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A Note on Control in Japanese[*]

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1. Introduction

This squib examines so-called 'control' in Japanese. 'Control' has been discussed intensively in the generative enterprise since the advent of Principles and Parameter (P&P) framework. The following is a typical instance of control in English, in which the embedded subject is identified as PRO:

(1)   Taro$_1$ expects [PRO$_1$ to win].

Of significance is the fact that PRO must refer to Taro in this example: This PRO is controlled by Taro. Before the P&P framework, Rosenbaum (1967, 1970) proposes that the example in (1) undergoes the derivational steps in (2):

(2)   a.   Taro expects [for Taro to win].
        b.   Taro expects [~~for Taro~~ to win].

The embedded subject *for Taro* is elided under Equi-NP deletion. Under the P&P framework, the embedded subject came to be replaced by PRO. Despite intensive investigation in the field, however, no consensus has been reached regarding the properties of the null argument in point. This is partly because it has no overt counterpart, unlike other covert entities, which makes it very difficult, if not impossible to look for any parallelism with any overt element to identify its characteristics.

Considering this potential issue, Hornstein (1998, 1999, 2001, 2003) argues that control is another instance of movement. According to Hornstein, *Taro* moves from the embedded subject position to the matrix subject position: from a theta-position to another theta-position, as illustrated in (3):

(3)   Taro$_1$ expects [t_1 to win].

This type of movement was prohibited within the P&P framework, given the presence of the Theta Criterion, which guarantees a one-to-one correspondence between arguments and theta-roles. However, the Theta-Criterion was abandoned in the minimalist framework (Chomsky 1993), which enables Hornstein to argue for such a movement-based approach to control.

Attractive though his proposal may be, both proposals need to answer why (4a, b) have different

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interpretations (Partee 1975):

(4)   a.   Every contestant expects to win.

        b.   Every contestant expects every contestant to win.

(McCawley 1988:120)

Notice that (4a) is equal to (5), but not to (4b):

(5)   Every contestant expects himself to win.

In contrast, (4b) describes a bizarre situation in which every contestant expects that everyone will win. If the QP *every contestant* is base-generated in the embedded subject position, receiving the agent theta-role, the potential question remains as to why the contrast in (4) shows up.

    Another important observation on control is, as pointed out in Landau (2003: 491), that control does not exhibit reconstruction effects. For instance, there is a clear contrast between raising and control with respect to the behavior of binominal *each* (Safir and Stowell 1988):

(6)   a.   One interpreter each seemed to have been assigned to the visiting diplomats.

        b.   *One interpreter each tried to be assigned to the visiting diplomats.

Safir and Stowell (1988) claim that binominal *each* is subject to Condition A. If this proposal is accurate, the grammaticality of (6a) indicates that *one interpreter each* was base-generated in the position c-commanded by *the visiting diplomats* within the embedded clause. This, in turn, indicates that in (6b), the QP with binominal *each* has been directly generated in the matrix subject position, which never allows it to be bound by *the visiting diplomats*, resulting in ungrammaticality.

    These interpretations, however, raise a puzzle, which needs addressing. The contrast in (4) shows that the embedded subject position must be occupied by a variable bound by the matrix subject. However, the contrast in (6) insists that the embedded subject position is not the position where the matrix subject is base-generated. Under the movement-based approach to control, illustrated in (3), we need to ensure that the trace left by the matrix subject (i.e., Taro) must be ignored for the purpose of Condition A.

    On the basis of this background for control, we turn to control in Japanese, which is the focus of the current squib. Section 2 introduces Takano (2010), who argues for a movement-based approach to what appears to be control in Japanese. Of our particular interest is the fact that his analysis assumes that the element in the embedded subject position is relevant in calculating bound pronominal interpretation and WCO configuration. Recall from the discussion above that the element in the embedded subject position in control configuration is to be ignored for Condition A. Given this finding in English control, we are led to conclude that the Japanese control that Takano discusses may not be an instance of control. Yet, Section 3 provides data which supports Takano's

claim that the element in the embedded subject position participates scope interaction with other QPs within the embedded clause, if scope ambiguity arises only with clause-mate QPs. Section 4 proposes an alternative account to Takano (2010), which is based on Kayne's (2002) proposal for antecedent-pronoun relations. This proposal relies on the assumption that Japanese control is an instance of a covert pronoun located in the embedded subject position. This proposal is certainly not new, and it has occasionally been argued (e.g., Akuzawa 2017) that Japanese control makes use of a covert pronoun. The current squib can therefore be taken as further support for this tenet of Japanese control. Finally, Section 5 presents brief concluding remarks.

