

5: Modals of Logical Necessity

We use modals of logical necessity when we decide that something is necessarily true or not true. It means something like 'I've looked at the evidence and I think the only possibility is that this thing is true or not true. Or I've looked at the evidence and I think this is the only possible answer.

We use 'must' for affirmative sentences and 'can't' for negatives and questions. So, in this case, the opposite of 'must' is 'can't'.

- She must be at home. (I think the only possible answer is that she's at home.)
- She can't be at work. (I think the only possible answer is that she is not at work.)

Compare these with 'she is at home', which is just a fact and doesn't give us any idea about the speaker's opinion. If we use 'must' or 'can't', we show what the speaker thinks and this based on the speaker's understanding of the evidence or the situation.

We can use 'must' and 'can't' in this way to talk about single actions, states and continuing actions. We might choose to use the continuous infinitive to talk about something that's in progress at the moment of speaking.

- She must be working now.

We often use the continuous infinitive to avoid the ambiguity of the obligation meaning of 'must'.

- Lucy must be staying at this hotel (it's my opinion that she's staying here).
- Lucy must stay at this hotel (I am telling Lucy that she is obliged to stay here).

We also often use 'have to' and 'have got to' with the same meaning here.

- She has to be at home.
- She's got to be at home.

When we're talking about the past, we can also use 'had to', with roughly the same meaning as 'must have' (we don't use 'has to have been'). However, we need to be careful, because 'had to' is more commonly used for past obligation (when I was at school, we had to wear a uniform). There isn't a trick to know the difference – it's just in the meaning of the sentence.

- She must have been at home.
- She had to be at home – I'd already tried her work and her usual café.

We can also use 'does not have to'. This means something isn't necessarily true.

- A: She must be at home.
- B: No, she doesn't have to be at home. She could be at school.

Future

We often choose the continuous infinitive when we're talking about the future with 'must', because that avoids the ambiguity of the meaning of 'must' for obligation.

- Lucy must come tonight (we can understand this as saying it's necessary for her to come).
- Lucy must be coming tonight (otherwise she wouldn't have asked David for a lift).

- Lucy can't come tonight (we can understand this as saying that Lucy isn't allowed to come).
- Lucy can't be coming tonight (or she would have called us to arrange a time).

When we're talking about future states, there is ambiguity that it's more difficult to avoid.

- Lucy must be here tomorrow. (Usually we understand this as obligation)

Using 'can' and 'mustn't'

Mostly we use 'can't' (only in the negative) to show that we think something is necessarily not true. We don't use 'can'. However, there are a few cases where it is possible to use 'can'.

We use it with negative adverbs like 'hardly'.

- She can hardly be at home.

We can use it for questions (to mean isn't it logically possible that?' – note that this is different from asking if something is likely or probable)

- Can she be at home?

In a similar way, we can use 'can have' for past questions.

- Can she have been at home?
- She can hardly have been at home.

We can also use 'can' to contradict something.

- A: She can't be at home.
- B: Yes, she can.

Similarly, we can use 'mustn't' for logical necessity in tag questions.

- She must be at home, mustn't she?

Couldn't

We can also use 'couldn't' in the same way as 'can't'. In the same way, we use 'couldn't have' for the past and we use 'could' to ask about possibility in with negative adverbs and in questions. This is more common in US and Canada.

- She couldn't be at home. (= it is not possible that she's at home)
- She couldn't have been at home.

Past

We use 'must have + past participle' and 'can't have + past participle' to talk about things that we believe happened in the past.

- Why didn't Julie come to meet us yesterday? She can't have been at home.
- Why didn't Julie come to meet us yesterday? She must have been at work.

We can use ‘must have been + verb-ing’ or ‘can’t have been + verb-ing’ to talk about something that we think was in progress in the past.

- Why didn’t Julie come to meet us yesterday? She must have been working.
- Why didn’t Julie come to meet us yesterday? She can’t have been sleeping.

Using ‘should’ for logical necessity

We can also use ‘should’ and ‘ought to’ for logical necessity. They are slightly different from ‘must’. We believe the statement to be true because of evidence or our experience, but they are less certain. They mean ‘if everything else is normal, then this is true’. It’s a kind of reasonable assumption. We don’t use ‘should’ or ‘ought to’ for unpleasant things.

- He should be at home now. He left ages ago.
- She shouldn’t be at work now – normally she leaves at five.

We can use ‘should (not) have + past participle’ and ‘ought (not) to have + past participle’ to talk about the past.

- She should have arrived this morning.

We can use ‘should / ought to’ for things that are in fact not true, but we think normally would be the case. We can’t use ‘must’ like this.

- The plane ought to have arrived by now, but it hasn’t.
- NOT: ~~The plane must have arrived by now but it hasn’t.~~

We can also use the continuous infinitive with ‘should’ and ‘ought to’.

- She should be working now.