

PHIL 6710: Epistemic Modality  
Week 9: Danger, Ambiguity by Design

**Danger<sup>1</sup>**

1. Many people recognize two kinds<sup>2</sup> of chance: epistemic and objective.
  - a. Suppose you roll a fair die and I do not yet know the result. What is the chance that you rolled '2'? In one sense it is either 1 or 0, depending on whether you did or did not roll '2' – this is the *objective* chance that you rolled '2'. In another sense it is 1/6. This is the *epistemic* chance (for me) that you rolled '2'.
  - b. Objective chance is 'future directed': the objective chance that P for any present or past proposition is 1 or 0.<sup>3</sup> It is determined to be intermediate between 1 and 0 not by the epistemic state of the agent but rather by whether the laws of nature plus the state of the world leave a certain future open.
2. Hawthorne: there is another kind of chance: *danger*.<sup>4</sup>
  - a. I see a person who appears to be teetering on the edge of a cliff, but is not.<sup>5</sup> I say, 'That person is in danger of falling off'. What I have said is false.
  - b. It cannot be that what I have said is that there is a chance<sub>E</sub> (for me) that the person will fall off, because that is true.
  - c. It cannot be that what I have said is that there is a chance<sub>O</sub> that the person will fall off, if we add to the story that I'm allowing that it is determined whether or not the person falls off.
3. Does Hawthorne think that danger is a kind of chance? He seems to. Is he right?
4. This notion of danger does not merely apply to the future:
  - a. There is a danger that my washing machine is defective.
  - b. There is a danger that this person has the disease.
  - These can be true, even though they are about the present. (So what? Need to be careful here.)

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<sup>1</sup> See Hawthorne (2007, pp. 95-9).

<sup>2</sup> Hawthorne talks about two 'notions' of chance, but that seems wrong.

<sup>3</sup> What is a present proposition? What is a past proposition?

<sup>4</sup> "and its optimistic counterpart, hope": so is hope a different kind of chance? Or do we use 'danger' and 'hope' to refer to the same thing, albeit with negative and positive valences?

<sup>5</sup> There is some sloppiness in Hawthorne's description of the case.

- And they are not expressions of epistemic possibility, because they can be false even if it is compatible with what everyone knows that my washing machine is defective and that this person has the disease.

5. Hawthorne: ‘Might’ claims (i.e. assertions of ‘Possibly S’) have a purely epistemic use, and also a more objective *danger* use, that has no straightforward analysis in terms of bodies of knowledge (what does he mean by this last part?):

6. Return to the cliff case. I assert:

a. That person might fall off

This has a reading on which what I said is true (the epistemic reading), and a reading on which what I said is false (the danger reading).

b. It is compatible with what I know that that person will fall off. (True)

c. There is a danger that that person will fall off. (False)

7. You toss a double-headed coin. I don’t know that it’s double headed (Hawthorne doesn’t mention this). I say, ‘It might be showing tails’. Intuitions differ about whether or not my utterance is true. Hawthorne explains: this is because we differ in our understanding of which reading is in play. If we think it’s the epistemic reading, we judge true; if we think it’s the danger reading, we judge false.

Hawthorne recognizes that if the speaker adds, ‘it might also be a double-headed coin’, then most now judge it to be true. Presumably he thinks that this addition disambiguates.

8. Concern: does this all have the explanatory power that Hawthorne claims?

### **Ambiguity by design<sup>6</sup>**

9. von Fintel and Gillies: The standard account is basically correct: an utterance of ‘Possibly S’ in a context *c* expresses a proposition that is true iff the prejacent is compatible with the pooled information of the group determined by *c*. But sometimes we utter ‘Possibly S’ in a *cloud of admissible contexts*, thereby generating an ambiguity, and sometimes we exploit this ambiguity (one of the reasons why we sometimes use B(are) E(pistemic) M(odals),

10. Alex (a woman) is helping Billy (a man) find his keys.<sup>7</sup>

Alex: ‘The keys might be in the car.’

Billy1: ‘Yes, they might be.’ (Confirmation)

Billy2: ‘No, they can’t be.’ (Denial)

<sup>6</sup> See von Fintel and Gillies (2008, pp. 94-7) and von Fintel and Gillies (2007b, pp. 11-28).

<sup>7</sup> I have simplified the dialogue that von Fintel and Gillies use.

