

A Comprehensive Glossary for Scottsdale Community College English Composition Students

Active Voice: A sentence is written in active voice when the subject of the sentence creates the action.

Allusion: A reference to a bit of public knowledge, such as to history, pop culture, or literature.

Ambiguity: Words, phrases, and expressions which have multiple meanings can create ambiguity when the author assumes commonly held definitions.

Analogy: A comparison between two things wherein the familiar item is used to explain a more abstract, complex, or unfamiliar item.

Anecdote: A brief account of an interesting, humorous, or biographical incident, often used to prove or set-up a point.

Angle: Also called *angle of vision*, *vantage point* – A writer's personal stake in and approach to a topic.

Annotation: Analytical, explanatory, or reactionary notes on a text.

Appeal to Authority: Also called a *testimony (expert testimony)*, *expert opinion*, *expert evidence* – Evidence provided by an academic or professional authority on the subject.

Appeal to Emotion (emotional appeal): Also known as *pathos* – The aspects of a text which appeal to the audience's sensibilities (emotions). This appeal can happen by using emotionally moving language and by identifying and speaking to an audience's needs and desires.

Appeal to Logic (logical appeal): Also called *logos* – The sense or reasoning of a text, which includes both the structure of the text and its content.

Appeal to Ethics (ethical appeal): Also called *ethos*, *credibility* – The trustworthiness of the author of a text. This self-portrayal by the author can be intentionally created within a text, but the author's background will also influence readers or listeners.

Argument: a process of reasoning and advancing proof about issues where conflicting views may be held; also, a statement or statements to support a claim.

Assumptions: Also called *warrants*, *subtext*, *warranting assumptions* – The unstated beliefs that underlie an argument. These beliefs can be descriptive in nature, relating to the author's

perception of things, or they can be based on value preferences, with one abstract idea being rated as more important than another.

Attention-getter: Also called a *hook, lead (lead-in)* – Any number of strategies used at the beginning of an essay or speech to engage the reader's/listener's interest.

Attribution: Also called *documentation* – A system of giving credit to the sources utilized in a text. Documentation styles vary by discipline. For example, Modern Language Association (MLA) style requires an author's complete first name if it appears in a source, whereas American Psychological Association (APA) style requires only the initial of an author's first name.

Attributive Phrase: Also called *attributive tag, signal phrase* – A phrase which indicates to the reader or listener the source of a quotation and the manner of that quotation's delivery.

Attributive Tag: Also called *attributive phrase, signal phrase* – A phrase which indicates to the reader or listener the source of a quotation and the manner of that quotation's delivery.

Backing: Also called *support* – the evidence used to prove an argument to be valid or true.

Bar Chart: the portrayal of data using vertical or horizontal bars to represent numeric values.

Blueprinting: Also called *extended thesis statement, forecasting, essay map* – A brief overview of the topics an essay will cover, which can either be included as part of a thesis statement or be written in a sentence which precedes or follows the thesis statement.

Bias: Personal beliefs that can skew arguments, leading to the commission of fallacies or the author having unrecognized assumptions.

Case Example: Also called *example* – A type of evidence which provides a detailed description of a few people or events to support a conclusion.

Case Study: A case example used as a part of a formal research study.

Causation: When one event results in (or causes) another event, that relationship is termed causation.

Central Claim: Also called *claim, conclusion, point, controlling idea, thesis statement* – The primary opinion or idea asserted in an essay.

Central Reason: Also called *topic sentence, discussion point* – The main idea of a paragraph.

Chronological Order: A way of organizing text that proceeds from the beginning of an event to the end. Reverse chronological order proceeds in the other direction, from the end to the beginning.

Citation: An instance of giving a source credit. To avoid plagiarism, source citations have to be included within the text and in a source list at the end of the text.

Cite: To give a source credit.

Claim: Also called *central claim, conclusion, point, controlling idea, thesis statement* – The primary opinion or idea asserted in an essay.

Cliché: Commonly overused expressions, such as reach for the stars, aim high, life is short, and avoid it like the plague.

Clustering: Also called *mapping* – A process for generating ideas and text, in which a writer visually connects thoughts by jotting them down and drawing lines between related items.

Coherence: Clear organization and a strong relationship between the ideas in an essay. Elements that can help to achieve coherence include the title, a clearly stated or implied thesis, topic sentences, clear transitions between ideas and paragraphs, and parallelism among comparable ideas.

Common Ground: A point of agreement between opposing sides.

Common Knowledge: Information that an audience can be expected to know from many sources, including facts which are the same in all sources and are not open to debate and common sense.

Concede: to admit, however grudgingly, that some portion of your opponent's argument is true or valid.

Concession: the act of conceding.

Conclusion:

- a. The final paragraph of an essay.
- b. Also called *claim, central claim, point, controlling idea, thesis statement* – The primary opinion or idea asserted in an essay.

Connotation: The visual and emotional associations carried by a word.

Controlling Idea: Also called *claim, central claim, conclusion, point, thesis statement* – The primary opinion or idea asserted in an essay.

Counterargument: a. Also called *opposition, opposing side*– In argument, an alternative position or objections to the writer's position. The writer of an argument should not only acknowledge counterarguments but also, if at all possible, accept, accommodate, or refute each counterargument.
b. An argument against the opposition which focuses primarily on its own strengths rather than focusing on dismantling the opposing argument.

Credibility: Also called *appeal to ethics (ethical appeal), ethos* – The trustworthiness of the author of a text. This self-portrayal by the author can be intentionally created within a text, but the author's background will also influence readers or listeners.

Criteria: In evaluation, the standards against which something is judged.

Critical Reading: In-depth reading of a text, which seeks to go beyond comprehension by examining both the context and the subtext; considering the author and the author's social, political and cultural influences; and contemplating potential objections to the ideas expressed in the text.

Critical Thinking: The objective evaluation of ideas and communication by using a set of skills which includes identifying and analyzing assumptions, fallacies, and contexts for the ideas and communication.

Cultural Assumptions: Widely held beliefs that are considered common sense in a particular culture.

Databases: When researching, this word refers to online collections of articles, usually accessed through an academic library, such as the SCC library. Some of the most commonly used general interest databases are Academic Search Premier (EBSCO), Academic OneFile (Gale) and JSTOR.

Deduction: An opinion arrived at by applying a more general truth to a specific situation.

Deductive Reasoning: Deductive reasoning begins with general ideas and concepts to form a most specific major and minor premise that establishes that the conclusion should be true. because the statements of major and minor premises are also true.

Denotation: The dictionary definition of a word.

Diction: The choice and use of words in writing and speech.

Discussion Point: Also called *central reason, topic sentence* – The main idea of a paragraph.

Draft: Writing the essay; a version of the essay (e.g. rough draft, final draft, etc).

Dropped Quotation: A quotation that is placed in a text without appropriate introduction.

Documentation: Also called *attribution* – A system of giving credit to the sources utilized in a text. Documentation styles vary by discipline. For example, Modern Language Association (MLA) style requires an author's complete first name if it appears in a source, whereas American Psychological Association (APA) style requires only the initial of an author's first name.

Essay Map: Also called *forecasting, extended thesis statement, blueprinting* – A brief overview of the topics an essay will cover, which can either be included as part of a thesis statement or be written in a sentence which precedes or follows the thesis statement.

Ethos: Also called *appeal to ethics (ethical appeal)* – The trustworthiness of the author of a text. This self-portrayal by the author can be intentionally created within a text, but the author's background will also influence readers or listeners.

Evidence: Data used to support opinions or main ideas. Such data may include statistics, calculations, examples, anecdotes, quotations, case studies, expert opinions, etc.

Example: Also called *case example* – A type of evidence which provides a detailed description of a few people or events to support a conclusion.

Expert Evidence: Also called *Testimony (Expert Testimony), expert opinion, appeal to authority* – Evidence provided by an academic or professional authority on the subject.

Expert Opinion: Also called *Testimony (Expert Testimony), expert evidence, appeal to authority* – Evidence provided by an academic or professional authority on the subject.

Extended Thesis Statement: Also called *forecasting, blueprinting, essay map* – A brief overview of the topics an essay will cover, which can either be included as part of a thesis statement or be written in a sentence which precedes or follows the thesis statement.

Facts: Verifiable statements.

Fair Use: A legal doctrine that portions of copyrighted materials may be used without permission of the copyright owner provided the use is fair and reasonable, does not substantially impair the value of the materials, and does not curtail the profits reasonably expected by the owner.

Fallacies: Also called *fallacies in argumentation* – Errors in an argument caused by faulty reasoning or abuses in language use. Such errors can be invoked intentionally in order to

mislead readers or listeners, or the errors can be a result from a lack of information or lack of critical thinking. (See Appendix A)

Field Research: Also called *primary research* – Research conducted by the author through interviews, questionnaires, experiments, and social media.

Forecasting: Also called *blueprinting, extended thesis statement, essay map* – A brief overview of the topics an essay will cover, which can either be included as part of a thesis statement or be written in a sentence which precedes or follows the thesis statement.

GEC: Also called *SEE, PIE* – A paragraph development model which uses an assertion, evidence or supporting details, and an explanation or commentary.

Grounds: The logic, examples and statistics (reasons, data, and evidence) that support an argument.

Hook: Also called a *lead, lead-in, Attention-getter* – Any number of strategies used at the beginning of an essay or speech to engage the reader's/listener's interest.

Induction: An opinion based upon specific facts, examples, etc.

Inductive Reasoning: Method of reasoning from particular to general; the mental process involved in creating generalizations from the observed phenomenon or principles.

Inference: Opinion based on fact.

Intellectual Property: intangible property (as an idea, invention, or process) resulting from the work of the mind.

In-text Citation: Also called a *parenthetical citation* – These citations are used to provide source information within the text of an essay.

Invention Techniques: Also called *prewriting strategies* – writing activities that generate ideas, reactions, and details prior to beginning the formal writing process.

Jargon: Specialized language used by a group (medical jargon, legal jargon, etc).

Lead (Lead-in): Also called a *hook* – Any number of strategies used at the beginning of an essay or speech to engage the reader's/listener's interest.

Line Graph: A portrayal of data utilizing a continuous line or lines plotted at specific intervals on an xy axis.

Logos: Also called an *appeal to logic (logical appeal)* – The sense or reasoning of a text, which includes both the structure of the text and its content.

Mapping: Also called *clustering* – A process for generating ideas and text, in which a writer visually connects thoughts by jotting them down and drawing lines between related items.

Medium: a means of communication, such as by print, screen, or network.

Objective Stance: The presentation of differing sides of an argument in a fair manner without one side receiving more support than any other.

Opposing Side: Also called *counterargument, opposition*—In argument, an alternative position or objections to the writer's position. The writer of an argument should not only acknowledge counterarguments but also, if at all possible, accept, accommodate, or refute each counterargument.

Opposition: Also called *counterargument, opposing side*—In argument, an alternative position or objections to the writer's position. The writer of an argument should not only acknowledge counterarguments but also, if at all possible, accept, accommodate, or refute each counterargument.

OWL: Online Writing Lab, such as the online portion of SCC's Writing Center
<http://showcase.scottsdalecc.edu/writingcenter/>.

Paraphrase A rewording of a text in about the same number of words but without using the word order or sentence structure of the original.

Parenthetical Citation: Also called an *in-text citation* – These citations are use to provide source information within the text of an essay.

Passive Voice: A sentence is written in passive voice when the subject of the sentence receives the action. Oftentimes, writing that explains scientific experiments is written in passive voice because the scientist is studying the effects of certain agents of the subject of the research. In other types of writing, passive voice is typically less effective than active voice.

Patch Plagiarism: A failure on the part of students to distinguish between source information and the student's own words. This mistake is often the result of poorly constructed paraphrases or summaries.

Pathos: Also called *appeal to emotion (emotional appeal)*– The aspects of a text which appeal to the audience's sensibilities (emotions).

