

On the absence of certain ambiguities in some contexts

Kai von Fintel, MIT

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Transparent readings

- (1) ✓ George thinks that Chloe is not where she is.
- (2) ✓ George doesn't know that Chloe is where she is.
- (3) ✓ I didn't know that Chloe is where she is.
- (4) ✓ Why is Chloe where she is?
- (5) ✓ Chloe is where she is because George told her.
- (6) ✓ The fact that Chloe is where she is disturbs me.
- (7) ✓ It's a good thing that Chloe is where she is.
- (8) ✓ If Chloe wasn't where she is, Boris wouldn't be where he is, either.

λw . Chloe is_w where she is_{w@}

How to derive transparent readings

1. *scope* Russell's suggestion for "I thought your yacht was larger than it is", often thought to be wrong but a variant is defended by Keshet 2011.
2. *indexical access to $w@$* Assume a two-dimensional system where one has access to both the evaluation world and the utterance world. Posit a (possibly covert) *actually* operator that indexically picks up the utterance world.
3. *relatively free reference to worlds* World variables at LF, can be bound to any c-commanding λw . Quite popular these days.
4. *some kind of substitution mechanism* Acquaintance relations, concept generators, etc, see Sæbø 2015 for a review and a new proposal.

The use of such contradictory predicates to demonstrate the existence of transparent or *de re* readings goes back all the way to Aristotle, who in *De Sophisticis Elenchi* talks about "the possibility of a sitting man walking" (το δύνασθαι καθήμενον βαδίζειν).

There was a lively debate about the nature of transparent readings, mostly in the pages of *LI*, which seems nearly forgotten. Sentences like the ones here were at the center of the debate. People like Hasegawa, McCawley, Postal, Abbott, Horn debated the contours of the phenomenon and available solutions such as scope and indexing.

where " $@$ " is a way to refer to the actual world.

I like *she is (not) where she is*, with its free relative definite *where she is* as a succinct way of testing for transparent readings, but any expression that could be tied to the actual world would do: *She didn't write the book she wrote*, *(Not) every semanticist is a semanticist*, ...

This is actually an addition to 2 or 3, since it also involves binding to the actual world

No transparent readings

(9) #If Chloe isn't where she is, Boris isn't where he is, either.

(10) #Chloe might not be where she is.

(11) #I don't know that Chloe is where she is.

(12) #I'm not sure that Chloe is where she is.

All of these *should* be good as long as there is uncertainty about where Chloe is.

(13) I don't know that Chloe is where she is.
= I don't know where Chloe is.

Transparency is blocked in 1st person present epistemic contexts.

It's probably best not to get hung up on worries about what happens to the factivity of *know* in first person cases. The problem is independent of factivity, as (12) shows.

In fact, the Groenendijk & Stokhof 1984 semantics for (embedded) questions makes these sentences precisely equivalent.

Some facts to keep in mind from the start

- Transparent readings occur not just in attitude contexts (counterfactuals, causal cases).
- Whether a transparent reading is possible depends not just on the embedding operator but also person and tense (✓ with *know* but # in 1st person present).

How to block transparent readings

Some attempts:

0. Jackson's nihilism (Jackson 1981): the relevant contexts don't have a possible worlds semantics. This should be a last resort!
1. Constraint on scoping? How could that be sensitive to person and tense?
2. Epistemics are monstrous: overwrite actual world parameter, making it inaccessible for reference. [Weatherson 2001, Nolan 2003, Santorio 2012]

Material conditional or speech act account for indicative conditionals, speech act modifier view for epistemic *might*, ... and for *I don't know*?

Against monstrosity

1. Non-compositional: *know* is a monster iff 1st person present?
2. Would not allow intermediate readings:
 - (14) George thinks that I don't know that she is where she is.

An intuition

The problem has to do with indexing the transparent predicate to something that is *not distinct enough* from the local evaluation worlds in 1st person epistemic contexts.

We need to figure out what governs world-indexing patterns.

Matrix K

Going back to the days of the Performative Hypothesis, there's an idea that *all* sentences contain a wide scope epistemic operator (*I know that, I believe that*). Would that help?

- (15) a. [I know that] I don't know where she is.
- b. #[I know that] I don't know that she is where she is.

There is nothing wrong with saying that you believe/know that you are ignorant about her location, that you don't know that her actual location is where she is, but (15b) is still bad.

Recent work along these lines includes Meyer 2013, see also Fox 2016.

Horn 1981

- (16) #I don't know that the man who won won.

"Why then is (16) so odd? After all, it could be the case that I know that the tournament is over, say, and that some man, Borg or Connors, has won, without knowing which. But I can't report this lack of knowledge with (16), since in order to use the phrase *the man who won* referentially (cf. Donnellan, 1966) to pick out some individual, say Borg, which I need to do on the de re reading, I must know enough about that individual to presuppose that he satisfies the description, i.e. that he did in fact win. But that is just what I deny I can do, in the matrix of (16). The de re, informative reading of (16) thus self-destructs."

