LF Affix Raising in Japanese
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Kitagawa (1986) gives evidence in Japanese for LF affix raising (Pesetsky (1985)) on the basis of the adverbial interpretation of a nonadverbial morpheme. His argument, though convincing, is based on rather obscure, idiom-like expressions. In this squib I will give evidence for LF affix raising using more common expressions involving *wh*-question formation.

1. A question, either yes-no or *wh*, may be formed either simply by a rising intonation or by attaching the question particles *no* and/or *ka:*

(1) Dare ga   kuru?
     who Nom come
     'Who will come?'
(2) Dare ga kuru *no?*
     (same as (1))
(3) Hanako ga kuru *no ka?*
     'Will Hanako come?'

The verbs in these examples are in the *informal* form. Our point of interest is (3), which has the question particle *ka*. If we turn (3), which is a yes-no question, into a *wh*-question, it becomes unacceptable with or without *no:*

(4) *Dare ga kuru (*no*) *ka?*
    'Who will come?'

The only way to ask (4) and still maintain *ka* is by adding the *politeness* affix *-masu* to the verb.

(5) Dare ga   ki-*masu*   ka?
     who Nom come-Polite Q

I will claim that at LF the politeness affix *-masu* is raised to a position that governs the Comp containing *ka*.

2. (4), which is unacceptable, is a matrix clause question. In a subordinate clause the same question form is fully grammatical:

(6) Boku wa [s' dare ga   kuru *ka*] sitteiru.
     I   Top   who Nom come Q   know
     'I know who will come.'

The verb *sitteiru* 'know' optionally subcategorizes for an indirect question; in (6) the verb therefore governs the lower Comp. Following Huang (1982), Lasnik and Saito (1984), and Hoji (1985), I assume that the *wh*-phrase moves to Comp at LF; following the latter two, I also assume that the question particle *ka* is in Comp. The pertinent portion of the LF representation of (6) is therefore as follows:

(7) [. . . [$_{S'}$[$_S$ t$_i$ kuru] dare$_i$ ka] sitteiru]
              come who Q know

Here, the matrix verb's subcategorization allows it to govern
the Comp with ka.[1] Based on this, I propose the following
condition:

(8) At LF, if a wh-phrase occurs in the same Comp as ka,
     the Comp must be governed.

3. I will give three arguments to show that ka in wh-questions
must be governed. The first argument concerns nonbridge verbs
(Erteschik (1973)). Stowell (1981) argues that English nonbridge
verbs such as whisper and murmur do not govern the lower
Comp. Fukui (1985) argues that the same is true in Japanese.
His argument is based on the observation that LF extraction of
an embedded adjunct wh-phrase leads to awkwardness (the
judgments are his):

(9) ??Bill wa [$_{S'}$ John ga   naze kubi ni natta
       Bill Top   John Nom why was fired
       tte]   sasayaita/tubuyaita   no?
       Comp whispered/murmured Q
       'Why did Bill whisper/murmur that John was fired
       t?'
(10)   Bill wa [$_{S'}$ John ga naze kubi ni natta tte]
       itta no?
       said Q
       'Why did Bill say that John was fired t?'

In both questions the adjunct wh-phrase naze 'why' takes wide
scope at LF by Comp-to-Comp movement (Lasnik and Saito
(1984)). The awkwardness in (9) arises because the lower Comp
with the intermediate trace is not lexically governed (see Fukui
(1985) for details); (10) is fully acceptable because yuu 'say'
governs the lower Comp.
   Note that the following ka examples parallel (9) and (10):

(11) ?*Bill wa [$_{S'}$ dare ga   hannin da ka]
       Bill Top   who Nom culprit is Q
       donatta/sasayaita/tubuyaita.
       shouted/whispered/murmured
       'Bill shouted/whispered/murmured who is the
       culprit.'
(12)   Bill wa [$_{S'}$ dare ga hannin da ka] itta.
                                            said
       'Bill said who is the culprit.'