Periodicals: Newspapers, magazines, and scholarly journals that are published at regular intervals.

Personal Experience: A type of evidence consisting of events taken from the author's own life.

Personal Observations:

- a. A type of evidence which utilizes eye-witness testimony. This type of evidence is particularly prevalent in popular journalism.
- b. An author's perceptions (including sensory details) of a person, place, object or condition.

PIE: Also called *SEE, GEC* – A paragraph development model which uses an assertion, evidence or supporting details, and an explanation or commentary.

Pie Chart: A portrayal of data using a circle to represent the whole and wedges of that circle to represent parts of that whole.

Plagiarism: Using another person's words, syntax, or ideas without giving appropriate credit and documentation. Plagiarism is a serious breach of ethics.

Point: Also called a *claim, central claim, conclusion, controlling idea, thesis statement* – The primary opinion or idea asserted in an essay.

Post Hoc (Ergo Propter Hoc): Also called *false cause* – A fallacy that occurs when the assumption is made that because one event follows another in time, the first event caused the second.

Prewriting Strategies: Also called *invention techniques* – writing activities that generate ideas, reactions, and details prior to beginning the formal writing process.

Primary Research: Also called *field research* – Research conducted by the author through interviews, questionnaires, experiments, and social media.

Primary Source: A source such as a literary work, historical document, art, or performance that a researcher examines first hand.

Reasons: See *Central Reasons*

Rebuttal Argument: An argument focused on responding to the opposing viewpoint. There are two types of rebuttal argument – refutation and counter-argument.

References: The list of sources at the end of a text prepared APA style.

Refutation: The portion of an argument dedicated to challenging an opposing argument by challenging assumptions underlying the opposing argument, pointing out fallacies in the

reasoning of the opposing argument, or questioning the validity of the evidence used to support the opposing argument.

Refute: To prove that an argument is erroneous or false.

Research Studies: A type of evidence which relies on observations or discoveries made by experts trained in a particular professional or academic field.

Rhetoric: In common language, rhetoric can mean empty and overblown words (i.e. political rhetoric); however, in an academic setting, rhetoric refers to effective written or spoken communication.

Rhetorical Situation: Also called *writing situation* – Comprised of the elements of a writing task

- author/speaker: also called *rhetor* – person producing the communication.
- purpose: reason for the communication.
- audience: reader or listener who receives the communication.
- context: also called *setting, kairos* – the environment (time and place) of the communication.
- stance: also called *authorial tone, attitude, telos* – in speeches, the tone of voice helps to convey this element, while in writing it is wholly dependent upon word choice.
- genre: also called *type, class* – specific kind of writing or speech being delivered such as informative, interpretive, or argument.
- issue: also called *exigence* – that which is at stake, whether it is a question which is answered or a need that is met by the communication.

Scope: The amount of a general topic that an essay will cover. For example, if a writer wanted to address the topic of infringement of personal rights, that person could write a short essay responding to the issue *should Scottsdale Community College be smoke free?* If a longer essay were required, the scope could be broadened by addressing the issue *should the government have access to personal information?*

Secondary Source: An analysis or interpretation of a primary source.

SEE: Also called *GEC, PIE* – A paragraph development model which uses an assertion, evidence or supporting details, and an explanation or commentary

Sic: Latin for *thus* or *so*, [sic] is used after a quoted error to let the reader know that the passage is quoted as is.

Signal Phrase: Also called *attributive tag, attributive phrase* – A phrase which indicates to the reader or listener the source of a quotation and the manner of that quotation's delivery.

Signal Verb: The verb used in a signal phrase (attributive tag, attributive phrase) which makes a claim (argues, insists, etc); indicates support (agrees, extols, etc); or disagrees (questions, refutes, etc).

Statistics: Evidence which is represented by numbers. However, all numbers are not statistics. Some numbers, such as dates or a person's age, are merely facts.

Subtext: Also called *assumptions, warrants, warranting assumptions* – The unstated beliefs that underlie an argument. These beliefs can be descriptive in nature, relating to the author's perception of things, or they can be based on value preferences, with one abstract idea being rated as more important than another.

Support: Also called *backing* – the evidence used to prove an argument to be valid or true.

Testimony (Expert Testimony): Also called an *expert opinion, expert evidence, appeal to authority* – Evidence provided by an academic or professional authority on the subject. In some situations, personal experience can give a person the expertise needed to establish credibility for a testimony.

Testimonial: A statement made (often by a celebrity) as an endorsement of a particular product, political candidate, or idea.

Thesis Statement: Also called a *claim, central claim, conclusion, point, controlling idea* – The primary opinion or idea asserted in an essay.

Topic Sentence: Also called a *discussion point, central reason* – the main idea of a paragraph.

Unity: all ideas in a paragraph are focused around the topic sentence (discussion point, central reason) and all ideas in an essay are focused around the thesis statement (claim, central claim, conclusion, point, controlling idea).

Vantage Point: Also called *angle of vision, angle* – A writer's personal stake in and approach to a topic.

Voice: a. The personality conveyed by the writing, including the level of formality used in the text.
b. When paired with either *active* or *passive*, *voice* also refers to the construction of sentences.

Warrants: Also called *assumptions, warranting assumptions, subtext* – The unstated beliefs that underlie an argument. These beliefs can be descriptive in nature, relating to the author's perception of things, or they can be based on value preferences, with one abstract idea being rated as more important than another.

Working Thesis: The initial form of a thesis statement, which is often more simplistic and abstract than the final version of the thesis.

Works Cited: At the end of a researched text prepared MLA style, the list, with full bibliographic information, for all the sources cited in the text.

Writing Situation: also called *rhetorical situation* – Comprised of the elements of a writing task

- author/speaker: also called *rhetor* – person producing the communication.
- purpose: reason for the communication.
- audience: reader or listener who receives the communication.
- context: also called *setting, kairos* – time and place of the communication.
- stance: also called *authorial tone, attitude, telos* – in speeches, the tone of voice helps to convey this element, while in writing it is wholly dependent upon word choice.
- genre: also called *type, class* – specific kind of writing or speech being delivered such as informative, interpretive, or argument.
- issue: also called *exigence* – that which is at stake, whether it is a question which is answered or a need that is met by the communication.

Appendix A: Fallacies

Information in this appendix is excerpted from *Internet Encyclopedia of Philosophy*: <http://www.iep.utm.edu/fallacy/> unless otherwise noted.

A fallacy is a kind of error in reasoning. The alphabetical list below contains 207 names of the most common fallacies, and it provides brief explanations and examples of each of them. Fallacies should not be persuasive, but they often are. Fallacies may be created unintentionally, or they may be created intentionally in order to deceive other people. The vast majority of the commonly identified fallacies involve arguments, although some involve explanations, or definitions, or other products of reasoning. Sometimes the term “fallacy” is used even more broadly to indicate any false belief or cause of a false belief. The list below includes some fallacies of these sorts, but most are fallacies that involve kinds of errors made while arguing informally in natural language.

Partial List of Fallacies

Consulting the list below will give a general idea of the kind of error involved in passages to which the fallacy name is applied. However, simply applying the fallacy name to a passage cannot substitute for a detailed examination of the passage and its context or circumstances because there are many instances of reasoning to which a fallacy name might seem to apply, yet, on further examination, it is found that in these circumstances the reasoning is really not fallacious.

Abusive Ad Hominem: See *Ad Hominem*.

Accent Fallacy: The accent fallacy is a fallacy of ambiguity due to the different ways a word is emphasized or accented.

Example:

A member of Congress is asked by a reporter if she is in favor of the President's new missile defense system, and she responds, "I'm in favor of a missile defense system that effectively defends America."

With an emphasis on the word "favor," her response is likely to *favor* the President's missile defense system. With an emphasis, instead, on the words "effectively defends," her remark is likely to be *against* the President's missile defense system. And by using neither emphasis, she can later claim that her response was on either side of the issue. Aristotle's version of the fallacy of accent allowed only a shift in which syllable is accented within a word.

Accident: We often arrive at a generalization but don't or can't list all the exceptions. When we reason with the generalization as if it has no exceptions, we commit the fallacy of accident. This fallacy is sometimes called the "*fallacy of sweeping generalization*."

Example:

People should keep their promises, right? I loaned Dwayne my knife, and he said he'd return it. Now he is refusing to give it back, but I need it right now to slash up my neighbors who disrespected me.

People should keep their promises, but there are exceptions to this generalization as in this case of the psychopath who wants Dwayne to keep his promise to return the knife.

Ad Baculum: See *Scare Tactic* and *Appeal to Emotions (Fear)*.

Ad Consequentiam: See *Appeal to Consequence*.

Ad Crumentum: See *Appeal to Money*.

Ad Hoc Rescue: Psychologically, it is understandable that you would try to rescue a cherished belief from trouble. When faced with conflicting data, you are likely to mention how the conflict will disappear if some new assumption is taken into account. However, if there is no good reason to accept this saving assumption other than that it works to save your cherished belief, your rescue is an ad hoc rescue.

Example:

Yolanda: If you take four of these tablets of vitamin C every day, you will never get a cold.

Juanita: I tried that last year for several months, and still got a cold.

Yolanda: Did you take the tablets every day?

Juanita: Yes.

Yolanda: Well, I'll bet you bought some bad tablets.

The burden of proof is definitely on Yolanda's shoulders to prove that Juanita's vitamin C tablets were probably "bad" — that is, not really vitamin C. If Yolanda *can't* do so, her

attempt to rescue her hypothesis (that vitamin C prevents colds) is simply a dogmatic refusal to face up to the possibility of being wrong.

Ad Hominem: You commit this fallacy if you make an irrelevant attack on the arguer and suggest that this attack undermines the argument itself. It is a form of the *Genetic Fallacy*.

Example:

What she says about Johannes Kepler's astronomy of the 1600's must be just so much garbage. Do you realize she's only fourteen years old?

This attack may undermine the arguer's credibility as a scientific authority, but it does not undermine her reasoning. That reasoning should stand or fall on the scientific evidence, not on the arguer's age or anything else about her personally.

If the fallacious reasoner points out irrelevant circumstances that the reasoner is in, the fallacy is a circumstantial ad hominem. *Tu Quoque* and *Two Wrongs Make a Right* are other types of the ad hominem fallacy.

The major difficulty with labeling a piece of reasoning as an ad hominem fallacy is deciding whether the personal attack is relevant. For example, attacks on a person for their actually immoral sexual conduct are irrelevant to the quality of their mathematical reasoning, but they are relevant to arguments promoting the person for a leadership position in the church. Unfortunately, many attacks are not so easy to classify, such as an attack pointing out that the candidate for church leadership, while in the tenth grade, intentionally tripped a fellow student and broke his collar bone.

Ad Hominem, Circumstantial: See *Guilt by Association*.

Ad Ignorantiam: See *Appeal to Ignorance*.

Ad Misericordiam: See *Appeal to Emotions*.

Ad Novitatem: See *Bandwagon*.

Ad Numerum: See *Appeal to the People*.

Ad Populum: See *Appeal to the People*.

Ad Verecundiam: See *Appeal to Authority*.

Affirming the Consequent: If you have enough evidence to affirm the consequent of a conditional and then suppose that as a result you have sufficient reason for affirming the antecedent, you commit the fallacy of affirming the consequent. This formal fallacy is often mistaken for modus ponens, which is a *valid* form of reasoning also using a conditional. A conditional is an if-then statement; the if-part is the antecedent, and the then-part is the consequent. The following argument affirms the consequent that she does speak Portuguese.

Example:

If she's Brazilian, then she speaks Portuguese. Hey, she does speak Portuguese. So, she is Brazilian.

If the arguer believes or suggests that the premises definitely establish that she is Brazilian, then the arguer is committing the fallacy. See the [non sequitur](#) fallacy for more discussion of this point.

Against the Person: See *Ad Hominem*.

All-or-Nothing: See *Black-or-White Fallacy*.