11. There are at least two readings of Alex's utterance – an A reading, and an A+B reading:
  - A: It is compatible with what Alex knows that the keys are in the car
  - A+B: It is compatible with what Alex and Billy know that the keys are in the car
12. If Alex meant the A reading then Billy is no position to confirm or deny Alex's utterance (we can add to the story that Billy does not know enough about what Alex knows). Plus, it doesn't *feel* like that is what Billy is confirming or denying.
13. If Alex meant the A+B reading, then Billy might be in a position to deny Alex's utterance: if Billy knows that it is not compatible with what he knows that the keys are in the car, then he knows that it is not compatible with the pooled knowledge of he and Alex, and so he is in a position to deny the A+B reading. Might Billy be in a position to confirm Alex's utterance? I don't see how. Either way, the problem is that Alex is in no position to make the assertion in the first place.
14. Unless Alex is making a *tentative* assertion. This is kinda what von Fintel and Gillies go on to propose. But here is a problem: Alex's assertion need not be tentative at all, and when it is not then this idea is less plausible.
15. von Fintel and Gillies: Alex's utterance takes place in a *cloud of admissible contexts*, *C*. Relative to each context  $c \in C$ , the utterance expresses a single proposition. But there need not be any one of these propositions that is picked out as the content of the utterance (even though there might be), and there need not be any fact of the matter about which of these propositions Alex is asserting (even though there might be). Alex *puts into play* all of these propositions (they say: it is multiply ambiguous).
16. When Alex utters the BEM, 'The keys might be in the car', she puts into play at least the following three propositions:
  - A: It is compatible with what Alex knows that the keys are in the car
  - B: It is compatible with what Billy knows that the keys are in the car
  - A+B: It is compatible with what Alex and Billy know that the keys are in the car
17. Alex was not in a position to assert all three, but she was in a position to assert A, and so she did not violate the norm of assertion proposed by von Vintel and Gillies:
 

Assert 'Possibly S' only if, for some proposition  $p$  thereby put into play, you are in a position to assert  $p$ .
18. They claim: a speaker is justified in asserting 'Possibly S' iff she is justified in asserting the associated solipsistic proposition. Is that right?
19. Alex is in a position to assert A, but puts into play A, B, and A+B. "It's as if she is conjecturing that the B-reading and the A+B reading are true or asking whether they are true" (p. 19).

20. As for acceptance and rejection:

Suppose an utterance of ‘Possibly S’ puts into play a set of propositions P. Suppose that  $p$  is the strongest member of P that a hearer H reasonably has an opinion about. Then H can confirm (deny) the utterance if H thinks that  $p$  is true (false).

This strikes me as badly formulated. Here is a suggested improvement: Confirm (deny) the utterance only if you can confirm (deny)  $p$ .

21. Billy reasonably has an opinion about all three readings: the A reading (Billy reasons: Alex was in a position to assert the A reading; so she knows that the A reading is true; so the A reading is true – the prejacent is compatible with what Alex knows), the B reading (Billy knows that the prejacent is compatible with what he knows), and the A+B reading (as a result of the first two)(with a slight wrinkle). The A+B reading is the strongest of these three readings (it entails but is not entailed by each of the other two). This is the reading that he reacts to (is obliged to react to).
22. The wrinkle: just because the prejacent is compatible with what Alex knows and also compatible with what Billy knows it does not follow that it is compatible with what Alex and Billy together know. von Stechow and Gillies propose that in many cases it is reasonable for Billy to (defeasibly) conclude that the prejacent is compatible with what they both know.
23. Eavesdropper cases. Chuck, unbeknownst to Alex and Billy, is monitoring them as they try to find the keys. When Alex says, ‘The keys might be in the car’, Chuck thinks to himself that she is wrong, because he saw Billy come into the house with them. What Chuck is rejecting is a proposition put into play by Alex’s utterance, whose truth depends on what Chuck knows. Alex has not asserted this proposition, but has made it available for Chuck to react to.
24. They hope to have made it clear that BEMs with their multiplicity of meanings are a very useful device to have in one’s grammar. But have they? Don’t we already have perfectly good ways, perhaps better, to do the same thing?: ‘I can’t rule it out, can you? No/Yes’
25. Issue: Is the account psychologically plausible? Consider this case: I’m sitting down by myself, wondering where the ball is. I say, ‘It might be under cup 1’. Is it plausible that in this case I am exploiting an ambiguity? Yet the same phenomena arise.
26. Issue: Alex might retrospectively retract: ‘Oh, then I was wrong – they can’t be in the car.’ What is going on here?
27. Issue: What about cases in which our judgments depend on what possibilities the speaker is open to?