[REVIEW]

Control in Generative Grammar: A Research Companion

By Idan Landau, Cambridge University Press, Cambridge, 2013, x+287pp.

SHIN-ICHI KITADA

Tokyo University of Science*

1. Introduction

The book under review aims to compare previous research on control and comes to the conclusion that control is "a multidimentional phenomenon" (p. ix). There is no unified theory of control; rather, control should be captured as an intersection of "a multitude of (sub)theories and analyses" (p. 257).

Control is an interpretively dependent relation between an overt argument in the matrix clause and a covert subject in the infinitival complement clause. To make this definition precise, let us consider the following sentences:

(1) a. John has promised [that he will come to the party].
    b. John has promised [to come to the party].

(1a) has the same truth condition as (1b) does, so that these sentences share the same thematic relations. The matrix subject *John* is understood as the "promiser" and the bracketed clause is understood as the promised event in (1a, b). The same argument applies to the thematic relation within the bracketed clause as well. Thus, the "comer" must be interpreted as *John* in both sentences. This interpretation is easily captured in (1a), since the "comer" is overtly realized as *he* and this pronoun co-refers with *John*. By

contrast, the "comer" is not realized in (1b). However, a certain null element has been assumed to exist in the position corresponding to *he* in (1a) from the viewpoint of the uniformity principle pursued by the generative grammarians. The question to be asked, then, is what mechanism is required in (1b) to ensure that the null subject in the infinitival clause is controlled by and interpreted as *John*. Control theory has sought to elucidate the mechanism and to specify what the null subject is in the first place, whether or not the null subject satisfies the Case requirement, and what grammatical components are involved to determine the interpretation of the null subject. In view of this, research on control has made a theoretically significant contribution to the advancement of θ-theory, Case theory, bounding theory, movement theory, and theories of the interfaces between syntax and other components, such as the lexicon, semantics, and pragmatics.

However, "not a single survey work solely dedicated to control has appeared that attempts to organize and synthesize all this knowledge, and present it in a systematic fashion" (p. vii). The main purpose of the book under review is to fill the gap and to review and systematize previous research of control by carefully scrutinizing a huge amount of empirical data.

It is important to bear in mind that no specific theory of control is presented in the book; this is just a review book. Since space limitations preclude a thorough discussion of all of the theories, this review article will endeavor to narrow the discussion down to the empirical arguments that every theory of control must address squarely.

2. Overview

Chapter 1 "Background" provides a clarification of the original issues for discussions over control citing Rosenbaum (1967, 1970) as the first researcher who seriously analyzed control in generative grammar. Rosenbaum (1967, 1970) proposed two constraints on control: the identity constraint and the locality constraint between a controller and a controllee. Let us consider the following examples:

(2) a. Sally preferred to sleep on the couch.
     b. Sally preferred for Denise to sleep on the couch.   (p. 1)

The implicit "sleeper" in (2a) is interpreted as *Sally* while that in (2b) is interpreted as *Denise*. These interpretations are confirmed by the *Identity Erasure Transformation* (later renamed *Equi-NP Deletion*) formulated in (3):

(3)   W (NP) X {for,POSS} NP Y (NP) Z
           1   2   3   4   5   6   7   8 $\Rightarrow$
           1   2   3   Ø   Ø   6   7   8

 (i) 5 is erased by 2.
 (ii) 5 is erased by 7, where a constituent A is erased by a
       constituent B, e.g., A $\Rightarrow$ Ø, just in case A and B meet the
       conditions imposed by the Principle of Minimal Distance
       (PMD).   (p. 1)

The clause (3i) states that the erasure of the infinitival subject, 5, by the
matrix element, 2, applies when they are identical. In addition, the clause
(3ii) makes possible the erasure of the infinitival subject when there is no
intervening candidate between the matrix element and the infinitival sub-
ject. The Principle of Minimal Distance in (3ii) is later renamed the MDP
(Minimal Distance Principle), which is formulated in (4):

