

# Evidence and explanation

Reading (before seminar)

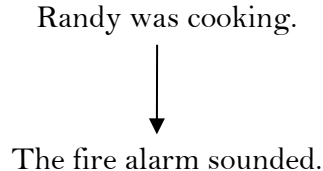
As we have seen, signposting words like “because,” “since,” and “so” can be used to indicate evidential relationships. Such words have another common usage, however: they may indicate *explanatory* relationships instead of, or in addition to, evidential ones. For instance, suppose that a group of students have just evacuated Cendana after hearing the fire alarm. The vice-rector then tells them:

1. The fire alarm sounded because Randy was cooking.

The vice-rector is not supplying *evidence* that the fire alarm sounded; everyone already knows that it has. She is instead explaining *why* it sounded. Similarly, the following claims are most naturally understood as indicating explanatory rather than evidential relationships:

2. Since Jessica was the fastest runner, she reached the finish line first.
3. The glass fell from the table, so it shattered.

How can you tell whether a signposting expression indicates a purely evidential relation, a purely explanatory relation, or an evidential relation and an explanatory relation? First diagram the claim in question, just as you learned to do in the previous handout:



Then apply these tests, making sure to consider the context in which the claim occurs:

- If the first claim is *much easier to verify* than the second claim, then the arrow likely represents an evidential relation. If the first claim is *much harder to verify* than the second claim, then the arrow likely does not represent an evidential relation.
- If the first claim identifies a *cause* and the second claim identifies an *effect* of that cause, then the arrow likely represents an explanatory relation. Similarly, if the first claim identifies a *general law* and the second claim identifies an *instance* of that law, then again the arrow likely represents an explanatory relation.

I repeat that a signposting expression can simultaneously represent an evidential relation and an explanatory relation. Hence, even if you get a positive result from one of the tests, you must still try the other test.

Let’s apply these tests to the case of Randy and the fire alarm, using the diagram above. It is very easy to verify that the fire alarm has sounded, since in this context a group of students have already heard the alarm. But they do not know whether or not Randy was cooking. So the first test indicates that the arrow likely does not represent an evidential relation.

But Randy's cooking could easily cause the fire alarm to sound. So the second test indicates that the arrow likely represents an explanatory relation. We can therefore conclude that the arrow represents an explanatory relation but not an evidential relation.

Practice (in seminar)

Together, let's determine whether each claim below should be given an explanatory reading, an evidential reading, or both.

1. It's sweltering in here because the air conditioning is broken. [Context: An instructor makes this claim to her students.]
2. Since human nature is good, Yale-NUS College is guaranteed to succeed. [Context: An administrator at Yale-NUS College makes this claim on the local news.]

Try the next two exercises in small groups, putting your answers on the whiteboard.

Exercise 1. Determine whether each claim below should be given an explanatory reading, an evidential reading, or both.

1. There is smoke on the horizon, so there must be a fire behind the hill.
2. Because climate change is accelerating, human beings will soon go extinct.
3. I see paw prints leading away from the picnic blanket. Therefore, my dog must have eaten the snacks.
4. Lavish funerals waste precious resources, so the state should ban them.

Exercise 2. State a context in which the following claim should be given a purely explanatory reading. State a different context in which it should be given a reading that is both evidential and explanatory.

1. There is no escape from this room, so the thief is still here.

|                          |
|--------------------------|
| Homework (after seminar) |
|--------------------------|

Remember to **print two copies** of your homework, and **put your name on the back** so that I may practice anonymous grading.

Exercise 1. Look ahead to chapter 20 of the *Xunzi*, where we find the following passage: “Music is ... an unavoidable human disposition. So, people cannot be without music ....” Diagram the relationship between these claims:

1. Music is an unavoidable human disposition.
2. People cannot be without music.

Should the arrow in your diagram be given an explanatory reading, an evidential reading, or both?

Exercise 2. For each pair of claims below, identify which one is better evidence. Briefly explain each of your answers.

- 1a. Human beings enjoy destruction and theft.
- 1b. Human beings often destroy and steal.
  
- 2a. Rituals help sustain social order.
- 2b. Performing rituals is the duty of every noble person.
  
- 3a. Human beings have a natural desire to produce music.
- 3b. Music-making is part of virtually every known culture.