Ambiguity: Any fallacy that turns on ambiguity. See the fallacies of *Amphiboly*, *Accent*, and *Equivocation*.

Amphiboly Fallacy: This is an error due to taking a grammatically ambiguous phrase in two different ways during the reasoning.

Example:

In a cartoon, two elephants are driving their car down the road in India. They say, "We'd better not get out here," as they pass a sign saying:

ELEPHANTS

PLEASE STAY IN YOUR CAR

Upon one interpretation of the grammar, the pronoun "YOUR" refers to the elephants in the car, but on another it refers to those humans who are driving cars in the vicinity. Unlike *equivocation*, which is due to multiple meanings of a phrase, amphiboly is due to syntactic ambiguity, ambiguity caused by multiple ways of understanding the grammar of the phrase.

Anecdotal Evidence: This is fallacious generalizing on the basis of a some story that provides an inadequate sample. If you discount evidence arrived at by systematic search or by testing in favor of a few firsthand stories, then you are committing the fallacy of overemphasizing anecdotal evidence.

Example:

Yeah, I've read the health warnings on those cigarette packs and I know about all that health research, but my brother smokes, and he says he's never been sick a day in his life, so I know smoking can't really hurt you.

Anthropomorphism: This is the error of projecting uniquely human qualities onto something that isn't human. Usually this occurs with projecting the human qualities onto animals, but when it is done to nonliving things, as in calling the storm cruel, the *pathetic fallacy* is created. There is also, but less commonly, called the *Disney Fallacy* or the *Walt Disney Fallacy*.

Example:

My dog is wagging his tail and running around me. Therefore, he knows that I love him.

The fallacy would be averted if the speaker had said "My dog is wagging his tail and running around me. Therefore, he is happy to see me." Animals are likely to have some human emotions, but not the ability to ascribe knowledge to other beings. Your dog knows where it buried its bone, but not that you also know where the bone is.

Appeal to Authority: You appeal to authority if you back up your reasoning by saying that it is supported by what some authority says on the subject. Most reasoning of this kind is not fallacious, and much of our knowledge properly comes from listening to authorities. However, appealing to authority as a reason to believe something *is* fallacious whenever the authority appealed to is not really an authority in this particular subject, when the authority cannot be trusted to tell the truth, when authorities disagree on this subject (except for the occasional lone wolf), when the reasoner misquotes the authority, and so forth. Although spotting a fallacious appeal to authority often requires some background knowledge about the subject or the authority, in brief it can be said that it is fallacious to accept the words of a supposed authority when we should be suspicious of the authority's words.

Example:

The moon is covered with dust because the president of our neighborhood association said so.

This is a fallacious appeal to authority because, although the president is an authority on many neighborhood matters, you are given no reason to believe the president is an authority on the composition of the moon. It would be better to appeal to some astronomer or geologist. A TV commercial that gives you a testimonial from a famous film star who wears a Wilson watch and that suggests you, too, should wear that brand of watch is committing a fallacious appeal to authority. The film star is an authority on how to act, not on which watch is best for you.

Appeal to Consequence: Arguing that a belief is false because it implies something you'd rather not believe. Also called *Argumentum Ad Consequentiam*.

Example:

That can't be Senator Smith there in the videotape going into her apartment. If it were, he'd be a liar about not knowing her. He's not the kind of man who would lie. He's a member of my congregation.

Smith may or may not be the person in that videotape, but this kind of arguing should not convince us that it's someone else in the videotape.

Appeal to Emotions: You commit the fallacy of appeal to emotions when someone's appeal to you to accept their claim is accepted merely because the appeal arouses your feelings of anger, fear, grief, love, outrage, pity, pride, sexuality, sympathy, relief, and so forth.

Example of appeal to relief from grief:

[The speaker knows he is talking to an aggrieved person whose house is worth much more than \$100,000.] You had a great job and didn't deserve to lose it. I wish I could help somehow. I do have one idea. Now your family needs financial security even more. You need cash. I can help you. Here is a check for \$100,000. Just sign this standard sales agreement, and we can skip the realtors and all the headaches they would create at this critical time in your life.

There is nothing wrong with using emotions when you argue, but it's a mistake to use emotions as the key premises or as tools to downplay relevant information. Regarding the fallacy of *appeal to pity*, it is proper to pity people who have had misfortunes, but if as the person's history instructor you accept Max's claim that he earned an A on the history quiz because he broke his wrist while playing in your college's last basketball game, then you've committed the fallacy of *appeal to pity*.

Appeal to Force: See *Scare Tactic*.

Appeal to Ignorance: The fallacy of appeal to ignorance comes in two forms: (1) Not knowing that a certain statement is true is taken to be a proof that it is false. (2) Not knowing that a statement is false is taken to be a proof that it is true. The fallacy occurs in cases where absence of evidence is not good enough evidence of absence. The fallacy uses an unjustified attempt to shift the burden of proof. The fallacy is also called "*Argument from Ignorance*."

Example:

Nobody has ever proved to me there's a God, so I know there is no God.

This kind of reasoning is generally fallacious. It would be proper reasoning only if the proof attempts were quite thorough, and it were the case that if God did exist, then there would be a discoverable proof of this. Another common example of the fallacy involves ignorance of a future event: People have been complaining about the danger of Xs ever since they were invented, but there's never been any big problem with them, so there's nothing to worry about.

Appeal to Money: The fallacy of appeal to money uses the error of supposing that, if something costs a great deal of money, then it must be better, or supposing that if someone has a great deal of money, then they're a better person in some way unrelated to having a great deal of money. Similarly it's a mistake to suppose that if something is cheap it must be of inferior quality, or to suppose that if someone is poor financially then they're poor at something unrelated to having money.

Example:

He's rich, so he should be the president of our Parents and Teachers Organization.

Appeal to Past Practice: See *Appeal to the People*.

Appeal to Pity: See *Appeal to Emotions*.

Appeal to Snobbery: See *Appeal to Emotions*.

Appeal to the Gallery: See *Appeal to the People*.

Appeal to the Mob: See *Appeal to the People*.

Appeal to the Masses: See *Appeal to the People*.

Appeal to the People: If you suggest too strongly that someone's claim or argument is correct simply because it's what most everyone believes, then you've committed the fallacy of appeal to the people. Similarly, if you suggest too strongly that someone's claim or argument is mistaken simply because it's not what most everyone believes, then you've also committed the

fallacy. Agreement with popular opinion is not necessarily a reliable sign of truth, and deviation from popular opinion is not necessarily a reliable sign of error, but if you assume it is and do so with enthusiasm, then you're guilty of committing this fallacy. It is essentially the same as the fallacies of *ad numerum*, *appeal to the gallery*, *appeal to the masses*, *argument from popularity*, *argumentum ad populum*, *common practice*, *mob appeal*, *past practice*, *peer pressure*, *traditional wisdom*. The "too strongly" mentioned above is important in the description of the fallacy because what most everyone believes is, for that reason, somewhat likely to be true, all things considered. However, the fallacy occurs when this degree of support is overestimated.

Example:

You should turn to channel 6. It's the most watched channel this year.

This is fallacious because of its implicitly accepting the questionable premise that the most watched channel this year is, for that reason alone, the best channel for you. If you stress the idea of appealing to a *new* idea of the gallery, masses, mob, peers, people, and so forth, then it is a *bandwagon fallacy*.

Appeal to the Stick: See *Appeal to Emotions* (fear).

Appeal to Unqualified Authority: See *Appeal to Authority*.

Appeal to Questionable Authority (Browne and Keeley 76): See *Appeal to Authority*.

Appeal to Vanity: See *Appeal to Emotions*.

Argument from Ignorance: See *Appeal to Ignorance*.

Argument from Outrage: See *Appeal to Emotions*.

Argument from Popularity: See *Appeal to the People*.

Argumentum Ad: See *Ad* without the word "Argumentum."

Argumentum Consensus Gentium: See *Appeal to Traditional Wisdom*.

Avoiding the Issue: A reasoner who is supposed to address an issue but instead goes off on a tangent has committed the fallacy of avoiding the issue. Also called missing the point, straying off the subject, digressing, and not sticking to the issue.

Example:

A city official is charged with corruption for awarding contracts to his wife's consulting firm. In speaking to a reporter about why he is innocent, the city official talks only about his wife's conservative wardrobe, the family's lovable dog, and his own accomplishments in supporting Little League baseball.

However, the fallacy *isn't* committed by a reasoner who says that some other issue must first be settled and then continues by talking about this other issue, provided the reasoner is correct in claiming this dependence of one issue on the other.

Avoiding the Question: The fallacy of avoiding the question is a type of fallacy of avoiding the issue that occurs when the issue is how to answer some question. The fallacy is committed when someone's answer doesn't really respond to the question asked.

Example:

Question: Would the Oakland Athletics be in first place if they were to win tomorrow's game?

Answer: What makes you think they'll ever win tomorrow's game?

Bald Man Fallacy: See *Line-Drawing*.

Bandwagon Fallacy: If you suggest that someone's claim is correct simply because it's what most everyone is coming to believe, then you're committing the bandwagon fallacy. Get up here with us on the wagon where the band is playing, and go where we go, and don't think too much about the reasons. The Latin term for this fallacy of appeal to novelty is *Argumentum ad Novitatem*.

Example:

[Advertisement] More and more people are buying sports utility vehicles. Isn't it time you bought one, too? [You commit the fallacy if you buy the vehicle solely because of this advertisement.]

Like its close cousin, the *fallacy of appeal to the people*, the *bandwagon fallacy* needs to be carefully distinguished from properly defending a claim by pointing out that many people have studied the claim and have come to a reasoned conclusion that it is correct. What most everyone believes is likely to be true, all things considered, and if one defends a claim on those grounds, this is not a fallacious inference. What is fallacious is to be swept up by the excitement of a new idea or new fad and to unquestionably give it too high a degree of your belief solely on the grounds of its new popularity, perhaps thinking simply that 'new is better.' The key ingredient that is missing from a *bandwagon fallacy* is knowledge that an item is popular because of its high quality.

Begging the Question: A form of *circular reasoning* in which a conclusion is derived from premises that presuppose the conclusion. Normally, the point of good reasoning is to start out at one place and end up somewhere new, namely having reached the goal of increasing the degree of reasonable belief in the conclusion. The point is to make progress, but in cases of begging the question there is no progress.

Example:

"Women have rights," said the Bullfighters Association president. "But women shouldn't fight bulls because a bullfighter is and should be a man."

The president is saying basically that women shouldn't fight bulls because women shouldn't fight bulls. This reasoning isn't making any progress.

Insofar as the conclusion of a deductively valid argument is "contained" in the premises from which it is deduced, this containing might seem to be a case of presupposing, and thus any deductively valid argument might seem to be begging the question. It is still an open question among logicians as to why some deductively valid arguments are considered to be begging the question and others are not. Some logicians suggest that, in informal reasoning with a deductively valid argument, if the conclusion is

psychologically new insofar as the premises are concerned, then the argument isn't an example of the fallacy. Other logicians suggest that we need to look instead to surrounding circumstances, not to the psychology of the reasoner, in order to assess the quality of the argument. For example, we need to look to the reasons that the reasoner used to accept the premises. Was the premise justified on the basis of accepting the conclusion? A third group of logicians say that, in deciding whether the fallacy is committed, we need more. We must determine whether any premise that is key to deducing the conclusion is adopted rather blindly or instead is a reasonable assumption made by someone accepting their burden of proof. The premise would here be termed reasonable if the arguer could defend it independently of accepting the conclusion that is at issue.

Beside the Point: Arguing for a conclusion that is not relevant to the current issue. Also called *Irrelevant Conclusion*. It is a form of the *Red Herring Fallacy*

Biased Generalizing: Generalizing from a biased sample. Using an unrepresentative sample and overestimating the strength of an argument based on that sample.
See *Unrepresentative Sample*.

Biased Sample: See *Unrepresentative Sample*.

Biased Statistics: See *Unrepresentative Sample*.

