

Critical Thinking

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Question 1: Discuss what constitutes a good argument, how arguments work and what makes some arguments better than others. (minimum 600 words)

There are many different elements that contribute to a good argument. At minimum, a good argument contains a well-worded conclusion, utilizes evidence, appeals to logic, avoids emotional or logical fallacies, retains a respectful tone, and deals effectively with counterarguments.

There are two forms of primary concern to the field of logic, formal and informal. Formal logic is concerned with the *validity* of arguments.¹ While informal logic is concerned with *soundness* of an argument.²

Premises are statements that support the *conclusion*, which is the position that the arguer favors.³ If the premises provide indisputable support for the conclusion; then the argument may be considered valid and, possibly, also sound. *Validity, invalidity, sound, or unsound* are absolute terms. When evaluating whether one argument is better than another it is important to keep this in mind.

In formal logic an argument is deemed *valid* if, when all its premises are true, the conclusion is also true. Validity does not assure a true conclusion. Validity has more to do with the connection between a premise and the conclusion than the truth of the premises themselves. However, if all the premises of a valid argument are true, then the conclusion is also true.⁴

In informal logic an argument is considered *sound* if all its premises are true and it is also deemed valid. The argument would be considered *unsound* if any of its premises are false, even if the argument is deemed valid. A sound argument always has a true conclusion.⁵

If all things are equal there are a number of different ways to improve the influence of your argument. At its very base a well developed argument is still an expression of opinion with reasoning. A large part of the argument is grounded in opinion the person making the argument may himself be a factor in the outcome. Therefore, the effective arguer should be a person capable of practicing mature reasoning. He will also often be an enigmatic and dynamic speaker, capable of influencing his audience to agree with his conclusions.

The influential speaker may display considerable confidence and poise. He often will speak authoritatively or have reliable credentials. He may argue from a purely logical standpoint or may employ various psychological techniques that, while logical fallacies, can significantly alter the perceptions of the audience in his favor.

¹ Nicholas Capaldi. The Art of Deception: An Introduction to Critical Thinking. Prometheus Books: New York. 2007. Pg. 20.

² Ibid. 20.

³ Ibid. 17.

⁴ Howard Kahane & Nancy Cavender. Logic and Contemporary Rhetoric: the use of Reason in Everyday Life. Thomson Wadsworth: Belmont. 2006. Pg 8.

⁵ Nicholas Capaldi. The Art of Deception: An Introduction to Critical Thinking. Prometheus Books: New York. 2007. Pg. 48-49.

While good arguments should be valid and sound, effective arguments don't always have to be. There are many logical fallacies that are frequently employed to win arguments. For example, an *appeal to authority*,^{6,7} while a logical fallacy, may be effective because it is not uncommon for people to believe arguments based on the creditability of the source. Another effective argument is called the *appeal to tradition*⁸ (*argumentum ad antiquitatem*, sometimes also called *traditional wisdom*).⁹ This is a common logical fallacy in which a conclusion is deemed accurate on the basis that it correlates with tradition. An additional method which may be highly influential is known as the *appeal to emotion*,¹⁰ which exploits the audience's emotions, rather than using logic, to win the argument.

Ultimately what may make one argument better than another is its power to influence the audience it was intended for. If you have controlled for validity and soundness, and the character of the person who is making the argument is agreeable to the audience, there may still be the somewhat random elements of the character and opinion of the audience itself to contend with. As there is no controlling for these random variables there is little you can do about it but cleverly present counterarguments for the most common criticisms of your conclusion.

Question 2: What is the difference between inference and deduction? (minimum 100 words)

In logic the concepts of inference and deduction are closely related. Deduction is a form of reasoning that begins with a broad statement and then works toward a more specific statement. Deductive reasoning is dependent on the veracity of its premises, a false premise could lead to a false conclusion, and questionable premises will produce questionable conclusions.¹¹

Inferences may derive conclusions from assumptions or premises. Inference could be said to reside between premises and conclusion. They are the process by which a conclusion is drawn from the set of premises provided. They may also be inductive, deriving their conclusions by making generalizations based on observable instances.

Question 3: What is a fallacy? (minimum 100 words)

A fallacy occurs when an often plausible argument uses false or invalid inferences. There are two categories of fallacies, formal and informal.

Formal fallacies are usually the product of an invalid argument. Examples include *false dilemma* in which two different statements are presented as the only feasible options, when in truth there exists one or more other alternatives which have not been presented. This is often

⁶ Howard Kahane & Nancy Cavender. Logic and Contemporary Rhetoric: the use of Reason in Everyday Life. Thomson Wadsworth: Belmont. 2006. Pg 48-49.

⁷ Nicholas Capaldi. The Art of Deception: An Introduction to Critical Thinking. Prometheus Books: New York. 2007. Pg. 61.

