

Evidence and explanation

READING

The notions of *evidence* and *explanation* will both be crucial in this course, so let us spend some time reflecting on these notions.

Part I. Evidence

Evidence for a claim is simply *a reason to believe that claim*. The fact that there are dark clouds in the sky is evidence that it will rain; the fact that my dog is wagging his tail is evidence that he is happy; the fact that Professor Plum's thumbprint is on the murder weapon is evidence that he committed the crime.

We typically use certain words – *because, since, therefore, so, etc.* – to mark evidential relationships: “Since dark clouds are gathering, it will rain soon.” These words are among the many **signposts** that indicate relationships among ideas. In future seminars, we will discuss signposts in much greater detail.

Which claims count as *good* evidence, though? This is a difficult philosophical question! But here is a rule of thumb that I find very useful: a good evidential claim is a claim that just about anyone can verify. In other words, good evidence is *interpersonal* evidence. Consider the following evidential claims, for example:

1. I exist.
2. It is wrong to take pleasure in hurting an innocent person.
3. I know that I have hands.

No claim is universally accepted, but these claims come about as close as any. So they constitute very strong evidence. Any of these claims *could* be false, but we would need some extremely compelling counter-evidence to become convinced of that. Thus it is unsurprising that each of these claims has been influentially used in philosophical argumentation.

By contrast, consider these evidential claims:

4. I have an immortal soul.
5. Morality is subjective.
6. All truths are socially constructed.

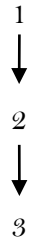
These claims are not good evidence. They might be true, and you are welcome to try to support them with further evidential claims. But you should not rely on these claims in your arguments without saying more.

The idea that we have been discussing is so important that I will repeat it:

As a rule of thumb, *good* evidence is *interpersonal* evidence. That is, a good evidential claim is a claim that *just about anyone can verify*.

We will often find it helpful to diagram evidential relationships. We will do this by using numbers to represent specific claims and arrows to represent evidential support. For example, if “1” represents the claim that dark clouds are gathering, “2” represents the claim that

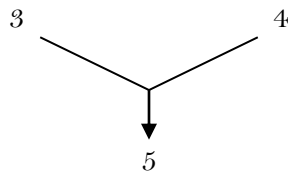
it will rain, and “3” represents the claim that I should carry an umbrella, then we will represent their relationship like this:



Sometimes several claims provide evidential support collectively but not individually. For example:

- 3. Amber says that this chemical is hydrogen peroxide.
- 4. Amber is an experienced chemist.
- 5. This chemical is hydrogen peroxide.

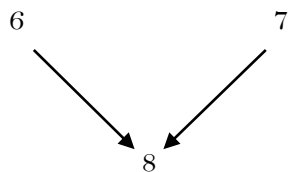
1 by itself is not evidence for 3. Similarly, 2 by itself is not evidence for 3. But 1 and 2 together are evidence for 3. We will diagram this as follows:



This is very different from what we find with the following claims:

- 6. Professor Plum’s thumbprint is on the murder weapon.
- 7. Professor Plum had a heated argument with Colonel Mustard last night.
- 8. Professor Plum killed Colonel Mustard.

In this case, 6 and 7 independently support 8. To be sure, the evidential support for 8 is much stronger given both 6 and 7 than given either of these claims alone. But that is not what is relevant here. What is relevant is that 6 supports 8 in a way that is mostly independent of whether or not 7 is true; likewise, 7 supports 8 in a way that is mostly independent of whether or not 6 is true. Thus, we would diagram this situation as follows:



Part 2. Explanation

Next, let us turn to the notion of *explanation*. Often, when one thing explains another, it is because the first thing *causes* the second thing. For example, consider the claim that the fire alarm sounded because Randy was cooking. This claim involves a causal relationship between Randy's cooking and the sounding of the fire alarm. But later in this seminar we will encounter non-causal explanations.

We can diagram explanatory relationships using the same methods that we used to represent evidential relationships. For example:

6. Randy was cooking.
7. The fire alarm sounded.



Be warned that the same words – words like “because,” “since,” “thus,” and “so” – can be used to indicate *either* evidential *or* explanatory relationships (or both). This can be confusing, since evidential relationships and explanatory relationships are not the same thing! For example, suppose that you see smoke pouring out behind a hill and conclude that there is a fire (which you cannot see). Consider these claims:

7. There is smoke.
8. There is fire.

In this case, 7 is evidence for 8, but 7 does not explain 8. On the contrary, it is 8 that explains 7.

As you read texts for this seminar, begin to pay closer attention to the words that indicate such relationships. Then try to determine whether the relationship in question is evidential, explanatory, or both. You should expect to find this difficult! There is no need to worry; we will practice this skill repeatedly in seminar.

WARM-UP EXERCISES

First complete all but the last of these exercises on your own. Then check your answers against the answer key that is included at the end of this handout, and use what you have learned to complete the last exercise. Finally, submit all of your answers on Canvas as a Word (.doc or .docx) file.

Some exercises include a word limit or word range. On these exercises, strive for concision and simplicity (while still using complete sentences), and **include a word count**. So that I can grade anonymously, **please do not include your name** or any other identifying information.

Warm-up 1. Using the numbering system below, diagram the evidential relationships in the following paragraph (which is poorly written and should not be taken as a model).

Here are two hints. First, start by *identifying the conclusion* of the passage. Second, pay close attention to words like “so,” “yet,” “and,” “but,” “therefore,” “because,” etc. Words such as these will often indicate evidential or explanatory relationships.

Be warned that this exercise is especially difficult – take your time!

Everyone wants to be happy. But you can only achieve that goal by caring for others, since the selfish life is ultimately empty. So you should be altruistic.

1. Everyone wants to be happy.
2. You can only achieve happiness by caring for others.
3. The selfish life is ultimately empty.
4. You should be altruistic.

Warm-up 2. In the *Mozi*, consider the paragraph on pp. 106-107 that begins, “Our teacher Mozi says, “These days, when kings, dukes, and great men sit up in their raised halls ...” and ends with “... they divert such vast resources that could be used to produce food and clothing for the people.” Diagram Mozi’s argument using *exactly two claims*. Remember to include both a numbered list of claims and a picture with an arrow.

Warm-up 3. Return to the argument from Mozi that you diagrammed in warm-up 2. Explain whether you agree or disagree with argument, taking special care to support your claims with interpersonal evidence. (Range: 60-120 words. This notation means that your answer should be no fewer than 60 words and no more than 120 words. Remember to include a word count!)

Warm-up 4. Carefully review the answer key for the warm-up exercises. Then answer the following questions.

- (a) What are the most important mistakes that you made? If you did not make any mistakes, then instead reflect on the most important mistakes that you recently made in seminar. (Range: 30-60 words.)
- (b) What specific strategies can you use to avoid these mistakes in the future? (Range: 30-60 words.)

ANSWERS TO WARM-UP EXERCISES

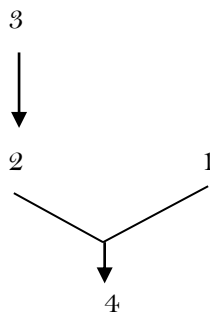
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1. The resources required for musical performances would be better spent on food and clothing.
2. It is wrong to spend resources on musical performances.



Note. When expressing a thinker’s claims, my primary aim is to express his or her ideas as simply and clearly as I can. Usually, this will require me to express those ideas in my own words, rather than simply quoting the text. You should do the same! Your default should be to put the ideas of others in your own words, while still citing the text as appropriate.