

## COMMON FALLACIES (OR ERRORS) IN REASONING

Learning about some common errors in reasoning will help you to spot weak points in arguments. This handout will help you identify some of those errors, also known as fallacies. Some of these fallacies are known by different names (alternative names are given in parentheses). Many more fallacies than those listed are possible because the ways arguments may go wrong are many and these have been characterized in a variety of ways.

### **NON SEQUITUR**

The stated conclusion is not necessarily a logical result of the facts presented.

Ex.: All the homes in this area are expensive; therefore, they must be well built.

*Expensive does not necessarily mean well built.*

### **ARGUMENT TO THE PEOPLE (AD POPULUM)**

The attempt to win popular assent to a conclusion by arousing the emotions and enthusiasms of the multitude rather than by appeal to the facts.

Ex.: This Country has been run too long by old, out-of-date, out-of-touch, entrenched politicians protecting the special interests that got them elected.

*The argument appeals to the emotion rather than to reason.*

### **FALSE COMPARISON (FAULTY ANALOGY)**

This fallacy consists in assuming that because two things are alike in one or more respects, they are necessarily alike in some other respect or in all respects.

Ex.: No one objects to a physician looking up a difficult case in medical books. Why, then, shouldn't students taking a difficult examination be permitted to use their textbooks?

People who have a cup of coffee every morning before they can function have no less a problem than alcoholics who have to have their alcohol each day to sustain them.

*Do not assume that the two situations are alike in all respects because they are alike in some respects.*

### **EITHER / OR FALLACY (BLACK OR WHITE FALLACY / FALSE DILEMMA)**

The writer asserts that a complex issue has only two sides -- often one right, one wrong.

Ex.: America: Love It or Leave It.

Students come to college either to work hard or to loaf.

*There are more options to consider than the two presented.*

### **HASTY GENERALIZATION**

An argument that is based on insufficient or unrepresentative evidence commits this fallacy.

Ex.: Deaths from drug overdoses in Miami have doubled in the last two years. Therefore, more Americans are dying from drug abuse.

*Is the evidence about increased drug use in Miami representative of drug use in the United States?*

### **PERSONAL ATTACK (AD HOMINEM)**

Attack is made on a person's character or circumstances rather than his or her argument.

Ex.: If you hold that nothing is self-evident, I will not argue with you for it is clear that you are a foolish quibbler who will not be convinced.

*Criticize the argument about self-evidence not the arguer.*

**CIRCULAR REASONING (BEGGING THE QUESTION)**

An assertion that should be proved by argument is stated as truth. These arguments invite us to assume something has been proved when it has merely been restated.

Ex.: Free trade will be good for this country. The reason is patently clear. Isn't it obvious that unrestricted commercial relations will bestow on all sections of this nation the benefits that result when there is an unimpeded flow of goods between countries?

*Does free trade equal unrestricted commercial relations?*

**RED HERRING (CHANGING THE SUBJECT)**

An irrelevant point is introduced to divert the reader's attention from the main issue.

Ex.: Andy: "Hey what's with all this junk food you bought? You're always railing at me about eating healthy." Aunt Bea: "Don't fuss -- it was on sale."

*Saying that the junk food was on sale is beside the point since it is possible to buy healthy food at reasonable prices.*

**BANDWAGON APPEAL**

An attempt is made to validate or prove a point by suggesting "everyone else believes it."

Ex.: Drink Coca Cola! For 100 years it's been the favorite drink of Americans. You'll like it!

*This argument assumes that what the crowd thinks or believes is right and that to be right one must go along with the crowd.*

**FALSE CAUSE (POST HOC ERGO PROPTER HOC)**

The writer implies that because one event follows another in time the first event causes the second.

Ex.: I took EZ-No-Cold, and two days later, my cold disappeared.

*Perhaps your cold would have been gone in two days if you had taken nothing for it.*

We should not rebuild the docks because every time we do a big hurricane comes along and damages them.