⁸ Ibid. 67.

⁹ Howard Kahane & Nancy Cavender. Logic and Contemporary Rhetoric: the use of Reason in Everyday Life. Thomson Wadsworth: Belmont. 2006. Pg 77.

¹⁰ Pegis Thornton. Speaking with a Purpose: A Practical Guide to Oral Advocacy. Emond Montgomery Publication: Toronto. 2005. Pg. 13.

¹¹ Maurice Godwin. "Brief Discussion on Inductive/Deductive Profiling." 2006. Retrieved 25 March 2008. Godwin Trial & Forensic Consultancy, Inc. <<http://www.investigativepsych.com/inductive.htm>>.

communicated as a Morton's Fork, a choice between two equally objectionable alternatives. For example, "either I have to get a divorce and get out of this relationship or I have to stay in an unhappy marriage." The person making this argument neglects to consider other options such as marriage counseling or a change in the construction of the relationship.

Informal fallacies are normally found in valid but unsound arguments. One common example is *false analogy*¹², which is an informal fallacy that incorrectly makes a correlation between two unrelated items. Another common example of informal fallacy is *hasty conclusion*,¹³ which is a conclusion made based on inadequate evidence. This fallacious argument is well demonstrated in "Love is a Fallacy" where the main character declares "we have now spent five evenings together. We have gotten along splendidly. It is clear that we are well matched."¹⁴

Question 4: What is the difference between an inference and a premise? (minimum 100 words)

Premises and inferences, while both elements of logical arguments, are not at all the same thing. A premise is a statement assumed to be true that supports a conclusion of an argument.¹⁵ Premises may be stated explicitly or they may be left tacitly understood, especially if believed to be patently obvious. They may be part of either an inductive or deductive inference.

Inferences may be either inductive or deductive and they include the whole progression of an argument, the premises, conclusion and the belief that the premises and conclusion are true. Inference could be seen as "the line between premises and conclusion."¹⁶ So while the premise is an element of the argument, inference encompasses the entire argument itself.

Question 5: Discuss the effect of bias on thought and moral reasoning. (minimum 100 words)

Bias affects us more than we realize. Whether we choose to acknowledge it or not, every person has some type of bias that affects thought, behavior, and reason. One of the most common forms of bias, as it relates to logical arguments, *confirmation bias*,¹⁷ is a tendency to interpret or search for information that confirms one's preconceptions and avoids that which contradicts previous beliefs.

An example may be, when a researcher who is biased toward a specific outcome in his experiment evaluates his statistics inaccurately and comes to the conclusion that he has failed to reject the null hypothesis, meaning his research supports the outcome he hoped it would.

Another example of this is when a person who is already biased against a given theory, such as the work surrounding the reconstruction of proto-Indo-European, only looks for and quotes sources that refute that theory. If, however, that same person were to read materials from

¹² Austin J. Freeley and David L. Steinberg. Argumentation and Debate. 2000. Wadsworth: Belmont. Pg. 170.

¹³ Howard Kahane & Nancy Cavender. Logic and Contemporary Rhetoric: the use of Reason in Everyday Life. Thomson Wadsworth: Belmont. 2006. Pg 102.

¹⁴ Max Shulman. "Love is a Fallacy." ASKnLearn.com. Retrieved 25 March 2008. <http://www1.asknlearn.com/ri_ilearning/English/631/elang-ilearning/page3a.htm>.

¹⁵ Nicholas Capaldi. The Art of Deception: An Introduction to Critical Thinking. Prometheus Books: New York. 2007. Pg. 17.

¹⁶ Tracy Bowell & Gary Kemp. Critical Thinking. Routledge: Florence. 2000. Pg. 10.

¹⁷ Trudy Govier. A Practical Study of Argument. Wadsworth: Florence. 1997. Pp. 405-407.

all sides of the argument and then make his arguments using logic and reason, he would not be guilty of selection bias.

Question 6: Take an Indo-European topic essay of a minimum of five pages in length and analyze it for soundness, validity, fallacies, rhetorical devices and overall quality of composition. (minimum 600 words)

An Analysis of “Warriors and Their Weapons” by Deborah Kest

The author of this article starts out with a passable first paragraph by defining the argument she plans to make. She then briefly explains both sides of the argument and identifies which side of the argument she is aligned with. She clearly defines the topic saying, that the “weapons at issue are those with blades or points” and that knives and staffs are not in question. Regrettably, she fails to sufficiently make a valid case for her position in the subsequent paragraphs.

In the first argument the author presents she admits that she has “reason to believe” that the SCA allows members to carry weapons for over fifteen years without an incident but admits that she has not verified this claim. She then goes on to base the rest of this argument on claims that she admittedly has not confirmed. This is an example of *faulty generalization*,¹⁸ which takes the information from one group's experiences and inaccurately applies it to another.

