Fallacies
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Academic writing relies on the foundation of a solid logical argument. **Fallacies are failures in an argument that ultimately weaken your stance.** Fallacies often follow certain patterns, and learning to identify weak spots will help to improve your argument. When an argument is based on faulty logic or the premise does not support the conclusion, a fallacy is formed. However, not every weak argument is fallacious. This handout explores ways to formulate a strong argument while also helping you identify weak points in your own or others’ arguments.

**Premises and Conclusions**
Arguments contain both a premise and a conclusion. A **premise** is a statement that describes your evidence that supports your **conclusion**. A conclusion is your interpretation of the topic at hand. The premise and conclusion formula looks like the following:

- **Premise 1**: Either the Patriots or the Cowboys will win the Superbowl.
- **Premise 2**: The Patriots did not win.
- **Conclusion**: The Cowboys won the Superbowl.

Below are a few ways to make your argument stronger based on your premises and conclusions:

- Use premises that are convincing both because they are true and also because they clearly contribute to the issue you are describing.
- Use premises that clearly support your conclusion. Avoid using premises that support either no conclusion or some other conclusion not related to the topic.
- Focus on the most important aspects of the topic.
- Don’t make claims that are too strong to provide adequate support.

**Types of Fallacies**

**Ad hominem**: From the Latin phrase “against the person,” *ad hominem* diverts the audience’s attention away from the argument and instead to the character of the arguer’s opponent.

- **Example**: “Dr. Academia suggested that my proposition that everyone should be required to work 365 days a year would be dangerous for the health and wellbeing of employees. Clearly Dr. Academia doesn’t know what he’s talking about because he wears girly shoes.”

- **Explanation**: Dr. Academia’s clothing choices have no relevance to his expertise on workplace safety and employee satisfaction. Therefore, the premise is not relevant to the conclusion.

- **Revision Suggestion**: “Dr. Academia does not have a strong argument because the Council for Employee Rights and Responsibilities claims that working everyday keeps people in a stable routine that contributes to a balanced sleep schedule.”

**Appeal to (Doubtful) Authority**: These arguments mention that a prominent person in the public eye holds the same opinion as the arguer. However, just because someone is merely known to the public, that does not make them an expert or knowledgeable enough to accurately support your argument.

- **Example**: “Soda should be banned from school cafeterias. Many respected people, such as actress Lady Broadway, have expressed their agreement with this proposition.”
Explanation: Lady Broadway is probably not an expert on child nutrition even though she may be a beloved actress with expertise on acting techniques. Just because someone is famous does not make their statements credible.

Revision Suggestion: “Soda should be banned from school cafeterias because nutritionists find that it is a cause of childhood obesity.”

Appeal to Ignorance: The arguer suggests that a lack of definitive proof means the conclusion must be accepted. The argument states that if something is unknown or unprovable, then it therefore must be either true or false.

Example: “Nobody has been able to prove the abominable snowman exists; therefore, it must be a fairy tale.”

Explanation: You could argue the opposite on the same logic: “People have worked to prove the abominable snowman does not exist, but no one has been able to find him. Therefore, the abominable snowman must still be hiding out there.” The lack of evidence does not prove either way that the abominable snowman does or does not exist just because there is a lack of evidence. A definitive argument cannot be made because there is nothing to back up the claim.

Revision Suggestion: “Nobody has been able to prove the abominable snowman exists. With modern technology and mass exploration, it is therefore unlikely that such a creature would exist without human knowledge. As a result, this most likely means the abominable snowman is merely a fairy tale.”

Exception: In the case that qualified authorities have used accepted scientific research methods to search for evidence to support or refute a hypothesis, and it’s a hypothesis that ought to have conclusive evidence, then there is strong evidence to support the argument that the hypothesis is more than likely false. For example, the claim, “Scientists have not been able to prove that avocados cause malaria; therefore, individuals should not worry that guacamole may put them at risk for the disease.”

Appeal to Pity: The argument tries to make the audience feel sorry for the author and therefore agree with them rather than using evidence to back up the claim. A common theme is to have the audience “root for the underdog.”

Example: “Most teachers require attendance, but attendance shouldn’t be part of the final course grade. I have a social life, and I’m on the soccer team. I just don’t have time to go to class!”

Explanation: While the audience may feel sorry that poor attendance has caused this student to lose points, this does not make a strong case that attendance should not be part of the final grade. Many teachers use attendance grades to incentivize students to come to class and learn the material. Additionally, if the student had attended class more often his or her test scores may have been higher.

Revision Suggestion: “Most teachers require attendance, but attendance shouldn’t be part of the final course grade. I have a 96 test average in the class and students like me, who are successful academically without going to class, should not be punished.”
**Bandwagon or *ad populum***: The arguer uses a claim that the opinion of a large group should sway the audience to agree so that he or she will fit in with the majority. Generally, the arguer implies that if a lot of people believe a specific idea then it must be correct and everyone else should believe it too.

