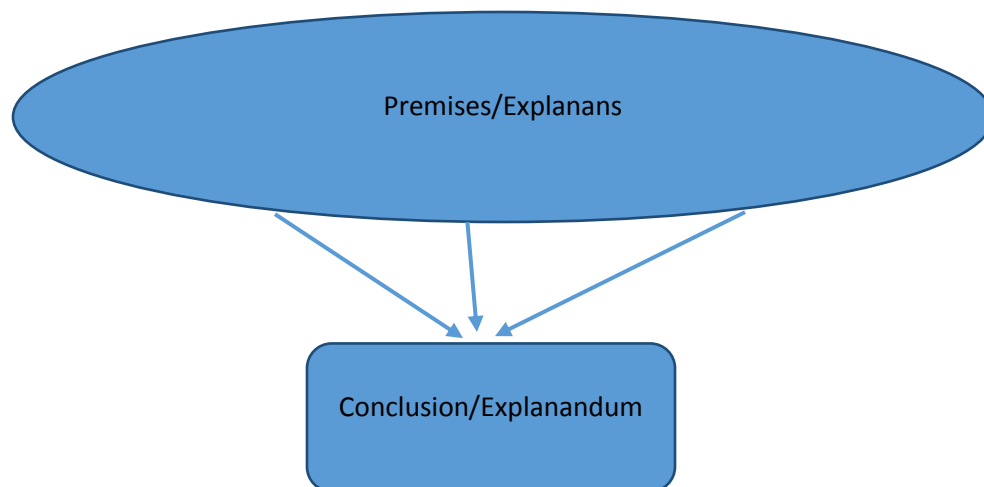


Arguments vs. Explanations

Arguments and explanations share a lot of common features. In fact, it can be hard to tell the difference between them if you look just at the structure. Sometimes, the exact same structure can function as an argument or as an explanation depending on the context. At the same time, arguments are very different in terms of what they try to accomplish. Explaining and arguing are very different activities even though they use the same types of structures. In a similar vein, building something and taking it apart are two very different activities, but we typically use the same tools for both.

Arguments and explanations both have a single sentence as their primary focus. In an argument, we call that sentence the “conclusion”, it’s what’s being argued for. In an explanation, that sentence is called the “explanandum”, it’s what’s being explained. All of the other sentences in an argument or explanation are focused on the conclusion or explanandum. In an argument, these other sentences are called “premises” and they provide basic reasons for thinking that the conclusion is true. In an explanation, these other sentences are called the “explanans” and provide information about how or why the explanandum is true. So in both cases we have a bunch of sentences all focused on one single sentence. That’s why it’s easy to confuse arguments and explanations, they have a similar structure.



What is an argument?

An argument is an attempt to provide support for a claim. One useful way of thinking about this is that an argument is, at least potentially, something that could be used to persuade someone about the truth of the argument’s conclusion. If you want to persuade someone that your conclusion is true, you have to start from premises that they likely already agree with. So in an argument, the premises tend to be less controversial than the conclusion. If the premises were more controversial than the conclusion, then the argument would have very little persuasive power. The primary issue that an argument tries to resolve is whether the conclusion is true.

Suppose you’re wondering whether it’s a good day for a bike ride. You look outside and notice dark clouds. You check the weather forecast, rain is predicted. You step outside and notice it’s quite chilly.

On the basis of these three pieces of information you decide not to go for a bike ride today. We can show the structure of your reasoning as follows:

There are dark clouds.

It's cold.

The forecast calls for rain.

It's not a good day for a bike ride.

The important thing to notice is that the first three sentences are reasons for believing that the last sentence, the conclusion, is true. In this case, you have more confidence in the first three sentences than in the last one. But finding out that each of these three sentences is true makes you a little bit more convinced that the conclusion is true also. This is what makes this an argument, one sentence is being established as true on the basis of other sentences.

We can see the process of building an argument as somewhat like building a house. What you're really interested in is having a nice kitchen and living room. But before you can build those, you have to put down a foundation, something to support the rest of the house. Without the foundation, the house isn't stable. Let's see how this works by looking at another argument.

Suppose you want to convince a friend to go to college at Ashford. You come up with the following argument.

P1) College graduates typically earn more.