2.   Control in Japanese: Takano (2010)

Takano (2010) argues that so-called control in Japanese can be best analyzed under a movement theory of control (Bowers 1973; Hornstein 1998, 1999, 2001, 2003). The grammatical contrast between (7b) and (8b) is essential for Takano:[1]

(7)   a. *Ken-ga   soko$_2$-no   sotugyoosei$_1$-ni   [e_1 mittu-izyoo-no   daigaku$_2$-ni
          Ken-NOM   it   -GEN graduate   -DAT   three-or.more-GEN university-DAT
          syutugansuru   yoo(-ni)] susumeta.
          apply   C   recommended
          'Ken recommended to their graduates that they apply to three or more universities.'

       b. ?Mittu-izyoo-no   daigaku$_2$-ni$_3$ Ken-ga   soko$_2$-no   sotugyoosei$_1$-ni
          three-or.more-GEN university-DAT Ken-NOM it   -GEN graduate   -DAT
          [e_1 t_3 syutugansuru   yoo(-ni)] susumeta.
                  apply   C   recommended
          'Ken recommended to their graduates that they apply to three or more universities.'

(8)   a. *Soko$_2$-no   sotugyoosei-ga   Ken$_1$-ni   [e_1 mittu-izyoo-no   daigaku$_2$-ni
          it   -GEN graduate   -NOM Ken-DAT   three-or.more-GEN university-DAT
          syutugansuru   yoo(-ni)]   susumeta.
          apply   C   recommended
          'Ken recommended to their graduates that he apply to three or more universities.'

       b. ?*Mittu-izyoo-no   daigaku$_2$-ni$_3$ soko$_2$-no   sotugyoosei-ga   Ken$_1$-ni
          three-or.more-GEN university-DAT it   -GEN graduate   -NOM Ken-DAT
          [e_1 t_3 syutugansuru   yoo(-ni)] susumeta.
                  apply   C   recommended
          'Ken recommended to their graduates that he apply to three or more universities.'

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[1] Abbreviations that are used throughout this squib are as follows: ACC = accusative, C = complementizer, DAT = dative, GEN = genitive, NOM = nominative, and Q = question (particle).

In order to appreciate the contrast between (7b) and (8b), we keep in mind the observation made by Oka (1989), Saito (1992), among others, that clause-internal scrambling exhibits properties of A-movement, whereas long-distance scrambling across a clause boundary possesses properties with typical A'-movement: (9b) is an instance of clause-internal scrambling, while long-distance scrambling is involved in (10b). We observe the contrast between these two examples:

(9)　　a.　*Soko$_1$-no　　sotugyoosei-ga　　mittu-izyoo-no　　daigaku$_1$-ni　　syutugansita.
　　　　　　it　-GEN　graduate　　-NOM　three-or.more-GEN　university-DAT　applied
　　　　　　'Their graduates applied to three or more universities.'
　　　　b.　Mittu-izyoo-no　　　daigaku$_1$-ni　　soko$_1$-no　　sotugyoosei-ga　　syutugansita.
　　　　　　three-or.more-GEN　university-DAT　it　-GEN　graduate　　-NOM　applied
　　　　　　'Their graduates applied to three or more universities.'

(10)　　a.　*Soko$_1$-no　　sotugyoosei-ga　　Aya-ni　[Ken-ga　　mittu-izyoo-no
　　　　　　it　-GEN　graduate　　-NOM　Aya-DAT　Ken-NOM　three-or.more-GEN
　　　　　　daigaku$_1$-ni　　syutugansita]　to　itta.
　　　　　　university-DAT　applied　　　C　said
　　　　　　'Their graduates said to Aya that Ken applied to three or more universities.'
　　　　b.　?*Mittu-izyoo-no　　　daigaku$_1$-ni$_2$　soko$_1$-no　　sotugyoosei-ga　　Aya-ni
　　　　　　three-or.more-GEN　university-DAT　it　-GEN　graduate　　-NOM　Aya-DAT
　　　　　　[Ken-ga　　t_2　syutugansita]　to　itta.
　　　　　　Ken-NOM　　applied　　　C　said
　　　　　　'Their graduates said to Aya that Ken applied to three or more universities.'

