Case matching in free relative clauses and the underdetermined labeling algorithm

Yosuke Sato
National University of Singapore
ellys@nus.edu.sg

1. Chomsky's (2008) Underdetermined Labeling Algorithm

It is commonly assumed in the generative theory of phrase structure (e.g., Chomsky 1995) that two conditions in (1a) and (1b) govern the labeling of syntactic objects. (LI in (1a) stands for lexical item.)

(1)a.   In {H, α}, H an LI, H is the label.
   b.   If α is internally merged to β, forming {α, β}, then the label of β is the label of {α, β}.
                                                                        (Chomsky 2008: 145)

However, there are a few scenarios in which these two conditions yield a conflicting result in the determination of a label for a complex object. One such case concerns the step of the syntactic derivation at which α, itself an LI, is internally merged to β. (1b) requires that the target of the movement (namely,β) project its label while (1a) dictates that the label of the moving head (namely, α) project. Chomsky (2008) claims that this underdetermined view of labeling not only serves as the correct move for the purposes of narrow syntactic computation, with one of the choices yielding an interpretive deviance only at the Conceptual-Intentional interface, but also receives independent empirical support from the distribution and interpretation of English free relative clauses. He points out that the phrase *what you wrote* in (2a) can be interpreted either as a regular *wh*-clause (2b) or a free relative clause (2c). Note further that this ambiguity disappears with a minimally different phrase *what book you wrote*, as shown in (3a, b).

(2)a.   what you wrote
   b.   I wonder what you wrote.
   c.   I bought what you wrote.

(3)a.   I wonder what book you wrote.
   b. * I bought what book you wrote.

This paradigm is explained as follows. When the target of internal merge (namely, C) projects, as shown in (2b), (2a) has an array of distributional and interpretative properties normally expected of CPs. When the lexical item/head projects, as shown in (2c), (2a) is construed as a free relative clause with DP-like interpretations and distributions. Furthermore, since an internally merged element can project its label only when it is a lexical item, the present analysis correctly excludes the free relative interpretation for *what book you wrote*, as shown in (3b).
        The purpose of this squib is to present further evidence for this underdetermined theory of labeling on the basis of case matching effects in free relative clauses.

2.   Case Matching Effects in Free Relative Clauses
It is well known that the choice between the nominative *wh*-phrase *who* and the accusative *wh*-phrase *whom* is largely determined by the base/thematic position of these phrases, as illustrated in (3a, b).

(3)a.   **Who$_i$/Whom$_i$** did you invite t_i to the party?
   b.   **Who$_i$/*Whom$_i$** t_i came to the party?   (Homma 2006: 54)

Let us assume as a minor surface phonological rule that *whom* is optionally converted to *who* in contemporary English unless it is immediately preceded by its case assigner (P or V) at PF. Homma (2006) observes that the choice between *whoever* and *whomever* in free relative clauses is similarly affected by the underlying position that these phrases occupy in the syntactic derivation. This point is illustrated in (4a, b).

(4) a. [**Whoever$_i$/Whomever$_i$** you want to invite t_i] will be welcome.
    b. [**Whoever/*Whomever** t_i wants to come] will be welcome.   (Homma 2006: 54)

In (4a), both the nominative and accusative variants of the free relative head are acceptable. The head *whomever* originates in the object position of *invite* and can be converted optionally to *whoever* at PF since it is not immediately preceded by its case assigner in the surface structure. The accusative *wh*-form is ungrammatical in (4b) because the base position of this element is the subject position. This distribution exactly mirrors that observed in (3a, b). These parallelisms, therefore, suggest that -*ever* phrases are base-generated in the position marked by t_i and reaches their surface position by movement, as argued for in the so-called *Comp Account* (Groos and Riemsdijk 1981). As such, the facts here also provide evidence against the competing alternative analysis known as the *Head Account* (Bresnan and Grimshaw 1978; Larson 1987; Citko 2002), according to which a free relative with –*ever* does not undergo syntactic movement but instead is base-generated in the specifier of DP, as shown in (5).