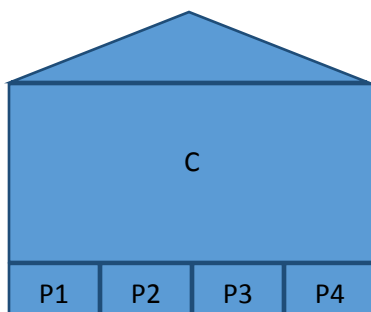
P2) Going to college is a good example for your children.

P3) An online University lets you get a degree without having to move.

P4) Classes that only last for five weeks are easier to fit in with your busy schedule.

C) You should enroll at Ashford University.

The premises of this argument are what the conclusion rests on, they support it. We can picture this support like the support that a foundation gives to a house.



Arguments can be more complicated than this, but the same idea about support still applies. For example, you may have noticed that P1 and P2 are reasons for going to college generally, but P3 and P4 are reasons that Ashford may be a good choice for your friend. So you could really make your argument more complete as follows.

P1) College graduates typically earn more.

P2) Going to college is a good example for your children.

S1) You should go to college.

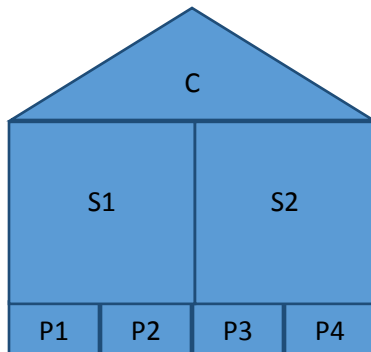
P3) An online University lets you get a degree without having to move.

P4) Classes that only last for five weeks are easier to fit in with your busy schedule.

S2) Ashford would be a good fit for you.

C) You should enroll at Ashford University.

Here, our premises support smaller conclusions. We might call them sub-conclusions, using the same kind of idea as a subtotal. Just as a subtotal is a total we get before we add in everything to get the final total, a sub-conclusion is a conclusion we reach from some of our premises before we get to our final conclusion. Using the house model, we can draw a picture of the support in this argument.



The foundation (premises) supports the walls (sub-conclusions) which in turn provide support for the roof (conclusion). The premises are reasons for thinking that the sub-conclusions are true. The sub-conclusions are reasons for thinking the final conclusion is true; each level supports the next. This is the key feature of an argument. No matter how complicated it is, each level of an argument is used a reason for thinking that the next level is true. If this feature is absent, you don't have an argument.

What is an explanation?

In contrast, the main purpose of an explanation is to provide a deeper understanding of something that is already accepted as true. The focal point of an explanation (we call it the explanandum) is generally accepted by both parties in the conversation. We accept that a certain thing is true, but we a better understanding of why or how it's true.

Suppose your car won't start. You want to know why it won't start. Is it a dead battery? A bad starter? Cruel fate? You look down at the dash and realize that your headlight switch is in the full on position. You remember that last night you used the headlights after you parked the car to help you find something in the garage. So you form an explanation somewhat like the following:

You left the lights on.

Leaving the lights one will drain the battery.

A drained battery will prevent the car from starting.

That's why your car won't start.

The important thing to notice is that finding out that you left the lights on is not the reason you believe that your car won't start. You know your car won't start because you turned the key and nothing happened. Noticing that your lights were left on doesn't make you even more convinced that your car won't start, it just helps you understand why your car won't start. This is an explanation because the other facts help us understand why the final sentence is true, but they aren't used to show that the final sentence is true. This difference is absolutely critical in understanding the difference between arguments and explanations.

How can we tell whether someone is arguing or explaining?

It can be tricky to tell whether someone is arguing or explaining, especially if you're reading a text and can't just ask the author for clarification. Sometimes the speaker doesn't really know whether they are arguing or explaining. It's pretty easy to switch from one to the other without really realizing it. Nonetheless, it's important to be able to tell the difference both when listening to others and when crafting our own arguments and explanations. This is because arguments and explanations are trying to accomplish different goals; what makes an effective argument may not make an effective explanation.

A good way to start telling whether a passage is an argument is to identify the main point or central focus of the passage. If the author hasn't done so, restate the main point as a single, simple sentence. Try to avoid including words like "because" or "therefore" in your restatement. What you're looking for is the sentence that will be either the conclusion or explanandum depending on whether the passage is an argument or an explanation. Ask yourself, if this is an argument, what is its conclusion? Once you've identified the potential conclusion try to determine whether the author is attempting to convince you that that sentence is true, or whether the author assumes you agree with the sentence and is trying to help you understand why or how the sentence is true. If they are trying to convince you, they are arguing. If they are trying to help you get a deeper understanding, they are explaining.