In her next argument the author makes a passable point when comparing weapons to other dangerous items like sharp tools though this argument is technically a *false analogy*,¹⁹ because she is comparing items that may share some common characteristics (sharp edges) but which have other elements (they may not appeal to children as much as a weapon or children are often well aware that they are not supposed to play with tools, knives, or fire but may not have been instructed to avoid weapons, which could resemble toys they play with at home) that may or may not contribute to their degree of dangerousness.

The author goes on to ask, “how would a child get into a weapon being carried by a responsible adult?” In this argument she is assuming that all warriors carrying weapons at a festival are responsible adults. It is entirely possible that an adult at a festival is not responsible at all, especially if inebriated. Therefore, the author is arguing from what is likely a false premise. In a formal analysis this argument would look like this:

- Premise 1: responsible adults are always cautious with pointed objects
- Premise 2: warriors are responsible adults
- Conclusion: warriors will always be cautious with pointed objects

This argument can be proven unsound by even one incident of a responsible adult not being cautious with pointed objects or of even one warrior not acting as a responsible adult. I am certain that anyone who has attended ADF festivals has witnessed both of these things occurring on more than one occasion. Obviously, since neither premise is true, this particular argument is unsound.

She then states that a weapon “carried on the warrior's person represent a far smaller danger to the child” than other camp hazards but again assumes that the warrior will always keep his weapon on his person. The author continues her argument by saying that parents should be

¹⁸ John Hays Gardiner. The Making of Arguments. Ginn and Company: Boston. 1912. Pp. 139 - 140.

¹⁹ Austin J. Freeley and David L. Steinberg. Argumentation and Debate. 2000. Wadsworth: Belmont. Pg. 170.

responsible for their children just as a warrior is responsible for his weapon. This comparison is a *false analogy*²⁰, a child is not like a weapon and a weapon does not behave like a child. The responsible care of one is not equivalent to the other. For example a child, generally, can not be sheathed and carried on one's hip or back throughout the day unless one counts baby slings or carriers (which certainly are not effective above a certain age).

In the next paragraph the author again compares ADF to the SCA. This is a *false analogy*,²¹ ADF is not the SCA. Our church is not "an international organization dedicated to researching and re-creating the arts and skills of pre-17th-century Europe"²² it is, instead, "an international fellowship devoted to creating a public tradition of Neopagan Druidry."²³ There is a huge distinction here. ADF is a church while the SCA is a club where skills, like fighting with reproduction weaponry, are practiced.

She goes on to say that society is more likely to be uncomfortable with our religious beliefs or some of our member's sexual practices than a few people toting around weapons but this is an argument known as a *red herring*.²⁴ In this argument the author is trying to divert attention away from the argument at hand toward other issues that are irrelevant to the material being discussed. She goes on then to make an *appeal to ridicule (argumentum ad hominem)*²⁵ when she asks if bad publicity is "something on which we should be basing our policies?" This type of argument attempts to make the opponent's argument appear foolish and contrary to common sense, it often presents the opposition's argument in an overly simplified way.

The author then argues that ADF is not a pacifistic religion and draws on Dumezil's work to defend her argument that warriors and their weapons have a place in ADF. In this paragraph she seems to be arguing that since death and killing are part of reality and conflict is still a part of reality, then warriors also need to still be a part of it. It is difficult to decipher what point she is trying to make here because the wording she selects is confusing.

In the following paragraph she seems to suggest that the eating of meat implies that we, as an organization, are okay with killing in contexts other than self defense. This is a *false analogy*²⁶, animals are not human just because a human eats an animal does not mean he agrees that it is okay to kill a human in a context other than self defense.

In her next argument the author says that as "long as our ethics accept endings as well as beginnings, we accept the metaphor of killing." This is another *false analogy*; the ending of one thing is not the same as killing, so this is an inaccurate comparison. The author then goes on in

²⁰ Ibid. 170.

²¹ Austin J. Freeley and David L. Steinberg. Argumentation and Debate. 2000. Wadsworth: Belmont. Pg. 170.

²²The Society for Creative Anachronism, Inc. April 5th, 2008. Retrieved 25 March 2008. <<http://www.sca.org/>>.

²³ Ár nDraíocht Féin: A Druid Fellowship, Inc. 2008. Retrieved 25 March 2008. <www.adf.org>.

²⁴ Nicholas Capaldi. The Art of Deception: An Introduction to Critical Thinking. Prometheus Books: New York. 2007. Pg. 173.

²⁵ John Eric Nolt, John Nolt, Dennis Rohatyn, & Achille Varz. Schaum's Outline of Logic. McGraw-Hill: New York. 1998. Pg. 196.

