## Attitudes de se and 'nearly free' control

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Data Jackendoff & Culicover (2003) note a type of control pattern which they call nearly free control, exemplified in (1). (I use PRO here to indicate the understood subject of the complement just for an expository purpose.) In this type of control, unlike obligatory control as in (2), any NP in the local clause is allowed to be a controller. In addition, a split or a generic controller is allowed, as seen in (1a). However, unlike arbitrary control in (3), nearly free control does not allow any NP outside the local clause, the speaker or the hearer, to be the controller, as shown in (1b-1d). Furthermore, importantly, the verbs whose complements show the nearly free control pattern are restricted to verbs of communication or thought, such as talk to NP, speak to NP, discuss, mention or think etc. Note that no purely syntactic feature is characteristic of this type of control; the predicate need not take *about*-PP complements (cf., e.g., *discuss*, *mention*) in nearly free control, and there are cases where gerunds show obligatory control (e.g, finish V-ing).

- (1)
- a. John<sub>i</sub> talked to Sarah<sub>j</sub> about  $PRO_{i/j/i+j/gen}$  undressing himself<sub>i</sub>/herself<sub>j</sub>/themselves<sub>i+j</sub>/oneself<sub>gen</sub> in public.
  - b. \*Amy<sub>k</sub> knows that John<sub>i</sub> talked to Bill<sub>i</sub> about PRO<sub>k</sub> undressing herself<sub>k</sub> in public.
  - c. \*Amy's<sub>k</sub> strange behavior has been a concern of everybody. John talked to Bill about  $PRO_k$  undressing herself\_k in public.
  - d. \*John talked to Sarah about  $PRO_{i/j}$  undressing myself<sub>i</sub>/yourself<sub>j</sub> in public.
- John<sub>i</sub> persuaded Mary<sub>i</sub> to take better care of  $PRO_{*_{i/i}}$  \*himself<sub>i</sub>/herself<sub>j</sub>. (2)
- (3) a. Amy<sub>i</sub> knows that  $PRO_i$  undressing herself<sub>i</sub> in public could cause a scandal.
  - b. Amy's<sub>k</sub> strange behavior has been a concern of everybody. Apparently,  $PRO_k$  undressing herself $_k$  in public has caused a serious scandal.
  - c. Apparently,  $PRO_{i/i}$  undressing myself<sub>i</sub>/yourself<sub>i</sub> in public could cause a scandal.

Previously, there has been no account of nearly free control. The goal of this paper is to propose an account of this phenomenon in terms of attitude de se report (Lewis 1979).

Analysis It has been noted in the literature (e.g., Morgan 1970, Chierchia 1989) that an individual is interpreted as having an attitude *de se* to a property if and only if an attitude relation holds between the individual and the property (I refer to this interpretation as de se interpretation). With two place attitude predicates, this involves the individual's ascribing the property denoted by the infinitive to him/herself, assuming the property analysis of control, but the notion naturally generalizes to three place attitude relations as well. That is, in the case of three place attitude relations such as *promise* or *persuade*, the agent of the attitude relation must be understood as ascribing the property to either him/herself, or to the 'second person' of the attitude relation. (I refer to the ascription of property to the second person also as attitude de se although it is not what the term traditionally means.) Thus, sentences John promised Mary to leave and John persuaded Mary to leave must be interpreted, respectively, as reporting John's uttering to Mary 'I will leave' using the first person pronoun and 'You should leave' using the second person pronoun. This requirement for de se interpretation of three place attitude relations can be stated as in (4), following the Kaplanian two-dimensional formulation of de se report in Schlenker (to appear), where context is a tuple consisting of a world, the first person and the second person. (I ignore tense here.)

 $(4) \forall w \forall R \in D_{\langle s, \langle \langle s, et \rangle, \langle e, et \rangle \rangle \rangle} \forall P \in D_{\langle s, et \rangle} \forall x \forall y [R(w)(P)(y)(x) \leftrightarrow \forall c' \in C^{R}(\langle x, y, w \rangle) [P(c'_{w})(\mathbf{f}_{R}(c'))]]$ 

(where  $C^{\mathbb{R}}(\langle x, y, w \rangle)$ ) is the set of contexts compatible with x's attitude R in w, with y as the second person,  $c_w$  is the world of the context c, and  $\mathbf{f}_R$  is a function from a context to some individual participant(s) of the context)

Here, the function  $\mathbf{f}_R$  maps a context to some individual participant(s) of the context specified by R. For example,  $\mathbf{f}_{\text{promise}}$  and  $\mathbf{f}_{\text{persuade}}$  map a context to the first person and the second person of the context, respectively. These functions play the same roles as the meaning postulates specifying the argument oriented entailments of obligatory control verbs in the traditional property analysis of control (e.g., Chierchia 1984, Dowty 1985). Thus, the target of property ascription is lexically specified by each attitude predicate in the case of obligatory control; it is specified by the lexical semantics of *persuade* that no one other than the second person of the persuasion context, the 'persuadee', is the one to whom the property is to be ascribed.

