

"Philosophy: the ungainly attempt to tackle questions that come naturally to children, using methods that come naturally to lawyers." -David Hills

Argument Structure

Argument: a reasoned defense of a claim.

Premises	Fetuses are persons or are going to become persons It's always wrong to kill anything that's a person <u>It's always wrong to kill anything that's going to become a person</u>
Conclusion	It's always wrong to kill a fetus

Two main ways that premises can support their conclusions.

(A) **Inductively:** the premises provide reliable *evidence* for the *likelihood* of the conclusion.

The postman has always come at 2PM before	Bob very often comes to parties with karaoke
<u>The postman will come by at 2PM today</u>	<u>My party tonight has karaoke</u>
	Bob is coming to my party tonight

(B) **Deductively:** the premises *guarantee* the truth of the conclusion.

Judy either is at the store or at home	All humans are mortal
Judy isn't at home	Socrates is a human
<u>Judy is at the store</u>	<u>Socrates is mortal</u>

Most arguments philosophers give are aiming to be good deductive arguments.

Requirements of good deductive arguments

(I) **Validity:** an argument is valid if it is *structured* in such a way that *if* the premises are true, *then* the conclusion must be true as well.

Validity is a property of the *form* of an argument, and not its content. For example, the following argument is valid.

Every plant has nine toes
The President is a plant
<u>The President has nine toes</u>

That argument is valid *despite* the fact that its premises and conclusion are all *false*. It is valid because it is of the following form:

$$\begin{array}{l} \text{Every F is G} \\ \text{n is a F.} \\ \hline \text{n is a G.} \end{array}$$

No matter what you put in the placeholders "F", "G" and "n", *as long as the premises are true the conclusion will be as well.*

One way to tell whether an argument is valid is to look at arguments with similar structure and true premises. If you can find any argument of this kind which has a *false* conclusion, then the original argument isn't valid. For example, is this argument valid?

$$\begin{array}{l} \text{If Bob graduated, then Bob earned 120 credits} \\ \text{Bob earned 120 credits} \\ \hline \text{Bob graduated} \end{array}$$

This argument is *invalid*, despite the fact that all its premises and its conclusion might be true. To see why, note that the argument is of this form:

$$\begin{array}{l} \text{If P, Q} \\ \text{Q} \\ \hline \text{P} \end{array}$$

But other arguments with this form can have true premises with a false conclusion.

$$\begin{array}{l} \text{If I win the lottery tomorrow, I'll have at least one dollar tomorrow (true)} \\ \text{I'll have at least one dollar tomorrow (true)} \\ \hline \text{I'll win the lottery tomorrow (false)} \end{array}$$

Showing this is enough to show the argument isn't valid. The argument further above may have *seemed* fine because it resembles the valid (and potentially sound) argument:

$$\begin{array}{l} \text{If Bob earned 120 credits, then he can graduate} \\ \text{Bob earned 120 credits} \\ \hline \text{Bob can graduate} \end{array}$$

So: Invalid arguments are not good arguments. They don't give us *reasons* to believe their conclusions. (But their premises and conclusions might nonetheless be *true*.)

(II) **Soundness**: an argument is sound if it is valid *and* the premises of the argument *are true*.

If an argument is sound, then its conclusion is true.

So if someone produces a deductive argument for a conclusion and you reject the conclusion, you are committed to one of the following two claims:

- (A) The argument is invalid.
- (B) A premise of the argument is false.

(III) *Persuasiveness*: if an argument is persuasive, then (among other things) the premises of the argument must be plausible to someone who doesn't already believe the conclusion of the argument.

God exists and grass is green

God exists

God doesn't exist and grass is green

God doesn't exist

One of the above arguments is *sound*. But neither are persuasive.

Hidden premises

Often arguments as presented in texts we'll read have *hidden premises (tacit premises)*. These are unmentioned premises which must be supplied if the argument is to be deductively valid.

Killing is wrong if it's not in self-defense

When the government kills with the death penalty it is doing something wrong

There are no men around to protect us

If nobody is around to protect us the monster will eat us

The monster will eat us

Two common forms of argument

(i) *Reductio Ad Absurdum* ("*Reductio*", for short): Argues for the falsity of some claim by assuming the claim is true, and then showing that from this assumption we can deduce untenable consequences.

E.g. Suppose someone claims it is at least possible to build a "Universal Truth Machine" of the following sort: if you write any English sentence that is true or false on a piece of paper and feed it into the machine, the machine will output "true" if the sentence is true, and "false" if it is false. We can show the claim that this machine could exist is incoherent by *reductio*:

Suppose there were such a machine. Then we could feed this sentence into it: "The machine will output "false" in response to this slip." If the machine outputs "true", then the statement written on the slip is false. So the machine should output "false"—but it actually wrote out "true". On the other hand, if the machine outputs "false" in response to that slip, then the statement on the slip is true. So the machine should have written out "true"—but it didn't. So the hypothesis that there is such a machine of the exact kind described leads to absurdity.

(ii) **Parity of Reasoning**: showing that two arguments have similar enough structure and content so that either both should be sound or both should be unsound. This is often used to show one argument is unsound by showing it to run parallel to another, more clearly unsound argument.

A: The government should not be allowed to use the death penalty against people who have committed murder. After all, if the murder was wrong in the first place, then so is the government's act of killing.

B: It seems like you're saying that if the government is committed to some act being illegal, then the government shouldn't be able to perform anything like that act. But if that's right, then it seems like by parity of reasoning the government shouldn't be able to restrain or imprison people like kidnappers. That can't be right. As long as you allow that the government can imprison kidnappers, you should be able to say something about why imprisonment and killing should be treated differently.

Problem for parity of reasoning: doesn't tell us *why* the original argument is sound or unsound.

Two common defects of arguments

(i) **Equivocation**: giving an argument whose plausibility relies on using the same word twice with different meanings.

This feather is light (i.e. not heavy).
Nothing that is light can at the same time be dark.

This feather can't be dark.

(ii) **Begging the question**: *effectively assuming the conclusion of your argument as a premise. (Sometimes called "circular reasoning")*

E.g.: "The allegations of police brutality simply aren't true. Why? Well, because the police would never do anything like that."

"Begs the question" *does not mean* "invites the question" or "makes the question pressing".