Horn's (12c) on p.329.

Yalcin 2015 thinks that this view is so crazy that nobody holds it: "the view, held by no one, that speakers only use definite descriptions when it is known who or what answers to the description" (p.480). But Sudo 2014 writes about the sentence *If the winner had lost, John would have been very sad that "we first accommodate that we know who the winner is"*.

Transparency without (common) knowledge

Possible evidence for Horn's idea:

- (17) *Playing hide-and-seek . . . Petra is the last one we need to find. We've sent George out. Unfortunately,*
- ✓ George still has no idea where Petra is.
 - ?? George still has no idea that Petra is where she is.
- (18) *George is supposed to find Petra. If he does, our team loses. We found a great hiding place for Petra. Luckily,*
- ✓ George still has no idea where Petra is.
 - ✓ George still has no idea that Petra is where she is.

This may in the end be not an a piece of evidence in favor of Horn, but rather an instance of our puzzle, since George is part of the team and thus maybe part of the first person plural.

But:

- (19) I don't care where Chloe is. But why is she wherever she is (rather than here)?
- (20) It's a good thing that Chloe is wherever she is and not here.
- (21) If Chloe wasn't wherever she is, she would be here.

Using the ignorance signal of *whatever* to drive home the point that we can refer without presupposing that we know who we're referring to.

Dynamic ideas about a related puzzle

Groenendijk, Stokhof & Veltman 1996:

- (22) There is someone hiding in the closet. [. . .] #He might not be hiding in the closet.

Also: *There is someone hiding in the closet. [. . .] #I don't know that he's hiding in the closet.*

Yalcin 2015:

- (23) #The winner is a person who might not be the winner.

The picture:

- When we set up discourse referents, the associated properties are presupposed to hold of them.
- Setting up a discourse referent and presupposing that the relevant entity has the associated properties is different from knowing who that entity is.
- The modal operators that create a clash are those that quantify over (a subset of) the domain of worlds in the information state in which we've set up the discourse referent: in all of the worlds the modal ranges over the relevant entity has the stipulated property, and so we get a contradiction.

The technicalities are daunting but this is an intuitive recasting of the ideas.

In other words, epistemic modals like *might* operate on the current, local information state. This is the essence of the dynamic semantics for epistemic modals.

The account naturally extends to indicative conditionals. For *I don't know*, some further thought is needed.

Extending the dynamic account to our data

The data in (22) and (23) concerned setting up a referent outside the scope of a modal and then had a bound variable in the scope of the modal. Our data concern transparent readings *in the scope of a modal* and we've already ruled out that the transparent expression scopes out of the scope of the modal. So ...

If we want to adapt the dynamic account, we need another way to relate the data.

⇒ Accommodation of a discourse referent!

- (24) a. She might not be where she is.
 b. $\exists x$ such that she is at x and might (λw . she is _{w} at x).

This is, of course, suspiciously like scoping.

See Sharvit 1998, Rothschild 2007, Sudo 2014 for discussion.

A conservative pragmatic alternative?

What if the problem with the 1st person epistemic contexts isn't due to their semantics but their pragmatics?

To get started: what is the story with matrix assertions?

- (25) She is where she is.

- If it means λw . she is _{w} where she is _{w} , then we'd be asserting a trivially true proposition.
- If it means λw . she is _{w} where she is _{$w_{@}$} , then (i) it is trivial if it's common ground where she actually is, or (ii) a defective update because it would not be possible to eliminate the worlds where she is not where she is.

Thanks to Danny Fox for discussing this idea with me.

Of course, we do say things like (25). They are used to express a fatalistic attitude, for example (*It is what it is, Que sera sera*). This might be a pragmatic rescue interpretation.

What if the prejacent of first person epistemic operators are signaled as relevant possible updates to the common ground? If so, the sentences might be bad for the same reason that matrix assertions of the prejacent would be bad.

NB: this is not the same as saying that these operators are speech act operators, as the "nihilist" approach would have it.

A possible reason to think that a pragmatic story might be good:

- (26) I'm pretty confident about where each of them is. But as usual, it's (almost) certain that there is at least one of them about whom I'm wrong. So, for at least one of them, I don't (really) know that she is where she (actually) is.

The earlier example (14) may be another case where my information state is at issue rather than where she is: *George thinks that I don't know that she is where she is*.

Interim Conclusion

Transparent readings in first person present tense epistemic contexts are impossible because

1. Such contexts are not standard possible worlds operators but conduct their business entirely at the speech act level.
2. Such contexts range over (a subset of) the same information state that is dynamically created by the introduction of discourse referents (via quantification or accommodation).
3. Such contexts have a standard possible worlds semantics but *also* conduct some business at the speech act level. And it's the latter that creates the problem with our sentences.

