

Logic and Critical Thinking

Study Book

Chapter 2



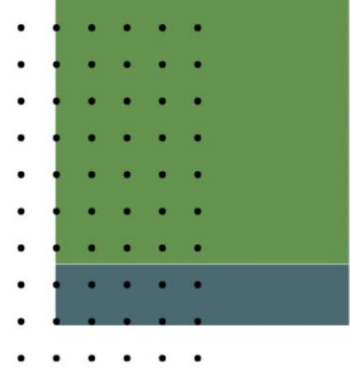
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Short Note



Lesson 2: Techniques of Recognizing Arguments

- An **argument** is a systematic combination of one or more than one statements, which are **claimed to provide a logical support or evidence** (i.e., **premise(s)**) to another single **statement** which is **claimed to follow logically from the alleged evidence** (i.e., **conclusion**)
 - However, **not all passages that contain two or more statements are argumentative**
 - **Argumentative arguments** are distinguished from such kind of passages by their **primary goal: proving something**

2.1 Recognizing Argumentative Passages

- a passage contains an **argument** if it **purports to prove something**; if it does not do so, it does not contain an argument
- Two conditions must be fulfilled for a passage to purport to prove something:
 - **At least one of the statements must claim to present evidence or reasons**
 - ✦ the statements that claim to present the evidence or reasons are the **premises**
 - ✦ This condition refers to **premises** as it **tries to provide or claim to provide reasons or evidences for the conclusion**
 - ✦ **This condition expresses a **factual claim****, and deciding whether it is fulfilled often falls outside the domain of logic
 - **There must be a claim that the alleged evidence or reasons supports or implies something - that is, a claim that something follows from the alleged evidence**
 - ✦ the statement that the evidence is claimed to support or imply is the **conclusion**
 - ✦ This condition refers to a **conclusion**
 - ✦ This condition expresses what is called an **inferential claim**
- It is **not necessary** that the premises present actual evidence or true reasons **nor** that the **premises actually do support the conclusion**
 - **But at least the premises must claim to present evidence or reasons, and there must be a claim that the evidence or reasons support or imply something**
- In evaluating arguments, therefore, most of our attention will be concentrated on whether the second condition is fulfilled because it is not necessary, at least at this level, that the premises present actual evidence or true reasons nor that do the premises actually support the conclusion

Inferential claim

- It is **the claim that the passage expresses a certain kind of reasoning process** - that **something supports or implies something** or that **something follows from something**

- this claim is not equitable with the intentions of the arguer
 - Intentions are subjective and, as such, are usually not accessible to the evaluator
- Rather, the **inferential claim** is an **objective** feature of an argument grounded in its language or structure
- An inferential claim can be either **explicit** or **implicit**

◆ **Explicit inferential claim:** usually asserted by premise or conclusion indicator words “thus” , “since” , “because” , “hence” , “therefore” and so on

- It exists if there is an **indicator word** that asserts an **explicit relationship** between the premises and the conclusions

Example:

Gamachuu is my biological father, because my mother told so.

- the premise indicator word “because” expresses the claim that evidence supports something, or that evidence is provided to prove something. Hence, the passage is an argument

◆ **Implicit inferential claim:**

- exists if **there is an inferential relationship** between the statements in a passage, **but the passage contains no indicator words**

Example:

The genetic modification of food is risky business. Genetic engineering can introduce unintended changes into the DNA of the food-producing organism, and these changes can be toxic to the consumer.

- ✦ The inferential relationship between the first statement and the other two constitutes an implicit claim that evidence supports something, so we are justified in calling the passage an argument though it does not contain indicator word
- ✦ The first statement is the conclusion, and the other two are the premises
- Sometimes it is difficult to identify whether a passage contain an argument, In deciding whether there is a claim that evidence supports or implies something **keep an eye out for**
 - **indicator words**, and
 - the **presence of an inferential claim** between the statements

Note

1. The mere occurrence of an indicator word by no means guarantees the presence of an argument

- make sure that the **existing indicator word is used to indicate a premise or a conclusion**

Example:

Key Point Note



Key Points on Lesson 2

Techniques of Recognizing Arguments

2.1 Recognizing Argumentative Passages

- a passage contains an **argument** if it purports to prove something
- Two conditions must be fulfilled for a passage to purport to prove something:
 - **At least one of the statements must claim to present evidence or reasons**
 - ✦ This condition refers to **premises**
 - ✦ This condition expresses a **factual claim**
 - **There must be a claim that the alleged evidence or reasons supports or implies something - that is, a claim that something follows from the alleged evidence**
 - ✦ This condition refers to a **conclusion**
 - ✦ This condition expresses what is called an **inferential claim**
- It is **not necessary** that the premises present actual evidence or true reasons **nor** that the premises actually do support the conclusion

Inferential claim

- It is **the claim that the passage expresses a certain kind of reasoning process** - that something supports or implies something or that something follows from something
- the inferential claim is an **objective** feature of an argument
- An inferential claim can be either **explicit** or **implicit**
 - ◆ **Explicit inferential claim:** usually asserted by premise or conclusion indicator
 - there is an **indicator word** that asserts an **explicit relationship** between the premises and the conclusions
 - ◆ **Implicit inferential claim:**
 - there is an inferential relationship between the statements in a passage, **but** the passage contains **no indicator words**

Note

- The mere occurrence of an indicator word **by no means guarantees** the presence of an argument
 - make sure that the **existing indicator word** is used to **indicate a premise or a conclusion**

2.2 Recognizing Non-argumentative Passages

- Non-argumentative passages are passages, which **lack an inferential claim**
 - for a passage **to be an argument**, it **not only should contain premises and a conclusion** but also an **inferential claim** or a reasoning process

