More on Desire Predicates

Yasu Sudo (UCL)
y.sudo@ucl.ac.uk

PLIN0056 Semantics Research Seminar
16 November 2018

1 A Quick Review

(1) *Hintikkan semantics for* want
$[\![\text{want}]\!]^w(p)(x) = 1$ iff for each $w' \in \text{Des}(x, w)$, $p(w') = 1$
where $\text{Des}(x, w) = \{ w' \mid$ all of x's desires in w are true in $w' \}$

Two problems:

1. **Monotonicity inference**

(2) $p \subseteq q$
a wants *p*
---
a wants *q*

(3) Andy wants to fly business class for free

!!! Andy wants to fly business class

2. **Conflicting desires**

(4) $p \cap q = \varnothing$
a wants *p* and *a* wants *q*
---
a's desires are inconsistent

(5) James wants to smoke and James wants to quit smoking.

But (6) seems to be as valid as Zimmermann's (2006) examples.

(6) Andy wants to buy a green sweater

Andy wants to buy a sweater

The debate (see Crnič 2011:Appendix):

- Following Stalnaker, Heim (1992) proposes a non-monotonic semantics for desire predicates (Her main interest in that paper is to account for presupposition projection). (Villalta 2008, Anand & Hacquard 2013, Harner 2016, etc.)
- Adopting the Krazterian semantics, von Fintel (1999) pursues a monotonic analysis (His main interest is to account for NPI licensing under the Fauconnier-Ladusaw Hypothesis).

2 Stalnaker-Heim

(7) I want to teach Tuesdays and Thursdays next semester. (Heim 1992:195)

Heim (1992:195): "Suppose this sentence is intuitively true as spoken by me today. Is it therefore the case [...] that I teach Tuesdays and Thursdays next semester in all the worlds that are compatible with everything I desire? No. In worlds that are compatible with everything I desire I actually don't teach at all."

Stalnaker (1984:89): "wanting something is preferring it to certain relevant alternatives, the relevant alternatives being those possibilities that the agent believes will be realized if he does not get what he wants."

(8) $[\![\text{want}]\!]^w(p)(x) = 1$ iff for each $w' \in \text{Dox}(x, w)$, $\text{SIM}(w', p) >_{x,w} \text{SIM}(w', \neg p)$
   a. $\text{Dox}(x, w) = \{ w' \mid w'$ is compatible with x's beliefs in $w \}$
   b. $\text{SIM}(w', p) = \{ w'' \mid p(w'') = 1$ and w'' is maximally similar to w' among p-worlds $\}$
   c. $S >_{x,w} T$ iff x prefers in w each $s \in S$ to any $t \in T$.

Heim (1992:193f): "another way of stating these truth conditions is in the following disjunctive form: For every belief world w', either ϕ is true in w' and w' is more desirable than its closest non-ϕ-alternatives, or else ϕ is false in w' and w' is less desirable than its closest ϕ-alternatives."

- This semantics makes (3) invalid. But what about (6)?

- Crnič (2011) observes that it makes a very specific prediction about conflicting desires (as we discussed last time).

2.1 Presupposition Projection

Heim's (1992) main interest is to account for presupposition projection (using her update semantics).

(9) John wants to sell his guitar.
   a. $\rightsquigarrow$ John believes/knows that he has a guitar
   b. $\rightsquigarrow$ John in fact has a guitar

Heim (1992) takes (9a) to be the semantic presupposition of (9), and (9b) to be a pragmatically derived inference (see Geurts 1998, 1999 for criticisms, and Sudo 2014 for a defense).

She proposes:

(10) $[\![\text{want}]\!]^w(p)(x)$
   a. presupposes: $\text{Dox}(x, w) \cap p \neq \varnothing$ and $\text{Dox}(x, w) \cap \neg p \neq \varnothing$
   b. $= 1$ iff for each $w' \in \text{Dox}(x, w)$, $\text{SIM}(w', \text{Dox}(x, w) \cap p) >_{x,w} \text{SIM}(w', \text{Dox}(x, w) \cap \neg p)$

The update semantic version (the presupposition of ϕ is evaluated against $\text{Dox}(x, w)$):

(11) $$c + {}^{\ulcorner}x \text{ wants } \phi^{\urcorner} = \left\{ w \in c \;\middle|\; \begin{array}{l} \text{for each } w' \in \text{Dox(x,w)}, \\ \text{SIM}(w', \text{Dox}(x, w) + {}^{\ulcorner}\phi^{\urcorner}) >_{x,w} \text{SIM}(w', \text{Dox}(x, w) + {}^{\ulcorner}\neg\phi^{\urcorner}) \end{array} \right\}$$

Assumption: $\text{SIM}(w, \varnothing)$ is undefined. This requires that x does not believe ϕ and does not believe $\neg\phi$ ('diversity presupposition').

