someone’s argument is to prove it incorrect.” (Paul Brians)

A refutation is stronger than a rebuttal.

Refutation vs. Rebuttal

To rebut an argument is to:

- discredit it by offering a completely different point of view
- provide an alternative argument that seems better

In order to **rebut** the statement, “pit bulls are a violent breed,” one could say, “in the late 1800s and early 1900s, they were actually trained to watch and play with children.”

Refutation vs. Rebuttal

To refute an argument is to:

- produce *evidence* (facts or figures) to prove it untrue
- *prove* it wrong

In order to **refute** the statement, “pit bulls are the most violent breed,” one could say, “they are not—studies of violent canine behavior list pit bulls well down on the list”

Refutation vs. Rebuttal

Four-Step Refutation

Step 1: Restate (“They say...”)

Step 2: Refute (“But...”)

Step 3: Support (“Because...”)

Step 4: Conclude (“Therefore....”)

Refutation vs. Rebuttal

Step 1: My opponent argued that the death penalty deters crime.

Step 2: In fact, the death penalty increases crime.

Step 3: According to a nationwide study conducted by Professor Wiggins in 2002, violent crime has actually increased in states with the death penalty while crime has decreased in states without the death penalty.

Step 4: If this study is true, and the methodology is certainly sound, then the central justification for the death penalty has no merit.

Refutation vs. Rebuttal

An Interdependent Model of Refutation

- Advocates practice refutation as a means of using power truthfully
- We don't use it to shut down deliberation
- We can use it to learn through diversity and disagreement
- We use another's refutation to develop thoughtful arguments to further shape and/or support our case