(5)   [$_{DP}$ whichever flower [$_{CP}$ [$_{TP}$ you like _____]]

      Homma further observes that an interesting pattern arises when we examine the distribution of -*ever* phrases when the free relative clause containing them occurs in the direct object position. Consider (6a, b).[1]
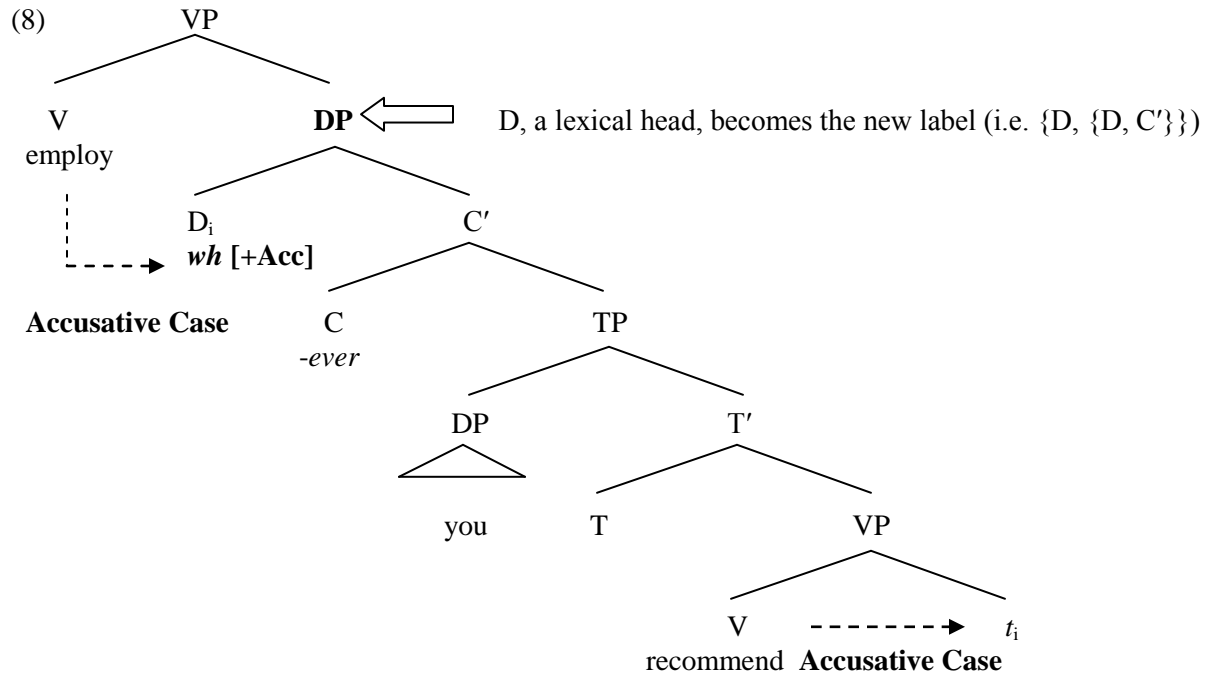
(6) a. I will employ [**whoever$_i$/whomever$_i$** you recommend t_i].
    b. You may invite [**whoever$_i$/whomever$_i$** t_i wants to come].
                                    (Yasui 1996, as cited in Homma 2006: 55)

The Comp Account correctly predicts the alternation between *whoever* and *whomever* in (6a): the –*ever* phrase originates in the object position of *recommend* and moves into the surface position that is not immediately preceded by its case assigner. The same account, however, incorrectly predicts that *whomever* should be impossible in (6b) because the –*ever* phrase originates in the subject position (recall (4b)). An important question that arises here, then, is how what looks like a single complex DP in (6b) ends up receiving two structural Cases but still does not render (6b) ungrammatical. As is well known, it is the consensus view in the minimalist syntax (Chomsky 1986, 1995) that a single DP cannot check/receive more than one structural Case, as the ill-formedness of (7) shows.