[1] See Kayne (1980), among others, for the proposal that verbs can
govern the lower Comp across the S' boundary.

This distinction between nonbridge verbs and *yuu* 'say' can be accounted for if it is assumed that *ka* must be governed.[2]

The second argument, also based on Stowell (1981) and Fukui (1985), concerns government by the head of a complex NP. Stowell argues that an empty complementizer is possible only if the verb governs the complement S':

(13) John said that/e the earth is round.

(14) the claim that/*e the earth is round

Fukui argues that in Japanese the complementizer *to yuu* can alternate with an empty complementizer if it is governed by the head of the complex NP. The abstract nominal *koto* 'fact' is such a nominal, whereas *syutyoo* 'claim' fails to govern the lower Comp:

(15) [$_{NP}$[$_{S'}$[$_S$ Taroo ga   sore o
                Taro Nom that Acc
      te ni ireta] *to yuu/e*] koto]
      obtained Comp   fact
      'the fact that Taro obtained it'

(16) [$_{NP}$[$_{S'}$[$_S$ Taroo ga   sore o   te ni ireta]
                Taro Nom that Acc obtained
      *to yuu/*e* syutyoo]
      Comp   claim
      'the claim that Taro obtained it'

A parallel effect obtains with *ka*:

(17) [$_{NP}$[$_{S'}$[$_S$ Syoorai nani ga   okoru] *ka*
                future   what Nom happen Q
      to yuu] koto] o   musisita.
      Comp fact Acc ignored
      'He ignored what will happen in the future.'

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[2] The reviewer who suggested this line of argument also gave the following counterexample (only the relevant portion is given):

(i) Omowazu   [$_{S'}$ dono uma ga   itii ni
     without thinking   which horse Nom first
     natta   *ka*] oogoe de *sakende* simatta.
     became Q   loudly   yelled out
     'Without thinking, he yelled out loudly which horse finished first.'

Sakebu 'yell out' is a manner-of-speaking verb, similar to nonbridge verbs such as *tubuyaku* 'murmur'. Hence, (i) should be ill-formed. One possibility here is that *sakebu*, but not the other nonbridge verbs, governs the lower clause. If this is true, then *sakebu* should allow LF extraction of an embedded adjunct *wh*-phrase more readily than the others. This possibility is suggested by the following example. Though the judgment is decidedly delicate, the example seems to be better than (9):

(ii) ?Hahaoya wa   hootei de [$_{S'}$ e naze kodomo o
      mother   Top court in   why child   Acc
      korosita tte]   *sakenda* no?
      killed   Comp yelled out Q
      'Why did the mother yell out in court that she killed her child t?'

(18) *[$_{NP}$[$_{S'}$[$_S$ Syoorai nani ga okoru] *ka* to
yuu] syutyoo] o musisita.
   claim
'He ignored the claim about what will happen in the
future.'

Koto 'fact' in (17) governs *ka*, whereas *syutyoo* 'claim' in (18)
does not.[3]

Third, adding a sentential particle such as *naa* 'I wonder'
to the unacceptable (4) turns it into a natural sentence:

(19) Dare ga   kuru *ka naa?*
who Nom come Q ·
'I wonder who will come.'

This sentential particle, which has scope over the whole sen-
tence, can be viewed as governing *ka*.

4. We have seen evidence that *ka* in *wh*-questions must be gov-
erned. Based on this, the grammatical (5), which has the polite-
ness affix on the verb, is accounted for if the affix *-masu* is
raised at LF to the position that governs the Comp containing
ka:

(20) [$_{S'}$[$_{S'}$[$_S$ t$_i$ ki-t$_j$] dare$_i$ *ka*] *-masu$_j$*]
            come who Q   Polite
'Who will come?'

