

"Dual" Selectional Requirements on Complementation

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1. "Dual" Selectional Requirements: Predicates like *tazuneru* 'ask' *semantically* select a clause headed by the interrogative C *ka* 'Q'; they cannot take a clause headed by *to* 'that' (1). These predicates, however, can take a clause where the two C's *ka* 'Q' and *to* 'that' are stacked (2). I assume with Saito (2010) that *to* 'that' is not a declarative [-Q] C but a 'report' C (Lahiri 1991); no semantic conflict over [+/-Q] arises in (2):

(1) John-wa Bill-ni [Mary-ga kita **ka/*to**] tazuneta/kiita/situmonsita
John-TOP Bill-DAT Mary-NOM came **Q/*that** asked/asked/questioned
Lit. 'John asked/questioned Bill whether/*that Mary came.'

(2) John-wa Bill-ni [Mary-ga kita **ka to**] tazuneta/kiita/situmonsita
John-TOP Bill-DAT Mary-NOM came **Q that** asked/asked/questioned

Lit. 'John asked/questioned Bill *that* whether Mary came.' (Fukui 1986, Saito 2010)

Given that selection is 'local' in that an element can only select its sister, a question arises how the matrix predicate can *semantically* select *ka* 'Q' skipping *to* 'that' in (2). We cannot simply assume that *to* 'that' is transparent for selection in (2); predicates like *siritagaru* 'want-to-know', which *semantically* select an interrogative clause (3), cannot take the *ka-to* 'Q-that' stacking (4):

(3) John-wa [Mary-ga kita **ka/*to**] siritagatteiru/tyoosasiteiru
John-TOP Mary-NOM came **Q/*that** want-to-know/be-investigating

Lit. 'John wants to know/is investigating whether/*that Mary came.'

(4) *John-wa [Mary-ga kita **ka to**] siritagatteiru/tyoosasiteiru
John-TOP Mary-NOM came **Q that** want-to-know/be-investigating

Lit. 'John wants to know/is investigating *that* whether Mary came.'

The contrast (2 vs. 4) shows that predicates like *tazuneru* 'ask' in (2) can *syntactically* select a clause headed by *to* 'that' whereas those like *siritagaru* 'want-to-know' in (4) cannot. Hence, the following two selections are involved in (2); (i) the *semantic* selection between *tazuneru* 'ask' and *ka* 'Q' at LF, (ii) the *syntactic* selection between *tazuneru* 'ask' and *to* 'that' in overt syntax as a driving force of Merge. Given the sisterhood requirement on selection, this "dual" selectional requirements cannot be captured by head-complement structure (5a) or adjunction structure (5b):

(5) a. [TO (THAT) [KA (Q) TP ka (Q)] to (that)] *tazuneru* (ask)

b. [KA (Q) [KA (Q) TP ka (Q)] to (that)] *tazuneru* (ask)

(5a), where *to* 'that' is the label (head) of the clause, cannot capture the *semantic* selection of *tazuneru* 'ask'. (5b), where *ka* 'Q' is the label of the clause, cannot capture its *syntactic* selection.

I argue that the complement clause in (2) has a "dual structure" in that it is assigned different labels in overt syntax and at LF in terms of "relabeling" (cf. Hornstein & Uriagereka 2002). I propose that "relabeling" *may* occur as part of LF-Transfer only when a labeling conflict arises, arguing that labeling conflicts yield not only "ambiguous structures" (Chomsky 2008; Cecchetto & Donati 2010) but also "dual structures"; our analysis can capture the "dual" selections.

2. Against a Direct Quotation Analysis: The following diagnostic tests show that *to* 'that' (2) is not a quotation marker but a complementizer. First, direct *wh*-questions with *ka* 'Q' are deviant if the verb is in the plain form without the polite suffix *-masu* (6a) vs. (6b) (Miyagawa 1987):

(6) a. *Dare-ga kita ka (plain form) b. Dare-ga kimasita ka (polite form)
 who-NOM came Q who-NOM came Q
 'Who came?' 'Who came?'

In the embedded clause in (2), *ka* 'Q' is used with the plain verb form *kita* 'came'; this shows that (2) does not involve a quoted direct *wh*-question but a complementation. Second, quotations are opaque to binding (7). In the *ka-to* 'Q-that' stacking (8), *kare* 'he' can be coreferential with the matrix subject *John*; (8) is not a quotation but a complementation:

(7) **John**₁-wa Mary-ni, "Dare-ga **kare***_{1/2}-o damasita no," to tazuneta
John-TOP Mary-DAT who-NOM he-ACC cheated Q that asked
'**John**₁ asked Mary, "Who cheated **him***_{1/2}?"'

(8) **John**₁-wa Mary-ni [dare-ga **kare**_{1/2}-o damasita **ka to**] tazuneta
John-TOP Mary-DAT who-NOM he-ACC cheated **Q that** asked
'It seems that **John**₁ asked Mary who cheated **him**_{1/2}.'

Third, quotations are also opaque to movement (9). Movement out of a clause with the *ka-to* 'Q-that' stacking, however, is allowed as in (10); the *ka-to* 'Q-that' stacking is not a quotation:

(9)?* **Sono situmon-ni** John-ga, "Dare-ga *t* tadasiku kotaeta no" to tazuneta rasii
 that question-DAT John-NOM who-NOM correctly answered Q that asked seem
 Lit. 'That question, it seems that John asked, "Who answered *t* correctly?"'

