

Lecture 1: Chapter 1

Section 1A: Recognizing Fallacies

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Consider the following argument between John and Jane:

JOHN: Superman is the strongest man in the world.

JANE: No he is not.

JOHN: Yes he is; I know he is stronger than all the other superheros.

JANE: He is not even real.

JOHN: I know more about him than you, and I say he is real.

JANE: I refuse to speak with you further on this topic.

Question: What is bad about John's argument method?

Definition 1. **Logic** is the study of the methods and principles of reasoning.

Definition 2. An **argument** uses a set of facts or assumptions, called **premises**, to support a **conclusion**.

Definition 3. A **fallacy** is a deceptive argument—an argument in which the conclusion is not “well supported” by the premises.

- Fallacies occur all the time in everyday life!
- They are often much more subtle than the John/Jane example.
- We will now present some examples of common fallacies. Do not worry about the names of the different types of fallacies; instead, concentrate on identifying premises, conclusion, and structure of the argument.

Example 1. *Appeal to Popularity*

McDonalds is the best fast food restaurant in the world, since it consistently has more annual customers than any other fast food restaurant.

Premise:

Conclusion:

Argument Structure: Many people believe p is true; therefore p is true.

Example 2. *False Cause*

I watched television ten hours a day every day in August and lost twenty pounds.
The television caused my weight loss.

Premise 1:

Premise 2:

Conclusion:

Argument Structure: A came before B ; therefore A caused B .

Example 3. *Hasty Generalization*

Bob and Sue both own cell phones and both have brain cancer. Cell phones cause brain cancer.

Premise:

Conclusion:

Argument Structure: A and B are linked one or a few times; therefore A causes B of vice versa.

Example 4. *Limited Choice*

You are not a republican, so you believe in abortion.

Premise:

Conclusion:

Argument Structure: p is false; therefore only q can be true.

Example 5. *Appeal to Emotion*

You see an add in the a newspaper explaining an easy way to make money to support your family by becoming a sales agent.

Premise:

Conclusion:

Argument Structure: p is associated with a positive emotional response; therefore p is true.

Example 6. *Diversion (Red Herring)*

We should eliminate all camping in national parks because campers destroy the environment. Maintaining the environment of our national parks is essential to preserving our national heritage. The environment... Therefore we should eliminate all camping in national parks.

Premise:

Conclusion:

Argument Structure: p is related to q and I have an argument concerning q ; therefore p is true.

Homework Notes: On problems 27, 30, and 32, you need only state the premises and conclusions for the given arguments along with an explanation of why each argument is deceptive.