²⁶ Austin J. Freeley and David L. Steinberg. Argumentation and Debate. 2000. Wadsworth: Belmont. Pg. 170.

the next paragraph to make an *appeal to the people*²⁷ when she says that “we would be doing ourselves a grave disservice by not embracing the lessons to be learned from the warrior path, and it would be a violation of the very concept of the organization, committed to drawing its inspiration from the ancients.” This argument also has elements of an *appeal to tradition*, (*proof from tradition, appeal to common practice, argumentum ad antiquitatem*)²⁸ because she is pointing to the common practices of the organization and historical precedents for the practice.

In the following paragraph the author appears to be attempting to make an argument that since warriors historically protected the people from outdwellers then they should continue to do so and be allowed to keep their weapons. This is known as an *appeal to tradition*.²⁹ This type of "reasoning" is categorized as a fallacy because the age of something (such as a custom or tradition) does not necessarily make it correct or better than a new way of doing things.

She continues her argument by asking, “why should the onus be on him to prove the necessity of carrying the weapon, when no one has been able to show that his doing so causes any actual harm?” In formal logic and argumentation the burden of proof is always on the person or people introducing an issue into debate.³⁰ Her ascertain that there is no evidence that carrying a weapon causes harm is a form of *argumentation ad ignorantium*,³¹ the assumption that something is true unless proven otherwise.

She resumes her argument by saying that “the pagan community in general accepts the precept that if an action does not cause any harm, there is no reason why someone should not be allowed to do it.” This may be so in the Pagan community but it is not one of the tenants of ADF religion and this argument is, therefore, an *appeal to common practice*.³² An appeal to common practice is a fallacy because the fact that most people do something does not make the practice justified, moral, or reasonable.

I could probably go on to evaluate each and every argument made by this author. Essentially, few arguments made in this article would be considered valid and nearly all can be said to be *fallacious*.³³ A fallacious argument is one in which, being patently flawed in its logic, renders an argument invalid in whole. This means that the argument is invalid. Unfortunately for the author, this also means that the author’s argument is also unsound because her premises are the result of faulty logic. A sound argument is a valid argument with true premises.

She also utilizes some rhetorical devices in her argument though they are not used to best advantage. An example of these is when the author says “what would Herakles be without his club?” This is commonly known as the *rhetorical question*. In this type of rhetorical device the question is not answered by the writer, because its answer should be obvious. It is a technique used for effect, emphasis, or for drawing a conclusion from the facts already presented.

²⁷ John Eric Nolt, John Nolt, Dennis Rohatyn, & Achille Varz. Schaum’s Outline of Logic. McGraw-Hill: New York. 1998. Pg. 201.

²⁸ Austin J. Freeley and David L. Steinberg. Argumentation and Debate. 2000. Wadsworth: Belmont. Pg. 178.

²⁹ Ibid. 178

³⁰ Ibid. 45.

³¹ Howard Kahane & Nancy Cavender. Logic and Contemporary Rhetoric: the use of Reason in Everyday Life. Thomson Wadsworth: Belmont. 2006. Pp. 82-83.

³² Ibid. 77-78.

³³ Ibid. 378.

She also uses *analogy* when she compares weapons to other dangerous items like sharp tools, a child to a weapon, ADF to the SCA, and, in the case of killing, animals to humans (see my previous entries on false analogies). Analogies compare two or more similar things, for the purpose of explaining how an idea or object is similar to a more familiar or less complicated one.

Not only are the arguments presented by this author unsound and invalid but the overall composition of the article needs work. A typical article or essay would contain an introductory paragraph, several (usually at least three) supporting paragraphs, and a conclusion. The introductory paragraph should contain a thesis statement and a brief synopsis of the points that the author intends to make. While the first two paragraphs accomplish this purpose they are rather tangential and are not succinct at all. Additionally, the supporting paragraphs seem to ramble and stray from the points with many fallacious arguments. Moreover, her concluding paragraph does not wrap up her arguments or restate her original thesis and, instead, adds additional arguments in the form of an *appeal to emotion*³⁴ and an *appeal to pity*,³⁵ where she implies that the warrior has no other place to be himself and that ADF festivals should be a haven for him to behave in ways that he ordinarily could not in his real life. While it is evident that the author believes the arguments she is making and believes in the position she has taken, her argument is poorly written and poorly represented.

³⁴ Pegis Thornton. Speaking with a Purpose: A Practical Guide to Oral Advocacy. Emond Montgomery Publication: Toronto. 2005. Pg. 13.

³⁵ John Eric Nolt, John Nolt, Dennis Rohatyn, & Achille Varz. Schaum's Outline of Logic. McGraw-Hill: New York. 1998. Pg. 202.