

Magdalena Schwager (Universität Göttingen, magdalena@schwager.at)

## Speaking of qualities

I argue that transparent but unspecific readings with opaque verbs (Fodor's 1970 reading 3) do not constitute an argument for free indexation of world variables. Instead, they should be analyzed as higher order *de re* readings (*de qualitate*).

**Problem:** Opaque verbs are well-known to allow for a specific-transparent (cf. (1a)) and an unspecific-opaque reading (cf. (1b)). The classical analysis explains this ambiguity in terms of scope of the indefinite (= existential quantifier) w.r.t. the opaque verb (Zimmermann 1993 for discussion). But there is a third reading (Fodor 1970, Bäuerle 1983) which cannot be explained in terms of scopal ambiguity - *hat like mine* is interpreted transparently (not part of John's intentions); yet, John's search is unspecific (he has no particular object in mind).

- (1) *John is looking for a hat like mine.*
- a.  $\exists >$  *look-for*: There is a particular hat like mine, such that John is looking for that particular object. *unspecific-opaque*
  - b. *look-for*  $>$   $\exists$ : John is looking for an arbitrary object that has the property of being the same sort of hat like mine. *specific-transparent*
  - c. *reading 3*: John is looking for a particular sort of hat. I happen to have a hat of that sort. John doesn't know anything about me and my hats. *unspecific-transparent*

Keshet (2008) adduces reading 3 as evidence for free indexation of world variables (refined as *split intensionality* without impact on my arguments). The indefinite receives narrow scope, but the noun phrase is interpreted transparently.

- (2) *John wants  $w$  [  $\lambda w'$  [ John [ buy  $w'$  [ a hat like mine  $w$  ] ] ] ]*

**Against free world variable indexation.** Keshet's proposal is problematic in at least two respects: First, the analysis fails if the property in question is uninstantiated in the actual world. Yet, in a scenario like (3a), we can report Mary's desires as in (3b).

- (3) a. Mary is looking at the Burj Dubai, which, unbeknownst to her, is currently the building with the most floors in the world. She is unaware of how many floors it actually has (in fact, 191 floors). Her desire is to buy a building that has at least one more floor than the building she is looking at.
- b. *Mary wants to buy a building with at least 192 floors.*

She has no specific building in mind (hence, unspecific), the exact number of floors is not part of her desire (hence, transparent), so this is an instance of reading 3. But free indexation of world variables does not help: given that there are no buildings with 192 floors in the actual world, her set of bouletic alternatives would result empty, contrary to intuitions. The second problem concerns the relation of epistemic and bouletic alternatives: two epistemically indistinguishable possibilities would normally be expected to fall on the same side of the desirable/non-desirable distinction. Yet, according to (2), John desires a singular proposition containing the actual world. Intuitively, we judge (1) true if my hat happens to be a red sox cap and, not knowing anything about me, buy some red sox cap or other is what John wants. Nevertheless, two worlds  $w'$  and  $w''$  which differ only in respect to which particular red sox cap (call them  $a'$  and  $a''$ ) John buys may be such that  $w'$  is a bouletic alternative, but  $w''$  is not. Just assume that in the actual world  $a'$  (or, its counterpart) is a red sox cap, and  $a''$  (or, its counterpart) is not. The aporia of the scopal analysis as well as the counterintuitive predictions of

the free world variable indexation (but also the argument in its favor) vanish if we treat reading 3 as an attitude report *de qualitate*. Of course, this does not invalidate free indexation of world variables in general (cf. Percus 2000, Keshet 2008 for other, more convincing examples).

**Alternative analysis as *de qualitate*.** von Stechow & Cresswell (1982) propose an analysis of *de re* in terms of structured meanings that extends to cases where the *res* is of more abstract nature, e.g. a property. Spelling out a detail about their analysis reveals an interesting difference between individual-*de re* and *de qualitate*. Consider (4a), which supports (4b). von Stechow & Cresswell's analysis amounts to something like (4c). They suggest to follow Kaplan in requiring a suitable, unique, identifier  $\xi$  for the respective *res*.

- (4) a. A murder has occurred, people from the left side of the building might have seen it. Detective Chief Superintendent Foyle decides: 'I want to talk to someone from the left side of the building.' Unbeknownst to him, all offices in the left wing belong to the English department.
- b. *Foyle wants to interrogate a person from the English department.*
- c. at all of Foyle's bouletic alternatives, the property ' $\lambda w \lambda Q_{\langle s, \langle e, t \rangle \rangle} . \exists x [\text{Foyle interrogates } x \ \& \ Q(x)]$ ' applies to the property ' $\lambda w \lambda x . x$  belongs to the English department in  $w$ ', which is given to Foyle by a suitable  $\xi$

But actually, *de re* and *de qualitate* differ with respect to the presence of such a unique identifier  $\xi$ . For (3b), we can adopt ' $\lambda w . \iota Q [Q = \lambda w' \lambda x . x \text{ has one more floor in } w']$ ' as that building has in  $w$ ', which in the actual world uniquely identifies the property ' $\lambda w \lambda x . x$  has at least 192 floors'. No such identifier can be found for Foyle's case: the property he has in mind, namely ' $\lambda w \lambda x . x$  works in the left wing of the building in  $w$ ' cannot be used to construe a suitable  $\xi$  that, at the actual world, would uniquely identify the property ' $\lambda w \lambda x . x$  works in the English department in  $w$ '. On closer inspection, the role of implicit identifier  $\xi$  and reporting property are reversed: the nominal used in the sentence is a means to supply information about a *qualitas* that the attitude is directed to. This *qualitas* may even have an empty extension at the actual world. Therefore, the relation between reporting property and property of interest to the attitude subject can not always be established at the actual world. Instead, I argue that it is established at the closest possible world where the intended property is non-empty (for simplicity, assumed to be unique; as usually, each world is closest to itself). As an equivalent to a Kaplanian analysis of individual-*de re*, for *de qualitate* we get something like (5). Conforming to speaker intuitions, the reporting property may even be a superset of the attitude property.

- (5)  $\lambda w . \exists Q [\text{at the } w\text{-closest world } w' \text{ s.t. } Q(w') \neq \emptyset [Q(w') \subseteq \{y \mid y \text{ works in the English department in } w'\}] \ \& \ \text{want}_w(\text{Foyle}, \lambda w'' . \exists x [Q_{w''}(x) \ \& \ \text{Foyle interrogates } x \text{ in } w''])]$

The expression used by the speaker is just a means to give some information about what the attitude subject is really interested in. Which expression is chosen depends on the current task of the conversation. The analysis as developed so far opens up two challenges: (i) what pragmatic principles govern which property is a good reporting property?; (ii) how does it relate to a theory of individual *de re* and principles at work there (e.g. Aloni 2005).

**Ref.: Aloni** (2005) A Formal Treatment of the Pragmatics of Questions and Attitudes, *L&P*. **Bäuerle** (1983) Pragmasemantische Aspekte der NP-Interpretation. In Faust & al.; Narr. **Fodor** (1970) *The linguistic description of opaque contexts*. PhD thesis, MIT. **Kaplan** (1969) Quantifying in. In Davidson et al., Reidel. **Keshet** (2008) *Good intensions: Paving two roads to a theory of the De Re/De Dicto Distinction*. PhD thesis, MIT. **Percus** (2000) Constraints on some other variables in syntax, *NLS*. **von Stechow & Cresswell** (1982) *De re* belief generalized, *L&P*. **Zimmermann** (1993) On the proper treatment of opacity in certain verbs, *NLS*.