Bifurcation: See *Black-or-White*.

Black-or-White: The black-or-white fallacy is a *false dilemma fallacy* that unfairly limits you to only two choices.

Example:

Well, it's time for a decision. Will you contribute \$10 to our environmental fund, or are you on the side of environmental destruction?

A proper challenge to this fallacy could be to say, "I do want to prevent the destruction of our environment, but I don't want to give \$10 to your fund. You are placing me between a rock and a hard place." The key to diagnosing the black-or-white fallacy is to determine whether the limited menu is fair or unfair. Simply saying, "Will you contribute \$10 or won't you?" is not unfair.

Cherry-Picking the Evidence: This is another name for the *Fallacy of Suppressed Evidence*.

Circular Reasoning: Circular reasoning occurs when the reasoner begins with what he or she is trying to end up with. The most well known examples are cases of the fallacy of begging the question. However, if the circle is very much larger, including a wide variety of claims and a large set of related concepts, then the circular reasoning can be informative and so is not considered to be fallacious. For example, a dictionary contains a large circle of definitions that use words which are defined in terms of other words that are also defined in the dictionary. Because the dictionary is so informative, it is not considered as a whole to be fallacious. However, a small circle of definitions is considered to be fallacious.

Here is Steven Pinker's example:

Definition: endless loop, n. See loop, endless.

Definition: loop, endless, n. See endless loop.

In properly constructed recursive definitions, defining a term by using that term is not fallacious. For example, here is a recursive definition of “a stack of coins.” Basis step: Two coins, with one on top of the other, is a stack of coins. Recursion step: If p is a stack of coins, then adding a coin on top of p produces a stack of coins. For additional difficulties in deciding whether an argument is deficient because it is circular, see *Begging the Question*.

Circumstantial Ad Hominem: See *Ad Hominem, Circumstantial*.

Clouding the Issue: See *Smokescreen*.

Common Belief: See *Appeal to the People and Traditional Wisdom*.

Common Cause: This fallacy occurs during causal reasoning when a causal connection between two kinds of events is claimed when evidence is available indicating that both are the effect of a common cause.

Example:

Noting that the auto accident rate rises and falls with the rate of use of windshield wipers, one concludes that the use of wipers is somehow causing auto accidents.

However, it's the rain that's the common cause of both.

Common Practice: See *Appeal to the People and Traditional Wisdom*.

Complex Question: You commit this fallacy when you frame a question so that some controversial presupposition is made by the wording of the question.

Example:

[Reporter's question] Mr. President: Are you going to continue your policy of wasting taxpayer's money on missile defense?

The question unfairly presumes the controversial claim that the policy really is a waste of money. The fallacy of complex question is a form of *begging the question*.

Composition: The composition fallacy occurs when someone mistakenly assumes that a characteristic of some or all the individuals in a group is also a characteristic of the group itself, the group “composed” of those members. It is the converse of the *division fallacy*.

Example:

Each human cell is very lightweight, so a human being composed of cells is also very lightweight.

Confirmation Bias: The tendency to look only for evidence in favor of one's controversial hypothesis and not to look for disconfirming evidence, or to pay insufficient attention to it. This is the most common kind of *Fallacy of Selective Attention*.

Example:

She loves me, and there are so many ways that she has shown it. When we signed the divorce papers in her lawyer's office, she wore my favorite color. When she slapped me at the bar and called me a "handsome pig," she used the word "handsome" when she didn't have to. When I called her and she said never to call her again, she first asked me how I was doing and whether my life had changed. When I suggested that we should have children in order to keep our marriage together, she laughed. If she can laugh with me, if she wants to know how I am doing and whether my life has changed, and if she calls me "handsome" and wears my favorite color on special occasions, then I know she really loves me.

Committing the fallacy of confirmation bias is often a sign that one has adopted some belief dogmatically and isn't seriously setting about to confirm or disconfirm the belief.

Confusing an Explanation with an Excuse: Treating someone's explanation of a fact as if it were a justification of the fact. Explaining a crime should not be confused with excusing the crime, but it too often is.

Example:

Speaker: The German atrocities committed against the French and Belgians during World War I were in part due to the anger of German soldiers who learned that French and Belgian soldiers were ambushing German soldiers, shooting them in the back, or even poisoning, blinding and castrating them.

Respondent: I don't understand how you can be so insensitive as to condone those German atrocities.

Consensus Gentium: Fallacy of argumentum consensus gentium (argument from the consensus of the nations). See *Traditional Wisdom*.

Consequence: See *Appeal to Consequence*.

Converse Accident: If we reason by paying too much attention to exceptions to the rule, and generalize on the exceptions, we commit this fallacy. This fallacy is the converse of the accident fallacy. It is a kind of *Hasty Generalization*, by generalizing too quickly from a peculiar case.

Example:

I've heard that turtles live longer than tarantulas, but the one turtle I bought lived only two days. I bought it at Dowden's Pet Store. So, I think that turtles bought from pet stores do not live longer than tarantulas.

The original generalization is "Turtles live longer than tarantulas." There are exceptions, such as the turtle bought from the pet store. Rather than seeing this for what it is, namely an exception, the reasoner places too much trust in this exception and generalizes on it to produce the faulty generalization that turtles bought from pet stores do not live longer than tarantulas.

Cover-up: See *Suppressed Evidence*.

Cum Hoc, Ergo Propter Hoc: Latin for “with this, therefore because of this.” This is a *false cause* fallacy that doesn’t depend on time order (as does the *post hoc fallacy*), but on any other chance correlation of the supposed cause being in the presence of the supposed effect.

Example:

Gypsies live near our low-yield cornfields. So, gypsies are causing the low yield.

Definist: The definist fallacy occurs when someone unfairly defines a term so that a controversial position is made easier to defend. Same as the *Persuasive Definition*.

Example:

During a controversy about the truth or falsity of atheism, the fallacious reasoner says, “Let’s define ‘atheist’ as someone who doesn’t yet realize that God exists.”

Denying the Antecedent: You are committing a fallacy if you deny the antecedent of a conditional and then suppose that doing so is a sufficient reason for denying the consequent. This formal fallacy is often mistaken for *modus tollens*, a valid form of argument using the conditional. A conditional is an if-then statement; the if-part is the antecedent, and the then-part is the consequent.

Example:

If she were Brazilian, then she would know that Brazil’s official language is Portuguese. She isn’t Brazilian; she’s from London. So, she surely doesn’t know this about Brazil’s language.

Digression: See *Avoiding the Issue*.

Distraction: See *Smokescreen*.

Division: Merely because a group as a whole has a characteristic, it often doesn’t follow that individuals in the group have that characteristic. If you suppose that it does follow, when it doesn’t, you commit the fallacy of division. It is the converse of the *composition fallacy*.

Example:

Joshua’s soccer team is the best in the division because it had an undefeated season and won the division title, so their goalie must be the best goalie in the division.

Domino: See *Slippery Slope*.

Double Standard: There are many situations in which you should judge two things or people by the same standard. If in one of those situations you use different standards for the two, you commit the fallacy of using a double standard.

Example:

I know we will hire any man who gets over a 70 percent on the screening test for hiring Post Office employees, but women should have to get an 80 to be hired because they often have to take care of their children.

This example is a fallacy if it can be presumed that men and women should have to meet the same standard for becoming a Post Office employee.

Either/Or: See *Black-or-White*.

Equivocation: Equivocation is the illegitimate switching of the meaning of a term during the reasoning.

Example:

Brad is a nobody, but since nobody is perfect, Brad must be perfect, too.

The term “nobody” changes its meaning without warning in the passage. So does the term “political jokes” in this joke: I don’t approve of political jokes. I’ve seen too many of them get elected.

Etymological Fallacy: The etymological fallacy occurs whenever someone falsely assumes that the meaning of a word can be discovered from its etymology or origins.

Example:

The word “vise” comes from the Latin “that which winds,” so it means anything that winds. Since a hurricane winds around its own eye, it is a vise.

Every and All: The fallacy of every and all turns on errors due to the order or scope of the quantifiers “every” and “all” and “any.” This is a version of the *scope fallacy*.

Example:

Every action of ours has some final end. So, there is some common final end to all our actions.

In proposing this fallacious argument, Aristotle believed the common end is the supreme good, so he had a rather optimistic outlook on the direction of history.

Exaggeration: When we overstate or overemphasize a point that is a crucial step in a piece of reasoning, then we are guilty of the fallacy of exaggeration. This is a kind of error called *Lack of Proportion*.

Example:

She’s practically admitted that she intentionally yelled at that student while on the playground in the fourth grade. That’s verbal assault. Then she said nothing when the teacher asked, “Who did that?” That’s lying, plain and simple. Do you want to elect as secretary of this club someone who is a known liar prone to assault? Doing so would be a disgrace to our Collie Club.

When we exaggerate in order to make a joke, though, we are not guilty of committing the fallacy because we don’t intend to be taken literally.

Excluded Middle: See *False Dilemma* or *Black-or-White*.

Explaining by Naming: Falsely assuming that because you have provided a name for some event or behavior, you have also adequately explained the event (Browne and Keeley 80).

False Analogy: The problem is that the items in the analogy are too dissimilar. When reasoning by analogy, the fallacy occurs when the analogy is irrelevant or very weak or when there is a more relevant disanalogy. See also *Faulty Comparison*.

Example:

The book *Investing for Dummies* really helped me understand my finances better. The book *Chess for Dummies* was written by the same author, was published by the same press, and costs about the same amount. So, this chess book would probably help me understand my finances, too.

False Cause: Improperly concluding that one thing is a cause of another. The *Fallacy of Non Causa Pro Causa* is another name for this fallacy. Its four principal kinds are the *Post Hoc Fallacy*, the *Fallacy of Cum Hoc, Ergo Propter Hoc*, the *Regression Fallacy*, and the *Fallacy of Reversing Causation*.

Example:

My psychic adviser says to expect bad things when Mars is aligned with Jupiter. Tomorrow Mars will be aligned with Jupiter. So, if a dog were to bite me tomorrow, it would be because of the alignment of Mars with Jupiter.

False Dichotomy: See *False Dilemma* or *Black-or-White*.

False Dilemma: A reasoner who unfairly presents too few choices and then implies that a choice must be made among this short menu of choices commits the false dilemma fallacy, as does the person who accepts this faulty reasoning.

Example:

I want to go to Scotland from London. I overheard McTaggart say there are two roads to Scotland from London: the high road and the low road. I expect the high road would be too risky because it's through the hills and that means dangerous curves. But it's raining now, so both roads are probably slippery. I don't like either choice, but I guess I should take the low road and be safer.

This would be fine reasoning if you were limited to only two roads, but you've falsely gotten yourself into a dilemma with such reasoning. There are many other ways to get to Scotland. Don't limit yourself to these two choices. You can take other roads, or go by boat or train or airplane. The fallacy is called the "False Dichotomy Fallacy" when the unfair menu contains only two choices. Think of the unpleasant choice between the two as being a charging bull. By demanding other choices beyond those on the unfairly limited menu, you thereby "go between the horns" of the dilemma, and are not gored. For another example of the fallacy, see *Black-or-White*.

Far-Fetched Hypothesis: This is the fallacy of offering a bizarre (far-fetched) hypothesis as the correct explanation without first ruling out more mundane explanations.

Example:

Look at that mutilated cow in the field, and see that flattened grass. Aliens must have landed in a flying saucer and savaged the cow to learn more about the beings on our planet.

Faulty Comparison: If you try to make a point about something by comparison, and if you do so by comparing it with the wrong thing, you commit the fallacy of faulty comparison or the fallacy of *questionable analogy*.

Example:

We gave half the members of the hiking club Durell hiking boots and the other half good-quality tennis shoes. After three months of hiking, you can see for yourself that Durell lasted longer. You, too, should use Durell when you need hiking boots.

Shouldn't Durell hiking boots be compared with other hiking boots, not with tennis shoes?