 (4)   *Rosenbaum's (1970) MDP*
            An NP_j is erased by an identical NP_i iff there is a clause S
            such that:
 (i) NP_j is dominated by S.
 (ii) NP_i neither dominates nor is dominated by S.
 (iii) For all NP_k neither dominating nor dominated by S, the
        distance between NP_j and NP_k is greater than the distance
        between NP_j and NP_i, where distance between two nodes
        is defined in terms of branches in the path connecting
        them.   (p. 2)

Since the identity and locality constraints are satisfied in (2a), the embedded
infinitival subject is interpreted as *Sally*.

 (5)   [Sally] preferred ~~for~~ ~~[Sally]~~ to sleep on the couch.   (p. 1)

In (2b), on the other hand, *Sally* fails to be understood as the "sleeper."
The reason is that *Sally* in the matrix subject has no local relation with the
embedded infinitival null subject. *Denise* intervenes in-between. This vio-
lates the MDP in (4). Therefore, *Sally* is not the controller but *Denise* is.
In this way, Rosenbaum's (1967, 1970) *Identity Erasure Transformation* cap-
tures the two basic properties of control: the identity and the locality rela-
tion between the controller and the controllee.

   However, the validity of Rosenbaum's (1967, 1970) analysis has been
challenged from the outset. First of all, the identity constraint imposed be-
tween the controller and the controllee was called into question on semantic
grounds. Example (6) shows that the controllee (Ø) is interpreted as *Harry*
and *Joan*, violating the condition on the identity constraint in (3i).

(6)   Harry$_i$ said that Joan$_j$ knew that it was necessary Ø$_{i+j}$ to report
      their own father to the authorities.   (p. 6)

The locality principle has systematic exceptions as well. Let us consider
the following subject-control example:

(7)   I promised John to bring the money.   (p. 3)

In (7), the embedded infinitival null subject is interpreted not as the local
candidate *John* but as the distant candidate *I*. This violates the MDP in
(4). Therefore, Rosenbaum's (1967, 1970) analysis faces several prob-
lems. As we will see in the following chapters, the problems have prompt-
ed a great deal of studies on control ever since.

I believe this to be the core of chapter 1. The rest of this chapter is
devoted to discussions about the following two points: (i) the difference
between control and raising constructions; and (ii) the difference between
obligatory control and non-obligatory control. This review will omit these
topics. The reason for the omission of the former point is that the main
aim of the book under review is to compare the previous analyses of con-
trol and not to survey the contrasts between control and raising construc-
tions. For an elaboration, the reader is referred to the relevant section (sec-
tion 1.2) and also to Davies and Dubinsky (2004) and Polinsky (2013). As
for the latter point, discussions about the obligatory control and about the
non-obligatory control will be presented in chapters 5 and 7, respectively. I
will examine them in the relevant chapters under review.

Chapter 2 "Control theories: a typology" overviews five different theories
of control and concludes that each of the theories encounters several empiri-
cal and theoretical problems. Space considerations prevent me from going
into the analyses in detail, so I would like to confine myself to looking into
the description of the five theories.

The first theory is a predicational theory of control, which contends that
the predication holds between the controller and the entire infinitive. In
(8), for example, the controller *Mary* has a predicational relation with the
embedded infinitive, so that this sentence has the following meaning: "In all
worlds/situations in which Mary's attempt succeeds, she has the property of
swimming" (p. 47).

(8)   [Mary] tried [to swim].   (p. 47)

Although this predicational relation can be established either semantically
(Bach (1979) and Chierchia (1984)) or syntactically (Williams (1980) and
Lebeaux (1984)), the shared claim of the predicational theory is that the
control relation is established between the controller and the entire infinitive
(not its null subject part).