Too much of a departure from compositional semantics. Has serious problems with embedded operators.

If this analysis can be substantiated, it would be an important reason for dynamic skeptics like myself to convert to dynamic semantics.

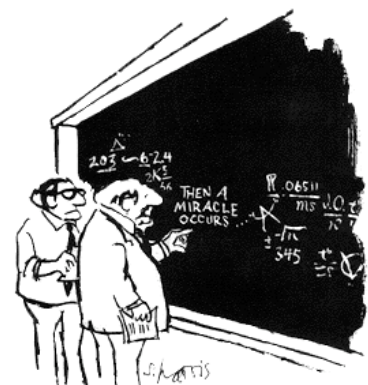
References

- Abbott, Barbara. 1979. Remarks on "On belief-contexts". *Linguistic Inquiry* 10(1). 143–149. <http://www.jstor.org/stable/4178098>.
- Fox, Danny. 2016. On why ignorance might be part of literal meaning: Commentary on Marie-Christine Meyer. Handout from comments given at MIT Workshop on Exhaustivity.
- Groenendijk, Jeroen & Martin Stokhof. 1984. *Studies on the semantics of questions and the pragmatics of answers*. Universiteit van Amsterdam dissertation. <http://dare.uva.nl/en/record/123669>.
- Groenendijk, Jeroen, Martin Stokhof & Frank Veltman. 1996. Coreference and modality. In Shalom Lappin (ed.), *The handbook of contemporary semantic theory*, 179–213. Blackwell. <http://dx.doi.org/11245/1.123522>.
- Hasegawa, Kinsuke. 1972. Transformations and semantic interpretation. *Linguistic Inquiry* 3(2). 141–159. <http://www.jstor.org/stable/4177699>.
- Horn, Laurence R. 1981. A pragmatic approach to certain ambiguities. *Linguistics and Philosophy* 4(3). 321–358. <http://dx.doi.org/10.1007/BF00304400>.
- Jackson, Frank. 1981. Conditionals and possibilia. *Proceedings of the Aristotelian Society* 81. 125–137. <http://www.jstor.org/stable/4544969>.
- Keshet, Ezra. 2011. Split intensionality: A new scope theory of de re and de dicto. *Linguistics and Philosophy* 33(4). 251–283. <http://dx.doi.org/10.1007/s10988-011-9081-x>. <http://www.ezrakeshet.com/Home/papers/split.pdf>.
- McCawley, James D. 1973. External NPs versus annotated deep structures. *Linguistic Inquiry* 4(2). 221–240. <http://www.jstor.org/stable/4177765>.
- Meyer, Marie-Christine. 2013. *Ignorance and grammar*. Massachusetts Institute of Technology PhD. <http://dx.doi.org/1721.1/84420>.
- Nolan, Daniel. 2003. Defending a possible-worlds account of indicative conditionals. *Philosophical Studies* 116. 215–269. <http://dx.doi.org/10.1023/B:PHIL.0000007243.60727.d4>.

- Postal, Paul M. 1974. On certain ambiguities. *Linguistic Inquiry* 5(3). 367–424. <http://www.jstor.org/stable/4177829>.
- Rothschild, Daniel. 2007. Presuppositions and scope. *Journal of Philosophy* 104(2). 71–106. <http://dx.doi.org/10.5840/jphil2007104233>.
- Sæbø, Kjell Johan. 2015. Lessons from descriptive indexicals. *Mind* 124(496). 1111–1161. <http://dx.doi.org/10.1093/mind/fzv031>.
- Santorio, Paolo. 2012. Reference and monstrosity. *The Philosophical Review* 121(3). 359–406. <http://dx.doi.org/10.1215/00318108-1574427>.
- Sharvit, Yael. 1998. Individual concepts and attitude reports. *Semantics and Linguistic Theory* 8. 233. <http://dx.doi.org/10.3765/salt.v8i0.2806>.
- Sudo, Yasutada. 2014. On *de re* predicates. *West Coast Conference on Formal Linguistics (WCCFL)* 31. 447–456. <http://www.lingref.com/cpp/wccfl/31/paper3048.pdf>.
- Weatherson, Brian. 2001. Indicatives and subjunctives. *Philosophical Quarterly* 51(203). 200–216. <http://dx.doi.org/10.1111/j.0031-8094.2001.00224.x>.
- Yalcin, Seth. 2015. Epistemic modality *de re*. *Ergo: An open access journal of philosophy* 2(19). <http://dx.doi.org/10.3998/ergo.12405314.0002.019>.

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"I think you should be more explicit here in step two."