Faulty Generalization: A fallacy produced by some error in the process of generalizing. See *Hasty Generalization* or *Unrepresentative Generalization* for examples.

Formal: Formal fallacies are all the cases or kinds of reasoning that fail to be deductively valid. Formal fallacies are also called *logical fallacies* or *invalidities*.

Example:

Some cats are tigers. Some tigers are animals. So, some cats are animals.

This might at first seem to be a good argument, but actually it is fallacious because it has the same logical form as the following more obviously invalid argument:

Some women are Americans. Some Americans are men. So, some women are men.

Nearly all the infinity of types of *invalid inferences* have no specific fallacy names.

Four Terms: The fallacy of four terms (*quaternio terminorum*) occurs when four rather than three categorical terms are used in a standard-form *syllogism*.

Example:

All rivers have banks. All banks have vaults. So, all rivers have vaults.

The word "banks" occurs as two distinct terms, namely river bank and financial bank, so this example also is an *equivocation*. Without an equivocation, the four term fallacy is trivially invalid.

Gambler's Fallacy: This fallacy occurs when the gambler falsely assumes that the history of outcomes will affect future outcomes.

Example:

I know this is a fair coin, but it has come up heads five times in a row now, so tails is due on the next toss.

The fallacious move was to conclude that the probability of the next toss coming up tails must be more than a half. The assumption that it's a fair coin is important because, if

the coin comes up heads five times in a row, one would otherwise become suspicious that it's not a fair coin and therefore properly conclude that the probability is high that heads is more likely on the next toss.

Genetic Fallacy: A critic commits the genetic fallacy if the critic attempts to discredit or support a claim or an argument because of its origin (genesis) when such an appeal to origins is irrelevant.

Example:

Whatever your reasons are for buying that DVD they've got to be ridiculous. You said yourself that you got the idea for buying it from last night's fortune cookie. Cookies can't think!

Fortune cookies are not reliable sources of information about what DVD to buy, but the reasons the person is willing to give are likely to be quite relevant and should be listened to. The speaker is committing the genetic fallacy by paying too much attention to the genesis of the idea rather than to the reasons offered for it. An *ad hominem fallacy* is one kind of genetic fallacy, but the genetic fallacy in our passage isn't an *ad hominem*.

If I learn that your plan for building the shopping center next to the Johnson estate originated with Johnson himself, who is likely to profit from the deal, then my pointing out to the planning commission the origin of the deal would be relevant in their assessing your plan. Because not all appeals to origins are irrelevant, it sometimes can be difficult to decide if the fallacy has been committed. For example, if Sigmund Freud shows that the genesis of a person's belief in God is their desire for a strong father figure, then does it follow that their belief in God is misplaced, or does this reasoning commit the genetic fallacy?

Glittering Generality: The use of vague emotionally appealing virtue words that dispose us to approve something without closely examining the reasons (Browne and Keeley 81).

Group Think Fallacy: A reasoner commits the group think fallacy if he or she substitutes pride of membership in the group for reasons to support the group's policy. If that's what our group thinks, then that's good enough for me. It's what I think, too. "Blind" patriotism is a rather nasty version of the fallacy.

Example:

We K-Mart employees know that K-Mart brand items are better than Wall-Mart brand items because, well, they are from K-Mart, aren't they?

Guilt by Association: Guilt by association is a version of the *ad hominem fallacy* in which a person is said to be guilty of error because of the group he or she associates with. The fallacy occurs when we unfairly try to change the issue to be about the speaker's circumstances rather than about the speaker's actual argument. Also called "Ad Hominem, Circumstantial."

Example:

Secretary of State Dean Acheson is too soft on communism, as you can see by his inviting so many fuzzy-headed liberals to his White House cocktail parties.

Has any evidence been presented here that Acheson's actions are inappropriate in regards to communism? This sort of reasoning is an example of McCarthyism, the technique of smearing liberal Democrats that was so effectively used by the late Senator Joe McCarthy in the early 1950s. In fact, Acheson was strongly anti-communist and the architect of President Truman's firm policy of containing Soviet power.

Hasty Conclusion: See *Jumping to Conclusions*.

Hasty Generalization: A hasty generalization is a fallacy of *jumping to conclusions* in which the conclusion is a generalization. See also *Biased Statistics*.

Example:

I've met two people in Nicaragua so far, and they were both nice to me. So, all people I will meet in Nicaragua will be nice to me.

In any hasty generalization the key error is to overestimate the strength of an argument that is based on too small a sample for the implied confidence level or error margin. In this argument about Nicaragua, using the word "all" in the conclusion implies zero error margin. With zero error margin you'd need to sample every single person in Nicaragua, not just two people.

Heap Fallacy: See *Line-Drawing*.

Hedging: You are hedging if you refine your claim simply to avoid counterevidence and then act as if your revised claim is the same as the original.

Example:

Samantha: David is a totally selfish person.

Yvonne: I thought we was a boy scout leader. Don't you have to give a lot of your time for that?

Samantha: Well, David's totally selfish about what he gives money to. He won't spend a dime on anyone else.

Yvonne: I saw him bidding on things at the high school auction fundraiser.

Samantha: Well, except for that he's totally selfish about money.

You don't commit the fallacy if you explicitly accept the counterevidence, admit that your original claim is incorrect, and then revise it so that it avoids that counterevidence.

Hooded Man Fallacy: This is an error in reasoning due to confusing the knowing of a thing with the knowing of it under all its various names or descriptions.

Example:

You claim to know Socrates, but you must be lying. You admitted you didn't know the hooded man over there in the corner, but the hooded man is Socrates.

Hypostatization: The error of inappropriately treating an abstract term as if it were a concrete one.

Example:

Nature decides which organisms live and which die.

Nature isn't capable of making decisions. The point can be made without reasoning fallaciously by saying: "Which organisms live and which die is determined by natural causes."

Ignoratio Elenchi: See *Irrelevant Conclusion*. Also called *missing the point*.

Ignoring a Common Cause: See *Common Cause*.

Incomplete Evidence: See *Suppressed Evidence*.

Inconsistency: The fallacy occurs when we accept an inconsistent set of claims, that is, when we accept a claim that logically conflicts with other claims we hold.

Example:

I'm not racist. Some of my best friends are white. But I just don't think that white women love their babies as much as our women do.

That last remark implies the speaker *is* a racist, although the speaker doesn't notice the inconsistency.

Inductive Conversion: Improperly reasoning from a claim of the form "All As are Bs" to "All Bs are As" or from one of the form "Many As are Bs" to "Many Bs are As" and so forth.

Example:

Most professional basketball players are tall, so most tall people are professional basketball players.

The term "conversion" is a technical term in formal logic.

Insufficient Statistics: Drawing a statistical conclusion from a set of data that is clearly too small.

Example:

A pollster interviews ten London voters in one building about which candidate for mayor they support, and upon finding that Churchill receives support from six of the ten, declares that Churchill has the majority support of London voters.

This fallacy is a form of the Fallacy of *Jumping to Conclusions*.

Intensional Fallacy: The mistake of treating different descriptions or names of the same object as equivalent even in those contexts in which the differences between them matter. Reporting someone's beliefs or assertions or making claims about necessity or possibility can be such contexts. In these contexts, replacing a description with another that refers to the same object is not valid and may turn a true sentence into a false one.

Example:

Michelle said she wants to meet her new neighbor Stalnaker tonight. But I happen to know Stalnaker is a spy for North Korea, so Michelle said she wants to meet a spy for North Korea tonight.

Michelle said no such thing. The faulty reasoner illegitimately assumed that what is true of a person under one description will remain true when said of that person under a second description even in this context of indirect quotation. What was true of the person when described as “her new neighbor Stalnaker” is that Michelle said she wants to meet him, but it wasn’t legitimate for me to assume this is true of the same person when he is described as “a spy for North Korea.”

Extensional contexts are those in which it is legitimate to substitute equals for equals with no worry. But any context in which this substitution of co-referring terms is illegitimate is called an intensional context. Intensional contexts are produced by quotation, modality, and intentionality (propositional attitudes). Intensionality is failure of extensionality, thus the name “intensional fallacy”.

Invalid Reasoning Fallacy: An invalid inference. An argument can be assessed by deductive standards to see if the conclusion would have to be true if the premises were to be true. If the argument cannot meet this standard, it is *invalid*. An argument is invalid only if it is not an instance of any valid argument form. The fallacy of invalid reasoning is a formal fallacy.

Example:

If it’s raining, then there are clouds in the sky. It’s not raining. Therefore, there are no clouds in the sky.

This invalid argument is an instance of *denying the antecedent*. Any invalid inference that is also inductively very weak is a *non sequitur*.

Irrelevant Conclusion Fallacy: The conclusion that is drawn is irrelevant to the premises; it misses the point.

Example:

In court, Thompson testifies that the defendant is a honorable person, who wouldn’t harm a flea. The defense attorney commits the fallacy by rising to say that Thompson’s testimony shows once again that his client was not near the murder scene.

The testimony of Thompson may be relevant to a request for leniency, but it is irrelevant to any claim about the defendant not being near the murder scene. Other examples of this fallacy are *Ad Hominem*, *Appeal to Authority*, *Appeal to Emotions*, and *Argument from Ignorance*.

Irrelevant Reason Fallacy: This fallacy is a kind of *non sequitur* in which the premises are wholly irrelevant to drawing the conclusion.

Example:

Lao Tze Beer is the top selling beer in Thailand. So, it will be the best beer for Canadians.

Is-Ought Fallacy: The is-ought fallacy occurs when a conclusion expressing what ought to be so is inferred from premises expressing only what is so, in which it is supposed that no implicit or explicit ought-premises are need. There is controversy in the philosophical literature regarding whether this type of inference is always fallacious.

Example:

He's torturing the cat.

So, he shouldn't do that.

This argument clearly would not commit the fallacy if there were an implicit premise indicating that he is a person and persons shouldn't torture other beings.

Jumping to Conclusions: It is not always a mistake to make a quick decision, but when we draw a conclusion without taking the trouble to acquire enough of the relevant evidence, we commit the fallacy of jumping to conclusions, provided there was sufficient time to acquire and assess that extra evidence, and provided that the extra effort it takes to get the evidence isn't prohibitive.

Example:

This car is really cheap. I'll buy it.

Hold on. Before concluding that you should buy it, you ought to have someone check its operating condition, or else you should make sure you get a guarantee about the car's being in working order. And, if you stop to think about it, there may be other factors you should consider before making the purchase, such as size, appearance, and gas usage.

Lack of Proportion: Either *exaggerating* or downplaying a point that is a crucial step in a piece of reasoning is an example of the Fallacy of Lack of Proportion. It's a mistake of not adopting the proper perspective. An extreme form of downplaying occurs in the *Fallacy of Suppressed Evidence*.

Example:

Chandra just overheard the terrorists say that they are about to plant the bomb in the basement of the courthouse, after which they'll drive to the airport and get away. But they won't be taking along their cat. The poor cat. The first thing that Chandra and I should do is to call the Humane Society and check the "Cat Wanted" section of the local newspapers to see if we can find a proper home for the cat.

Line-Drawing Fallacy: If we improperly reject a vague claim because it's not as precise as we'd like, then we commit the line-drawing fallacy. Being vague is not being hopelessly vague. Also called the *Bald Man Fallacy*, the *Fallacy of the Heap* and the *Sorites Fallacy*.

Example:

Dwayne can never grow bald. Dwayne isn't bald now. Don't you agree that if he loses one hair, that won't make him go from not bald to bald? And if he loses one hair after that, then this one loss, too, won't make him go from not bald to bald. Therefore, no matter how much hair he loses, he can't become bald.

Loaded Language: Loaded language is emotive terminology that expresses value judgments. When used in what appears to be an objective description, the terminology unfortunately can cause the listener to adopt those values when in fact no good reason has been given for doing so. Also called *Prejudicial Language*.

