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)*

First of all, an argument is a group or collection of statements that support or prove one other statement. These statements can all be in one sentence, or be a series of sentences. The statement that is being 'proved' is called the *conclusion*, and the statements that support and prove the conclusion are called *premises*.[1] We must also bear in mind that the conclusion of one argument may also be a premise for another argument.

Since premises and conclusions can come in any order or have any content, one can usually identify conclusions when the following words appear at the beginning of the sentence or clause: "*therefore, thus, so, hence, consequently, accordingly, if follows that, I conclude*", etc.[2] One can also usually identify premises when words such as the following appear at the beginning of a sentence or clause: "*since, for, because, whereas, as, inasmuch as, seeing that*", etc. Sometimes there are two clauses or sentences flanking the words, "*for*" or "*because*", and in this case, the first clause or sentence is usually the conclusion and the clause after the word is usually the premise.[3]

Arguments can be valid or invalid, and sound or unsound. This is determined by the relationship between the premises and the conclusion.

Valid and invalid arguments are based upon the *form* of the argument. This form is based upon a number of rules (see below). Now, an argument may be valid, based on its correct use of the rules of form, and yet we may have to reject the argument because one or more of its premises may be false. An argument, correct in form but with false premises is called an *unsound* argument. If an argument is correct both in form and with true premises, then we can say that the argument is both valid and sound.[4]

A good argument is one where we are bound to accept the conclusion as probable if we accept the premises. And should we reject one or more of the premises, we are obliged to reject the conclusion.[5]

Arguments that have two premises are called *syllogisms*. Here is where validity of form comes in. And this is very complex. I will use Mr. Capaldi's examples in briefly explaining this.[6]

Categorical syllogisms are those where all of the statements are categorical statements. Using these statements, we'll come up with rules. For example, let's use the following four:

1.	All	X's	are	Y's	- Let's call this statement A.
2.	No	X's	are	Y's	- Let's call this statement E.
3.	Some	X's	are	Y's	- Let's call this statement I.
4.	Some	X's	are not	Y's	- Let's call this statement U.

Statements one and three are positive, and two and four are negative. Statements referring to 'all' or 'none' are *universal* statements and those referring to 'some' are *particular* statements. A term is *distributed* if it is universal, and *undistributed* if it is particular. In the four statements above, the X's are the subjects and the Y's are the predicates. So, we can say that statement 'A' has a distributed subject and an undistributed predicate. Statement 'E' has a distributed subject and a distributed predicate. Statement 'I' has an undistributed subject and an undistributed predicate and statement 'U' has an undistributed subject and a distributed predicate.[7]

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The major term is the one that appears in the predicate of the conclusion. The minor term is that which appears as the subject of the conclusion. The middle term is the term that appears in both premises.[8]

In a syllogism, we have the following form:

> All carp are fish.   This is a premise.
> <u>All fish are animals</u>.   This is a premise.
> All carp are animals.   This is the conclusion.

The **first rule** is this: "The middle term must be distributed at least once.[9]"   The middle term is the one that appears once in each premise but not in the conclusion. Now the middle term in the example above is the one that appears in both premises, "fish". In the first premise, we have an 'A' statement. The subject is distributed. The second premise is also an 'A' statement. Here, though, the predicate is undistributed. The middle term, "fish" is distributed at least once. So this syllogism is valid. In the following example, however:

> All cats are fish eaters.   This is a premise.
> <u>All bears are fish eaters.</u>   This is a premise.
> All cats are bears.   This is a conclusion.

the middle term is, "fish eaters" as it appears twice in the premises. Since both premises are 'A' statements, the middle term is not distributed (in 'A' statements, only the subject can be distributed, and "in favor of reform" is the predicate in both premises). Therefore this syllogism is not valid.

The **second rule** is: "A term that is distributed in the conclusion must be distributed in one of the premises.[10]" In the fishy example above, both the second premise and the conclusion are 'A' statements, so the term in both of them, "animals", is distributed in both. This syllogism is valid. In the following example, however:

> All Druids are in favor of public worship.
> <u>No Wiccans are Druids.</u>
> No Wiccans are in favor of public worship.