*Example*: “Apple computers are inherently better than all other PC brands in every way, shape, and form. Seventy percent of Americans prefer Macs to PCs.”

*Explanation*: The number of people who agree with an argument doesn’t determine the accuracy of the statement. Different brands of computers are used for different purposes, and some software only works on specific operating systems. Therefore, a consumer’s computer choice should be based on his or her individual needs and not on the opinion of 70 percent of Americans who may have different needs.

*Revision Suggestion*: “Since most computer users do not need special programs or software, it makes sense that almost 70 percent of Americans would prefer sleek and user-friendly Macs to PCs.”

**Begging the Question**: This situation asks the reader to accept a conclusion without much evidence. The premise may 1) state the same thing as the conclusion (also called circular reasoning), or 2) ignore an assumption (an unstated link between your premise and your conclusion) that the argument is built upon.

*Example 1*: “Speed reading helps students in school. Students who know how to speed read are therefore more successful in school.”

*Explanation 1*: This premise and conclusion state the same thing and essentially circle the same idea: there are academic benefits for speed reading, so this begs the question of why speed reading contributes to student success.

*Example 2*: “Carrots have fiber and vitamin A. Carrots are a health food.”

*Explanation 2*: This argument fails to state the assumption that consuming fiber and vitamin A has health benefits.

**Equivocation**: Here the writer switches between two uses of the same word in order to support the argument (e.g. date, which can refer to a fruit, a day, or a meeting).

*Example*: “Jim writes novel¹ stories. His novel² is sold in stores. Therefore, he must be a successful writer.”

*Explanation*: This fallacy plays on the word novel: 1) a fresh idea), and 2) a book. Jim may have a fresh idea for his story, and he may have a contract to sell the book in stores, but that doesn’t mean he will sell enough copies to be considered successful.

*Revision Suggestion*: To revise your own writing, look at the connotative and denotative definitions of keywords in your argument. Additionally, clarify the relationship between these words or use synonyms, but make sure that your argument still makes sense when you change the words.
**False Dichotomy (Either/Or):** The arguer suggests there are only two possible choices and uses evidence to dismantle one of those choices so it seems as if the arguer’s choice is the only option left. In reality, there are more options to consider.

*Example:* “Tammy is a successful lawyer. She decided she wants children, but that means she either has to quit her job or hire a full-time nanny to raise her children. Tammy doesn’t want to leave her law practice, so she better start looking for a nanny.”

*Explanation:* This suggests there are only two options for Tammy, but there are other options for her to consider. Tammy could see if her significant other, her friends, or other family members could care for the children; she could take them to daycare; or she could work part-time. Tammy has many more options to consider than this arguer has put forward.

*Revision Suggestion:* Make sure there are really only two choices before you set up an either/or argument. If there are others to consider, try to find evidence that proves your option is the best or that shows the negatives of all other options.

**Hasty Generalization:** The arguer uses insufficient data and support to make their argument by generalizing or stereotyping a smaller sample in order to prove a larger interpretation.

*Example:* “The three English majors in my psychology class chose Shakespeare as their favorite author; therefore, every English major must love Shakespeare.”

*Explanation:* This takes three English majors in one class at one school and states that every English major is represented by those three people. In this case, three English majors who love Shakespeare is not enough evidence to prove the conclusion that every English major is identical to those three.

*Revision Suggestion:* If all 300 English majors on campus were interviewed, and 284 stated that they loved reading Shakespeare, then you have a much stronger argument to prove your point. However, your argument will be stronger if you avoid using absolute terms like “every,” include concrete numbers, and specify the population studied. You might instead claim, “Nearly 95 percent of English majors surveyed at NC State said they love reading Shakespeare; therefore, most English majors on campus are fans of Shakespeare’s work.”

**Missing the Point or non sequitur:** The argument supports a conclusion that is irrelevant to the actual conclusion the writer makes. This occurs when the conclusion does not align with the premise(s).

*Example:* “Many small businesses in Tallahassee closed last year. All the local government officials need to resign because they weren’t honest with citizens.”

*Explanation:* This misses the point in that there is no clear connection between small business closures and local government’s involvement in that problem. Tallahassee politicians may have been dishonest, but claiming they should resign because of it does not support the premise that local business closures are directly caused by their dishonesty.

*Revision Suggestion:* “Many small businesses in Tallahassee closed last year. The local government raised taxes that put an undue burden on smaller stores in the city. The careless legislation is responsible for this misfortune, and the Tallahassee City Council must answer to the men and women who are now unemployed by resigning from office immediately.”
**Post hoc or False Cause:** *Post hoc* happens when one assumes that because one event precedes another event, the first event caused the second event. For example: if B follows A, that A must have caused B to occur. Sometimes two events that seem related in time aren’t really related as cause and effect. This means the two events only have a correlation, which isn’t the same thing as causation.

