Chapter 14

Exploring Public Speaking, 4th edition

Open Resource Textbook for Basic Public Speaking Course

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Overview

- What is Correct Reasoning?
- Inductive Reasoning
- Deductive Reasoning
- Logical Fallacies

What is Correct Reasoning?

- Think of it as building a house or cooking
- Integral part of critical thinking
  - Recognizing standards forms of logic
  - Avoiding fallacies

Inductive Reasoning

- examples or specific instances are used to supply strong evidence for (though **not** absolute proof of) the truth of the conclusion
- Associated with scientific method – conclusions are "tentative"
- "Bottom-up thinking" or reasoning from specific instances
- We commonly use it
- It can be disproven with more evidence

Four Types of Induction

- Generalization
- Causal
- Analogical
- Sign

Generalization

- a form of inductive reasoning that draws conclusions based on recurring patterns or repeated observations
- The more examples, instances, the stronger the argument
- The conclusion must be stated to reflect the evidence
- Avoid big “inductive” jumps

Causal Reasoning

- "form of inductive reasoning that seeks to make cause-effect connections"
- Causes must be
  - Direct enough
  - Strong enough
  - Also, past examples strengthen it

Sign Reasoning

- Two or more things happening at the same time
- They signal each other, but neither are causes
- Distinguish between correlation (sign reasoning) and causation (causal reasoning)
  - Ted Talk
  - Correlation is common in social science research
  - Causation very difficult to prove in social sciences

Analogical Reasons

- Analogies can be
  - Figurative – two things compared are essentially unalike
  - Literal – two things compared are essentially alike
- Analogical reasoning uses literal
- The more the two things compared are alike (points of similarity), the better
- Not necessarily strongest form of reasoning, but common

Deductive Reasoning

- Top-down reasoning
- "Deducts" conclusions from already accepted premises
- Uses syllogism format
  - Major premise: All X are Y.
  - Minor premise: Z is a member of X group.
  - Conclusion: Therefore, Z is Y.

Deductive Reasoning

- Syllogism form
  - Major Premise: All State College students must complete COMM 1110 to graduate.
  - Minor premise: Caroline is a State College student.
  - Therefore, Caroline must complete COMM 1110 to graduate.

Deductive Reasoning

- Enthymeme: Major or minor premise missing or "assumed"
  - "Since Caroline is a State College student, she has to complete COMM 1110 to graduate."
  - Possibly a place for misinformation or fallacy

Problems in Deductive Reasoning

- Faulty major premise (if premises not true, conclusion cannot be true)
- Wrong formula (Minor premise misstated)
- Enthymeme unethical because of omitted/wrong information in premises

Logical Fallacies

- Errors in using deduction and induction
- There are dozens of them.
- Commonly use Latin terminology

Generalization fallacies

- Hasty generalization
- Statistical fallacies
  - Small sample
  - Unrepresentative sample
  - Mistaking a poll for truth; Appeal to Majority (*Ad Populum)*

Causal fallacies

- *Post hoc ergo propter hoc* (historical fallacy)
  - Just because A happens first doesn't mean it causes B
- Slippery slope
  - False accusation of slippery slope can be a fallacy
  - "Law of unintended consequences"-we can't foresee all effects
- False cause
  - Due to lack of strength
  - Due to lack of directness

Other Fallacies

- Guilt by Association
  - "wrong place at the wrong time"
- *Ad Misericordium* (Appeal to Pity)
  - Inappropriate appeal to pity or emotions to hide lack of facts or argument
  - Pity and compassion are good appeals
  - Using pity to overlook facts (smokescreen) is fallacious

Other Fallacies

- *Ad Hominem*
  - a fallacy that attacks the person rather than dealing with the real issue in dispute.
- Straw Man
  - a fallacy that shows the weaker side of an opponent's argument in order to more easily tear it down
  - Often misinterprets or over-emphasizes a position
- *Non Sequitur*
  - a fallacy where the conclusion does not follow from its premise

Other Fallacies

- Appeal to Tradition
  - Arguing that traditional practice and long-term history is the only reason for continuing a policy.
- Inappropriate Appeal to Authority
  - In contrast to appropriate appeals – source should be expert on that subject
- Argument from Silence
  - Making an converse argument from lack of evidence or information about a conclusion

Other Fallacies

- False analogy
  - a fallacy where two things are compared that do not share enough (or key) similarities to be compared fairly
- False Dilemma
  - a fallacy that forces listeners to choose between two alternatives when more than two alternatives exist
- Red Herring
  - creating a diversion or introducing an irrelevant point to distract someone or get someone off the subject of the argument.

Ones considered "propaganda techniques"

- Plain Folks
- Bandwagon (*Ad Populum*, Appeal to Majority)
  - a fallacy that assumes that because something is popular, it is therefore good, correct, or desirable