The conclusion is an 'E' statement, so both the subject and predicate are distributed. However, there are two terms in the conclusion, and one of them is not distributed in the premises (the first premise is an 'A' statement, and "in favor of public worship" is not distributed). Therefore this syllogism is not valid.

The **third rule** is: "The number of negative premises must be the same as the number of negative conclusions.[11]" Take the following example:

> No countries that respect the working man are capitalist countries.
> <u>Country X is not a capitalist country.</u>
> Country X is a country that respects the working man.

This is invalid because there are two negative premises and the conclusion is positive. To make this a valid syllogism and achieve the desired result, it could be re-written to read:

> All non-capitalist countries are countries that respect the working man.
> <u>Country X is a non-capitalist country.</u>
> Country X is a country that respects the working man.

This syllogism is valid, BUT it exposes its problem. The first premise is false. So this last argument may be valid, but it is also unsound.

It is also possible, however, that we can have sound arguments with valid premises that come to different conclusions in the same subject. How do we know which argument is better? Or shall I rather say, what tricks might be used to ensure that one argument will prevail over another? In examining work critically, one should pay close attention to the following:

First, by knowing the intended audience one might try to gain their sympathy. In ADF, appeals to pity ("we've been ignored and oppressed by the evil MG") or authority ("Well, Isaac wrote …") or tradition ("In ADF we have always done things this way…") might work. Or one might appeal to precedent ("You passed his DP with the High Days spread over two years, so you can now approve mine.").[12] Statistics can be used, and since they can mean many different things, almost any argument can be made with them. Finally, one might drive home the conclusion with words like, "*obviously, certainly, there is no question that…, of course, surely,* and *it is clearly evident that*…[13]" Emotional appeals have also been known to work well.

Question #2: What is the difference between inference and deduction? *(Minimum two paragraphs)*

Inference and deduction are both processes of logic. Deduction is a type of reasoning, where one begins with a general statement and then brings it to a specific truth. An example of this could be:

> All men are mortal.
> <u>Socrates is a man.</u>
> Socrates is mortal.

The process of beginning with a specific statement ("Socrates is mortal.") and ending with the general truth ("All men are mortal.") would be an induction.[14]

An inference draws its conclusions from premises or assumptions, just like deductions. But an inference is not just a series of premises leading up to a conclusion, but has the added requirement of belief. In an argument, belief in the premises is unnecessary, while for an inference, belief in the premises is necessary. An inference is where a person, believing in the premises, then begins to believe the conclusion (or believe in it even more that before). Inferences can be deductive or inductive.[15]

Question #3: What is a fallacy? *(Minumum 100 words)*

A fallacy is an invalid or unsound argument. There are two types of fallacy, informal and formal. Informal fallacies usually involve valid arguments that nonetheless have unacceptable premises, making them unsound. Examples include *ad populum* (where there is an appeal to things that most people think is good) [16], *genetic fallacy* (where one incorrectly draws a conclusion about a thing based on the properties of the origin of that thing), and *ad hominem* (where one makes a personal attack against one's opponent instead of against her argument).[17]

A formal fallacy is usually a result of an invalid argument. Examples of this are fallacies of prepositional logic, such as affirming the consequent ("If John killed people, then John would be an evil man. John is an evil man, therefore he kills people"), improper transposition ("If ADF publishes books, then it will become better known. If ADF does not publish books, then ADF will not become better known.") and denying the antecedent ("If Sue is found guilty of theft, then she stole something. If she is not found guilty of theft, then she didn't steal anything."). Other types of formal fallacy are the fallacies of syllogistic logic, where the syllogisms used are not valid (see question #1 above).[18]

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

As I stated above in question #1, a premise is a statement in an argument that supports the conclusion of the argument. An example of premises might be the first two lines below:

All carp are fish.
All fish are animals.
All carp are animals.

where the third line is the conclusion of the argument.

An inference, on the other hand, is the entire process, where a series of premises lead to a conclusion, and where there is a belief in the premises, enough so that one is led to believe (or believe even more) the truth of the conclusion made from the premises. Premises are parts of a process, and inference is a process itself.

