

LOGIC, REASONING, AND PERSUASION, WEEK 2-2

Today: Examining the structure of arguments, with an eye toward critically evaluating them. Definitions of **statement**, **conclusion**, **argument**, and **premise**.

1 | SAME CONCLUSION, DIFFERENT ARGUMENT

Consider the conclusion “you should not use ChatGPT to write a college essay.” Now consider it combined with the three “inadequate reasons” that A&C give:

- (1) You should not use ChatGPT to write a college essay because **doing that would be cheating.**
- (2) You should not use ChatGPT to write a college essay because **it would cause you to lose some capacity.**
- (3) You should not use ChatGPT to write a college essay because **writing is thinking.**

The structure of each of these is as follows:

You should not use ChatGPT to write a college essay because
[**insert reason here**].

But how do we tell whether the reason is good or not? The ones above seem at least not terrible, unlike the below:

- (4) You should not use ChatGPT to write a college essay because **doing so would cause mass starvation.**
- (5) You should not use ChatGPT to write a college essay because **then you would be using a computer.**
- (6) You should not use ChatGPT to write a college essay because **croissants are often tasty.**

Question: What’s bad about these?

2 | PREMISES, CONCLUSIONS, AND ARGUMENTS

We might be able to tell just by thinking a bit what is wrong with each of (4)–(6) above. But in general things are trickier. So it can help to put arguments into *explicit formats*.

Definition 1. Statements, Conclusions, Arguments, and Premises:

1. A **STATEMENT** is something you can say that can be true or false.
2. A **CONCLUSION** is what we call a statement where we’re trying to figure out whether it is true or false.
3. An **ARGUMENT** for a conclusion is a list of statements that provide a line of reasoning for thinking that a conclusion is true.
4. A **PREMISE** is what we call a statement when it is in an argument.

(1)	[<i>reason</i>]	← premise	} argument
(2)	[<i>reason</i>]	← premise	
⋮			
(C)	Therefore, [<i>conclusion</i>]	← conclusion	

2.1 | Statements

A **STATEMENT** is something you can say that can be true or false. That sentence before this one is a statement, as is this sentence itself. But how do we tell whether a something you can say or write is a statement?

The Statement Test: To tell if a sentence is a statement, take the sentence and put “It is true that...” or “It is not true that” in front of it. Does it still sound right?

Let’s practice the Statement Test on some BuzzFeed headlines from today:

1. Taco Bell is the reason free soda refills exist in fast-food chains.
2. 16 shocking reasons divorced people secretly regret ending their marriage
3. If you love being first to cool products, allow me to show you these 34 treasures.
4. Which specific autumn aesthetic do you unknowingly embody?
5. This “missing initials” book quiz is sickeningly easy for people who read at least one book a month.

2.2 | Conclusions

A **CONCLUSION** is what we call a statement where we’re trying to figure out whether it is true or false.

Question: Which of these is A&C’s conclusion?

1. You should not use ChatGPT to write your papers, because you have a duty to foster and safeguard your autonomy, and that duty requires you to write your own papers.
2. You should not use ChatGPT to write your papers.

Answer: it depends! What’s the most basic thing that we’re trying to figure out the truth or falsity of? In general, let’s try to choose the simplest version of the statement.

2.3 | Arguments and Premises

An **ARGUMENT** for a conclusion is a list of statements that provide a line of reasoning for thinking that the conclusion is true. A **PREMISE** is a statement in the list.

Trick: if there is a “because” or similar word in a long sentence, you can probably split it into the form

[conclusion] **because** [argument].

Or, equivalently, since an argument is a list of statements, and we call those statements “premises,”

[conclusion] **because** [premise 1, **and** premise 2, **and** premise 3, etc.].

For example:

- | | |
|--|---------------------|
| C. You should not use ChatGPT to write your papers | ← <i>conclusion</i> |
| because | ← <i>because</i> |
| 1. you have a duty to foster and safeguard your autonomy | ← <i>premise 1</i> |
| and | ← <i>and</i> |
| 2. that duty requires you to write your own papers. | ← <i>premise 2</i> |

Note that the conclusion doesn’t have to come at the end! Here it is at the beginning.