# Complementizer Stacking and "Dual Selections" in CP Peripheries

**1. Complementizer Stacking:** In Japanese, predicates like *tazuneru* 'ask' *semantically* select a clause headed by the interrogative C *ka* 'Q'; they cannot take a clause headed by the declarative C *to* 'that' (1). But, these predicates can take a clause where the two C's *ka* 'Q' and *to* 'that' are stacked (2). Given that selection is 'local' in that an element can only select its sister, a question arises how the matrix predicate can *semantically* select (s-select) the interrogative C *ka* 'Q' skipping the declarative C *to* 'that' 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)

We cannot simply claim that *to* 'that' is transparent for selection in (2). Predicates like *siritagaru* 'want-to-know', which also *semantically* select the interrogative C (3), cannot take the *ka-to* 'Q-that' stacking (4). The contrast (2 vs. 4) shows that predicates like *tazuneru* 'ask' can *syntactically* select (c-select) the declarative C, but those like *siritagaru* cannot:

(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.'

(2) involves the following two selections; (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 condition on selection, this "dual selection" cannot be captured by either head-complement structure (5a) or adjunction structure (5b):

(5) a. [**TO (THAT)** [KA (Q) TP ka (Q)] to (that)] tazuneru (ask) (head-complement)
b. [**KA (Q)** [KA (Q) TP ka (Q)] to (that)] tazuneru (ask) (adjunction)

(5a), where *to* 'that' is the label 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. Note that the "dual selection" cannot be captured by Citko's (2011) symmetric labeling either, because the resulting symmetric label (*i.e.* the union of *ka* 'Q' and *to* 'that') would result in an anomalous interpretation at LF due to its contradictory force features, interrogative and declarative features.

I argue that the complement clause in (2) involves a "dual structure" in that it is assigned different labels in overt syntax and at LF in terms of "relabeling," which enables us to capture the "dual selection." 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" (Cecchetto & Donati 2010) but also "dual structures." This presents evidence for the Merge + labeling algorithm approach (Chomsky 2008, 2013), where labeling is not part of Merge.

**2. Against a Direct Quotation Analysis:** The following diagnostic tests show that *to* 'that' in (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). 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:

(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? (cf. Miyagawa 1987)

Second, quotations are opaque to binding (7) and movement (9). In the *ka-to* 'Q-that' stacking, however, *kare* 'he' can be coreferential with *John* (8), and movement out of it is allowed (10):

(7) **John$_1$**-wa Mary-ni, "Dare-ga **kare*$_{1/2}$**-o damasita no kasira," to tazuneta
John-TOP Mary-DAT who-NOM he-ACC cheated Q Part that asked
'**John$_1$** asked Mary, "Who cheated **him*$_{1/2}$**, I wonder?"

(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$_{1/2}$**.'

(9)?***Sono situmon-ni** John-ga, "Dare-ga ***t*** tadasiku kotaeta no kasira" to tazuneta rasii
that question-DAT John-NOM who-NOM correctly answered Q Part that asked seem

Lit. '**That question**, it seems that John asked, "Who answered ***t*** correctly, I wonder?"

(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 claim that the "cartographic structure" is built by self-attachment of C as follows (Shlonsky 2006): (a) The initially merged C is associated with an ordered set of lexical items (LIs) (or bundles of features if C is null) <$C_1$, ... $C_n$>; (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 not visible to further computation. I assume Chomsky's (2008: 145) labeling algorithm (11):

(11) a. In {H, α}, H an LI, H is the label.

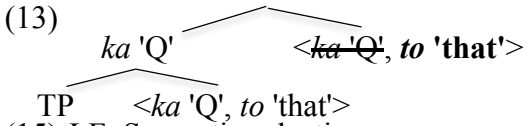
b. If α is internally merged to β, forming {α, β}, then the label of β is the label of {α, β}.

Let us consider (2) again. The initially merged C consists of the ordered set <*ka* 'Q', *to* 'that'>. 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). Next, 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:

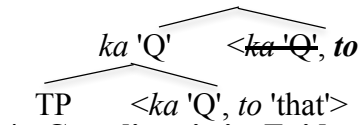
(12) **ka 'Q'**

TP <***ka*** **'Q'**, *to* 'that'>

(13)

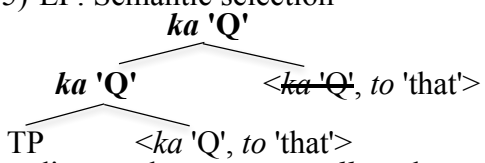



(14) Overt Syntax: Syntactic selection




(15) LF: Semantic selection

-Relabeling ->




**4. Crosslinguistic Evidence:** In Spanish, among predicates that *semantically* select an interrogative clause, verbs like *preguntar* 'ask' and *pregruntarse* 'wonder' may take *que* 'that' preceding an interrogative word (15), but those like *explicar* 'explain' and *revelar* 'reveal' cannot (16) (Plann 1982; Lahiri 2002):

(15) Rogelio nos preguntó/pregruntarse [(**que)** cuándo podríamos entregar la tarea].
Rogelio us asked wonder **that** when could hand-in the assignment
'Roger asked us (*that*) when we would be able to hand in the assignment.'

(16) Luisa explicó/reveló/confesó [**(*que)** cómo la habían hechizado].
Louise explained/revealed/confessed **that** how her have bewitched
'Louise explained/revealed/confessed (**that*) how they had bewitched her.'

The contrast (15 vs. 16) shows that the matrix predicates in (15) *syntactically* select the declarative C *que* 'that' and *semantically* select an interrogative clause skipping *que* 'that'; "dual selections" are involved.

Slovene has "dual selection" cases where matrix predicates *semantically* select outer C and *syntactically* select inner C. Although *koga* 'who' in (18) is in the Spec of interrogative C *ali* 'whether', *koga* 'who' in (17) cannot be in the Spec of *da* 'that', which is declarative C. Instead, there should be null $C_{[+Q]}$ whose Spec *koga* 'who' occupies; *[koga (who) [$C_{[+Q]}$ [da (that)....* Among those predicates which *semantically* select an interrogative clause, predicates like *vedel* 'know' (17) *syntactically* select the declarative C *da* 'that' skipping $C_{[+Q]}$, but predicates like *sprašujem* 'wonder' (18) do not:

(17) Rad bi vedel [koga **da**/***ali** je Peter videl]
I.like would know who that/whether be Peter saw
Lit. 'I would like to know who Peter saw.'

(18) Sprašujem se [koga **ali**/***da** Špela lujbi]
I.wonder myself who whether/that Špela love Lit. 'I wonder who Špela loves.'

The "dual selections" in these languages can also be explained by our "relabeling" analysis.

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