

Takano (2010) observes that in Japanese, a long-distance-scrambled QP can bind a bound variable inside a dative controller, while it cannot bind a bound variable inside a non-controller in the matrix clause, as exemplified in (1). Takano argues that the asymmetry can be accounted for only if a) scrambling out of a control clause cannot produce a new binding relation, exactly like long-distance scrambling, and b) obligatory control involves movement of the controller. Then, the generalization (I) follows from his study.

- (I) Long-distance scrambling in Japanese (except scrambling out of an ECM complement clause) makes variable binding possible only if the pronominal is contained in the controller in the obligatory control construction (OCC).

In this paper, I present novel data, where long-distance scrambling makes variable binding possible even though the sentence is not an OCC (non-OCC), which shows that the generalization (I) is incorrect. The purpose of this study is to formulate a new generalization incorporating Takano's observation and the presented novel data, and to present an analysis to derive it without resorting to A/A'-distinction.

The data that are problematic for the generalization in (I) are shown in (2). In (2a), binding inside the matrix dative argument is possible even though the sentence is not an OCC (non-OCC), and in (2b), binding inside the matrix subject is impossible in such a case. The important points here are that a) long-distance-scrambled element can bind into the matrix dative argument even in non-OCCs, b) the grammatical asymmetry between binding into the matrix subject and the matrix dative argument is observed even in non-OCCs, and c) whether a scrambled QP can bind a bound variable is not related to whether the embedded null-argument is coreferential to an element containing the variable. These facts cannot be captured with Takano's analysis.

Note that binding into the matrix dative argument is impossible if a scrambled element moves across an embedded clause with an overt subject, as shown in (3), which forms a minimal pair with the acceptable sentence in (2a).

Given these observations and Takano's, the correct generalization is (II).

- (II) Long-distance scrambling makes variable binding possible only if a) a pronoun is contained in the matrix dative argument (or in the matrix subject if there is no dative argument), and b) the embedded subject is a null element.

The generalization (II) can be captured with the assumptions that i) every argument has a D- feature, which enables it to be a binder (Saito 2003), ii) a formal feature cannot be pied-piped as a free rider if there is an intervening matching feature (Ura 2001), iii) Japanese scrambling targets an adjunct position (Tada 1993), iv) Non-case assigning T does not have an EPP property (Bošković 2002), and v) Movement within a minimal domain (Chomsky 1995) is disallowed. (Anti-locality: Bošković 2005), each of which is independently motivated. Given these assumptions, the derivations of the sentences in (2a-b) and in (3) are as in (4a) and (4b), respectively.

In (4a), given that PRO/pro needs no Case, the embedded subject, pro/PRO, does not have to move to the embedded TP-Spec. Then, the embedded object QP can move to the matrix VP-adjointed position (VP-Adjunct) with a D-feature because each step of the movements does not cross an intervening D-feature given that Specifier and Adjunct of the same category are equidistant. Thus, the QP in the matrix VP-Adjunct can bind into the IO in the matrix VP- Spec. Given Bošković's anti-locality condition, the QP cannot move to ν P-Adjunct and must move to CP/IP-Adjunct. Since this movement crosses an intervening D-feature of S_i in the matrix ν P-Spec, the fronted QP cannot retain the D-feature and bind into the matrix subject. This is why an element that undergoes scrambling out of a clause can bind into the matrix dative argument but cannot bind into the matrix subject, as exemplified in (2a) and (2b). In (4b), where an overt subject is in the embedded TP-Spec, the QP in the embedded ν P-Adjunct cannot move to TP-Adjunct and must move to the matrix VP-Adjunct/embedded CP-Adjunct because of anti-locality. This movement cannot pied-pipe the D-feature due to an intervening D-feature of S_k in the embedded TP-Spec. Therefore, no movement out of the embedded clause to the matrix clause can pied-pipe a D-feature if the embedded clause has an overt subject. Thus, whenever an element undergoes scrambling out of a finite clause with an overt subject, it cannot bind any elements inside the matrix clause, as exemplified in the unacceptable sentence in (3).

