The Fallacies of Argument

No matter what type of reasoning model is used, writers will sometimes make errors in logic. Such errors are called "logical fallacies," a term derived from the Latin fallere meaning "to deceive." Used unintentionally, these fallacies deceive writers into feeling that their arguments are more persuasive than they are. Even though an argument might be emotionally persuasive and even sound valid, a fallacy creates a flaw in the logic of an argument, thereby weakening its structure and inviting counterattacks.

Not all fallacies are unintentional. Sometimes a fallacy is deliberately employed - for example, when the writer's goal has more to do with persuading than arriving at the truth. Every day we are confronted with fallacies in media commercials and advertisements. Likewise, every election year the airwaves are full of candidates' bloated claims and pronouncements rife with logical fallacies of all kinds.

Whether to strengthen your own writing or to resist fallacies in the arguments of others, it makes sense to be aware of such conscious or unconscious deceptions in reasoning. Following are some of the most common fallacies of argument:

A. **Affirmative Conclusion from a Negative Premise:** Since a negative premise excludes a relationship between two of the terms (A is not B), the only kind of conclusion that can be arrived at logically is a proposition that excludes any relationship between one of these terms and a third term (B is not C).

B. **Affirming the Consequent:** Starts with a hypothetical proposition: "If he makes concessions to the Iraqi ambassador, the prestige of the United States will decline." The consequent is affirmed: "The prestige of the United States has declined." The fallacy is then the conclusion drawn from this affirmation of the consequent: "He must have made concessions to the Iraqi ambassador." That conclusion does not necessarily follow from the evidence.

C. **Conclusion from Two Negative Premises:** Because two negative premises establish no relationship among all three terms in a syllogistic chain of reasoning, no conclusion, either affirmative or negative, can be drawn.

   Example: Maurice is not a chicken.
   No chickens lay eggs.
   Therefore, Maurice does not lay eggs.

D. **Denying the Antecedent:** Starts with a hypothetical proposition: "If he captures the undecided votes, he will win the election." The antecedent is denied: "He did not capture the undecided votes." The fallacy then is the conclusion drawn from this denial: "He did not win the election." (However, if it had been established that the only way to win the election was to capture the undecided votes, the conclusion would follow.)

E. "Either / Or" Fallacy (false dilemma): Stating a premise that does not take into account all the alternatives in a disjunctive syllogism. This fallacy denies that there is any intermediate possibility between two extremes. Example: "Mary must be an atheist; She never goes to church." Unfortunately, since such assertions may appeal to our prejudices, we may accept them as true without considering any probable alternatives. (An either/or premise may be valid, however, if the alternatives are exhaustive. Example: "Either he voted for the candidate or he didn't vote for him.")
F. **Equivocation**: Deliberate or accidental misuse of two or more meanings for the same word. In syllogistic reasoning, equivocation introduces a fourth term into the process, creating and invalid conclusion. (In the following silly example, the word "chicken" has two different meanings - a bird and a coward. Equivocation often has more sinister purpose of concealing the truth.)

**Example**: Maurice is a chicken.
All chickens lay eggs.
Therefore, Maurice lays eggs.

G. **Hypothesis Contrary to Fact**: A proposition (hypothesis) that is not true is used as the basis for a deductive argument.

H. **Illicit Process (Non-Sequitur)**: A term is distributed in the conclusion, but was undistributed in the premise. Or to put it another way, the conclusion lacks a connection to the premises. We know from looking at the Square of Opposites - and common sense - that we cannot draw any conclusion about *all men* if in the premises we have been talking only about *some men*. This is an example of a **non sequitur**, an argument in which the conclusion simply "does not follow" from the evidence.

I. **Undistributed Middle Term**: A failure to establish that the major term and the minor term coincide. It is basically a failure to supply a link in the chain of arguments. This fallacy usually appears in this form:

\[
\text{All Z's are B's.}
\]
\[
\text{Y is a B.}
\]
\[
\text{Therefore Y is a Z.}
\]

As you see there is no "link" in the logical chain as we find in our A=B=C model. In the "real world", this fallacy may look like this;

"Eric Harris and Dylan Klebold (Z) were two young men who loved the violent video game DOOM and went on a sociopathic shooting rampage at their school (B). John Doe(Y) is also a noted fan of violent video games, and has even argued that developers should not tone down the graphic content in their mass-market games. It is therefore highly recommended that John Doe be monitored for signs of violent sociopathy".