Given that long-distance scrambling does not remedy WCO effects, the contrast between (7b) and (8b), both of which concern the scrambling of *mittu-izyoo-no daigaku-ni* out of the control complement, calls for an explanation. Notice that Nemoto's (1993) claim that long-distance scrambling out of a control complement acts as a clause-internal scrambling is not sufficient to account for the contrast in point. We need to answer the question of why the scrambling involved in (7b), but not in (8b), exhibits the characteristics of clause-internal scrambling.

　　Takano proposes that (7b) includes the following derivational steps within the control complement:

(11)　　a.　soko$_2$-no　　sotugyoosei-ni　　mittu-izyoo-no　　daigaku$_2$-ni
　　　　　　it　-GEN　graduate　　-DAT　three-or.more-GEN　university-DAT
　　　　　　syutugansuru yoo(-ni)
　　　　　　apply　　　C

b. mittu-izyoo-no   daigaku$_2$-ni$_1$ soko$_2$-no   sotugyoosei-ni t_1

three-or.more-GEN university-DAT it   -GEN graduate   -DAT

syutugansuru yoo(-ni)

apply   C

The step in (11b) creates the same configuration as the one in (7b). Accordingly, the grammaticality of (9b) is correctly expected. In contrast, (8b) experiences the steps given in (12):

(12) a. Ken-ni   mittu-izyoo-no   daigaku-ni   syutugansuru yoo(-ni)

Ken-DAT three-or.more-GEN university-DAT apply   C

b. mittu-izyoo-no   daigaku-ni$_1$ Ken-ni t_1 syutugansuru yoo(-ni)

three-or.more-GEN university-DAT Ken-DAT   apply   C

In (12), since *soko-no sotugyoosei* 'it's graduate' is not present within the complement clause, WCO cannot be remedied in (12b). Thus, the contrast between (7b) and (8b) is correctly accounted for.

Takano's account crucially relies on the assumption that the 'controller' is once present within the control complement. However, if this were the case, we would incorrectly predict both (13a, b) to be grammatical, with the intended binding of *his* by *every boss*:

(13) a. His employees appeared to every boss to be surprisingly efficient.

b. ??His employees promised to every boss to be more efficient.

This contrast, therefore, shows that the examples in (7) and (8) must be considered different from English control.

3.   **Scope Ambiguity within the Control Complement in Japanese**

In this section, we provide additional evidence for Takano's claim that the controller is 'visible' within the control complement.

Note that only (14a) permits the inverse scope reading (e.g., Aoun and Li 1989):

(14) a. Someone is likely to love everyone.

b. Someone hopes to love everyone.

Given this contrast, consider first the following two examples:

(15) a. Hanako-ga   Taro-to-Jiro$_1$-ni   [e_1 nani-o   koonyuusuru yoo(-ni)]

Hanako-NOM Taro-and-Jiro-DAT   what-ACC buy   C

susumeta   no.

recommended Q

'What did Hanako recommend to Taro and Jiro that they buy?'

b. Taro-to-Jiro-ga　　　Hanako₁-ni　[e_1 nani-o　　koonyuusuru　yoo(-ni)]

Taro-and-Jiro-NOM　Hanako-DAT　　　what-ACC　buy　　　　　C

susumeta　　　no.

recommended　Q

'What did Taro and Jiro recommend to Hanako that she buy?'

To my ears, the scope interaction between the QP and the WH is missing in (15a, b). But, if the WH-phrase is scrambled to the sentence-initial position, which Nemoto argues is an instance of A-scrambling, although the judgment is delicate, distributive interpretation becomes available in (16a), but not in (16b):

(16) a. Nani-o₂　　　Hanako-ga　　　Taro-to-Jiro₁-ni　　[e_1　t_2 koonyuusuru　yoo(-ni)]

what-ACC　Hanako-NOM　Taro-and-Jiro-DAT　　　　buy　　　　　C

susumeta　　　no.

recommended　Q

'What did Hanako recommend to Taro and Jiro that they buy?'

b. Nani-o₂　　　Taro-to-Jiro-ga　　　Hanako₁-ni　[e_1　t_2 koonyuusuru　yoo(-ni)]

what-ACC　Taro-and-Jiro-NOM　Hanako-DAT　　　　buy　　　　　C

susumeta　　　no.

recommended　Q

'What did Taro and Jiro recommend to Hanako that she buy?'