(7) * **John$_i$** seems to t_i to be ill.

      The underdetermined theory of labeling introduced in section 1 provides a straightforward answer to this question. Let us propose that the relevant part of the syntactic derivation for the free relative clause in (6a) is as shown in (8).

---

[1] Judgments may vary across speakers on the possibility of *whomever* in (6a, b). Thus, Homma (2006: 58) points out that "one speaker that I have consulted judged *whomever* to be impossible in (17b) [= (6b) in this squib]."

(8)

```
                    VP
                  /    \
                 V      DP  ⟸   D, a lexical head, becomes the new label (i.e. {D, {D, C′}})
              employ   /  \
                 ┊    Dᵢ    C′
                 ┊   wh [+Acc]  /  \
  Accusative Case └--→        C      TP
                            -ever   /  \
                                  DP     T′
                                  /\    /  \
                                you   T      VP
                                            /  \
                                           V  ----→ tᵢ
                                      recommend  Accusative Case
```

In this derivation, the interrogative D is merged with the verb and receives the accusative Case from it in the base position marked by t_i. This part of the derivation, thus, accounts for Homma's observation that the *whoever/whomever* alternation is determined by the underlying position of these phrases (4a, b). The D head, then, is internally merged to the constituent labeled as C′. The D as a head/lexical item can project its label (DP) due to the indeterminacy of the two labeling algorithms in (1a, b). This DP, in turn, serves as a derived element to receive an accusative Case from the matrix verb *employ*. (I assume that the *wh*-head is later fused with –*ever* into a single word in the post-syntactic morphological component.) This part of the derivation, thus, solves the problem regarding multiple case assignment, illustrated in (6a, b).

3.   Conclusions

In this squib, I have presented new evidence based on case matching effects in free relative clauses with *whoever/whomever* for Chomsky's (2008) underdetermined theory of labeling. The crucial observation is that the derivation of such clauses in object position has two sources for accusative Cases but only one DP seems to be available for receiving a structural Case. I have argued that this apparently problematic aspect of this construction nicely falls out under the head movement of the D head into [Spec, C] and the concomitant "relabeling" of the CP into the DP.

References

Bresnan, Joan and Jane, Grimshaw. 1978. The syntax of free relatives in English. *Linguistic Inquiry* 9: 331-391.

Chomsky, Noam. 1986. *Knowledge of language: Its nature, origin, and use*. New York: Praeger.

Chomsky, Noam. 1995. *The minimalist program*. Cambridge, Mass.: MIT Press.

Chomsky, Noam. 2008. On phases. In *Foundational issues in linguistic theory: Essays in honor of Jean-Roger Vergnaud*, ed. by Robert Freidin, Carlos Otero and Maria-Luisa Zubizarreta, 133-166. Cambridge, Mass.: MIT Press.

Citko, Barbara. 2002. (Anti) reconstruction effects in free relatives: A new argument against the comp account. *Linguistic Inquiry* 33: 507-511.

Groos, Annneke and Henk van Riemsdijk. 1981. The matching effects in free relatives: A parameter of core grammar. In *Theory of markedness in generative grammar*, ed. by Adriana Belletti and Luigi Rizzi, 171-216. Pisa: Scuola Normale Superiore.

Homma, Shinsuke. 2006. A note on the derivation of English free relatives. *Memoirs of the Faculty of Education and Human Sciences, Humanities and Social Science* 9, 53-59. Niigata University, Japan.

Larson, Richard. 1987. Missing prepositions and the analysis of English free relative clauses. *Linguistic Inquiry* 18: 239-266.

Yasui, Minoru. 1996. *Eibunpo soran* (A Comprehensive list of the English grammar). Tokyo: Kaitakusha.