



CHAPTER ONE: CRITICAL THINKING AND ARGUMENTS

- What is critical thinking?
- What is an argument?
- Standardizing arguments

CRITICAL THINKING IS A SKILL

Critical thinking is the skill of making decisions based on good reasons

It involves two basic sub-skills:

- Correctly **evaluating** arguments made by others
- **Composing** good arguments of your own

Critical thinking goes **beyond knowing facts**:

- It involves understanding them, putting them into context, and seeing how they are related to each other

Why is critical thinking important?

- Because if you think critically, you're more likely to have **true beliefs**.

ARGUMENTS AND THEIR STRUCTURE

An argument is **an attempt to provide reasons** for thinking that some belief is true.

Arguments have two parts:

- **Premises:** The statements that are given as reasons
- **Conclusion:** The statement that is supported by those reasons

A terminological distinction:

- **Statement:** A sentence that makes a claim can be true or false.
- *Examples:* “Class has started”, “There are at least eight planets in our solar system”

- **Sentence:** A string of words determined by the rules of grammar.
- *Examples:* “Hello, everyone!”, “How many planets are in our solar system?”

- Arguments employ sentences that can be true or false, i.e., statements.

IDENTIFYING ARGUMENTS

You can determine whether a piece of text is an argument by following three steps:

1) Find an attempt to convince

If there is no attempt to convince of a certain claim, the text is not an argument.

2) Find the claim the text is trying to convince you of.

That claim is the **conclusion** of the argument.

Some common **conclusion indicators** are: **so, therefore, thus, hence, then**
[see full list on p. 14 of Rainbolt and Dwyer book]

3) Find the reasons that are given for convincing you of that claim-the conclusion.

These reasons are the **premises**.

Some common **premise indicators**: **since, because, for, as, due to**
[full list on p. 14]

COMPLICATING FACTORS

- There is not always a premises/conclusion indicator.
- Premises do not necessarily appear before the conclusion.
- Some premises and conclusions are not in declarative form.
As a rethorical device [we'll see more of this in ch.4], sometimes a writer uses questions and imperatives to make a claim.

Example: Zola's defense of Dreyfus:

“Some have gone as far as to claim that Picquart was a forger, that he forged the telegram to ruin Esterhazy. But, good God, why? For what reason? Give me a motive. Was he too paid by the Jews?”

Point being made: Picquart had no reason to forge the telegram.

UNSTATED PREMISES AND CONCLUSIONS

Sometimes premises and conclusions are unstated.

Sometimes the author does not state explicitly the claim she is trying to convince you of.

- That is an **unstated conclusion**.

Unstated premises are trickier.

- Assumptions that an argument relies on, such that:
- Stating them explicitly **makes the argument clearer**

UNSTATED PREMISES: AN EXAMPLE

[see p. 21 for the full example]

(1) Miconalol causes vomiting, bloody stools, and severe abdominal cramping.

Therefore,

(3) Dr. Frederick should not give Miconalol to people.

The argument relies on the assumption that:

(2) People should not do things that cause vomiting, bloody stools, or severe abdominal cramping

- Sometimes assumptions are not explicitly stated because they seem obvious.
- However, when evaluating arguments, it is important to state explicitly all premises that bring support to it.

THINGS THAT ARE NOT ARGUMENTS

- Assertions
- Descriptions
- Questions
- Instructions

- **Explanations**
- A statement is to be explained: the **explanandum**
- Some statements do the explaining: the **explanans**

- The explanandum **is a statement agreed to be true**. The explanation attempts to show **why it is true**.
- In arguments, there is **disagreement about whether a statement (the conclusion) is true**. The argument attempts to show that it is.

PUTTING ARGUMENTS IN STANDARD FORM

The standard form of an argument presents clearly the full argument, indicating premises and conclusion. It looks like this:

(1) Premise 1
(2) Premise 2
(3) Premise 3 (...)
Therefore,
(4) Conclusion

- Premises and conclusion are all numbered.
- Premises are put before the conclusion.
- All unstated premises and conclusions must be explicitly stated.

MAIN ARGUMENTS AND SUBARGUMENTS

- Sometimes, **additional arguments** are provided to **support one or more of the premises** of an argument.
- Especially when the truth of the premises is not obvious.
- These arguments are called **subarguments**.
- The conclusion of a subargument works as a premise in the main argument.
- Two arguments are **linked** when the conclusion of one of them is a premise of the other one.
- Main arguments and subarguments are linked.