

Chapter 1

§1A Recognizing Fallacies

Definition: Logic is the study of reasoning methods.

Arguments are reasoned processes with two parts: the conclusion and one or more supporting elements, called premises.

A "fallacious argument" is a reasoned process that uses faulty logic. Ten types of common fallacies are:

① Appeal to Emotion: often used to insite agreement by relating an action or "thing" to a negative or positive emotion.

Example: "The Social Security System is on the verge of collapse. Vote for Randall McNilly as state representative. He will save Baby Boomers from spending their Golden years in destitution."

② Appeal to Ignorance: The lack of proof in support of something demonstrates its falsity. This is faulty logic.

Ex: "No evidence exists that time travellers have visited us from the future. Clearly, time travellers have never visited us."

Premise: No evidence of visitation exists.
Conclusion: Visitation has not occurred.

③ Appeal to the Majority: This uses the idea that the majority is always right.

Ex: "Recent polls suggest that over 70% of the public watched the final episode of American Idol, so American Idol must be worth watching."

Premise: Polls show over 70%.
Conclusion: The program is worth watching.

④ False Cause: This suggests that correlation means causation, which is not logical.

Ex: "After the President began a massive military reorganization, the Soviet Union

begin a process of democratization that eventually lead to the USSR's demise.

The President was responsible for the democratization, and later the collapse, of the Soviet Union."

Premise: The military reorganization was initiated by the President, and the Soviet Union soon after began the democratization process.

Conclusion: The President was responsible for the demise of the USSR.

⑤ Hasty Generalization: Suggests that, if two "things" are associated a few times, then one of those "things" caused the other.

Ex: "My two best teachers were women.

Obviously women are better teachers than men."

Premise: My best teachers were women.

Conclusion: Women are, in general, the best teachers.

⑥ Personal Attack: Redirects attention away from the "real issue" by attacking someone in a personal (verbal) way. This also applies to groups.

Ex: "Jason told me I should not cheat on that test since I might be expelled from the class, among other things. Since he paid someone to write his mid-term paper, I'm not listening."

Premise: Jason cheated before.

Conclusion: Jason must be wrong in suggesting one should not cheat.

⑦ Straw Man: Distorts the "true issue" and argues against it.

Ex: When a Republican suggested revoking the estate tax, a Democrat barked:

"Everyone knows the estate tax is hardest on the wealthy. Republicans just want the rich to become even more wealthy."

Premise: The republican wants to revoke the estate tax, which falls heavily on the rich.

Conclusion: The Republicans want the rich to become even richer.

Notice that this is also a personal attack on a group.

⑧ **Diversion**: Also called a "Red Herring" fallacy, this argument diverts attention from one issue to another (often completely) unrelated issue.

Ex: "We should not fund cloning research because of all the involved ethical issues. Ethics is the center of a just society, and we can't afford the ethical ramifications."

⑨ **Circular Reasoning**: This fallacious argument rewards the conclusion and presents it as the premise.

Ex: "Insider trading is unacceptable, so everyone involved with it should be punished."

Ex: "Athletic programs should institute a zero-tolerance policy toward steroid use because steroid use is simply unacceptable."

⑩ **Limited Choice**: This fallacy artificially precludes choices that should be considered.

Ex: "The fact that you didn't watch that double-header yesterday shows that you are not a baseball fan."

Premise: You didn't watch a double-header.

Conclusion: You are not a fan of baseball.

Ex: "Have you stopped doing drugs?"

This example is of the limited choice type since, no matter if you answer yes or no, the implication is that you have done drugs. It precludes the possibility that you've been clean your whole life.

Written Homework: (Due Fri, Jan 16th.)

Pp. 20-21 # 23, 24, 26, 27, 41, 49, 50

§1B Truth Values and Propositions

Definition: Propositions are statements that make a claim. The proposition is either true or false.