Example:

[News broadcast] In today's top stories, Senator Smith carelessly cast the deciding vote today to pass both the budget bill and the trailer bill to fund yet another excessive watchdog committee over coastal development.

This broadcast is an editorial posing as a news report.

Logic Chopping: Obscuring the issue by using overly-technical logic tools, especially the techniques of formal symbolic logic, that focus attention on trivial details. A form of *Smokescreen* and *Quibbling*.

Logical: See *Formal*.

Lying: A fallacy of reasoning that depends on intentionally saying something that is known to be false. If the lying occurs in an argument's premise, then it is an example of the fallacy of *questionable premise*.

Example:

Abraham Lincoln, Theodore Roosevelt, and John Kennedy were assassinated.

They were U.S. presidents.

Therefore, at least three U.S. presidents have been assassinated.

Roosevelt was never assassinated.

Maldistributed Middle: See *Undistributed Middle*.

Many Questions: See *Complex Question*.

Misconditionalization: See *Modal Fallacy*.

Misleading Vividness: When the fallacy of *jumping to conclusions* is committed due to a special emphasis on an anecdote or other piece of evidence, then the fallacy of misleading vividness has occurred.

Example:

Yes, I read the side of the cigarette pack about smoking being harmful to your health. That's the Surgeon General's opinion, him and all his statistics. But let me tell you about my uncle. Uncle Harry has smoked cigarettes for forty years now and he's never been sick a day in his life. He even won a ski race at Lake Tahoe in his age group last year. You should have seen him zip down the mountain. He smoked a cigarette during the award ceremony, and he had a broad smile on his face. I was really proud. I can still remember the cheering. Cigarette smoking can't be as harmful as people say.

The vivid anecdote is the story about Uncle Harry. Too much emphasis is placed on it and not enough on the statistics from the Surgeon General.

Misplaced Concreteness: Mistakenly supposing that something is a concrete object with independent existence, when it's not.

Example:

There are two footballs lying on the floor of an otherwise empty room. When asked to count all the objects in the room, John says there are three: the two balls plus the group of two.

John mistakenly supposed a group or set of concrete objects is also a concrete object.

Misrepresentation: If the misrepresentation occurs on purpose, then it is an example of *lying*. If the misrepresentation occurs during a debate in which there is misrepresentation of the opponent's claim, then it would be the cause of a *straw man fallacy*.

Missing the Point: See *Irrelevant Conclusion*.

Mob Appeal: See *Appeal to the People*.

Modal Fallacy: This is the error of treating modal conditionals as if the modality applies only to the then-part of the conditional when it more properly applies to the entire conditional.

Example:

If James has two children, then he necessarily has more than one child. But since we know he does have two children, it is necessarily true that James has more than one child.

This apparently valid argument is invalid. It is not *necessarily true* that James has more than one child; it's merely *true* that he has more than one child. He could have had no children. The solution to the fallacy is to see that the premise "If James has two children, then he necessarily has more than one child," requires the modality "necessarily" to apply logically to the entire conditional "If James has two children, then he has more than one child" even though grammatically it applies only to "he has more than one child." *The modal fallacy is the most well known of the infinitely many errors involving modal concepts. Modal concepts include necessity, possibility, and so forth.*

Monte Carlo Fallacy: See *Gambler's Fallacy*.

Name Calling: See *Ad Hominem*.

Naturalistic Fallacy: On a broad interpretation of the fallacy, it is said to apply to any attempt to argue from an "is" to an "ought," that is, to argue directly from a list of facts to a claim about what ought to be done.

Example:

Owners of financially successful companies are more successful than poor people in the competition for wealth, power and social status. Therefore, these owners are morally better than poor people, and the poor deserve to be poor.

The fallacy would also occur if one argued from the natural to the moral as follows: since women are naturally capable of bearing and nursing children, they ought to be the primary caregivers of children. There is considerable disagreement among philosophers regarding what sorts of arguments the term “Naturalistic Fallacy” applies to, and even whether it is a fallacy at all.

Neglecting a Common Cause: See *Common Cause*.

No Middle Ground: See *False Dilemma*.

No True Scotsman Fallacy: This error is a kind of *ad hoc rescue* of one’s generalization in which the reasoner re-characterizes the situation solely in order to escape refutation of the generalization.

Example:

Smith: All Scotsmen are loyal and brave.

Jones: But McDougal over there is a Scotsman, and he was arrested by his commanding officer for running from the enemy.

Smith: Well, if that’s right, it just shows that McDougal wasn’t a TRUE Scotsman.

Non Causa Pro Causa: This label is Latin for mistaking the “non-cause for the cause.” See *False Cause*.

Non Sequitur: When a conclusion is supported only by extremely weak reasons or by irrelevant reasons, the argument is fallacious and is said to be a non sequitur. However, we usually apply the term only when we cannot think of how to label the argument with a more specific fallacy name. Any deductively *invalid inference* is a non sequitur if it also very weak when assessed by *inductive standards*.

Example:

Nuclear disarmament is a risk, but everything in life involves a risk. Every time you drive in a car you are taking a risk. If you’re willing to drive in a car, you should be willing to have disarmament.

The following is not an example: “If she committed the murder, then there’d be his blood stains on her hands. His blood stains *are* on her hands. So, she committed the murder.” This deductively invalid argument commits the fallacy of *affirming the consequent*, but it isn’t a non sequitur because it has significant inductive strength.

Obscurum per Obscurius: Explaining something obscure or mysterious by something that is even more obscure or more mysterious.

Example:

Let me explain what a *lucky* result is. It is a fortuitous collapse of the quantum mechanical wave packet that leads to a surprisingly pleasing result.

One-Sidedness: See *Slanting* and *Suppressed Evidence*.

Opposition: Being opposed to someone's reasoning because of who they are, usually because of what group they are associated with. See the Fallacy of *Guilt by Association*.

Overgeneralization: See *Sweeping Generalization*.

Oversimplification: You oversimplify when you cover up relevant complexities or make a complicated problem appear to be too much simpler than it really is.

Example:

President Bush wants our country to trade with Fidel Castro's Communist Cuba. I say there should be a trade embargo against Cuba. The issue in our election is Cuban trade, and if you are against it, then you should vote for me for president.

Whom to vote for should be decided by considering quite a number of issues in addition to Cuban trade. When an oversimplification results in falsely implying that a minor causal factor is the major one, then the reasoning also commits the *false cause* fallacy.

Past Practice: See *Traditional Wisdom*.

Pathetic Fallacy: The pathetic fallacy is a mistaken belief due to attributing peculiarly human qualities to inanimate objects (but not to animals). The fallacy is caused by anthropomorphism.

Example:

Aargh, it won't start again. This old car always breaks down on days when I have a job interview. It must be afraid that if I get a new job, then I'll be able to afford a replacement, so it doesn't want me to get to my interview on time.

Peer Pressure: See *Appeal to the People*.

Persuasive Definition: Some people try to win their arguments by getting you to accept their faulty definition. If you buy into their definition, they've practically persuaded you already. Same as the *Definist Fallacy*. *Poisoning the Well* when presenting a definition would be an example of a using persuasive definition.

Example:

Let's define a Democrat as a leftist who desires to overtax the corporations and abolish freedom in the economic sphere.

Perfectionist Fallacy: If you remark that a proposal or claim should be rejected solely because it doesn't solve the problem perfectly, in cases where perfection isn't really required, then you've committed the perfectionist fallacy.

Example:

You said hiring a house cleaner would solve our cleaning problems because we both have full-time jobs. Now, look what happened. Every week she unplugs the toaster oven and leaves it that way. I should never have listened to you about hiring a house cleaner.

Petito Principii: See *Begging the Question*.

Poisoning the Well: Poisoning the well is a preemptive attack on a person in order to discredit their testimony or argument in advance of their giving it. A person who thereby becomes unreceptive to the testimony reasons fallaciously and has become a victim of the poisoner. This is a kind of *ad hominem, circumstantial fallacy*.

Example:

[Prosecuting attorney in court] When is the defense attorney planning to call that twice-convicted child molester, David Barnington, to the stand? OK, I'll rephrase that. When is the defense attorney planning to call David Barnington to the stand?

Polarization Fallacy: A fallacy of argument based on exaggerating the characteristics of opposing groups to highlight division and extremism (Faigley and Selzer 602).

Post Hoc: Suppose we notice that an event of kind A is followed in time by an event of kind B, and then hastily leap to the conclusion that A caused B. If so, we commit the post hoc fallacy. Correlations are often good evidence of causal connection, so the fallacy occurs only when the leap to the causal conclusion is done "hastily." The Latin term for the fallacy is *post hoc, ergo propter hoc* ("After this, therefore because of this"). It is a kind of *false cause fallacy*.

Example:

I ate in that Ethiopian restaurant three days ago and now I've just gotten food poisoning. The only other time I've eaten in an Ethiopian restaurant I also got food poisoning, but that time I got sick a week later. My eating in those kinds of restaurants is causing my food poisoning.

Your background knowledge should tell you this is unlikely because the effects of food poisoning are felt soon after the food is eaten. Before believing your illness was caused by eating in an Ethiopian restaurant, you'd need to rule out other possibilities, such as your illness being caused by what you ate a few hours before the onset of the illness.

Prejudicial Language: See *Loaded Language*.

Proof Surrogate: Substituting a distracting comment for a real proof.

Example:

I don't need to tell a smart person like you that you should vote Republican.

This comment is trying to avoid a serious disagreement about whether one should vote Republican.

Prosecutor's Fallacy: This is the mistake of over-emphasizing the strength of a piece of evidence while paying insufficient attention to the context.

Example:

Suppose a prosecutor is trying to gain a conviction and points to the evidence that at the scene of the burglary the police found a strand of the burglar's hair. A forensic test showed that the burglar's hair matches the suspect's own hair. The forensic scientist testified that the chance of a randomly selected person producing such a match is only one in two thousand. The prosecutor concludes that the suspect has only a one in two

thousand chance of being innocent. On the basis of only this evidence, the prosecutor asks the jury for a conviction.

That is fallacious reasoning, and if you are on the jury you should not be convinced. Here's why. The prosecutor paid insufficient attention to the pool of potential suspects. Suppose that pool has six million people who could have committed the crime, all other things being equal. If the forensic lab had tested all those people, they'd find that about one in every two thousand of them would have a hair match, but that is three thousand people. The suspect is just one of the 3000, so the suspect is very probably innocent unless the prosecutor can provide more evidence. The prosecutor over-emphasized the strength of a piece of evidence by focusing on one suspect while paying insufficient attention to the context which suggests a pool of many more suspects.

Quantifier Shift: Confusing the phrase "For all x there is some y" with "There is some (one) y such that for all x."

Example:

Everything has a cause, so there's one cause of everything.

The error is also made if you argue from "Everybody loves someone" to "There is someone whom everybody loves."

Questionable Begging: See *Begging the Question*

Questionable Analogy: See *False Analogy*.

Questionable Cause: See *False Cause*.

Questionable Premise: If you have sufficient background information to know that a premise is questionable or unlikely to be acceptable, then you commit this fallacy if you accept an argument based on that premise. This broad category of fallacies of argumentation includes *appeal to authority*, *false dilemma*, *inconsistency*, *lying*, *stacking the deck*, *straw man*, *suppressed evidence*, and many others.

Quibbling: We quibble when we complain about a minor point and falsely believe that this complaint somehow undermines the main point. To avoid this error, the logical reasoner will not make a mountain out of a mole hill nor take people too literally. *Logic Chopping* is a kind of quibbling.

Example:

I've found typographical errors in your poem, so the poem is neither inspired nor perceptive.

Quoting out of Context: If you quote someone, but select the quotation so that essential context is not available and therefore the person's views are distorted, then you've quoted "out of context." Quoting out of context in an argument creates a *straw man fallacy*.

