UConn Logic Group
Yael Sharvit

October 8th, 2010

Pronouns in Attitude Reports

(based loosely on Chierchia, G. 1989, 'Anaphora and Attitudes *De Se*')

Central question: Can the semantics of attitudes *de se* be reduced to the semantics of ordinary (i.e., non *de se*) attitude reports? Or are there special ways in which relations towards "self" are grammaticized?
Chierchia's answer: There is linguistic evidence supporting the view that attitudes *de se* cannot always be reduced to ordinary attitudes. This lends support to the view (e.g., Lewis 1979) that properties (rather than propositions) are the objects of attitudes towards oneself.

1. Why doubt that the object of *believe* is a proposition?

The salient perceived reading of (1) seems to be (2), not (3).

(1) Heimson believes that he is Hume.
(2) Heimson: "I am Hume" — *believe*(H, [λx. x is Hume])
(3) Heimson: "Heimson is Hume" — *believe*(H, 'Heimson is Hume')

Does this mean that (1) has a grammar-generated reading where *believe* is property-taking?
Chierchia's answer:

(i) (1) can be analyzed using a proposition-taking *believe*; but
(ii) other cases cannot be analyzed using a proposition-taking *believe*; therefore
(iii) *believe* is indeed property-taking.

2. What is a grammar-generated reading?

(4) Every man loves some woman.
True in the following situations:
a. when each man loves a different woman. ∀>∃
b. when all the men love the same woman. ∃>∀

We might want to say that (4) has two grammar-generated readings.

(5) a. [*every man*]$_1$ [[*some woman*]$_2$ [t_1 *loves* t_2]]
b. [*some woman*]$_2$ [[*every man*]$_1$ [t_1 *loves* t_2]]

But since the ∃>∀ perceived reading (essentially, the ∃>∀ truth conditions) is a special case of the ∀>∃ perceived reading (obtained from the grammar-generated (5a)), it has been suggested that the grammar doesn't generate (5b) at all. On the other hand, it seems that both (7a) and (7b) are generated for (6).

(6) Pavarotti believes that some student is a musical genius.

(7) a. *Pavarotti* [*believes* [*some student is a musical genius*]]
b. [*some student*]$_1$ [*Pavarotti* [*believes* [t_1 *is a musical genius*]]]

What is the relevance of this to (1)? (1) is like (4) in the sense that its perceived *de se* reading can be argued to be a special case of its perceived *de re* reading. (9) illustrates the same point.

(8) Heimson believes that he is Hume.
a. Heimson: "I am Hume" *de se*
b. Heimson: "This guy is Hume" *de re*

(9) Pavarotti believes that his pants are on fire.
a. Pavarotti: "My pants are on fire." *de se*
b. Pavarotti: "This guy's pants are on fire." *de re*

But there are also reasons to say that like (6), (1) has two grammar-generated readings.

3. The two grammar-generated readings approach to (1)/(8) - (9)

3.1. Bound and free pronouns

(10) a. Only John likes his brother.
b. Bound reading: {x: x likes x's brother} = {John}
c. Free reading: {x: x likes y's brother} = {John} (and it is possible that y = John)

(11) $[\![\alpha_j]\!]^g = g(j))$ (α is a pronoun or a trace)

(12) $[\![Op_j\ \beta]\!]^g = [\lambda Z.\ [\![\beta]\!]^{g[j \rightarrow Z]}]$

(13) a. [*only John* [Op_2 [t_2 [*likes* w_0] [*his*$_2$ [*brother* w_0]]]]]
$[\![\ Op_2\ [t_2\ [likes\ w_0]\ [his_2\ [brother\ w_0]]]\ ]\!]^g$ = [λx . x likes in @ x's brother in @]
b. [*only John* [Op_2 [t_2 [*likes* w_0] [*his*$_3$ [*brother* w_0]]]]]
$[\![\ Op_2\ [t_2\ [likes\ w_0]\ [his_2\ [brother\ w_0]]]\ ]\!]^g$ = [λx . x likes in @ $[\![he_3]\!]^g$'s brother in @]

3.2. Property-taking *believe*

First attempt

(14) $[\![believe^{se}]\!](w)(p^{<s,<e,t>>})(x) = 1$ iff x self-ascribes p in w.

(15) a. [*Pavarotti* [*believes*^{se} w_0] [Op_1 [Op_2 [[*his*$_2$ [*pants* w_1]] [*are-on-fire* w_1]]]]]
Self-ascribed property: [λw. λx. x's pants in w are on fire in w]
b. [*Pavarotti* [*believes*^{se} w_0] [Op_1 [Op_2 [[*his*$_3$ [*pants* w_1]] [*are-on-fire* w_1]]]]]
Self-ascribed property: [λw. λx. ($[\![he_3]\!]^g$)'s pants in w are on fire in w]

Not good enough:

(16) Ralph believes that Ortcutt is a spy; at the same time, he believes that Ortcutt is not a spy.

Second attempt (Percus & Sauerland 2003)

(17) $[\![believe^{se}]\!](w)(p^{<<e,<s,e>>,\ <s,<e,t>>>})(x) = 1$ iff there is a suitable concept-generator G for x in w such that x self-ascribes p(G) in w.