Question #5: 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)*

For this question, I have decided to take an article from Oak Leaves, issue 25, entitled "Why Vedism?", by Adhitin Ratrija with N. Agnayi. It is 7 pages long, which makes it acceptable for this question. The link to the article appears in the endnote below.[19]

"Why Vedism?" is a passionate attempt to answer three main questions:

1) 'Is Vedism a form of Hinduism?',
2) 'Are Kali, Siva, Krsna, Laxmi, Ganesha, Rama, Sita, Hanuman or Durga Vedic?', and
3) 'Why Vedism?'

I shall pull the various premises for each of these questions from the article and analyze the arguments for them. There is also a great amount of background material in the article that does not directly relate to the arguments or the three questions.

The first question is, **'Is Vedism a form of Hinduism?'**. The main arguments are as follows:

1) Vedism began around 1700-1500 BCE
2) 1700-1500 BCE is before the beginning of Hinduism (c. 400 BCE)
-Therefore, Vedism began before Hinduism

This argument is both valid and sound. So, if Vedism came first, it could not be a form of Hinduism. But that begs the question of Hinduism being a form of Vedism. The Vedic beliefs included polytheism, heaven and no reincarnation or hell, *Karman, dharman, sruti* and a class system. Hindu beliefs include monism, reincarnation, *Karma, Dharma, smrti* and a caste system.

The next argument is made by a series of comparisons between specific Vedic and Hindu beliefs. Each one could be written like the two below:

1) Hindu religion includes a belief in monism
2) Monism is not a belief of Vedism
-    Therefore, Hindu religion is not a belief of Vedism.

        or

1) Vedism based their religious ideas on *sruti* (divine revelation)
2) No Hindus base their religious ideas on *sruti* (divine revelation)
-    Therefore, No Hindus base their religious ideas on Vedism

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All of these arguments, when put this way, are valid. Are they sound? Well, I have to go on the word of the author, as I have not read the books in the bibliography, but I think they are sound.

So the final argument is:

      1) Certain beliefs (see above) are held by the Vedics
      2) No Hindus hold these certain beliefs
      -Therefore, No Hindus are Vedics

These arguments are both valid and sound. Much of the article was aimed at demonstrating these differences.

So the first question is both valid and sound.

The second question is, **'Are Kali, Siva, Krsna, Laxmi, Ganesha, Rama, Sita, Hanuman or Durga Vedic?'**

The main argument is:

      1) Hindu Gods (including the list of deities above) are incarnations of a supreme being.
      <u>2) No supreme being exists for the Vedic Gods.</u>
      -   Therefore, Hindu Gods are not Vedic Gods.

This argument is both valid and sound. Later, they mention the one Hindu God that still uses the name of a Vedic God, Vsnu. However, they say that the two Gods bearing that name are very different, without going into details.

The third question is, **'Why Vedism?'** The implied remainder of this question is, "as opposed to Hinduism, Jainism or Buddhism (the 'Offshoot religions')?" This question is a subjective one about the authors' beliefs.

Here is a breakdown of the arguments the authors use to answer this last question:

      1) Vedism is about community
      <u>2) Community is valued by the authors</u>
      -   Therefore, Vedism is valued by the authors

      1) Vedism is a religion that values *karman, dharman, Rta*, free-will and the *sruti*.
      <u>2) *Karman, dharman, Rta*, free-will and the *sruti* are valued by the authors.</u>
      -   Therefore, Vedism is valued by the authors.

so,

      1) Vedism is valued by the authors
      <u>2) The Old Gods are the basis of Vedism</u>
      - Therefore, the Old Gods are valued by the authors

So far, so good. The arguments are valid and sound. Then we have the following argument:

      1) the New Gods and the Old Gods are Gods
      <u>2) The Gods should be worshipped by the people</u>
      -   Therefore, the Old Gods and the New Gods should be worshipped by the people.

However:

      1) (In an Indian paradigm), No offshoot religions value the Old Gods

2) The Old Gods are valued by the authors
- Therefore, no offshoot religions are valued by the authors

This is valid, certainly. And as this article is all about why the authors value Vedism instead of the offshoot religions, we can say it is sound. What this article does not demonstrate is that Vedism is superior to the offshoot religions. It only demonstrates that the authors *prefer* Vedism for personal reasons.