Now, let's move on to the analysis of nearly free control in terms of *de se* interpretation. First of all, in the case of nearly free control, *de se* interpretation is empirically obligatory. For example, *John talked to Mary about undressing* is unacceptable to describe a situation where John talked to Mary about somebody's undressing, which he has known from a newspaper article, without realizing that he himself is the man (even though, in this case, the understood subject of the complement is coreferential with the matrix subject). This obligatoriness of *de se* interpretation is expected since the principle in (4) holds also in the case where *R* is the relation denoted by verbs appearing in nearly free control constructions, verbs of communication or thought, which involve attitude relations between individuals and intensional properties.

But what is the value of  $\mathbf{f}_R$  in the case of verbs of communication such as *talk to*? In other words, to whom do the predicates such as *talk to* specify that the intensional property be ascribed? In this regard, I argue that verbs of communication or thought appearing in nearly free control are underspecified as to whom the property is to be ascribed to. That is, either the first person or the second person, as well as the group consisting of them, can be the target of property ascription. Thus, predicates such as *talk to* can be either interpreted as a subject control verb like *promise*, or an object control verb like *persuade*. This point can be conceptually supported as follows: in the cases of obligatory control predicates such as persuade, it is inherent in the lexical semantics of the predicate that a particular participant of the described event must be the understood subject of the complement. This lexical semantics of the obligatory control predicates determines the value of  $\mathbf{f}_{R}$ . However, in the cases of *talk to* or *speak to*, there is no inherent connection between a participant of the described communication and the understood subject of the communicated content. Rather, communications described by these predicates may involve either expression of an attitude of the self, attribution of an attitude to other participants of the communication event, or a construction of a common attitude, depending on the general pragmatic context (in the non-Kaplanian sense). Therefore, any participant of the communication context as well as the group consisting of them can be a candidate for the target of attitude ascription, i.e., the controller, in the case of nearly free control constructions.

This point, together with the principle (4), accounts for the possibility of any NP in the local clause of nearly free control constructions to be the controller. Moreover, the obligatoriness of *de se* interpretation in nearly free control constructions accounts for the impossibility of NPs outside the local clause to be a controller. This is because, if any NP outside the local clause were taken as the controller, no participant of the communication would be ascribed the property denoted by the complement, hence violating the requirement for *de se* interpretation in (4).

The case of generic controllers is accounted for by generalizing the notion of *de se* interpretation to include cases where the agent ascribes the property to generic individuals 'as if' to the agent him/herself, an extension independently motivated by considerations of interpretation of generic controllers by Moltmann (2006). That is, generic controller is possible in nearly free control constructions because the agent can be interpreted as ascribing the property to generic individuals into whom he/she can project him/herself, as an extension of *de se* ascription.

**Conclusion** Nearly free control is more restricted than arbitrary control because of the obligatoriness of *de se* interpretation coming from a general principle in (4), which governs the interpretation of attitude relations between individuals and properties. On the other hand, nearly free control is less restricted than obligatory control because the predicates appearing in this type of control lack (or are underspecified as to) the argument oriented entailments associated with their lexical semantics, unlike in the case of obligatory control verbs.

Selected References Chierchia, G. 1989. Anaphora and attitudes *de se*. In R. Bartsch et al. eds., *Semantics and Contextual Expression*. Jackendoff, R. & P. Culicover. 2003. The semantic basis of control in English. *Language* 79. Moltmann, F. 2006. Generic *one*, arbitrary PRO, and the first person. *NALS* 14. Morgan, J. 1970. On the criterion of identity for Noun Phrase deletion. *CLS* 6. Schlenker, P. to appear. Indexicality and De Se reports. In C. Maienborn et al. eds., *Semantics: An International Handbook of Natural Language Meaning*.