The second theory is a binding theory, in which the existence of PRO in the infinitival subject position is presupposed and the PRO is taken to be a null anaphor. Look at the following sentence:

(9) John$_i$ hoped [PRO$_i$ to impress his roommates]. (p. 54)

Here, the PRO is interpreted as *John*. This interpretation is accounted for by the mechanism of binding theory. Binding theory hypothesizes that an anaphor must be bound within a binding domain. In (9), the binding domain is the whole sentence, so that the null anaphor PRO in (9) is bound by and interpreted as *John*.

The third theory is a theory based on lexical-functional grammar proposed by Bresnan (1982). This theory asserts that control is established at the level in which grammatical functions are encoded. For example, the embedded infinitive subject in (10) is interpreted as *John*.

(10) John tried to swim. (p. 59)

The interpretation is ensured by the following mechanism:

(11)
$$
\begin{bmatrix}
\text{PRED} & \text{try '<(Subj),(XCOMP)>'} \\
\text{SUBJ} & \begin{bmatrix} \text{PRED} & \text{'John'} \end{bmatrix} \\
\text{XCOMP} & \begin{bmatrix} \text{PRED} & \text{'swim <(SUBJ)>'} \\ \text{SUBJ} & \underline{\hspace{2cm}} \end{bmatrix}
\end{bmatrix}
$$
(p. 59)

The mechanism in (11) guarantees that the f-structure value of the PRED attribute in the matrix subject has the same value as that of the SUBJ in the embedded clause.

The fourth theory is a movement theory of control advocated by Bowers (1973) and recently by Hornstein (1999). Given that θ-role assignment is reduced to feature checking, the embedded subject moves from within the embedded infinitival clause to the matrix subject position to check the θ-role. Take the following sentence as an example:

checking of the θ-role

(12) [$_{IP}$ Mary [$_{vP}$ ~~Mary~~ v+hopes [$_{IP}$ ~~Mary~~ to [$_{vP}$ ~~Mary~~ v+win]]]] (p. 63)

movement

In (12), *Mary* firstly checks the θ-role in its base-generated [Spec, vP] position and then moves to the matrix [Spec, vP] position to check the other θ-role. This movement makes it possible for *Mary* to be interpreted as the embedded subject in addition to the matrix subject. The crucial point of this theory is to eliminate the existence of PRO and to reduce all of the effects of the PRO to the properties of movement.

The last and fifth theory is the Agree model of control put forward by Landau (2000). Given the existence of PRO in the embedded infinitival

subject position, this theory argues that the T in (13) firstly agrees with *Mary* in the matrix [Spec, *v*P] position and then agrees with the PRO, which consequently causes coindexation between *Mary* and the PRO.

(13)   Mary$_i$ T$_i$ [~~Mary$_i$~~ hopes [PRO$_i$ to win].

This coindexation allows the matrix subject *Mary* to create a bound-variable reading with the PRO in the embedded clause.

Each of the five theories tries to solve the problems with Rosenbaum's (1967, 1970) analysis, but there remain issues associated with each theory. One of the issues is about the necessity of positing the null element PRO.   For example, Hornstein (1999) and Hornstein and Nunes (2014) argue against the existence of PRO.

Chapter 3 "Empirical arguments for PRO" of the book under review provides empirical evidence for the existence of PRO in a control infinitival clause (see also Reed (2014) for the argument).   The author classifies the arguments into two types: indirect arguments and direct arguments.   The indirect type of argument is supported by the presence of CP-elements within the control infinitival clause.   If the control infinitival clause includes the element of *wh*-phrases, the infinitival clause constitutes CP, the reason being that the *wh*-phrase occupies [Spec, CP].   CP dominates TP, whose specifier position is assumed to be a subject position.

(14)   [$_{CP}$ *wh*-phrase [$_{C'}$ C [$_{TP}$ *Subject* [$_{T'}$ [$_T$ to] …]]]]

That is, if the clause includes the *wh*-phrase, the clause has the subject position that PRO occupies.   Actually, the *wh*-phrase *which way* appears in the control infinitival clause:

(15)   Mary asked [which way to go].   (p. 71)

This implies that the control clause provides the subject position that PRO occupies:

(16)   Mary asked [$_{CP}$ which way [$_{C'}$ C [$_{TP}$ *PRO* [$_{T'}$ [$_T$ to] go]]]].