While the arguments are valid and sound, the authors also feel compelled to use *ad populum* arguments (fallacies) to attack the offshoot religions by appealing to the emotions of their ADF readers, asking, among other things, "How would you feel knowing your Gods were now shadows of their former selves, pushed to back burners, given little to no respect and often ridiculed?" For me, this spoiled a good article.

The *ad populum* arguments mentioned in the paragraph above are also examples of *rhetorical questions* and *apostrophes*, two kinds of rhetorical devices. A rhetorical question is one that is not answered by the writer because the answer is obvious or obviously desired. This device is used for effect or for emphasis.[20] These is also apostrophes, where the discussion has been interrupted by an address aimed directly at the reader, which is usually done to express extreme emotion.[21]

Other examples of rhetorical devices used in the article include an *analogy*[22], where two things are compared that are alike in some respect, in order to explain something more difficult. This occurs where the authors compare Vedism and Hinduism when they say, "…the Hindu religions are no more the same religion as Vedism than Islam is the religion of the Christians." We know that Islam and Christianity, while sharing some similar roots, are nonetheless very different. Therefore, we are led to the authors' conclusion that Vedism and Hinduism are also very different.

There is another rhetorical device that is used in this article. A *hypophora*[23] is when a question is asked by the writer, but unlike rhetorical questions, this time the writer proceeds to answer his own question. This occurs when the authors ask, "Yet, is Hinduism Indo-European? If not, when did it cease to be such?" and later when they say, "Logic then has us ask, "Aren't these new religions just natural progressions of Vedism?" This latter example is also another type of rhetorical device, *procatalepsis*, where the authors anticipate a possible objection to their argument by answering it. It is logical to want to consider Hinduism a natural progression from the earlier Vedism, but the authors want to be sure that the readers do not make that assumption.

And then there is the final rhetorical device that they use at the end of the paper, namely *climax*.[24] In the final two paragraphs (the last one being only one sentence long), the authors arrange their sentences in order of increasing importance, taking us on to their final statement, "Vedism is about honouring (sic) the old gods" which is what they do and which is the point of the whole article.

The authors were doing more than just answering their original three questions, however. They also wanted to give a good overview of Vedism for their readers. This required the use of so much information that the overall theme of the paper occasionally got confusing. Sometimes, as in the discussion of *Yajna*, or the concept of public, Vedic ritual, a word or concept would be used before being successfully defined.

Generally speaking, though, this article is fairly well put together. I found it interesting and informative. While I was a bit put off by their tone when speaking of the offshoot religions, I can understand that they were coming from a place of passion, and I have to admire that.

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[1] Nicholas Capaldi, *How to Win Every Argument, An Introduction to Critical Thinking*, (New York, MJF Books, 1987), p. 18.
[2] Capaldi, p. 26.
[3] Capaldi, p. 27.
[4] Capaldi, p. 20.

[5] Robert Audi, General Editor, *The Cambridge Dictionary of Philosophy, Second Edition*, (Cambridge, UK, Cambridge University Press, 1999), p. 43.
[6] Capaldi, pp. 35-44.
[7] Capaldi, p. 37.
[8] Capaldi, pp. 38-39.
[9] Capaldi, pp. 39-40.
[10] Capaldi, pp. 40-41.
[11] Capaldi, pp. 41-42.
[12] Capaldi, pp. 47-57.
[13] Capaldi, p. 79.
[14] Capaldi, pp. 33-34.
[15] Audi, pp. 426-427.
[16] Capaldi, p. 43.
[17] Audi, pp. 431-432.
[18] Audi, pp. 316-317.
[19] Adhitin Ratrija with N. Agnayi, "Why Vedism?", Oak Leaves, Issue 25, Summer 2004, pp. 3-9, <http://archives.adf.org/publications/oak_leaves/OL25_web.pdf>, November 11, 2005.
[20] Robert A. Harris, "A Handbook of Rhetorical Devices", <http://www.virtualsalt.com/rhetoric.htm> November 13, 2005.
[21] Ibid.
[22] Ibid.
[23] Ibid.
[24] Ibid.