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DE RE ATTITUDE REPORTS ABOUT DISJUNCTIVE ATTITUDES

Introduction. Since (Kaplan, 1969) it has been assumed that the truth conditions (TCs) of a *de re* attitude report require there to be a concrete individual concept (IC) to which the attitude holder should assign a certain property. The bearers of such an individual concept could vary across the attitude holder's alternatives but the concept itself had to remain fixed. We bring new evidence from *de re* attitude reports about *disjunctive beliefs* that challenges this view and suggests that the TCs of a *de re* attitude report must allow for ICs to vary across attitude alternatives. We account for such reports in terms of a revised version of the theory of concept generators (CGs) proposed in (Percus & Sauerland, 2003) (P&S).

Novel Data. Consider the scenario in (1):

(1) Mary, the chair of the Linguistics Department of Santa Claus University, wants to hire a star. She wants to hire the best semanticist or the best syntactician. She is not specific and will be happy with either. Unbeknownst to her, John has recently received the best syntactician award as well as the best semanticist award.

Native speakers of English report that, in this scenario, we can say (2) to John:

(2) Mary wants to hire you!

The attitude report in (2) must be a *de re* report because the individual John is not part of the content of Mary's desire. She wants to hire John only from the speaker's point of view because it is in the actual world that the best semanticist and the best syntactician happen to be one person, namely John. Mary, of course, can believe otherwise. Her desire-alternatives can contain worlds in which one person is the best syntactician and another is the best semanticist. And only one of them is hired in such worlds.

Predictions of P&S. To capture the TCs of a *de re* attitude report and avoid the so-called *double-vision* problems (Quine, 1956), P&S introduce acquaintance-based CGs. The classical example of a *de re* report in (3)a gets the LF in (3)b and TCs in (3)c.

(3) a. Ralph believes that Ortcutt is a spy.

b. $[_S\ \lambda w$ Ralph $[_{VP}$ believes in w $[_{CP}\ \lambda G_{<e,se>}\ [_{CP}\ \lambda w'\ [_{CP}$ that $[_S\ [[$G Ortcutt$]$ w'$]\ [_{VP}$ is a spy in w'$]]]]]]]$

c. $\|(3)b\|^g$ = [λw . ∃G: G is a CG for Ralph in w & ∀w' ∈ Dox(Ralph)(w): [G(Ortcutt)](w') is a spy in w']

In other words, P&S require that there be a CG that applies to Ortcutt and returns an Ortcutt-concept for Ralph in w. And, in each of Ralph's doxastic alternatives, the bearer of that IC in that alternative is a spy.

We observe that in the context in (1) there is no acquaintance between the attitude holder and John, whereas P&S require the CGs to be acquaintance-based. Yet, it is a well-established fact that *de re* attitude reports do not have to assume an acquaintance between the attitude holder and the *res* (Aloni, 2001; Fodor, 1970; Sosa, 1970; Yalcin, 2014). So, in what follows, we will not treat the presence of an acquaintance as a necessary component of the interpretation of a *de re* attitude report.

For (2), P&S predict the following interpretation:

(4) $\|(2)\|^g$ = [λw. ∃G_1: G_1 is a CG for Mary in w & ∀w' ∈ Desire-Alt(Mary)(w): Mary hires in w' [G_1(you$_{John}$)](w')]

According to (4), the CG that the attitude verb introduces generates a particular IC when applied to John. But what could this IC be? Given Mary's disjunctive desire, it cannot be [*λw . ιx*(*x* is the best semanticist in *w*)] and it cannot be [*λw . ιx*(*x* is the best syntactician

in *w*)], because it is not the case that the best syntactician is hired in each of her desire alternatives. And neither is it the best semanticist. The IC [λw . ιx (*x* is the best semanticist in *w* and *x* is the best syntactician in *w*)] will not do either because it will be undefined in those of her desire alternatives where the best syntactician and the best semanticist are two different people. Finally, the IC [λw . ιx (*x* is the best semanticist in *w* or *x* is the best syntactician in *w*)] is also not suitable. Again, in those of Mary's desire-alternatives where the best semanticist and the best syntactician are two different people, this concept will be undefined because it will not be able to pick out a unique individual. There does not seem to be any other options. From this, we conclude that the system of P&S requires a modification.

Proposal. We'll get the TCs right if we can make sure that the IC [λw . ιx(*x* is the best semanticist in *w*)] is used in those alternatives where the best semanticist is hired and the IC [λw . ιx(*x* is the best syntactician in *w*)] is used in those alternatives where the best syntactician is hired. We thus need a system that will generate weaker TCs for (2) by giving us a (possibly different) John-concept in each of Mary's desire alternatives.

(5) Key idea: *Step 1*. Separate the following two components that are collapsed into one notion of a CG in P&S: (i) the component that generates the full set of John-concepts for Mary in w; (ii) a mechanism that chooses a concept from the generated set. *Step 2*. Let the choice of a concept from the set of concepts be new for each desire-alternative.

We substitute variables over CGs by variables over generators of concept sets (GCS), as defined in (6). Such functions will take an individual and return the full set of concepts of this individual for the attitude holder. We introduce variables over choice functions (CFs) of type $<<se,t>,se>$. A CF applies to a set of concepts and outputs one of them.

We need only one generator of sets of concepts for an attitude holder. Building on (Heim, 1982), we propose an existential closure over CF-variables that can freely apply at any clausal level. The semantics proposed for *want* is given in (7). The LF for (2) is given in (8). The resulting TCs are given in (9).

(6) Q is the generator of a concept set (GCS) for x in w iff Q is of type $<e,<se,t>>$ and, for all entities y, Q(y) is the set of y-concepts for x in w.

(7) $\|\text{want}\|^g = [\lambda w\,.\,\lambda P_{<<<e,<se,t>>,st>}\,.\,\lambda x\,.\,\forall w' \in \text{Desire-Alt}(x)(w)$:
$P([\iota Q\text{: Q is the GCS for } x \text{ in } w])(w')=1]$

(8) [$_S$ λw Mary [$_{VP}$ wants w [$_{CP}$ $\lambda G_{<e,<se,t>>}$ [λw' . [$_S$ $\exists f$: [$_S$ PRO [$_{VP}$ to hire in w' [[[G you] *f*] w']]]]]]]]

(9) $\|(8)\|^g$ = [λw. ∀w' ∈ Desire-Alt(Mary)(w): ∃*f*: Mary hires in w'
[*f* ([ιQ: Q is the GCS for Mary in w](you$_{John}$))](w')]

In this system, an existential closure over CF-variables is allowed either at the level of the embedded TP or at the matrix level. In (8), *f* is a variable over CFs that is existentially closed at the lower level. Thus, in each desire-world, a different CF might pick out a different concept for one and the same individual John. Consequently, the interpretation in (9) is weaker than the one in (4) and correctly captures the meaning of (2).

This system has an additional technical advantage. In order to account for cases like "John thinks that Clark Kent is not Superman", P&S require two CGs. So, attitude verbs must be able to potentially introduce infinitely many CGs and take complements of unlimited complexity (known as the *type flexibility* of attitude verbs (Charlow & Sharvit, 2014; Cresswell & Stechow, 1982)). This shortcoming is avoided in our system.