

Handout: Philosophical Arguments, pt. 1

Arguments have two components, called **premises** and **conclusions**. The premises of the argument support the conclusion. The following example illustrates how arguments occur in everyday conversations.

“I don’t think I’ll be going out this weekend if there’s a chance of snow. And this morning the weather forecast called for snow. So it looks like I’ll be staying in this weekend.”

Notice that the above argument can be restated in the following formal manner.

P1 If there is a chance of snow this weekend, I will not go out.

P2 There is a chance of snow this weekend.

C I will not go out.

In the above formalization, P1 and P2 are the premises, and C is the conclusion.

When reading philosophical texts, it’s important to look for arguments, and to try to identify their premises and conclusions. This is a useful skill in everyday conversations, too!

So how do we do it? One effective strategy is to find the conclusion first. The conclusion can often be identified by the use of such words as “therefore”, “so”, “thus”, and “hence”. Once the conclusion is found, we can search for all of the surrounding claims that support it. These will be the premises of the argument. Here’s an example:

“I believe that every batter on Red Sox this year will have a batting average better than .250. And I believe that Big Papi will be a batter on the Red Sox this year, so I believe that Big Papi will have a batting average better than .250”

The conclusion of this argument is that Big Papi will have a batting average better than .250. You can tell because this claim begins with the word “so”, suggesting that the other information provided here *supports* the claim. The other two claims in the argument, then, are premises.

Of course, ordinary folks don’t always present their arguments this neatly. Often, they’re pretty jumbled! And famous philosophers, unfortunately, aren’t always much clearer. When we read texts this semester, we’ll need to keep a keen eye on what the authors are trying to convince us to believe. This will help us to identify the conclusions they want to make, which will in turn make it easier to identify the structures of their arguments.

Validity and Soundness

Validity

A **valid** argument is an argument that preserves truth from its premises to its conclusion. This means that *if the premises of the argument are true, then the conclusion must also be true*.

The following is an example of a valid argument:

- P1 All cats are gorgeous.
- P2 Olivia is a cat.
- C Olivia is gorgeous.

Notice that if the first two premises are true in this argument, then it is *impossible* for the conclusion to be false. Notice also that we don't need to know whether the premises are true to determine that this is a valid argument. All that we need to know is that *if* the premises are true, then the conclusion will necessarily be true.

The following is an example of an invalid argument.

- P1 Every U.S. president lives in the White House.
- P2 Laura Bush lives in the White House.
- C Laura Bush is a US president.

In this argument, the truth of the premises fails to guarantee the truth of the conclusion. As a matter of fact, the first two premises are true, and the conclusion is false. This immediately tells us that the argument is not valid.

Invalid arguments are not always this obvious, however. Consider the following argument:

- P1 All men are mortal.
- P2 Socrates is mortal.
- C Socrates is a man.

Notice that in this argument, we can describe a situation in which the first two premises are true, and the conclusion is still false. The truth of the premises does not guarantee the truth of the conclusion. The conclusion of this argument might be true, but the important thing to notice is that it does not *follow* from the premises. The argument is not valid.

Soundness

A **sound** argument is a valid argument with true premises. The following is an example of a sound argument:

- P1 Every major league baseball team has at least nine players.
- P2 The Milwaukee Brewers are a major league baseball team.
- C The Milwaukee Brewers have at least nine players.

The conclusion of this argument must be true if its premises are true, which tells us that the argument is valid. Moreover, the premises of this argument happen to be true, telling us that the argument is also sound.

Notice that not every valid argument is sound. Considering the following argument:

- P1 Every good ballerina is an elegant dancer.
- P2 Arnold Schwarzenegger is a good ballerina.
- C Arnold Schwarzenegger is an elegant dancer.

This argument is clearly valid—if its premises are true, then its conclusion must also be true. But since we know that at least one of the premises is false, we know that the argument is not sound.

Reductio ad Absurdum

The phrase, "reductio ad absurdum" is Latin for "reduction to absurdity". It is the name that philosophers give to an argument of a certain form. In this argument form, we begin with an assumption, and show that this assumption, along with some other true premises, yields a contradiction. If we can do this, then we know that the original assumption must be false.

Here's an example:

Joe: "Everything that McDonalds makes is delicious."

Jim: "Do you like the Fillet 'O Fish sandwich?"

Joe: "No, I don't think it's delicious at all."

Jim: "Wait a minute. If everything that McDonalds makes is delicious, and McDonalds makes Fillet 'O Fish sandwiches, then Fillet 'O Fish sandwiches are delicious. But you said that Fillet 'O Fish sandwiches are not delicious. Your statements imply that the Fillet 'O Fish sandwich is both delicious and not delicious, which is a **contradiction**. So by reductio ad absurdum, it is false that everything that McDonalds makes is delicious."

Notice that when we talk about contradictions in philosophy, we are talking about something very specific. A contradiction is a sentence of the form "A and not A".