Weakly predicting the future

Werner (2006) and Lekakou & Nilsen (2008), among others, note that the relation between the evaluation time of an epistemic modal and the evaluation time of its complement is restricted in unexpected ways.

(1) a. She must have won the competition yesterday.
   b. She must win the competition tomorrow.

While (1a) is an epistemic use of must, (1b) cannot mean the evidence requires that she will win. (1b) only has root modal interpretations - she is obliged to win. The examples above would suggest that epistemic necessity is always non-future oriented. Werner and Lekakou & Nilsen take this as a fact, and set out to explain it. Lekakou & Nilsen also claim that Greek prepi behaves like must, and is future-oriented with root uses only.

I show that epistemic necessity modals in some but not all languages, permit future-orientation. Bengali habe and Kinyarwanda kubwirizwa are like English must and do not permit future-orientation when used epistemically. On the other hand, Greek prepi, contra Lekakou & Nilsen, and Bulgarian trjabva do permit future-orientation. I argue that when epistemic necessity modals permit future-orientation, they are instances of weak necessity. A weak epistemic necessity modal is one that is felicitous in the frame modal p but might not p. Weak necessity modals are either lexically specified as such (English should) or are strong necessity modals that have undergone weakening, either morphologically (von Fintel & Iatridou, 2008) or by adverbs (e.g. Greek kanonika "normally").

(2) (Given how well she trained) she should win the competition tomorrow, but she might not.

Future-orientation is possible for a weak epistemic necessity modal regardless of how it came to be weak. In other words, (non-)future orientation of epistemic modals is a function of their strength. More specifically, I show that the structure of the modal base and the Diversity Condition together predict that future-oriented strong epistemic necessity modals are either always false, or infelicitous. According to the Diversity Condition, proposed in Condoravdi (2002), the modal base must contain worlds that both verify and falsify the prejacent.

The distinction between strong and weak necessity is derived from the number of conversational backgrounds that the modal is sensitive to: weak necessity modals have a smaller domain of quantification because they are sensitive to more conversational backgrounds (von Fintel & Iatridou, 2008; Katz et al., 2012). I argue that strong necessity modals have no ordering sources, while weak necessity modals have (at least) one. The presence of an ordering source allows future-oriented weak necessity modals to satisfy the Diversity Condition and still be true. I show that this mixed semantic-pragmatic approach is able to predict all and only the attested temporal behaviour of epistemic necessity. This proposal provides novel evidence in favour of representing strong necessity as having no ordering source, contra Kratzer (2012) and is therefore in line with von Fintel & Gillies’s (2010) arguments that strong epistemic necessity is veridical.
Selected references


