Propositions and rigidity in Layered DRT

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Layered DRT is an extension of DRT designed to account for the interaction of various kinds of information that can be conveyed by a discourse, by keeping them apart and distributing the information over separate *layers* of the same LDRS. The syntax of LDRT simply pairs every condition and marker with a layer label; a.o. there are labels for implicated material (*i*), *assserted* or *Fregean* truthconditional content (*f*), contextually given or situational content (*s*), presuppositions (*p*), and layers representing formal properties of the discourse, like word order and gender features.

An example:

(1) a. Maybe Sam is right

b. $[\ x_s : \mathrm{Sam}_s(x), \Diamond_f[\ : \mathrm{right}_f(\mathrm{x})\ ], \neg_i\Box_i[\ : \mathrm{right}_i(x)\ ]\ ]$

In this example the proper name is interpreted as representing information already given in the context, the actual asserted content is represented by the first subLDRS labeled *f*, the second subLDRS represents the implicature that Sam is not necessarily right.

The semantics of LDRT relativizes the notion of truth to *truth with respect to a set of layers*, e.g. $M \models_{s,f,i}$(1b) iff there is someone called "Sam" who is possibly but not necessarily right. In a modal semantics we can now also define *L*-contents, i.e. the set of worlds in which we can truthfully embed the LDRS with respect to a set of layers *L*, e.g. $\|(1b)\|_{s,f}$. Unfortunately, more often than not a set of layers doesn't combine to make a well-formed LDRS but rather expresses an *open proposition*, as, for example, does the *f* layer of (1b). We will give a two dimensional Kaplanian semantics in order to account for propositions like $\|(1b)\|_f$. The idea is to select a second set of layers to represent material that is backgrounded or contextual (in this case just the *s* layer of the current LDRS, but e.g. The layer for accommodated presuppositions or even a whole earlier LDRS, representing the interpretation background, will be useful in other examples). Evaluating these background layers at a the Kaplanian context parameter will allow us to construct an *external anchor*[1] against which we

1 The idea of using anchors to emulate Kaplan in DRT is considered (and rejected) by Zeevat (1999).

can then evaluate the desired "open" layers of our LDRS.

In this way we will also do justice to the rigidity of proper names and indexicals by evaluating their descriptive content (represented at the *s* layer) with respect to the context in determining $\|(1b)\|_f^s$, the Fregean content, i.e. the proposition that *x* is right, given a contextually identified individual *x* called "Sam".[2]

Our incorporation of Kaplanian semantics also allows us to counter the Kripkean/Kaplanian argument that has been raised against other treatments of directly referential expressions in DRT, by Zeevat (1999) and by Abbott (2002) arguing against Geurts' (1997,2002) presuppositional/DRT analysis of proper names. The point is that we can assign different truth conditions (in the sense of *f* contents) to (2a) and (2c), as is shown by their respective LDRS representations (2b) and (2d).

(2) a. You are an addressee

b. $[\ x_s : \text{addressee}_s(x), \text{addressee}_f(x)\ ]$

c. The addressee is an addressee

d. $[\ x_f : \text{addressee}_f(x), \text{addressee}_f(x)\ ]$

So, although $\|(2b)\|_{s,f}=\|(2d)\|_{s,f}$, we will see that, at least for the *non-referential* reading of the description in (2c), at every utterance context *c*; $\|(2b)\|_f^c \neq \|(2d)\|_f^c$ because only (2d) expresses a trivially true proposition.

References

Abbott, Barbara. 2002. Definiteness and proper names: Some bad news for the Description Theory. *Journal of Semantics* 19. 191—201.

Geurts, Bart. 1997. Good news about the description theory of names. *Journal of Semantics* 14. 319—348.

Geurts, Bart. 2002. Bad news for anyone? A reply to Abbott. *Journal of Semantics* 19. 203—207.

Kaplan, David. 1989. Demonstratives: an essay on the semantics, logic, metaphysics, and epistemology of demonstratives and other indexicals. In *Themes from Kaplan*, ed. by Joseph Almog, John Perry, Howard Wettstein, 481--563. Oxford: Oxford University Press.

Zeevat, Henk. 1999. Demonstratives in discourse. *Journal of Semantics* 16. 279—313.

2 In Kaplan's (1989) terms this *f* proposition expressed by (1a) is the proposition that *dthat(the person called `Sam')* is right.