As you can see, just because John Doe shares one characteristic with Eric Harris and Dylan Klebold, we cannot jump to the conclusion that John Doe will go on a shooting rampage. There's just no link in the causal chain to suggest that this is the case.

J. **Faulty Analogy**: Two subjects are compared. Although they may share certain similarities, their differences may be important enough to destroy the value of the comparison. Analogies never prove anything; they persuade on the grounds of probability. Therefore, a faulty analogy concentrates on irrelevant, inconsequential similarities and overlooks pertinent, significant dissimilarities.

K. **Faulty Causal Generalizations**: When arguing from **effect** to **cause**, fallacies can occur (1) when we assign an inadequate cause to an effect; (2) when we fail to allow for the possibility of more than one cause for an effect. When arguing from **cause** to **effect**, fallacies can occur (1) when we fail to establish that a potential cause could and did operate in a particular situation; (2) when we fail to take into account that the same cause could produce diverse effects.
One of the most common examples of this fallacy is **Post hoc, ergo propter hoc**: "After this, therefore because of this." The fallacy arises from the assumption that because something happened after something else, there is a causal relationship. Every time I wash my car it rains. So washing my car makes it rain.

**L. Faulty (Hasty) Generalization:** Results when we "jump to a conclusion."
Evidence can be inadequate in a number of ways: (1) the particulars may be irrelevant; (2) the particulars may be unrepresentative; (3) the particulars may not be numerous enough to warrant the conclusion.

Generalizations based on evidence derived from authority can be faulty when the authority quoted is (1) biased or prejudiced, (2) incompetent, or (3) outmoded.

A generalization can also be faulty when the authority is (1) misinterpreted, (2) inaccurately quoted, or (3) quoted out of context. Watch out for this when quoting or paraphrasing sources in research!

**M. Slippery Slope:** presumes that one event will inevitably lead to a chain of events that end in a catastrophe - as one slip on a mountain top will cause a climber to tumble down and bring wit him or her all those in tow. This domino effect reasoning is fallacious because it depends more on presumption than on evidence: "Censorship of obscene material will spell the end to freedom of the press"; "A ban on ethnic slurs will mean no more freedom of speech"; "If assault rifles are outlawed, handguns will be next." America's involvement in Vietnam was the result of a slippery slope argument: "If Vietnam falls to the Communists, all of Southeast Asia, and eventually India and its neighbors, will fall under the sway of communism." Even though Vietnam did fall, the result has not been the widespread rise of communism in the region; on the contrary, communism has fallen on hard times.

To avoid the slippery slope of reasoning, consider the possible in-between steps - those between the initial even and disaster. Work out the stages carefully: What would really happen if a community censored obscene material? Who would be the censors? Would they want to expand their range? Would the press inevitably cave in to the censors' control? If you are working to refute a slippery slope argument, always ask for proof that the slide will occur as your opponents predict; if you can break the chain of events, you refute the entire argument.

**N. Special Pleading (card stacking):** When certain evidence, generally numerical or statistical, is brought to the forefront of an argument, while other evidence, equally or even more pertinent, is suppressed or minimized.

**O. Appeal to Force:** Force of the threat of force is used to cause the acceptance of a conclusion. The fallacy may be veiled, as in a threat to deliver or withhold votes, or it may be open, as in the case of bombings or terrorism.

**P. Argument Ad Hominem ("Argument Toward the Man"):** Switching the discussion from the question of issues to the question of personalities. If one finds that he cannot refute a person's argument, he then attacks his character.

**Q. Argument Ad Misericordium ("Appeal to Pity"):** An attempt to arouse pity or sympathy in order to influence a decision.
R.  **Argument Ad Populum ("Argument Toward the People"):**  Appealing to irrational fears and prejudices in order to prevent audiences from squarely facing the issues.

S.  **Bandwagon:**  This common fallacy has deep emotional appeal because of our desire to be in the parade, so to speak; thus we "jump on the bandwagon" as it goes by because we want to be a part of the group, we don't want to be left out of the loop. "Everybody else does it" is not a logical reason: "everybody else" may be wrong again, just as they have sometimes been before. (If all your friends were jumping off a cliff…….) Think dangers of mob rule……

T.  **Circular Reasoning:**  The conclusion of a deductive argument is hidden in the premise of that argument. Thus, the argument goes around in a circle. For instance, "Steroids are dangerous because they ruin your health" translates to "Steroids are dangerous because they are dangerous." Sometimes the circularity gets camouflaged in a tangle of words: "The high cost of living in today's America is a direct consequence of the exorbitant prices manufacturers and retailers are placing on their products and services." Cut away the excess, and this translates: "The high cost of living is due to the high cost of living." Repetition of key terms or ideas does not constitute evidence. Nor does it prove anything. Instead of simply restating your premise, find solid evidence to support it.