Example:

Smith: I've been reading about a peculiar game in this article about vegetarianism. When we play this game, we lean out from a fourth-story window and drop down

strings containing “Free food” signs on the end in order to hook unsuspecting passers-by. It’s really outrageous, isn’t it? Yet isn’t that precisely what sports fishermen do for entertainment from their fishing boats? The article says it’s time we put an end to sport fishing.

Jones: Let me quote Smith for you. He says “We...hook unsuspecting passers-by.” What sort of moral monster is this man Smith?

Jones’s selective quotation is fallacious because it makes Smith appear to advocate this immoral activity when the context makes it clear that he doesn’t.

Rationalization: We rationalize when we inauthentically offer reasons to support our claim. We are rationalizing when we give someone a reason to justify our action even though we know this reason is not really our own reason for our action, usually because the offered reason will sound better to the audience than our actual reason.

Example:

“I bought the matzo bread from Kroger’s Supermarket because it is the cheapest brand and I wanted to save money,” says Alex [who knows he bought the bread from Kroger’s Supermarket only because his girlfriend works there].

Red Herring: A red herring is a smelly fish that would distract even a bloodhound. It is also a digression that leads the reasoner off the track of considering only relevant information.

Example:

Will the new tax in Senate Bill 47 unfairly hurt business? I notice that the main provision of the bill is that the tax is higher for large employers (fifty or more employees) as opposed to small employers (six to forty-nine employees). To decide on the fairness of the bill, we must first determine whether employees who work for large employers have better working conditions than employees who work for small employers. I am ready to volunteer for a new committee to study this question. How do you suppose we should go about collecting the data we need?

Bringing up the issue of working conditions is the red herring.

Refutation by Caricature: See *Ad Hominem*.

Regression Fallacy: This fallacy occurs when regression to the mean is mistaken for a sign of a causal connection. Also called the *Regressive Fallacy*. It is a kind of *false cause fallacy*.

Example:

You are investigating the average heights of groups of Americans. You sample some people from Chicago and determine their average height. You have the figure for the mean height of Americans and notice that your Chicagoans have an average height that differs from this mean. Your second sample of the same size is from people from Miami. When you find that this group’s average height is closer to the American mean height [as it is very likely to be due to common statistical regression to the mean], you falsely

conclude that there must be something causing Miami-ians rather than Chicagoans be more like the average American.

There is most probably nothing causing Miami-ians to be more like the average American; but rather what is happening is that averages are regressing to the mean.

Reification: Considering an abstract noun to be a term referring to an abstract object, when the meaning of the noun can be accounted for more mundanely without assuming the object exists.

Example:

I succumbed to nostalgia, so there is an object called “nostalgia” that I succumbed to.

It would be less extravagant to interpret the sentence “I succumbed to nostalgia” this way: My mental state caused actions that would best be described as my reflecting an unusual desire to return to some past period of my life. Another common way the fallacy is committed is when someone says that if you understand what “Sherlock Holmes” means, then Sherlock Holmes exists in your understanding. The larger point here is that nouns can be meaningful without them referring to an object, yet those who commit the Fallacy of Reification do not understand this point.

Searching for a Perfect Solution (Browne and Keeley 74): See *Perfectionist Fallacy*

Reversing Causation: Drawing an improper conclusion about causation due to a causal assumption that reverses cause and effect. A kind of *false cause fallacy*.

Example:

All the corporate officers of Miami Electronics and Power have big boats. If you’re ever going to become an officer of MEP, you’d better get a bigger boat.

The false assumption here is that having a big boat helps cause you to be an officer in MEP, whereas the reverse is true. Being an officer causes you to have the high income that enables you to purchase a big boat.

Scapegoating: If you unfairly blame an unpopular person or group of people for a problem, then you are scapegoating. This is a kind of fallacy of *appeal to emotions*.

Example:

Augurs were official diviners of ancient Rome. During the pre-Christian period, when Christians were unpopular, an augur would make a prediction for the emperor about, say, whether a military attack would have a successful outcome. If the prediction failed to come true, the augur would not admit failure but instead would blame nearby Christians for their evil influence on his divining powers. The elimination of these Christians, the augur would claim, could restore his divining powers and help the emperor. By using this reasoning tactic, the augur was scapegoating the Christians.

Scare Tactic: If you suppose that terrorizing your opponent is giving him a reason for believing that you are correct, then you are using a scare tactic and reasoning fallaciously.

Example:

David: My father owns the department store that gives your newspaper fifteen percent of all its advertising revenue, so I'm sure you won't want to publish any story of my arrest for spray painting the college.

Newspaper editor: Yes, David, I see your point. The story really isn't newsworthy.

David has given the editor a financial reason not to publish, but he has not given a relevant reason why the story is not newsworthy. David's tactics are scaring the editor, but it's the editor who commits the scare tactic fallacy, not David. David has merely used a scare tactic. This fallacy's name emphasizes the cause of the fallacy rather than the error itself. See also the related fallacy of *appeal to emotions*.

Scope Fallacy: The scope fallacy is caused by improperly changing or misrepresenting the scope of a phrase.

Example:

Every concerned citizen who believes that someone living in the US is a terrorist should make a report to the authorities. But Shelley told me herself that she believes there are terrorists living in the US, yet she hasn't made any reports. So, she must not be a concerned citizen.

The first sentence has ambiguous scope. It was probably originally meant in this sense: Every concerned citizen who believes (of someone that this person is living in the US and is a terrorist) should make a report to the authorities. But the speaker is clearly taking the sentence in its other, less plausible sense: Every concerned citizen who believes (that there is someone or other living in the US who is a terrorist) should make a report to the authorities. Scope fallacies usually are *amphibolies*.

Secundum Quid: See *Accident* and *Converse Accident*, two versions of the fallacy.

Selective Attention: Improperly focusing attention on certain things and ignoring others.

Example:

Father: Justine, how was your school day today? Another C on the history test like last time?

Justine: Dad, I got an A- on my history test today. Isn't that great? Only one student got an A.

Father: I see you weren't the one with the A. And what about the math quiz?

Justine: I think I did OK, better than last time.

Father: If you really did well, you'd be sure. What I'm sure of is that today was a pretty bad day for you.

The pessimist who pays attention to all the bad news and ignores the good news thereby commits the fallacy of selective attention. The remedy for this fallacy is to pay attention to all the relevant evidence. The most common examples of selective attention are the fallacy of *Suppressed Evidence* and the fallacy of *Confirmation Bias*. See also the *Sharpshooter's Fallacy*.

Self-Fulfilling Prophecy: The fallacy occurs when the act of prophesying will itself produce the effect that is prophesied, but the reasoner doesn't recognize this and believes the prophesy is a significant insight.

Example:

A group of students are selected to be interviewed individually by the teacher. Each selected student is told that the teacher has predicted they will do significantly better in their future school work. Actually, though, the teacher has no special information about the students and has picked the group at random. If the students believe this prediction about themselves, then, given human psychology, it is likely that they will do better merely because of the teacher's making the prediction.

The prediction will fulfill itself, so to speak, and the students commit the fallacy.

This fallacy can be dangerous in an atmosphere of potential war between nations when the leader of a nation predicts that their nation will go to war against their enemy. This prediction could very well precipitate an enemy attack because the enemy calculates that if war is inevitable then it is to their military advantage not to get caught by surprise.

Self-Selection: A *biased generalization* in which the bias is due to self-selection for membership in the sample used to make the generalization.

Example:

The radio announcer at a student radio station in New York asks listeners to call in and say whether they favor Jones or Smith for president. 80% of the callers favor Jones, so the announcer declares that Americans prefer Jones to Smith.

The problem here is that the callers selected themselves for membership in the sample, but clearly the sample is unlikely to be representative of Americans.

Sharpshooter's Fallacy: The sharpshooter's fallacy gets its name from someone shooting a rifle at the side of the barn and then going over and drawing a target and bulls eye concentrically around the bullet hole. The fallacy is caused by overemphasizing random results or making selective use of coincidence. See the Fallacy of *Selective Attention*.

Example:

Psychic Sarah makes twenty-six predictions about what will happen next year. When one, but only one, of the predictions comes true, she says, "Aha! I can see into the future."

Slanting: This error occurs when the issue is not treated fairly because of misrepresenting the evidence by, say, suppressing part of it, or misconstruing some of it, or simply lying. See the following fallacies: *Lying, Misrepresentation, Questionable, Quoting out of Context, Straw Man, Suppressed Evidence*.

Slippery Slope: Suppose someone claims that a first step (in a chain of causes and effects, or a chain of reasoning) will probably lead to a second step that in turn will probably lead to another

step and so on until a final step ends in trouble. If the likelihood of the trouble occurring is exaggerated, the slippery slope fallacy is committed.

Example:

Mom: Those look like bags under your eyes. Are you getting enough sleep?

Jeff: I had a test and stayed up late studying.

Mom: You didn't take any drugs, did you?

Jeff: Just caffeine in my coffee, like I always do.

Mom: Jeff! You know what happens when people take drugs! Pretty soon the caffeine won't be strong enough. Then you will take something stronger, maybe someone's diet pill. Then, something even stronger. Eventually, you will be doing cocaine. Then you will be a crack addict! So, don't drink that coffee.

The form of a slippery slope fallacy looks like this:

A leads to B.

B leads to C.

C leads to D.

...

Z leads to HELL.

We don't want to go to HELL.

So, don't take that first step A.

Think of the sequence A, B, C, D, ..., Z as a sequence of closely stacked dominoes. The key claim in the fallacy is that pushing over the first one will start a chain reaction of falling dominoes, each one triggering the next. But the analyst asks how likely is it really that pushing the first will lead to the fall of the last? For example, if A leads to B with a probability of 80 percent, and B leads to C with a probability of 80 percent, and C leads to D with a probability of 80 percent, is it likely that A will eventually lead to D? No, not at all; there is about an even (50-50) chance. The proper analysis of a slippery slope argument depends on sensitivity to such probabilistic calculations. Regarding terminology, if the chain of reasoning A, B, C, D, ..., Z is about causes, then the fallacy is called *the Domino Fallacy*.

Small Sample: This is the fallacy of using too small a sample. If the sample is too small to provide a representative sample of the population, and if we have the background information to know that there is this problem with sample size, yet we still accept the generalization upon the sample results, then we commit the fallacy. This fallacy is the fallacy of *hasty generalization*, but it emphasizes statistical sampling techniques.

Example:

I've eaten in restaurants twice in my life, and both times I've gotten sick. I've learned one thing from these experiences: restaurants make me sick.

How big a sample do you need to avoid the fallacy? Relying on background knowledge about a population's lack of diversity can reduce the sample size needed for the generalization. With a completely homogeneous population, a sample of one is large enough to be representative of the population; if we've seen one electron, we've seen them all. However, eating in one restaurant is not like eating in any restaurant, so far as getting sick is concerned. We cannot place a specific number on sample size below which the fallacy is produced unless we know about homogeneity of the population and the margin of error and the confidence level.

Smear Tactic: A smear tactic is an unfair characterization either of the opponent or the opponent's position or argument. Smearing the opponent causes an *ad hominem* fallacy. Smearing the opponent's argument causes a *straw man* fallacy.

Smokescreen: This fallacy occurs by offering too many details in order either to obscure the point or to cover-up counter-evidence. In the latter case it would be an example of the fallacy of *suppressed evidence*. If you produce a smokescreen by bringing up an irrelevant issue, then you produce a *red herring* fallacy. Sometimes called clouding the issue.

Example:

Senator, wait before you vote on Senate Bill 88. Do you realize that Delaware passed a bill on the same subject in 1932, but it was ruled unconstitutional for these twenty reasons. Let me list them here.... Also, before you vote on SB 88 you need to know that And so on.

There is no recipe to follow in distinguishing smokescreens from reasonable appeals to caution and care.

Sorites: See *Line-Drawing*.

Special Pleading: Special pleading is a form of inconsistency in which the reasoner doesn't apply his or her principles consistently. It is the fallacy of applying a general principle to various situations but not applying it to a special situation that interests the arguer even though the general principle properly applies to that special situation, too.