A good prediction: If Heim knows that she needs to teach next semester:

(12) I want to teach Tuesdays and Thursdays next semester
   #I want to teach next semester

2.2 Dox$^+$

But Heim (1992) rightly observes: "it doesn't seem right that one can never speak of wanting things one is convinced will happen or convinced won't happen".

(13) (John hired a babysitter because) he wants to go to the movies tonight. (Heim 1992:199)

(14) $\text{Dox}^+(x, w) = \{ w' \mid w' \text{ is compatible with what } x \text{ believes to be true no matter how } x \text{ chooses to act} \}$

Note $\text{Dox}^+(x, w) \supseteq \text{Dox}(x, w)$.

A problem mentioned in von Fintel & Iatridou (2017) (attributed to Milo Phillips-Brown):

> "the following is compatible with what John believes to be the case no matter how he chooses to act: John doesn't hire a babysitter and goes to the movies anyway, and so his unsupervised kid gets into terrible trouble. This is a world that is not compatible with what John believes (because he believes that he would never leave his kid unsupervised) but it is compatible with Dox$^+$. Now, this world is clearly worse by John's lights than a minimally different world where he doesn't go to the movies (so he'd be home to take care of his kid)."

(15) John doesn't want to go to the movies.

Similarly, we lose (12), because what if Heim doesn't teach at all?

More problematic examples:

(16) *Unrealistic desires*

a. I want this weekend to last forever. (But I know, of course, that it will be over in a few hours.) (Heim 1992:199)

(17) *Totally realistic desires* (Iatridou 2000)

a. I live in Bolivia because I want to live in Bolivia.

b. A: You're drunk!
B: Yes, and I want to be because only this way can I forget about . . .

3 Von Fintel (1999)

Let us first consider (18):

(18) $[\![\text{want}]\!]^w(p)(x)$

a. presupposes $\text{Dox}^+(x, w) \cap p \neq \varnothing$ and $\text{Dox}^+(x, w) - p \neq \varnothing$

b. $= 1$ iff for each $w' \in \max(\leqslant_{\text{DES}(x,w)}, \text{Dox}^+(x, w), p(w') = 1$

(19) a. $\text{DES}(x, w) \coloneqq \{\, p \mid p \text{ is desirable for } x \text{ in } w \,\}$

b. For any set S of propositions, $w \geqslant_S w'$ iff for each $p \in S$, if $p(w') = 1$, then $p(w) = 1$
(w makes at least as many propositions in S true as w')

c. $\max(\geqslant_S, B) = \{\, w \in B \mid \text{for no } w',\ w' <_S w \,\}$

The 'diversity presupposition' prevents the inference from *a believes p* to *a wants p*.

Unrealistic desires are problematic for von Fintel as well.

3.1 Monotonicity

The above semantics is Strawson-upward monotonic: if $p \subseteq q$ and neither $[\![\text{want}]\!]^w(p)(x)$ nor $[\![\text{want}]\!]^w(q)(x)$ is presupposition failure, then $[\![\text{want}]\!]^w(p)(x)$ entails $[\![\text{want}]\!]^w(q)(x)$.

Good for the Zimmermann-type example (6).

(20) John is in a furniture store, looking at a couch that has a very scary price-tag. The salesman comes up to him and the following conversation takes place:
Salesman:Would you like to buy this couch?
John:No.
Salesman:Would you like to buy it at a 25% discount?
John:Yes. (von Fintel 1999:120)

von Fintel (1999:120): "It seems that John's first statement in [(20)] has to be understood against the background of a set of worlds in which the couch has exactly the price stated on the price tag. Among those, the most desirable worlds are not ones where John buys the couch. By the time of John's second statement more worlds are made accessible: apparently the couch can be bought at a 25% discount. Worlds where John does buy the couch at that discount are highly desirable, so John wants to buy the couch at that price. Is the first statement still true in the new situation? I don't think so: it is now false that John doesn't want to buy the couch. In the new context, we would have to say that John doesn't want to buy the couch at its original price. But that is not the same (anymore) as saying that John doesn't want to buy the couch."

von Fintel (1999) says that the following examples 'seem hopelessly contradictory':

(21) a. John doesn't want to buy this couch but he wants to buy this couch at a 25% discount.

b. John wants to buy this couch at a 25% discount but he doesn't want to buy this couch.

von Fintel (1999:121): "So, perhaps a UE analysis of want is possible after all, as long as we pay attention to the shifting grounds of context."