U.  **Begging the Question:**  Assuming in the premise the question we are trying to prove in the conclusion.

   Example:  God exists.  (How do you know?)
   The Bible says so.  (Why should I put credence in the Bible?)
   Because it is the inspired word of God.

Begging the question assumes the truth of something that has not been proven.

V.  **The Complex Question:**  A form of question begging, this fallacy combines two questions into one.

   Example: "When did you stop beating your wife?" combines the two questions, "Do you beat your wife?" and "When did you stop beating her?" It is impossible to answer such a question without incriminating oneself.

Anyone confronted with such a complex question should insist that the implicit question be dealt with first. (Wait a minute. Let's determine first whether or not I beat my wife at all!) A familiar legislative practice is to attach riders to an important bill, a dilemma for legislators who may favor the bill but object to the riders. They are forced to reject or accept the whole package, i.e., deal with two (or more) issues at once.

W.  **Dicto Simpliciter (unqualified generalization):**  An argument based on a generalization that is totally inconclusive and is accepted unequivocally as true for all circumstances. For example, "Milk - It Does a Body Good" simply isn't true for everyone - especially individuals who are lactose intolerant!
X. **Labored Hypothesis:** Results when a hypothesis drawn from the evidence presented is more complex or unusual than an alternative hypothesis. To avoid this flaw in argument, remember the "KISS" system: "Keep it Simple, Stupid." Another term for simplifying overly complicated hypotheses is called Occam's Razor.

Y. **The "Red Herring":** Steering the discussion to a side issue in order to avoid the main issue. The title refers to drawing a smoked (red) herring across a trail to divert hunting or tracking dogs and lead them in another direction. (What if I did cheat on that test, Mrs. Tedder? I always stay after to help you clean up the classroom, don't I?)

Z. **Syntactic Ambiguity:** Resulting either from faulty sentence structure, with parts misplaced (as in the headline, "Lawyers Offer Poor Free Advice"), or from pause and emphasis that create different meanings. Repeating the sentence, "You knew this," three times while emphasizing a different word each time shows us the potential for ambiguity.

AA. **Transfer:** This fallacy depends on the principle of favorable association, even though there may be little or no logical connection. In one variety the subject may be identified with some idea or entity that is inherently pleasing or attractive. Another variety uses the prestige or reputation of a respected person or institution to support an idea. The fallacy occurs when the person becomes removed from his area of expertise; in advertising, the football star becomes an expert on the popcorn poppers or pantyhose. In the Transfer device, symbols are constantly used. The cross represents the Christian church; the flag represents the American nation; cartoons like Uncle Sam represent a consensus of public opinion. Those symbols stir the emotions. At their very sight, with the speed of light, is aroused the whole complex of feeling we have with respect to church or nation. A cartoonist by having Uncle Sam disapprove a budget for tax relief would have us feel that the whole United States disapproves of such a use of funds. By drawing an Uncle Sam who approves of the same budget item, the cartoonist would have us feel that the American people approve it as well. Thus, they Transfer device is used both for and against causes and ideas.

BB. **Tu Quoque (You, too!):** Another diversionary tactic, it avoids the subject or deflects questions and accusations by making similar accusations against the opponent. It diverts attention away from the issue to the opponent. (Well, Mom, you lie too. You told Dad that your new dress only cost $95!)

CC. **Name Calling:** This is one of the devices that make us form a judgment without first examining the evidence on which it should be based. Here the propagandist appeals to our hate and fear by giving "bad names" to those individuals, groups, nations, races, policies, practices, beliefs, and ideals that he would have us condemn and reject. For centuries the name "heretic" was bad. Anybody who dissented from popular or group belief or practice was in danger of being called a heretic and of receiving the punishment of heretics (fines, imprisonment, even death). Today's bad names include liberal, demagogue, dictator, ultra-conservative, dictator, power elite, right wing, alien, secular humanist, feminist, terrorist, communist (and others you can probably think of). Use of "bad names" without presentation of their essential meaning, without all their pertinent implications, comprises perhaps the most common of all propaganda devices. Those who want to maintain the status quo apply bad names to those who would seek to change it. For example, in the 1930's the Hearst-owned press applied bad names to communists and socialists. Those who want to change the status quo apply bad names to those who would seek to maintain it. For example, the Sierra Club applies bad names to ranchers and loggers.
**DD. Glittering Generalities:** This is a device by which the propagandist identifies his program with virtue by use of "virtue words and images." He appeals to our emotions of love, generosity, and brotherhood. He uses words like freedom, honor, liberty, social justice, public service, loyalty, progress, democracy, the American way, the Constitution. These words suggest shining ideals in which all persons of good will believe. Hence the propagandist, by identifying his individual group, nation, race, policy, belief, practice, or product with such ideals, seeks to win us to his cause. As Name Calling is a device to make us form judgments to reject and condemn without examining the evidence, so Glittering Generalities is a device to make us accept and approve without examining the evidence. For example, use of the phrases "right to bear arms," "Founding Fathers," and "life, liberty, and the pursuit of happiness" may be a device to make us accept viewpoints about gun laws which, if we examined them critically, we may not accept at all.