(10) **Sono situmon-ni** John-ga [dare-ga *t* tadasiku kotaeta **ka to**] tazuneta rasii
 that question-DAT John-NOM who-NOM correctly answered **Q that** asked seem
 Lit. 'That question, it seems that John asked who answered *t* correctly.'

3. A Proposal: I assume with Shlonsky (2006) that the "cartographic structure" is built by self-attachment of C as follows: (a) The initially merged C is associated with an ordered set of lexical items (LIs) (or bundles of features if C is null) $\langle C_1, \dots, C_n \rangle$, corresponding to Rizzi's (1997) Fin, Foc, Top, Force; (b) The computation accesses or activates these LIs one by one from left to right in the ordered set in terms of External or Internal Merge (EM or IM); (c) Once an LI is activated, it is no longer visible to the computation. I also assume Chomsky's (2008) labeling algorithm (11):

(11) Labeling Algorithm (Chomsky 2008: 145)

a. In $\{H, \alpha\}$, H an LI, H is the label.

b. If α is internally merged to β , forming $\{\alpha, \beta\}$, then the label of β is the label of $\{\alpha, \beta\}$.

Let us consider (2) again. The initially merged C consists of the ordered set $\langle ka 'Q', to 'that' \rangle$. By initial merger of C (EM), the leftmost LI *ka 'Q'* is accessed and activated. The labeling algorithm (11a) requires that *ka 'Q'* should become the label as in (12). By self-attachment of C (IM), *to 'that'* is accessed and activated. *ka 'Q'*, which had been activated before, is not visible to the computation as in (13). A labeling conflict arises here; (11a) requires that *to 'that'*, which is a head, should become the label whereas (11b) requires that *ka 'Q'*, the target of IM, should become the label. I argue that this labeling conflict yields a "dual structure." In overt syntax, *to 'that'* becomes the label in accordance with (11a) as in (14). This labeling drives Merge with the matrix predicate *tazuneru 'ask'*, satisfying its *syntactic* selection. Given that LF-Transfer applies to the whole phase ("CP"), "relabeling" applies as part of LF-Transfer. By (11b), *ka 'Q'* becomes the label as in (15); this satisfies the *semantic* selection of *tazuneru 'ask'* at LF:

(12) [*ka 'Q'* TP $\langle ka 'Q', to 'that' \rangle$] (13) [[*ka 'Q'* TP $\langle ka 'Q', to 'that' \rangle$] $\langle ka 'Q', to 'that' \rangle$]

(14) [*to 'that'* [*ka 'Q'* TP $\langle ka 'Q', to 'that' \rangle$] $\langle ka 'Q', to 'that' \rangle$]

(15) [*ka 'Q'* [*ka 'Q'* TP $\langle ka 'Q', to 'that' \rangle$] $\langle ka 'Q', to 'that' \rangle$] (Relabeling at Transfer)

4. Korean: Korean has complement clauses which contain not only a subordinator (Sub) and but also a mood marker (Mood). Matrix predicates, whether they are verbs (16) or nouns (17), *semantically* select Mood skipping Sub. Verbs and nouns, however, *syntactically* select different Sub's; verbs select *ko 'that'* (16), but nouns select *nun 'that'* (17); "dual" selections are involved:

(16) a. John-nun [Mary-ka ku mwuncey-lul phwul-ess **ta/*nya/*la ko/*nun**] cwucangha-ess-ta
 John-TOP Mary-NOM that problem-ACC solved DECL/*Q/*IMP **that/*that claimed**
 'John claimed that Mary solved the problem.'

b. John-nun Mary-eykey [*pro* ku mwuncey-lul phwul-ess {*ta/nya/*la ko/*nun*} mul-ess-ta,
 John-TOP Mary-DAT that problem-ACC solved *DECL/Q/*IMP **that/*that asked**,
 **ta/*nya/la ko/*nun*] myengryengha-ess-ta
 *DECL/*Q/IMP **that/*that ordered**]

Lit. 'John {asked Mary *that* whether she solved the problem/ordered Mary to solve the problem}.'

(17) a. [John-i ku mwuncey-lul phwul-ess **ta/*nya/*la nun/*ko**] cwucang
 John-NOM that problem-ACC solved DECL/*Q/*IMP **that/*that claim**
 'the claim that John solved the problem'

b. [John-i ku mwuncey-lul phwul-ess {*ta/nya/*la nun/*ko*} cilmwun,
 John-NOM that problem-ACC solved {*DECL/Q/*IMP **that/*that question**,
 **ta/*nya/la nun/*ko*} myenglyeng]
 *DECL/*Q/IMP **that/*that order**]

Lit. 'the question *that* whether John solved the problem/the order to solve the problem'

Given that Sub and Mood belong to the cartographic structure, a labeling conflict arises due to self-attachment IM of Sub *ko/nun 'that'* (= $\langle \text{Mood}, ko/nun \rangle$). In overt syntax, Sub *ko/nun 'that'* becomes the label by (11a), satisfying the *syntactic* selection of the matrix predicate. Relabeling applies as part of LF-Transfer; Mood becomes the label, satisfying its *semantic* selection at LF.