But the following example seems to involve a fixed context:

(22) I'm choosing reviewers for a paper submitted to *Journal of Semantics*. Guillaume would be a very good reviewer for this paper, but he is often (though not always) very late to submit his review.
   a. I want Guillaume to accept the review request and submit his review on time.
   b. (Because he's likely to be late) I don't want Guillaume to accept the review request.

It appears that likelihood matters.

3.2 Conflicting desires

Crnič (2011) suggests that conflicting desires can be dealt with by this semantics by allowing the ordering source to vary across contexts. In other words, the ordering source does not need to represent the agent's entire desires.

(23) $[\![\text{want}_o]\!]^w(p)(x)$
   a. presupposes $\text{Dox}^+(x, w) \cap p \neq \varnothing$ and $\text{Dox}^+(x, w) - p \neq \varnothing$ and $o(x, w) \subseteq \text{DES}(x, w)$
   b. $= 1$ iff for each $w' \in \max(\leqslant_{o(x,w)}, \text{Dox}^+(x, w))$, $p(w') = 1$

A modification like this is available under the Heimian approach too.

However Philipps-Brown (2017) raises an issue.

(24) The Who are performing tonight, and Al's parents are deciding whether to take the long drive to the concert. Al knows that he'll see the concert only if he takes the drive, and he knows he'll see the concert if he takes the drive. Al loves The Who, but he gets very carsick, and the drive isn't at all worth it. Al begs his parents to not take the drive.
   a. Al wants to see the concert.
   b. Al doesn't want to take the long drive. (Philipps-Brown 2017)

According to the variable ordering source view, there's an ordering source that makes (24a) true. But the same ordering source will make (25) true.

(25) Al wants to take the drive.

4 Other Desire Predicates

4.1 *Hope*

Hope disallows unrealistic and totally realistic desires.

(26) #I hope that this weekend last forever.

(27) #I'm drunk, because I hope I am.

Anand & Hacquard (2013) argue that *hope*, unlike *want*, has doxastic meaning, and proposes something along the lines of Heim-von Fintel for *hope*.

Scheffler's (2008) observations (example from Anand & Hacquard 2013:6, 26):

(28) A: Is Peter coming?
   B: I hope he is.
   B': ?I want him to.

(29) It is raining.
   a. #I hope it is raining.
   b. I want it to be raining.

(30) It isn't raining.
   a. #I hope it is raining.
   b. I want it to be raining.

4.2 *Glad*

Heim (1992) takes *glad* to be the factive version of *want*, but *x is glad that p* presupposes that *x* believes that *p* (and that *p* is true).

(31) $[\![\text{glad}]\!]^w(p)(x)$
- a. presupposes: $p(w) = 1$ and $\text{Dox}(x, w) \subseteq p$
- b. $= 1$ iff for each $w' \in \text{Dox}(x, w)$, $\text{SIM}(w', \text{Dox}(x, w) \cap p) >_{x,w} \text{SIM}(w', \text{rev}_p(\text{Dox}(x, w)) \cap \neg p)$
  iff for each $w' \in \text{Dox}(x, w)$, $w' >_{x,w} \text{SIM}(w', \text{rev}_p(\text{Dox}(x, w)) \cap \neg p)$

(32) $\text{rev}_\phi(c)$, the revision of c for ϕ, is $\bigcup \{ c' \subseteq c \mid c' + \ulcorner\phi\urcorner \text{ is defined} \}$

(33) $$c + \ulcorner x \text{ is glad } \phi\urcorner = \left\{ w \in c \;\middle|\; \begin{array}{l} \text{for each } w' \in \text{Dox(x,w)}, \\ w' >_{x,w} \text{SIM}(w', \text{rev}_\phi(\text{Dox}(x, w)) + \ulcorner\neg\phi\urcorner) \end{array} \right\}$$

von Fintel (1999) discusses (34):

(34) $[\![\text{glad}]\!]^w(p)(x)$
- a. presupposes $\text{Dox}(x, w) \subseteq p$ and $\text{Dox}(x, w) \subseteq B$ and $B \cap p \neq \varnothing$ and $B - p \neq \varnothing$
- b. $= 1$ iff for each $w' \in \max(\leqslant_{\text{DES}(x,w)}, B)$, $p(w') = 1$

von Fintel (1999) mentions two possible ways to construct the modal base B:

1. Take $\text{Dox}(x, w)$ and add non-p-worlds that are most similar to w. Also add any worlds not already in $\text{Dox}(x, w)$ that are more similar to w than the most similar non-p-worlds.
2. Go back to a point where p not yet surely true. From that point on, go forward and collect all worlds that could have developed out of that situation.