Some of the most important forms of non-argumentative passages

1. Simple Non-inferential Passages

- unproblematic passages that lack a claim that anything is being proved
- Such passages **contain statements that could be premises or conclusions (or both),**
 - **But** what is **missing** is a claim that any **potential premise supports a conclusion**
- Passages of this sort include
 - ◆ **Warnings**
 - ◆ **Pieces of advice**
 - ◆ **Statements of belief or opinion**
 - ◆ **Loosely associated statements**
 - ◆ **Reports**

2. Expository Passages

- A kind of discourse that **begins with a topic sentence followed by one or more sentences that develop the topic sentence**
- If the **objective is not to prove the topic sentence** but **only to expand it or elaborate it**, then there is no argument

Note

- **expository passages differ from simple non-inferential passages** in that **many of them can also be taken as arguments**
- If the purpose of the subsequent sentences in the passage is **not only to flesh out the topic sentence but also to prove it**, then **the passage is an argument**
 - Thus, **the passage can be taken as both an expository passage and an argument**
- In borderline cases, ask whether the topic sentence makes a claim that everyone accepts or agrees with
 - If it does, the passage is probably not an argument

3. Illustrations

- An expression involving one or more examples that is intended to show **what something means or how it is done**

Note

- **Many illustrations can be taken as arguments.** Such arguments are often called **arguments from example**
- In borderline cases, it helps to note **whether the claim being illustrated is one that practically everyone accepts or agrees with**
 - If it is, the passage is probably not an argument

University Exams





University Exams

Lesson 1: Basic Concepts of Logic

Instruction: True/False

1. "For this reason" is a special indicator that came immediately after premise and before conclusion in argumentative passage

✓ Answer: True

≡ Explanation: The indicator word "For this reason" is different from others because it comes immediately after the premise it indicates and before the conclusion.

Moreover, this indicator can be both premise and conclusion indicator

📖 Module Reference: One premise indicator not included in the above list is "for this reason." This indicator is special in that it comes immediately after the premise it indicates and before the conclusion – Module Page 11 Line 11

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Instruction: Multiple Choice

2. A statement that is incorrect about an argument among the following is:

- A. It is necessary for an argument to have one conclusion and more than one premises
- B. There must be a claim supported or implied by evidence for a passage to contain an argument
- C. A conclusion of an argument may appear either at the beginning or middle or at the end part of the passage
- D. At least one of the statements must provide evidence to support or prove a claim
- E. Evidence is a kind of reason, and the attempt to provide evidence in support of a conclusion is normally called an argument
- F. Both "A" and "C"

✓ Answer: A

≡ Explanation: It is not necessary for premises to be more than one for an argument. There can be one or more than one premises

📖 Module Reference:

- ✓ an argument is a group statement, which contains at least one premise and one and only one conclusion - Module Page 43 Line 14
- ✓ an argument may contain more than one premise but only one conclusion - Module Page 43 Line 15
- ✓ Two conditions must be fulfilled for a passage to purport to prove something ... There must be a claim that the alleged evidence or reasons supports or implies something - that is, a claim that something follows from the alleged evidence

3. Which of the following sentences is **not** a statement?

- A. The word 'because' is not a premise indicator
- B. If an inductive argument has a false premise, then we know it is uncogent
- C. Either you called me last night or somebody else did
- D. None of the above

✓ Answer: D

≡ Explanation: A statement is a sentence that can be either true or false. All of the sentences in the options are statements, because they can be evaluated as either true or false. Therefore, none of them is not a statement

📖 Module Reference: A statement is a declarative sentence that has a truth-value of either true or false – Module Page 42 Line 15

4. While distinguishing premise and conclusion of argument raising questions like; what a single statement claimed to follow from others? Or what is the central point of the argument? will help us to identify all except _____

- A. The existence of reasoning process
- B. Conclusion of argument
- C. Passing comment
- D. Inferential claim

✓ Answer: C

≡ Explanation:

Practice Questions





Practice Questions

Lesson 1: Basic Concepts of Logic

Instruction: Identify the premises and conclusion of each argument

1. Titanium combines readily with oxygen, nitrogen, and hydrogen, all of which have an adverse effect on its mechanical properties. As a result, titanium must be processed in their absence.

✓ Answer:

- ✓ **Premise:** Titanium combines readily with oxygen, nitrogen, and hydrogen, all of which have an adverse effect on its mechanical properties.
- ✓ **Conclusion:** Titanium must be processed in their absence

2. When individuals voluntarily abandon property, they forfeit any expectation of privacy in it that they might have had. Therefore, a warrantless search or seizure of abandoned property is not unreasonable under the Fourth Amendment

✓ Answer:

- ✓ **Premise:** When individuals voluntarily abandon property, they forfeit any expectation of privacy in it that they might have had.
- ✓ **Conclusion:** A warrantless search and seizure of abandoned property is not unreasonable under the Fourth Amendment.

3. It really does matter if you get enough sleep. We need sleep to think clearly, react quickly, and create memories. Studies show that people who are taught mentally challenging tasks do better after a good night's sleep. Other research suggests that sleep is needed for creative problem solving.

✓ Answer:

- ✓ **Premise 1:** We need sleep to think clearly, react quickly, and create memories.
- ✓ **Premise 2:** Studies show that people who are taught mentally challenging tasks do better after a good night's sleep.
- ✓ **Premise 3:** Other research suggests that sleep is needed for creative problem solving.
- ✓ **Conclusion:** It really does matter if you get enough sleep.

4. Punishment, when speedy and specific, may suppress undesirable behavior, but it cannot teach or encourage desirable alternatives. Therefore, it is crucial to use positive

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