

## Variable Binding meets the Person-Case Constraint

**Background.** The Coreference Rule (Reinhart 1983) favors binding over coreference under identical truth conditions. In combination with Principle B, it helps rule out sentences like *Dave shaved him* where *Dave* and *him* refer to the same individual:

- (1) a. Dave<sub>i</sub> shaved him<sub>i</sub> (\* by Coreference Rule)
- b. Dave λ<sub>i</sub> [t<sub>i</sub> shaved him<sub>i</sub>] (\* by Principle B)
- c. Dave λ<sub>i</sub> [t<sub>i</sub> shaved himself<sub>i</sub>] (OK)

The illustration of the Coreference Rule in (1) assumes that the grammar actually entertains representations like (1a). One environment where similar accidental coreference representations might play a role is in generating strict readings in ellipsis and cases like *Only Dave admires his car*. However, recent semantically oriented work on binding has noted that appealing to accidental coreference to generate strict readings does not sit well with other results that point towards a preference for local binding (see Fox 2000, Buring 2005). We propose taking the local binding facts seriously and assuming that there are simply no representations like (1a). The strict readings must then also be based on representations like (1b). In this paper, we provide evidence for this picture by looking at a non-local cousin of Principle B. The core facts that we start from were originally pointed out for Spanish by Roca (1992) and more recently by Ormazabal & Romero (2007:327).

- (2) a. Mateo<sub>i</sub> piensa que lo<sub>i</sub> entregaste a la policía  
      Mateo thinks that him:ACC handed:SUBJ:2SG to the police  
      ‘Mateo thinks that you handed him over to the police.’
- b. Mateo<sub>i</sub> piensa que se lo<sub>\*i/j</sub> entregaste a la policía  
      Mateo thinks that 3DAT him:ACC handed:SUBJ:2SG to the police  
      ‘Mateo thinks that you handed him over to the police.’

Direct object (DO) clitics can be bound by the matrix subject in (2a). However, when the DO clitic co-occurs with an indirect object (IO) clitic, as in (2b), the coreference is blocked. In our preliminary survey, we have found the Clitic Binding Restriction (henceforth CBR) to also hold in Bulgarian, Catalan, Czech, Serbian, and Slovenian. Below, we use examples from Czech.

**Some properties of the CBR.** It holds only if variable binding is an option. When the potential binder does not c-command the variable, variable binding is blocked and the CBR obviated.

- (3) Ten člověk, co Petra<sub>i</sub> ošidil, říkal, že jí ho<sub>i</sub> představil.  
      the person that Petr:ACC tricked said that her:DAT him:ACC introduced  
      ‘The person that tricked Petr said that he introduced him to her.’

It is well-known that one cannot bind into an appositive relative clause and indeed in such environment the CBR is obviated (as opposed to the situation in restrictive relatives).

- (4) a. Marie<sub>i</sub> o tom mluvila s Karlem, který mu ji<sub>i</sub> posléze představil.  
      Marie about it spoke with Karel who him:DAT her:ACC after.that introduced  
      ‘Mary spoke about it with Karel, who introduced her to him after that.’
- b. Karel<sub>i</sub> potkal tu dívku, která jí ho<sub>\*i/j</sub> představila.  
      Karel met the girl who her:DAT him:ACC introduced  
      ‘Karel met the girl who introduced him to her.’

What (4b) further shows is that the CBR is not limited to complements of attitude verbs. With attitude verbs, a further asymmetry comes up if we consider non *de se* interpretations. Normally the complement clause is interpreted as a *de se* attitude. But if we set up a non *de se* context where

the matrix subject has lost her memory and does not realize that she is making a claim about herself, then the CBR is obviated for most speakers.

- (5) Marie<sub>i</sub> pořád ještě věří, že **mu** **ji**<sup>\*de se/non de se</sup> doporučí.  
 Marie still believes that him:DAT her:ACC recommend.  
 ‘Marie still believes that they will recommend her to him.’

In effect, we arrive at a binding pattern which is parallel to (1), except that it is not local and there is no remedy in the form of a non-local reflexive.

**Proposal.** We follow Ormazabal & Romero (2007) in relating the impossibility of coreference in (2b) to the PCC (Bonet 1991, 1994, Anagnostopoulou 2003, 2005).

- (6) **Strong PCC:** When an IO clitic and a DO clitic co-occur, the DO must be 3rd person.  
*allowed IO DO combinations:* 13, 23, 33; *disallowed:* 12, 21, 31, 32

A core idea behind our proposal and one that we share with a number of approaches to the PCC (Anagnostopoulou 2003, 2005, Adger & Harbour 2007, Heck & Richards 2007) is that 3rd person pronouns come in two forms—a featurally more specified variant and a featurally underspecified variant. Abstracting across a number of approaches, the PCC requires the DO to be featurally underspecified. This blocks 1st and 2nd pronouns and the featurally specified (bound) variant of the 3rd person pronoun from appearing as a DO in an IO-DO cluster.

The second component of our proposal is that variable binding involves feature transmission (cf. Kratzer 2009). This is a point that is made most strikingly by bound 1st/2nd person pronouns.

- (7) Only I  $\lambda_i$  [ $t_i$  did my<sub>i</sub> homework on time]

We assume that the feature transmission witnessed in (7) also takes places with 3rd person pronouns. While 3rd person pronouns are featurally underspecified by default, they may acquire features as a result of variable binding. Feature transmission is the syntactic analogue of variable binding.

Now we can provide an explanation for the CBR. In a PCC context, the DO must be featurally underspecified. Note that feature underspecification does not block the DO from referring to individuals in the discourse. However if a DO in a PCC context gets bound, then it obligatorily inherits features from its binder. This means that it is no longer featurally underspecified, which in turn leads to a PCC (CBR) violation. The ban against accidental coreference (with potential binders) does some work for us here. If the DO clitic could refer directly to the matrix subject (as in (1a)) via accidental coreference, the CBR would be voided.

**Theoretical implications.** 1. Unlike standard Principle B effects, the CBR does not seem amenable to a competition based account. There is no obvious competitor and yet binding is blocked. 2. Our particular analysis of the CBR provides strong support for the syntactic underpinnings of variable bindings, in particular the proposal that semantic binding requires the copying of possibly abstract syntactic features.

**Selected References:** Adger, D. and D. Harbour. 2007. Syntax and syncretisms of the person case constraint. *Syntax* 10:2-37. Anagnostopoulou, E. 2005. Strong and weak person restrictions: A feature checking analysis. In *Clitic and affix combinations: Theoretical perspectives*. John Benjamins. Bonet, E. 1994. Person-case constraint: A morphological approach. In *MITWPL 22*. Büring, D. 2005. Bound to bind. *LI* 36:259-274. Fox, D. 2000. *Economy and semantic interpretation*. MIT Press. Heck, F. and M. Richards. 2007. A probe-goal approach to agreement and incorporation restrictions in Southern Tiwa. In *1 2 many: One-to-many relations in grammar*. Leipzig. Kratzer, A. 2009. Making a pronoun: Fake indexicals as windows into the properties of pronouns. *LI* 40:187-237. Ormazabal, J. and J. Romero. 2007. The object agreement constraint. *NLLT* 25:315-347. Reinhart, T. 1983. *Anaphora and semantic interpretation*. University of Chicago Press.