(35) I'm glad that

But (35) doesn't require the actual world to be one of the maximally desired worlds.

(36) $[\![\text{glad}]\!]^w(p)(x)$
- a. presupposes $\text{Dox}(x, w) \subseteq p$ and $\text{Dox}(x, w) \subseteq B$ and $B \cap p \neq \varnothing$ and $B - p \neq \varnothing$
- b. $= 1$ iff $\text{Dox}(x, w) <_{\text{DES}(x,w)} (B - p)$

4.3 *Wish*

Heim (1992):

(37) $$c + \ulcorner x \text{ wish } \phi\urcorner = \left\{ w \in c \;\middle|\; \begin{array}{l} \text{for each } w' \in \text{Dox(x,w)}, \\ \text{SIM}(w', \text{rev}_\phi(\text{Dox}(x, w)) + \ulcorner\phi\urcorner) >_{x,w} \text{SIM}(w', \text{Dox}(x, w) + \ulcorner\neg\phi\urcorner) \end{array} \right\}$$

von Fintel (1999):

(38) $[\![\text{wish}]\!]^w(p)(x)$
- a. presupposes $\text{Dox}(x, w) \cap p = \varnothing$ and $\text{Dox}(x, w) \subseteq B$ and $B \cap p \neq \varnothing$ and $B - p \neq \varnothing$
- b. $= 1$ iff for each $w' \in \max(\leqslant_{\text{DES}(x,w)}, B)$, $p(w') = 1$

5 Focus Sensitivity

Villalta (2008), Harner (2016)

(39) John doesn't want to work at all over the weekend, but he needs to work in order to finish his project. Given the options of working on Saturday or on Sunday, he opts to work on Saturday

a. John wants to work on SATURDAY.
b. John wants to WORK on Saturday. (Harner 2016:5)

(39a) is true, (39b) is false.

References

Anand, Pranav & Valentine Hacquard. 2013. Epistemics and attitudes. *Semantics & Pragmatics* 6(8). 1–59.

Crnič, Luka. 2011. *Getting Even*: Massachusetts Institute of Technology Ph.D. dissertation.

Geurts, Bart. 1998. Presuppositions and anaphoras in attitude contexts. *Linguistics and Philosophy* 21(6). 545–601.

Geurts, Bart. 1999. *Presuppositions and Pronouns*. Amsterdam: Elsevier.

Harner, Hillary Jane. 2016. *Focus and the Semantics of Desire Predicates and Directive Verbs*: Georgetown University dissertation.

Heim, Irene. 1992. Presupposition projection and the semantics of attitude verbs. *Journal of Semantics* 9(3). 183–221.

Iatridou, Sabine. 2000. The grammatical ingredients of counterfactuality. *Linguistic Inquiry* 31(2). 231–270.

Philipps-Brown, Milo. 2017. I want to, but... In *Proceedings of Sinn und Bedeutung 21*, .

Scheffler, Tatjana. 2008. *Semantic Operators in Different Dimensions*: University of Pennsylvania dissertation.

Stalnaker, Robert C. 1984. *Inquiry*. Cambridge, MA: MIT Press.

Sudo, Yasutada. 2014. Presupposition satisfaction in attitude contexts. In Luka Crnič & Uli Sauerland (eds.), *The Art and Craft of Semantics: A Festschrift for Irene Heim*, vol. 2, 175–199. MITWPL.

Villalta, Elisabeth. 2008. Mood and gradability: an investigation of the subjunctive mood in Spanish. *Linguistics and Philosophy* 31(4). 467–522. doi:10.1007/s10988-008-9046-x.

von Fintel, Kai. 1999. NPI licensing, Strawson entailment, and context dependency. *Journal of Semantics* 16(2). 97–148. doi:10.1093/jos/16.2.97.

von Fintel, Kai & Sabine Iatridou. 2017. The Linguistics of Desire. Unpublished lecture notes, MIT.

Zimmermann, Thomas Ede. 2006. Monotonicity in opaque verbs. *Linguistics and Philosophy* 29(6). 715–761.