**Example:** “The School Board changed the curriculum for the Wake County School District. The School Board is responsible for my bad grades.”

**Explanation:** The change in curriculum could have influenced this student’s bad grades, but there could be a number of other factors that were the actual cause. Perhaps this student took on a part-time job and didn’t have time to study. The student hasn’t shown that the new curriculum of the School Board is directly causing the resulting bad grades.

**Revision Suggestion:** “The School Board changed the curriculum for the Wake County School District. Sixty-five percent of the students at my school now need tutors to understand their homework. The School Board is responsible for the struggles my classmates and I now face.”

**Red Herring:** In this instance the arguer goes off topic. The arguer distracts the audience from the real issue at hand with irrelevant and/or misleading information.

**Example:** “It’s true that we will have to cut funding for the music program at South High School. But our students outperformed the rest of the district on standardized testing last year, and I think that is worth a round of applause for our dedicated teachers.”

**Explanation:** Take a look at the premise and conclusion
- **Premise:** Funding will be cut for South High School’s music program.
- **Conclusion:** The teachers deserve credit for raising standardized test scores.

The fact that standardized test scores went up may be attributed to the teachers’ hard work, but it has nothing to do with funding cuts for the music program and is irrelevant.

**Revision Suggestion:** This arguer needs to avoid changing the subject and instead present evidence to prove that funding cuts for the music program are necessary.

**Slippery Slope:** The arguer claims that one event will cause a series of events that will end horribly. He or she claims that one negative event will definitely result in further negative consequences, and this will lead to a slippery slope where there’s no chance of stopping the chain of events prior to the disastrous conclusion.

**Example:** “If marijuana is legalized, then all drugs will become legalized, and society as we know it will collapse.”

**Explanation:** This arguer suggests that legalizing marijuana is the end of the world. The author has grouped together all drugs into one category as bad, failing to note the differences between drugs like marijuana and crystal meth. Additionally, the author makes no mention that there is a stopping point—if the legalization of marijuana starts degrading society, the government could always ban it again.

**Revision Suggestion:** “If marijuana is legalized, this action could create the legal precedent to also legalize other drugs. Drugs are known to have harmful drawbacks and allowing more access to these drugs may degrade and negatively change our society.”
Straw Man: The arguer sets up a watered-down or misrepresented version of his or her opponent’s argument, then uses evidence to easily knock down that weakened version. The counterargument is made to look legitimate, but it is not well supported or strong, much like a straw man/scarecrow.

Example: “Michelle Obama wants to ban all junk food in the United States. But that is too extreme, so she is clearly wrong. American consumers should be allowed to eat whatever they want.”

Explanation: This overstates Michelle Obama’s position on junk food. Her goal isn’t to ban all junk food from the country; it’s to lower child obesity rates by cutting out junk food from school sponsored lunch programs.

Revision Suggestion: “Michelle Obama wants to reduce school children’s access to junk food at school in order to lower child obesity rates. However, healthier foods are more expensive for schools to provide and American consumers should have the choice to eat whatever they want, regardless of health factors.”

Tu quoque: From the Latin phrase “you too,” tu quoque diverts the audience’s attention away from the argument and onto the opponent’s hypocrisy. The arguer finds that if someone is speaking against something they did in the past, that argument is bad.

Example: Imagine that your older brother told you not to skip class, and he gives a lot of good reasons—it could lead to bad grades, suspension, and losing privileges at home. You reply, “I’ll skip if I want to because you used to skip class too!”

Explanation: Just because your brother skipped class does not make his argument invalid. He has evidence that supports his claim outside of his own past choices, and he may have even learned from his own mistakes and hopes you won’t make the same poor choices. Instead focus on their argument.

Revision Suggestion: “I’ll skip class because being in class is optional for the next six days if you have all As.”

Weak Analogy: An analogy compares two things to make a connection on their similarity. A weak analogy argues that similarities between the two things are significant, but the specific similarities selected are actually not significant, making the analogy irrelevant to the conclusion.

Example: “Jim is like a rabbit because he is kind of hairy.”

Explanation: This doesn’t really show how Jim is like a rabbit because lots of animals are hairy and rabbits have more notable qualities than just being hairy.

Revision Suggestion: “Jim’s mind is like a rabbit because his mind moves quickly, and it always jumps all over the place.” Rabbits are known to be fast paced and jump more than other animals, so this analogy makes a better connection to the characteristics that are similar to both rabbits and Jim’s mind.

Works Consulted:
UNC-Chapel Hill Writing Center (writingcenter.unc.edu); The University of Texas at El Paso (utminers.utep.edu/omwilliamson/ENGL1311/fallacies.htm); The Norton Field Guide to Writing with Readings and Handbook, 4th ed. (Bullock, Goggin, and Weinberg); Practical Argument, 2nd ed. (Kirszner and Mandell)