Western Logic Formal & Informal Fallacy Types of 6 Fallacies

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Western Logic - Formal & Informal Fallacy: Types of 6 Fallacies (Philosophy) [https://youtu.be/rghUd13l4MI]

Fallacy

- When an argument fails to support its conclusion, that argument is termed as fallacious in nature.

- A fallacious argument is hence an erroneous argument.

- In other words, any error or mistake in an argument leads to a fallacy.

- So, the definition of fallacy is any argument which although seems correct but has an error committed in its reasoning.

- Hence, a fallacy is an error; a fallacious argument is an argument which has erroneous reasoning.

- In the words of Frege, the analytical philosopher, "it is a logician's task to identify the pitfalls in language." Hence, logicians are concerned with the task of identifying fallacious arguments in logic which are also called as incorrect or invalid arguments.

- There are numerous fallacies but they are classified under two main heads;
  - Formal Fallacies
  - Informal Fallacies

Formal Fallacies

- Formal fallacies are those mistakes or errors which occur in the form of the argument.

- In other words, formal fallacies concern themselves with the form or the structure of the argument.

- Formal fallacies are present when there is a structural error in a deductive argument.

- It is important to note that formal fallacies always occur in a deductive argument.

- There are of six types;

Fallacy of four terms:

- A valid syllogism must contain three terms, each of which should be used in the same sense throughout; else it is a fallacy of four terms.

- This means, an argument must have only three terms. The three terms are; major term, middle term and minor term.
- Each of these terms should be used in the same sense throughout the argument (premises and conclusion) . For example;
  - All dogs are cute
  - All cats are animals
  - Therefore, all dogs are animals
- Here, the argument has more than three terms; dogs, cute, cats and animals.
- Another name for this fallacy is Quaternio Terminorum.
- In short, when more than three or less than three terms are used in a syllogism then we have a formal fallacy which is called fallacy of four terms.
- Hence, a valid syllogism uses only three terms (not more, not less) .

The fallacy of Undistributed Middle term:

- Undistributed middle term is a fallacy when the middle term of the syllogism in not distributed in either of the premises.
- For a valid syllogism, the middle term must be distributed in at least one of the premises.
- It could be either major premise or the minor premise.
- It is also important to note that the Middle term never appears in the conclusion in a valid syllogism.
- For example,
  - All people are patriotic
  - All Indians are patriotic
  - Therefore, all Indians are people
- Here, the middle term, patriotic is neither distributed in the major premise, nor in the minor premise.
- So, although the argument looks valid, it is a fallacious argument.

The Fallacy of Illicit Process:

- When a term distributed in the conclusion is not disturbed in the premises, we have a fallacy of undistributed term or illicit process
- This fallacy is further divided into two parts;
  - Illicit Major
  - Illicit Minor

Illicit Major:

- When the major term distributed in the conclusion is not distributed in the major premise, we have Illicit major.
- For example, all dogs are mammals , no cats are dogs, Therefore, no cats are mammals

- Here, the major term (mammals) is distributed in the conclusion but it is not distributed in the major premise- All dogs are mammals.

Illicit Minor:

- When the minor term distributed in the conclusion is not distributed in the minor premise, we have illicit minor fallacy.
- For example,
  - All traditionally religious people are old people
  - All traditionally religious people are married people
  - Therefore, all married people are old people
- Here, the minor term (married people) is distributed in the conclusion but it is not distributed in the minor premise- All traditionally religious people are married people.

Questions

1. Formal fallacies are those which

A. Occur in the form of the argument

B. Occur in the structure of the argument

C. Both A and B

D. Occur in the content of the argument

Answer: C

2. When an argument has less than three terms, it commits the fallacy of

A. Fallacy of four terms

B. No fallacy is committed

C. Undistributed Middle term

D. None of these

Answer: A

3. When a term distributed in the conclusion is not disturbed in the premises, we have a fallacy of

A. Illicit Major

B. Illicit Minor

C. Illicit Process

D. Undistributed Middle term

Answer: C

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