In the Name Calling and Glittering Generalities devices, words are used to stir up our emotions and to befog our thinking. In one device "bad names" are used to make us mad; in the other, "good words" are used to make us glad. The propagandist is most effective in the use of these devices when his words make us create devils to fight or gods to adore. By his use of "bad words" we personify as a "devil" some nation, race, group, individual policy, practice, or ideal; we are made fighting mad to destroy it. By use of "good words" we personify as a godlike idol some nation, race, group, etc. Connotative meanings of words must be taken into consideration when dealing with both Name Calling and Glittering Generalities. Some words that 20 years ago would have been considered "bad words" are now perfectly socially acceptable. For example, prior to the sexual revolution of the 1960's and 70's, any casual mention of sex made the average person cringe, negative images floating through their minds. But in today's media hype, sex and sensuality has become a powerful marketing tool - a Glittering Generality used to sell products, ideas, and notions.

**EE. The Testimonial:** This is a device to make us accept anything from an herbal supplement or car to a program or a national policy. In this device the propagandist makes use of testimonials:

"When I feel tired, I take Mom's Ginseng and have energy to spare." "We believe that this plan of labor organization is going to be effective and the Marble Stackers Union should be supported." "I bought a car from Jones Ford and they treated me right." This device works in reverse also; counter-testimonials may be employed. Seldom are these used against commercial products like herbal supplements or cars, but they are constantly employed in social, economic, and political issues. For example, "We believe that the Marble Stackers Union plan of labor organization will cost us our jobs and should not be supported."

**FF. Plain Folks:** is a device used by politicians, labor leaders, business executives, and even by ministers and teachers to win our confidence by appearing to be people like ourselves - "just plain folks," "just an ole country boy/gal," "just an American citizen." In election years especially do candidates show their devotion to little children and the common, homey things in life. They ride buses from town to town to campaign. For the network interviewer they raid the refrigerator to find some home-baked pie. They go to barbeque festivals; they attend services at the old-white-framed church; they go fishing and play with the dog; they love their mothers. In short, they would win our votes by showing that they're just as common as the rest of us - "just plain folks" - and therefore wise and good. Business executives are often "plain folks" with the factory workers.
Exercises,
The Fallacies of Argument

Explain the faulty logic of the following statements. Of what fallacy (or fallacies) is each an example?

1. When did you stop hiring other people to take your exams for you?

2. He's too smart to play football; besides, he broke his leg 10 years ago.

3. The Ship of State is about to wreck on the rocks of recession; we need a new captain.

4. Jerry has such bad breath, it's a wonder he sings so well.

5. Homosexuals ought not to teach in public schools because they'll just encourage more students to become like them.

6. Everybody's going to the Dolly Parton concert.

7. English should be the official language of the United States, and anybody who doesn't like it can leave.

8. If we don't put warning labels on record albums, we'll see more and more teenagers committing suicide.

9. I saw Rashid going into the courthouse; he must have been arrested.

10. How can you accuse me of being careless? You're a slob!

11. Fifty-four percent of women on our campus have experience with date rape.

12. Rap music isn't music because it's just noise and words.

13. This book was written by a Harvard professor; it must be good.
14. People who are happy with their work are cheerful because they enjoy what they're doing.

15. Indians living on reservations get the necessities of life at government expense, so they have no worries.

16. High school kids don't learn anything these days. Teachers are at fault.

17. Take Tummy Tops laxative instead of Mellow Malt, because Tummy Tops contains calcium while Mellow Malt has aluminum and magnesium.

18. Lite Cheese Popcorn contains 34 percent fewer calories.

19. The reason I'm failing organic chemistry is that the teaching assistant doesn't speak English very well.

20. Any decent person will agree the Nazism has no place in modern society.