In this way, the generalization (II) can be derived. Note, also, that this analysis enables us to capture the asymmetry in binding effects between long-distance scrambling and clause-internal scrambling in Japanese without resorting to A/A'-distinction.

- (1) a. ?[[Mittu-izyoo-no daigaku]_{1-ni}_i Ken-ga [soko_{1-no} sotugyoosei]_{2-ni}
 three or more-GEN university-DAT K.-NOM it-GEN graduate-DAT
 [_{CP} PRO₂ t_i syutugansuru yoo(ni)] susumeta.
 apply C recommended
 ‘Ken recommended [their₁ graduates]₂ [_{CP} PRO₂ to apply to [three or more universities]₁].’
 b. *[[Mittu-izyoo-no daigaku]_{1-ni}_i [soko_{1-no} sotugyoosei]-ga Ken_{2-ni}
 three or more-GEN university-DAT it-GEN graduate-NOM K.-DAT
 [_{CP} PRO₂ t_i syutugansuru yoo(ni)] susumeta
 apply C recommended
 ‘Their₁ graduates recommended Ken₂ [_{CP} PRO₂ to apply to [three or more universities]₁].’
- (2) a. ?[[Mittu-izyoo-no kaisya]_{2-ni}_i Ken_{1-ga} [soko_{2-no} raibaru-gaisya-no syain]_{3-ni}
 three-or-more-Gen company-Dat K.Nom it-Gen rival-company-Gen employee-Dat
 [pro_{1/4/(3)} (izure) t_i oubosuru-tumorida]-to(/ka) itta(/tazuneta).
 soon apply-will -C/Q said/asked
 ‘Ken₁ said(/asked) to [employees of their₂ rival companies]₃ that(/whether) pro_{1/(3)} will apply to [three or more companies]₂.’
 b. *[[Mittu-izyoo-no kaisya]_{2-ni}_i [soko_{2-no} raibaru-gaisya-no syain]_{1-ga} Ken_{3-ni}
 three-or-more-Gen company-Dat it-Gen rival-company-Gen employee-Nom K-Dat
 [pro_{1/4/(3)} (izure) t_i oubosuru-tumorida]-to(/ka) itta(/tazuneta).
 soon apply-will -C/Q said/asked
 ‘[Employees of their₂ rival companies]₁ said(/asked) to Ken₃ that(/whether) pro_{1/(3)} will apply to [three or more companies]₂.’
- (3) *[[Mittu-izyoo-no kaisya]_{2-ni}_i Ken_{1-ga} [soko_{2-no} raibaru-gaisya-no syain]_{3-ni}
 three-or-more-Gen company-Dat K.Nom it-Gen rival-company-Gen employee-Dat
 [Hanako/kare_{1/(3)/4-ga} (izure) t_i oubosuru-tumorida]-to(/ka) itta(/tazuneta).
 Hanako/he-Nom soon apply-will -C/Q said/asked
 ‘Ken₁ said(/asked) to [employees of their₂ rival companies]₃ that(/whether) Hanako/he_{1/(3)/4}/self₁ will apply to [three or more companies]₂.’
- (4) a. [_{CP/TP} QP_j [_{TP} S_i [_{VP} S_i [_{VP} QP_j [_{VP} IO [_{CP} (QP_j) [_{TP} [_{VP} QP_j [_{VP} pro/PRO [_{VP} QP_j V] v]] T] C] V]] v] T]]
 {D} {D} {D} {D}
 b. [_{CP/TP} QP_j [_{TP} S_i [_{VP} S_i [_{VP} QP_j [_{VP} IO [_{CP} (QP_j) [_{TP} S_k [_{VP} QP_j [_{VP} S_k [_{VP} QP_j V] v]] T] C] V]] v] T]]
 {D} {D} {D} {D}

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