Significantly, such contrast is absent when the QP is scrambled to the sentence-initial position, as shown in (18a, b), derived from (17a, b):

(17) a. Hanako-ga　　　dare₁-ni　[e_1 keeki-to-jyuusu-o　　　kau yoo(-ni)] susumeta　　　no

Hanako-NOM　who-DAT　　cake-and-Juice -ACC buy C　　　recommended Q

'Who did Hanako recommend to that he buy cake and juice?'

b. Dare-ga　　　Hanako₁-ni　[e_1 keeki-to-jyuusu-o　　kau yoo(-ni)] susumeta　　　no

two -NOM Hanako-DAT　　cake-and-Juice -ACC buy C　　　recommended Q

'Who recommended to Hanako that she buy cake and juice?'

(18) a. Keeki-to-jyuusu-o₂　Hanako-ga　　　dare₁-ni　[e_1　t_2 kau yoo(-ni)]

cake-and-juice -ACC　Hanako-NOM　who-DAT　　　　buy C

susumeta　　　no

recommended　Q

'Who did Hanako recommend to that he buy cake and juice?'

    b.   Keeki-to-jyuusu-o$_2$ dare-ga   Hanako$_1$-ni   [e_1 t_2 kau yoo(-ni)]

           cake-and-iuice-ACC who-NOM Hanako-DAT   buy C

           susumeta   no

           recommended Q

           'Who recommended to Hanako that she buy cake and juice?'

The contrast between (16a) and (18a), again, is very difficult, if not impossible to account for under Nemoto's (1993) proposal.

    We now turn to explain the contrasts in (15) - (18), as well as the one between (7b) and (8b), based on Kayne's (2002) movement-based proposal on antecedent-pronoun relations. This proposal retains the essence of Takano's proposal, maintaining Landau's criticism on the movement-theory of control intact.

4.   Movement-based Theory on Antecedent-Pronoun Relations: Kayne (2002)

Kayne (2002) proposes that the dependency relation between *Hanako* and *she* in (19a) is established in two steps, as given in (19b, c):

(19)   a.   Hanako thinks that she is smart.

           b.   _____ thinks that [Hanako, she] is smart.

           c.   Hanako$_1$ thinks that [t_1, she] is smart.

First, *Hanako* and *she* are base-generated as a constituent, as shown in (17b). Then, *Hanako* is raised to the matrix subject position for Case-theoretic and Theta-theoretic reasons. The reader can easily see that Kayne's proposal straightforwardly captures Takano's intuition. We would like to propose that what Takano dubs 'control' is realized with the complex given in (20):

(20)   [controller, pro]

Now, the steps illustrated in (11) can be reinterpreted as in (21):

(21)   a.   [soko$_1$-no   sotugyoosei-ni, pro] mittu-izyoo-no   daigaku$_1$-ni

             it -GEN graduate -DAT   three-or.more-GEN university-DAT

           syutugansuru yoo(-ni)

           apply   C

           b.   mittu-izyoo-no   daigaku$_1$-ni$_2$ [soko$_1$-no   sotugyoosei-ni, pro] t_2

             three-or.more-GEN university-DAT it -GEN graduate   -DAT

             syutugansuru yoo(-ni)

             apply   C

In (21b), the QP should be able to bind the pronoun *soko*.