*Does the reconstruction cause hurricanes?*

**TESTIMONIAL**

Use of a respected or well-known but non-expert figure to recommend a product, position, or cause.

Ex.: Noted psychologist Dr. Frasier Crane recommends that you buy the EZ-Rest Hot Tub.

*What makes a psychologist/actor an expert in hot tubs?*

**CARD-STACKING**

Carefully selecting only facts that support the writer's position.

Ex.: A Ford Explorer is a better car than a Lexus SUV because it has more room, looks better, and costs less.

*The advertisers stressed the virtues of the Ford Explorer but omitted comparisons on the Lexus SUV's smoother ride, increased mileage, better repair record, enhanced comfort, and acceleration.*

**Exercise: Identify the fallacy in the following arguments by writing the letter of the fallacy in the blank space provided.**

<b>A</b> <i>Non Sequitor</i>	<b>D</b> <i>Either / Or</i>	<b>G</b> <i>Circular Reasoning</i>	<b>J</b> <i>False Cause</i>
<b>B</b> <i>Argument to the People</i>	<b>E</b> <i>Hasty Generalization</i>	<b>H</b> <i>Red Herring</i>	<b>K</b> <i>Testimonial</i>
<b>C</b> <i>Faulty Analogy</i>	<b>F</b> <i>Ad Hominem</i>	<b>I</b> <i>Bandwagon Appeal</i>	<b>L</b> <i>Card Stacking</i>

- \_\_\_\_\_ 1. If you know about BMW, you either own one or want one.
- \_\_\_\_\_ 2. The congressman is clearly an able leader. He has a warm family life and attends Church every Sunday.
- \_\_\_\_\_ 3. The Chinese people have a natural talent for art. Two Chinese girls took an art course with me last semester, and they were the best students in the class.
- \_\_\_\_\_ 4. A friend has recommended a new investment opportunity, but your significant other rejects the recommendation with the remark, "How can you possibly value the advice of that idiot?"
- \_\_\_\_\_ 5. The Golden Rule is basic to every system of ethics ever devised, and everyone accepts it in some form or other. It is, therefore, an undeniably sound moral principle.
- \_\_\_\_\_ 6. "The Inquisition must have been justified and beneficial, if whole peoples invoked and defended it, if men of the loftiest souls founded and created it severally and impartially, and its very adversaries applied it on their own account, pyre answering pyre." -- Benetton Croce
- \_\_\_\_\_ 7. The Macklin Company was more prosperous before Ms. Williams became president. Clearly, she is the cause of the decline.
- \_\_\_\_\_ 8. I have to balance my personal checkbook; why shouldn't the federal government have to?
- \_\_\_\_\_ 9. After all, my views on gun control have been endorsed by some of Hollywood's most notable actors — Sylvester Stalone, Barbara Streisand, and Alex Baldwin, among others. How could you not agree with me?
- \_\_\_\_\_ 10. Women are so sentimental! My mother and sister always cry at the movies. My father and I never do.
- \_\_\_\_\_ 11. If we can send a spacecraft to Mars, then we should be able to find a cure for cancer.
- \_\_\_\_\_ 12. The Great American Soup. About as close as you can get to homemade without making it yourself.
- \_\_\_\_\_ 13. You can tell Frank is a disreputable person by the character of his associates because people who go around with somebody like Frank are the lowest type.
- \_\_\_\_\_ 14. I am the father of two daughters. When I hear this argument that we can't protect freedom in Europe, in Asia, or in our own hemisphere and still meet our domestic problems, I think it is a phony argument. It is just like saying that I can't take care of Lucy because I have Linda Bird. We have to take care of both of them and we have to meet them head on.
- \_\_\_\_\_ 15. Television can't be harmful to children because it occupies their attention for hours and thus keeps them off the street.
- \_\_\_\_\_ 16. You don't want to be a nurse. You have to go through all the training and then what do you get? You work with sick, crabby people and take orders from doctors who don't know the patients as well as you do. You're underpaid, overworked, and unappreciated. Moreover, having to work different shifts makes a normal home life impossible.