Example:

Everyone has a duty to help the police do their job, no matter who the suspect is. That is why we must support investigations into corruption in the police department. No person is above the law. Of course, if the police come knocking on my door to ask about my neighbors and the robberies in our building, I know nothing. I'm not about to rat on anybody.

In our example, the principle of helping the police is applied to investigations of police officers but not to one's neighbors.

Specificity: Drawing an overly specific conclusion from the evidence. A kind of *jumping to conclusions*.

Example:

The trigonometry calculation came out to 35,005.6833 feet, so that's how wide the cloud is up there.

Stacking the Deck: See *Suppressed Evidence* and *Slanting*.

Stereotyping: Using stereotypes as if they are accurate generalizations for the whole group is an error in reasoning. Stereotypes are general beliefs we use to categorize people, objects, and events; but these beliefs are overstatements that shouldn't be taken literally. For example, consider the stereotype "She's Mexican, so she's going to be late." This conveys a mistaken impression of all Mexicans. On the other hand, even though most Mexicans are punctual, a German is more apt to be punctual than a Mexican, and this fact is said to be the "kernel of truth" in the stereotype. The danger in our using stereotypes is that speakers or listeners will not realize that even the best stereotypes are accurate only when taken probabilistically. As a consequence, the use of stereotypes can breed racism, sexism, and other forms of bigotry.

Example:

German people aren't good at dancing our sambas. She's German. So, she's not going to be any good at dancing our sambas.

This argument is deductively valid, but it's *unsound* because it rests on a false, stereotypical premise. The grain of truth in the stereotype is that the average German doesn't dance sambas as well as the average South American, but to overgeneralize and presume that ALL Germans are poor samba dancers compared to South Americans is a mistake called "stereotyping."

Straw Man: You commit the straw man fallacy whenever you attribute an easily refuted position to your opponent, one that the opponent wouldn't endorse, and then proceed to attack the easily refuted position (the straw man) believing you have undermined the opponent's actual position. If the misrepresentation is on purpose, then the straw man fallacy is caused by lying.

Example (a debate before the city council):

Opponent: Because of the killing and suffering of Indians that followed Columbus's discovery of America, the City of Berkeley should declare that Columbus Day will no longer be observed in our city.

Speaker: This is ridiculous, fellow members of the city council. It's not true that everybody who ever came to America from another country somehow oppressed the Indians. I say we should continue to observe Columbus Day, and vote down this resolution that will make the City of Berkeley the laughing stock of the nation.

The speaker has twisted what his opponent said; the opponent never said, nor even indirectly suggested, that everybody who ever came to America from another country somehow oppressed the Indians. The critical thinker will respond to the fallacy by saying, "Let's get back to the original issue of whether we have a good reason to discontinue observing Columbus Day."

Style Over Substance: Unfortunately the style with which an argument is presented is sometimes taken as adding to the substance or strength of the argument.

Example:

You've just been told by the salesperson that the new Maytag is an excellent washing machine because it has a double washing cycle. If you notice that the salesperson smiled at you and was well dressed, this does not add to the quality of the salesperson's argument, but unfortunately it does for those who are influenced by style over substance, as most of us are.

Subjectivist: The subjectivist fallacy occurs when it is mistakenly supposed that a good reason to reject a claim is that truth on the matter is relative to the person or group.

Example:

Justine has just given Jake her reasons for believing that the Devil is an imaginary evil person. Jake, not wanting to accept her conclusion, responds with, "That's perhaps true for you, but it's not true for me."

Superstitious Thinking: Reasoning deserves to be called superstitious if it is based on reasons that are well known to be unacceptable, usually due to unreasonable fear of the unknown, trust in magic, or an obviously false idea of what can cause what. A belief produced by superstitious reasoning is called a superstition. The fallacy is an instance of the *False Cause Fallacy*.

Example:

I never walk under ladders; it's bad luck.

It may be a good idea not to walk under ladders, but a proper reason to believe this is that workers on ladders occasionally drop things, and that ladders might have dripping wet paint that could damage your clothes. An improper reason for not walking under ladders is that it is bad luck to do so.

Suppressed Evidence: Intentionally failing to use information suspected of being relevant and significant is committing the fallacy of suppressed evidence. This fallacy usually occurs when the information counts against one's own conclusion. Perhaps the arguer is not mentioning that experts have recently objected to one of his premises. The fallacy is a kind of fallacy of *Selective Attention*.

Example:

Buying the Cray Mac 11 computer for our company was the right thing to do. It meets our company's needs; it runs the programs we want it to run; it will be delivered quickly; and it costs much less than what we had budgeted.

This appears to be a good argument, but you'd change your assessment of the argument if you learned the speaker has intentionally suppressed the relevant evidence that the company's Cray Mac 11 was purchased from his brother-in-law at a 30 percent higher price than it could have been purchased elsewhere, and if you learned that a recent

unbiased analysis of ten comparable computers placed the Cray Mac 11 near the bottom of the list.

If the relevant information is not intentionally suppressed by rather inadvertently overlooked, the fallacy of suppressed evidence also is said to occur, although the fallacy's name is misleading in this case. The fallacy is also called the Fallacy of *Incomplete Evidence* and *Cherry-Picking the Evidence*. See also *Slanting*.

Sweeping Generalization: See *Fallacy of Accident*.

Syllogistic: Syllogistic fallacies are kinds of invalid *categorical syllogisms*. This list contains the fallacy of *undistributed middle* and the fallacy of *four terms*, and a few others though there are a great many such *formal fallacies*.

Tokenism: If you interpret a merely token gesture as an adequate substitute for the real thing, you've been taken in by tokenism.

Example:

How can you call our organization racist? After all, our receptionist is African American.

If you accept this line of reasoning, you have been taken in by tokenism.

Traditional Wisdom: If you say or imply that a practice must be OK today simply because it has been the apparently wise practice in the past, you commit the fallacy of traditional wisdom. Procedures that are being practiced and that have a tradition of being practiced might or might not be able to be given a good justification, but merely saying that they have been practiced in the past is not always good enough, in which case the fallacy is committed. Also called *argumentum consensus gentium* when the traditional wisdom is that of nations.

Example:

Of course we should buy IBM's computer whenever we need new computers. We have been buying IBM as far back as anyone can remember.

The "of course" is the problem. The traditional wisdom of IBM being the right buy is some reason to buy IBM next time, but it's not a good enough reason in a climate of changing products, so the "of course" indicates that the fallacy of traditional wisdom has occurred. The fallacy is essentially the same as the fallacies of appeal to the common practice, gallery, masses, mob, past practice, people, peers, and popularity.

Tu Quoque: The fallacy of tu quoque is committed if we conclude that someone's argument not to perform some act must be faulty because the arguer himself or herself has performed it. Similarly, when we point out that the arguer doesn't practice what he preaches, we may be therefore suppose that there must be an error in the preaching, but we are reasoning fallaciously and creating a tu quoque. This is a kind of *ad hominem circumstantial fallacy*.

Example:

Look who's talking. You say I shouldn't become an alcoholic because it will hurt me and my family, yet you yourself are an alcoholic, so your argument can't be worth listening to.

Discovering that a speaker is a hypocrite is a reason to be suspicious of the speaker's reasoning, but it is not a sufficient reason to discount it.

Two Wrongs Make a Right: When you defend your wrong action as being right because someone previously has acted wrongly, you commit the fallacy called "two wrongs make a right." This is a special kind of *ad hominem fallacy*.

Example:

Oops, no paper this morning. Somebody in our apartment building probably stole my newspaper. So, that makes it OK for me to steal one from my neighbor's doormat while nobody else is out here in the hallway.

Undistributed Middle: In *sylogistic logic*, failing to distribute the middle term over at least one of the other terms is the fallacy of undistributed middle. Also called the *fallacy of maldistributed middle*.

Example:

All collies are animals.

All dogs are animals.

Therefore, all collies are dogs.

The middle term ("animals") is in the predicate of both universal affirmative premises and therefore is undistributed. This formal fallacy has the logical form: All C are A. All D are A. Therefore, all C are D.

Unfalsifiability: This error in explanation occurs when the explanation contains a claim that is not falsifiable, because there is no way to check on the claim. That is, there would be no way to show the claim to be false if it were false.

Example:

He lied because he's possessed by demons.

This could be the correct explanation of his lying, but there's no way to check on whether it's correct. You can check whether he's twitching and moaning, but this won't be evidence about whether a supernatural force is controlling his body. The claim that he's possessed can't be verified if it's true, and it can't be falsified if it's false. So, the claim is too odd to be relied upon for an explanation of his lying. Relying on the claim is an instance of fallacious reasoning.

Unrepresentative Generalization: If the plants on my plate are not representative of all plants, then the following generalization should not be trusted.

Example:

Each plant on my plate is edible.

So, all plants are edible.

The set of plants on my plate is called “the sample” in the technical vocabulary of statistics, and the set of all plants is called “the target population.” If you are going to generalize on a sample, then you want your sample to be representative of the target population, that is, to be like it in the relevant respects. This fallacy is the same as the *Fallacy of Unrepresentative Sample*.

Unrepresentative Sample: If the means of collecting the sample from the population are likely to produce a sample that is unrepresentative of the population, then a generalization upon the sample data is an inference committing the fallacy of unrepresentative sample. A kind of *hasty generalization*. When some of the statistical evidence is expected to be relevant to the results but is hidden or overlooked, the fallacy is called suppressed evidence. There are many ways to bias a sample. Knowingly selecting atypical members of the population produces a biased sample.

Example:

The two men in the matching green suits that I met at the Star Trek Convention in Las Vegas had a terrible fear of cats. I remember their saying they were from France. I’ve never met anyone else from France, so I suppose everyone there has a terrible fear of cats.

Most people’s background information is sufficient to tell them that people at this sort of convention are unlikely to be representative, that is, are likely to be atypical members of the rest of society. Having a small sample does not by itself cause the sample to be biased. Small samples are OK if there is a corresponding large margin of error or low confidence level.

Large samples can be unrepresentative, too.

Example:

We’ve polled over 400,000 Southern Baptists and asked them whether the best religion in the world is Southern Baptist. We have over 99% agreement, which proves our point about which religion is best.

Getting a larger sample size does not overcome sampling bias.

Untestability: See *Unfalsifiability*.

Vested Interest: The vested interest fallacy occurs when a person argues that someone’s claim or recommended action is incorrect because the person is motivated by their interest in gaining something by it, with the implication that were it not for this vested interest then the person wouldn’t make the claim or recommend the action. Because this reasoning attacks the reasoner rather than the reasoning itself, it is a kind of *Ad Hominem fallacy*.

Example:

According to Samantha we all should all vote for Anderson for Congress, but she’s a lobbyist in the pay of Anderson and will get a nice job in the capitol if he’s elected, so that convinces me to vote against Anderson.

This is fallacious reasoning by the speaker because whether the speaker should vote for Anderson ought to depend on Anderson's qualifications, not on whether Samantha will or won't get a nice job if he's elected.

Weak Analogy: See *False Analogy*.

Willed ignorance: I've got my mind made up, so don't confuse me with the facts. This is usually a case of the *Traditional Wisdom Fallacy*.

Example:

Of course she's made a mistake. We've always had meat and potatoes for dinner, and our ancestors have always had meat and potatoes for dinner, and so nobody knows what they're talking about when they start saying meat and potatoes are bad for us.

Wishful Thinking: A reasoner who suggests that a claim is true, or false, merely because he or she strongly hopes it is, is committing the fallacy of wishful thinking. Wishing something is true is not a relevant reason for claiming that it is actually true.

Example:

There's got to be an error here in the history book. It says Thomas Jefferson had slaves. I don't believe it. He was our best president, and a good president would never do such a thing. That would be awful.

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Author Information

Bradley Dowden
Email: dowden@csus.edu
California State University, Sacramento
U. S. A.

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