It is important to specify that only the politeness affix, and not
the entire verb, is raised. Otherwise, no distinction can be pre-
dicted between this and the unacceptable informal form in (4).[4]

Incidentally, this raising analysis is plausible independent
of question formation. The politeness affix (*-masu/desu*) has the
"performative" function of marking the entire sentence for
politeness (Harada (1976)). It is therefore reasonable to hy-
pothesize that the affix has scope over its sentence at some level
of representation. My proposal is that this takes place at LF.

5. The discussion has been limited so far to *ka* in *wh*-questions.
The same question particle occurs in yes-no questions. *Ka* in
the latter also appears to require licensing, though in a slightly
different fashion:

(21) a. ?*Hanako ga   kuru *ka?*
Hanako Nom come Q
'Will Hanako come?'

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[3] As Fukui points out, although lexical government "seems to be
a necessary condition for empty complementizers, it is obviously not a
sufficient condition." Some other factors are semantic; Teramura (1980)
discusses this in detail.
[4] As one reviewer notes, the raising of the politeness affix is an
instance of non-string-vacuous LF affix raising. In other words, the
raising cannot be accomplished simply by rebracketing.

  b.   Hanako ga kuru *no ka?*
                    Q
  c.   Hanako ga kuru *no?*
                    Q
(22) a.   *Dare ga kuru ka?
          'Who will come?'
  b.   *Dare ga kuru *no ka?*
  c.   Dare ga kuru *no?*

As shown in (21a), *ka* by itself is awkward even in yes-no questions. (21b) demonstrates that *ka* is fine if it occurs with the other question particle *no* (shown alone in (21c)). The occurrence of *no* does not improve the *wh*-question with *ka*, as shown in (22b).[5] Assuming that the question particle *no* occurs in Comp, as well as *ka*, the following constraint appears to hold:

  (23)   *Ka* in yes-no questions must be governed.

I assume that in (21b) *ka* is governed by the other question particle, *no*, which occurs in the same Comp. This differs from *ka* in *wh*-questions:

  (24)   A Comp containing *ka* and a *wh*-phrase must be governed.

In other words, in *wh*-questions the Comp itself containing *ka* and a *wh*-phrase must be governed, as shown by the insufficiency of Comp-internal government in (22b). But in yes-no questions it is simply *ka* that must be governed; this required government can obtain internal to Comp as in (21b).

   Evidence that (24) applies at LF is seen in the following example, in which a *wh*-phrase in the complement clause takes wide scope at LF:

  (25)   [$_{S'}$ dare ga   kita   to]   ii-*masita*/?*itta
           who Nom came Comp say-Polite-Past/said
         (*no*) *ka?*
                Q
         'Who did you say came?'

Dare 'who' is raised at LF to the matrix Comp containing *ka*. As shown, only the matrix verb with the politeness affix is acceptable.

5. Finally, the analysis presented here can account for the fact that the politeness affix cannot occur in complement clauses such as the one in (26):

  (26)   Boku wa [$_{S'}$ dare ga   kuru/*ki-*masu*
         I   Top   who Nom come/come-Polite
         ka] sittei-masu.
         Q   know-Polite
         'I know who will come.'

[5] A reviewer pointed out the distinction between (21b) and (22b).

This is a grammatical restriction; it is not stylistic. By the proposed hypothesis, if the polite verb *ki-masu* occurs, the politeness affix *-masu* is raised to the position that governs *ka:*

(27) Boku wa [$_{S'}$[$_{S'}$[$_S$ t$_i$ ki-t$_j$]
      I   Top   come
      dare$_i$ ka] -masu$_j$] sittei-masu.
      who Q   Polite know-Polite

Sitteiru 'know', which (optionally) subcategorizes for an indirect question, must govern the lower Comp with *wh* to fulfill this subcategorization. However, affix raising inserts an S' between the verb and the S' that directly dominates the lower Comp, making the lower Comp inaccessible to the verb. This violates the Projection Principle (Chomsky (1981)) because the subcategorized element becomes inaccessible to the verb at LF.

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