(18) A function G from individuals to individual-concepts is a suitable **concept-generator** for individual x in world w iff: for all $z \in Dom(G)$, there is some acquaintance-based R such that: (i) $R_w(x, z)$ and no $y \neq z$ is such that $R_w(x, y)$; and (ii) and for all $<w',x'> \in Dox_{x,w}$, $R_{w'}(x', G(z)(w'))$ and no $y \neq G(z)(w')$ is such that $R_{w'}(x', y)$.

(19) [*Ralph* [*believes*^{se} w_0] [Op_9 [Op_1 [Op_2 [[[H_9 *Ortcutt*] w_1] [*SPY* w_1]]]]]]
Self-ascribed property, for some suitable G: [λw. λx. G(Ortcutt)(w) is a spy in w]

(20) a. [*Pavarotti* [*believes*^{se} w_0] [Op_9 [Op_1 [Op_2 [[*his*$_2$ [*pants* w_1]] [*are-on-fire* w_1]]]]]]
Self-ascribed property (for some suitable G):
[λw. λx. x's pants in w are on fire in w]

b. [*Pavarotti* [*believes*^{se} w_0] [Op_9 [Op_1 [Op_2 [[[[H_9 *his*$_3$] w_1] [*pants* w_1]] [*are-on-fire* w_1]]]]]]
Self-ascribed property, for some suitable G:
[λw. λx. G($[\![he_3]\!]^g$)(w)'s pants in w are on fire in w]

(21) a. [*Heimson* [*believes*^{se} w_0] [Op_9 [Op_1 [Op_2 [*he*$_2$ [*is* w_1] *Hume*]]]]]
b. [*Heimson* [*believes*^{se} w_0] [Op_9 [Op_1 [Op_2 [[[H_9 *he*$_3$] w_1] [*is* w_1] *Hume*]]]]]

On this view, a *de se* pronoun is a pronoun that is bound by *Op*, where *Op* is "introduced" by an attitude verb.

4. The single grammar-generated reading approach to (1)/(8) - (9)

Importantly: (20a) is a special case of (20b); same for (21a) and (21b). (Why?)

Following the reasoning underlying the single grammar-generated reading approach to *Every man loves a woman*, we can say that only (20b) and (21b) are generated by the grammar. Moreover, we can even replace *believe*^{se} with *believe*$^{non\text{-}se}$ (i.e., dispense with property-taking *believe*) and say that only (22) and (23) are generated by the grammar.

(22) [*Pavarotti* [*believes*$^{non\text{-}se}$ w_0] [Op_9 [Op_1 [[[[H_9 *his*$_3$] w_1] [*pants* w_1]] [*are-on-fire* w_1]]]]]
(23) [*Heimson* [*believes*$^{non\text{-}se}$ w_0] [Op_9 [Op_1 [[[H_9 *he*$_3$] w_1] [*is* w_1] *Hume*]]]]

On this view, a *de se* pronoun is a *de re* pronoun (i.e., an argument of a concept-generator), whose concept-generator happens to be based on the identity relation.

5. Empirical arguments for the two-readings approach

The *PRO*-argument (Chierchia's argument)

(24) a. John expects to win. Unambiguous
b. John expects that he will win. Ambiguous

Chierchia: (i) *to win* has a pronominal subject – *PRO*; (ii) *PRO* is an inherent 'de se' pronoun.

The *only*-argument (Percus & Sauerland 2003)

(25) a. Only Pavarotti believes that his pants are on fire.
b. Pavarotti: "My pants are on fire."
Domingo (pointing at his own reflection): "This guy's pants are on fire."
Caruso (pointing at Pavarotti's reflection): "This guy's pants are on fire."

According to P&S, (25a) is judged true in the scenario described in (25b). This shows that the grammar generates (26).

(26) [*only P.* [Op_3 [t_3 [*believes*^{se} w_0] [Op_9 [Op_1 [Op_2 [[*his*$_2$ [*pants* w_1]] [*are-on-fire* w_1]]]]]]]]
{x: x self-ascribes in @ [λw. λy. y's pants in w are on fire in w]} = {Pavarotti}

(27) [*only P.* [Op_3 [t_3 [*believes*$^{non\text{-}se}$ w_0] [Op_9 [Op_1 [[[[H_9 *his*$_3$] w_1] [*pants* w_1]] [*are-on-fire* w_1]]]]]]]
{x: x believes in @, for some suitable G: [λw. G(x)(w)'s pants in w are on fire in w]} = {Pavarotti}

(28) [*only P.* [Op_3 [t_3 [*believes*$^{non\text{-}se}$ w_0] [Op_9 [Op_1 [[[[H_9 *his*$_4$] w_1] [*pants* w_1]] [*are-on-fire* w_1]]]]]]]
{x: x believes in @, for some suitable G: [λw. G($[\![he_4]\!]^g$)(w)'s pants in w are on fire in w]} = {Pavarotti}

Anand (2006): What if the set of contextually relevant concept-generators is very small?

The argument from De Re Blocking (Percus & Sauerland 2003, Anand 2006)

(29) John dreamed that he was Jesus and he forgave his mother.
a. In the dream: Jesus forgives Jesus's mother. √
b. In the dream: Jesus forgives John's mother. √
c. In the dream: John forgives John's mother. √
d. In the dream: John forgives Jesus's mother. ×