In the same vein as (21a, b), the control complements of (15a, b) and (17a, b) can be represented as in (22a, b) and (23a, b) respectively:

(22)   a. ［Taro-to-Jiro-ni,   pro］nani-o   kau yoo(-ni)
               Taro-and-Jiro-DAT   what-ACC buy C

        b. ［Hanako-ni,   pro］nani-o   kau yoo(-ni)
               Hanako-DAT   what-ACC C

(23)   a. ［dare-ni,   pro］keeki-to-jyuusu-o   kau yoo(-ni)
               who-DAT   cake-and-juice -ACC buy C

        b. ［Hanako-ni,   pro］keeki-to-jyuusu-o   kau yoo(-ni)
               Hanako-DAT   cake-and-juice -ACC buy C

The question is why (22a), not (22b), is ambiguous, whereas (23a, b) are both unambiguous, lacking the distributive interpretation. This is reminiscent of the fact that the intended distributive interpretation is missing in (24a, b) (Hoji 1985; Saito 1999):

(24)   a. Dare-ga   Hanako-to-Akiko-o   aisiteiru no.
            who-NOM Hanako-and-Akiko-ACC love   Q

        b. Hanako-to-Akiko-o   dare-ga   aisiteiru no.
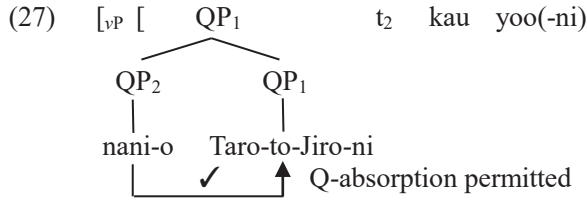   Hanako-and-Akiko-ACC who-NOM love   Q

Observe the contrast between (24b) and (25b):

(25)   a. Dareka-ga   Hanako-to-Akiko-o   aisiteiru.
           someone-NOM Hanako-and-Akiko-ACC love

        b. Hanako-to-Akiko-o   dareka-ga   aisiteiru.
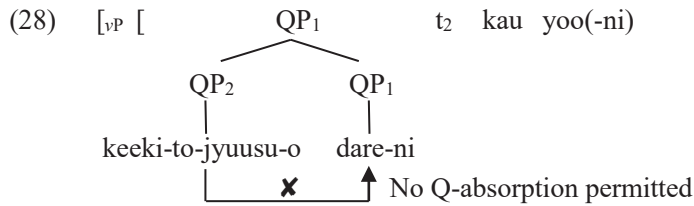   Hanako-and-Akiko-ACC someone-NOM love

For the purpose of completeness, we adopt Miyamoto's (2008) analysis of scope interaction. Miyamoto claims that inverse scope interpretation is due to the overt Q(uantificational)-feature absorption operation in Japanese. What is relevant here is the Likeness Condition on Q-absorption, stated below:

(26)   A WH-feature cannot accompany absorption of Q-features.   (Miyamoto 2008: 229)

In (22a) (for (16a)), on the way to the sentence-initial position, the WH *nani-o* can adjoin to *Taro-to-Jiro-ni*, which may be considered as an appropriate Q-absorption. This is roughly illustrated as in (27):

(27) $[_{vP}$ [QP$_1$ t$_2$ kau   yoo(-ni)

```
              QP2          QP1
               |            |
            nani-o    Taro-to-Jiro-ni
               └────✓────↑  Q-absorption permitted
```

This results in the intended inverse interpretation. The same Q-absorption may not be obtained in (23a) (for (18a)), due to the clause-mate condition on Q-absorption (May 1985; Watanabe 2000). Note that when the conjoined phrase is scrambled to the sentence-initial position, as in (18a, b), the Likeness Condition on Q-absorption becomes relevant for (18a), as informally schematized in (28):

(28) $[_{vP}$ [QP$_1$ t$_2$ kau   yoo(-ni)

```
           QP2             QP1
            |               |
      keeki-to-jyuusu-o    dare-ni
            └──────✗─────↑  No Q-absorption permitted
```

This Likeness Condition therefore enables us to capture the contrast between (16a) and (18a) under the assumption that the relevant configuration is obtained within the control complement.

5.   Concluding Remarks

The current squib examined the data Takano (2010) claims an instance of control in Japanese. Attractive though Takano's proposal may be, we suggested an alternative to his account, based on Kayne's (2002) movement-based analysis of antecedent-pronoun relations. To the extent that the current proposal is on the right track, what appears to be control in Japanese is an instance of a covert pronoun in the embedded subject position, which provides independent support for Akuzawa (2017), among others. This result may be straightforwardly obtained if what appears to be covert pronouns in Japanese are instances of argument ellipsis: the movement effect in point may be due to argument ellipsis operation applied to the two subject positions. Notice that argument ellipsis is not available in English, which in turn provides a way to account for the fact that the same derivation is not available in English.

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