Remember, the difference between arguing and explaining has more to do with the goal of the conversation than with the structure. To highlight this, let's have another look at the explanation about why your car won't start. In our scenario, you found out your car wouldn't start and then looked around for the reason. After noticing that the light switch was on, you came up with the following explanation:

You left the lights on.

Leaving the lights on will drain the battery.

A drained battery will prevent the car from starting.

That's why your car won't start.

It's an explanation because you already know that your car won't start, you just want to know why.

Let's change the scenario a bit now. Imagine that you have a teenage son with a new driver's license. You've noticed that he's careless about locking the car, turning the lights off and such, but mentioning it

to him hasn't helped. One night, you notice he's left the car lights on. Rather than turn them off or tell him, you decide to teach him a lesson by letting the battery go dead. In the morning you have the following conversation with your son.

You: I hope you don't need to go anywhere with the car this morning.

Son: Why?

You: You left the car's lights on last night.

Son: So?

You: The lights will have completely drained the battery. The car won't start with a dead battery, so it's not going to start this morning.

In this case, the thing you are most sure of is that your son left the lights on. You reason from that to the conclusion that the car won't start. In this scenario knowing that the lights were left on is a reason for believing that the car won't start. You're trying to convince your son that the car won't start, the fact that he left the lights on last night is the starting point for doing so. We can show the structure of your argument as follows:

You left the lights on.

Leaving the lights on will drain the battery.

A drained battery will prevent the car from starting.

Therefore, your car won't start.

Notice that the structure of this argument is the same as the structure of the explanation example. The only difference is whether you are trying to show that the car won't start or understand why it won't start after already realizing that it won't. Finding the structure will help you to understand the details of the argument or explanation, but it won't, by itself, help you determine which one you're dealing with. For that, you have to determine what the author is trying to accomplish and what the author sees as common ground with the reader. Understanding the structure of what is said can help you become clearer about what the author is doing, so it's a good thing to look for, but understanding the structure isn't enough.

We should always try to interpret others in the most charitable way we can. If what someone says makes a better explanation than it does an argument, then that is some reason to take them as giving an explanation. This general principle is often called the "principle of charity", and is one of the cornerstones of interpretation. In the end, you have to decide whether someone is most charitably interpreted as arguing or explaining.

How do we evaluate arguments and explanations?

To understand what makes an argument or explanation good, keep in mind what the point of each is. The point of an argument is to establish its conclusion as true. So in a good argument, if the premises were true, that should make it more likely that the conclusion would be true also. In a better argument, the truth of the premises would make the conclusion a lot more likely to be true. From the point of view of logic, the more likely the premises make the conclusion, the better the argument is. (We'll later learn that this is a feature of the "strength" or "validity" of an argument.) We also prefer arguments with premises that are true, likely true, or that at least might be true. All else being equal, an argument is

better if its premises are plausible. This isn't, strictly speaking, part of the logic of the argument, but it is an important part of how we judge arguments in everyday life.

The point of an explanation is to show how or why the explanandum is true. Scientific theories are one very important kind of explanation. A lot has been written about what makes one scientific theory better than another. But in general, explanations should increase our understanding. They should not be circular. A circular explanation is one in which the explanandum is part of the explanans. For example: It is raining because water is falling from the sky. As with the premises of an argument, the explanans should be plausible. This doesn't mean that it has to be easy to understand. Many great scientific theories are very difficult to understand. But all else being equal, we prefer explanations that we think are likely to be true. Finally, we prefer explanations that are simple. Simple explanations are easier for us to understand, and understanding is one of the primary goals of explaining.

The question of how to evaluate arguments and explanations is difficult and requires a lot of study. Fortunately we need not dwell on it long here. On the one hand, much of this course will deal with the evaluation of arguments. It is enough for the moment to understand which things are arguments and which aren't. On the other hand, the evaluation of explanations is really beyond the scope of this course. Keep in mind that these few brief words on evaluating arguments and explanations are just the barest beginning of the subject. There's a lot more to learn about it, a very lot more. Still, we've all been exposed to arguments and explanations for our whole lives. If we're careful and open-minded, we can do pretty well at evaluating them.