Therefore, the existence of PRO in the control infinitival clause is indirectly supported.

One of the direct arguments is related to a split control phenomenon. The examples in (17) are a case in point:

(17)   a.   *John talked with Mary about each other.

       b.   John$_i$ proposed to Mary$_j$ [PRO$_{i+j}$ to help each other$_{i+j}$].   (p. 76)

(17a) shows that the reciprocal *each other* cannot choose the split elements, *John* and *Mary*, as its antecedents.   However, such a control relation is possible in (17b).   This is because there exists a null subject that is controlled simultaneously by the matrix subject as well as the matrix object, and this null subject helps the reciprocal accept the split antecedent.   Ac-

cordingly, the existence of PRO in the control infinitival clause is confirmed by direct evidence as well.

Chapter 4 "Predicting the distribution of PRO" points out the indispens-ability of empirical studies and insists that control clauses may be finite, PRO may be Case-assigned, PRO may appear in non-subject position, and PRO may be realized overtly as a lexical item.   First, the finiteness of con-trol is verified by the following sentences:

(18)   a.   Yesterday, John hoped [to solve the problem tomorrow].

<div align="right">(p. 86)</div>

     b.   O   Yanis   kseri   [na   kolimbai].
          the   John-Nom   knows   Prt   swim-3sg
          'John knows how to swim.'   (p. 90)

The author supposes that the finiteness is determined by semantic tense and morphological φ-agreement.   With this determinant of the finiteness in mind, the English example of (18a) shows that the control infinitive has a tense independent of the matrix past tense; the Greek example of (18b) shows that the control predicate *kolimbai* 'swim' manifests inflectional φ-agreement.   Hence, control clauses may be finite as well as non-finite.

Second, evidence for the Case-marking of PRO is provided by the fol-lowing Greek example:

(19)   Anangasan   tin   Eleni   [PRO   na   milisi   afti
      forces-3-pl   the   Eleni-Acc   PRO-Nom   Prt   speak-3sg   she
      i idhja].
      herself-Nom
      'They forced Helen to speak herself.'   (p. 105)

Here, the PRO carries the nominative Case different from its controller *Eleni* 'Eleni,' which bears the accusative Case.   We assume that the PRO in (19) has the nominative Case, because the reflexive pronoun *i idhja* 'herself,' which takes over the property of the PRO, bears the nominative Case.   If the PRO had no Case, the reflexive could not bear the nominative Case.   Thus, PRO may be Case-marked.

Third, the appearance of PRO in non-subject position is attested by a control construction in Tagalog.   Tagalog has a unique voice system, which is used to demonstrate what the subject is in a clause.   For example, the active voice marker on the verb requires the Agent argument to be a nomi-native subject; and the instrumental voice marker on the verb requires the Theme argument to be the nominative subject.   On these grounds, let us consider the following sentence:

(20) Binalak   niya-ng   [ibigay   PRO   sa-Nanay
      Perf-plan-ov 3sg-Gen-Comp iv-give PRO-Gen Dat-mother
      ang-pera].
      Nom-money
      'He planned to give mother (some/the) money.'   (p. 111)

In (20), the verb *ibigay* 'give' in the control clause displays the instrumental voice marker, which requires the Theme argument *ang-pera* 'money' to be the nominative subject. In other words, the missing argument PRO cannot be the nominative subject in the control clause. Thus, we can see that PRO may serve as the non-subject.

Fourth, the overt lexical realization of PRO is given by the Japanese anaphor example. In general, it is acknowledged that the overt anaphor in Japanese accepts any c-commanding subject as its antecedent, local or distant. However, it must be bound by the local controller when it occurs in the obligatory control context as in (21).

(21) