

Vocabulary

The components of arguments:

Proposition: a claim of fact; something that can be true or false.

Argument: a series of connected propositions used to establish a proposition.

Premise: a proposition used to establish another proposition.

Conclusion: a proposition established in an argument.

Properties of arguments:

Validity: A valid argument is such that (the following are equivalent, at least for our purposes):

- if the premises of the argument were true, then the conclusion would have to be true;
- the premises entail the conclusion;
- if someone believed that all the premises were true, she could not rationally disagree with the conclusion

True Premises: (hopefully self-explanatory)

Soundness: Validity+True Premises

Argument Structure

(The following is a rough-and-ready guide to some particularly useful aspects of argumentative structure. For more details, take phil 115: introduction to first-order logic. No, seriously. It's awesome. Take it.)

An argument's validity is determined by its structure. Here is a valid argument:

1. If Obama loses all 3 debates, then he will lose the election.
2. Obama lost all 3 debates.
3. So, Obama will lose the election.

This argument is valid because it has a particular form. *Any* argument with the same form is also valid:

- | | |
|------------------|---|
| 1. If P, then Q. | 1. If Obama is president of the moon, then apples are blue. |
| 2. P | 2. Obama is president of the moon. |
| 3. So, Q | 3. So, apples are blue. |

(A question: if I had changed "apples are blue" in the above argument to "apples are red"—so that (3) was true—would the argument be any better?)

Obviously validity isn't all we need. But validity is very important. On the reverse are some additional forms of argument you're likely to (a) come across and (b) use yourself.

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|---|------------------|
| 1. If Obama loses all 3 debates, then he will lose ¹ the election. | 1. If P, then Q. |
| 2. Obama lost all 3 debates. | 2. P |
| 3. So, Obama will lose the election. | 3. So, Q. |
| — <i>VALID</i> | |

| | |
|--|------------------|
| 1. If Obama loses all 3 debates, then he will lose the election. | 1. If P, then Q. |
| 2. Obama will lose the election | 2. Q. |
| 3. So, Obama will lose all 3 debates. | 3. So, P. |
| — <i>NOT VALID (why not?)</i> | |

| | |
|--|------------------|
| 1. If Obama loses all 3 debates, then he will lose the election. | 1. If P, then Q. |
| 2. Obama will not lose the election. | 2. Not Q. |
| 3. So, Obama will not lose all 3 debates. | 3. So, not P. |
| — <i>VALID (why?)</i> | |

| | |
|--|------------------|
| 1. If Obama loses all 3 debates, then he will lose the election. | 1. If P, then Q. |
| 2. Obama will not lose all 3 debates. | 2. Not P. |
| 3. So, Obama will not lose the election. | 3. So, not Q. |
| — <i>NOT VALID (why not?)</i> | |

| | |
|--|---------------------|
| 1. If Obama loses all 3 debates, then he will lose the election. | 1. If P, then Q. |
| 2. If Obama loses the election, then I'm moving to Canada. | 2. If Q then R. |
| 3. So, if Obama loses all 3 debates then I'm moving to Canada. | 3. So, if P then R. |
| — <i>VALID (why?)</i> | |

Obviously, conditional “if...then” statements play an immensely important role in arguments. They don't always show up in quite this form. Here are some other phrasings you might see, all of which are expressing the proposition “if Obama loses the debates, then he will lose the election”:

- **Assuming that** Obama loses the debates, he will lose the election
- **Provided that** Obama loses the debates, he will lose the election.
- **Given that** Obama loses the debates, he will lose the election.
- Obama will lose the election **if** he loses the debates. (note the reversed order!)
- Obama will lose the election **provided that** he loses the debates. (again, reversed order!)

One more note: “**only if**” is the reverse of “if.” “Obama will lose the election **only if** he loses the debates” is the reverse of “Obama will lose the election **if** he loses the debates.”

Beyond conditionals:

| | |
|--|-------------------|
| 1. Either Obama or Romney will win the election. | 1. Either P or Q. |
| 2. Obama will not win the election. | 2. Not P. |
| 3. So, Romney will win the election. | 3. So, Q. |
| <i>VALID (why?)</i> | |

| | |
|---|-------------------|
| 1. Either Obama or Romney will win the election. | 1. Either P or Q. |
| 2. If Obama wins the election, then we will leave Afghanistan. | 2. If P then R. |
| 3. If Romney wins the election, then we will leave Afghanistan. | 3. If Q then R. |
| 4. So, we will leave Afghanistan. | 4. So, R. |
| <i>VALID (why?)</i> | |

This is not an exhaustive list, but it captures many of the most common forms of argument.

There's also an EXTREMELY important little argumentative strategy called *reductio ad absurdum*. We'll talk about it in class.

¹ For simplicity's sake, we'll ignore complexities introduced by verb tense in these examples.

Advice for writing arguments:

(adapted from a handout by James Rocha)

1. Get the conclusion right!
2. Make connections!
 - a. The reader should be able to connect steps in the argument easily.
 - i. The premises need not be written at an elementary-school level;
 - ii. the logical connections should be.
3. Make an argument, not a list of assertions!
 - a. Make sure that the premises support the conclusion.
 - b. Omit unnecessary claims: *only* include premises that support the conclusion.
 - c. Beware of just building the conclusion into the argument.

And one general piece of advice for writing:

Be kind to your reader!

Some important types of kindness, when writing philosophy:

- Make sure your reader can follow you without having to add anything. Define any terms you use that aren't a part of ordinary, everyday, conversational English. Make every logical move explicit: don't make your reader fill in moves. And put things in a logical order. (When you are presenting another philosopher's argument, this is likely to be different from the order that philosopher uses in the text.)
- Keep your sentences short! Don't make multiple points in one sentence. A sentence should be long only if length is required to make the point. A Very Eminent Philosopher once passed down this piece of advice to me: "Try to keep your sentences under 14 words."
 - The very same Eminent Philosopher also wrote this sentence: "This message compromises the core insights of epistemic externalism by attaching it to an ideology that loses touch with the role of epistemic norms for perceptual belief and with the role of norms of reason and justification in many higher types of knowledge." 43 words. Lesson: it is sometimes difficult to follow even your own good advice. (Also: a little punctuation would have made that sentence easier to parse.)
- Don't use synonyms or other flowery devices to make the writing sound good. These often sacrifice clarity. That's bad. Sometimes, they render an argument invalid. That's *really* bad.

A final way of thinking about your reader: When writing, suppose that your reader is lazy, stupid, and mean. Lazy: she will not do any work to piece together what you're trying to say. Stupid: she is not capable of working out extremely complex, convoluted thoughts unless they're laid out step-by-step for her. Mean: if there's a way of interpreting what you say that makes it false, she'll take that interpretation.

I say this even though I am neither lazy nor mean. I say this because writing for such an audience will force you to write clear, precise prose that explains things very carefully. And that's what we're always aiming for in philosophy.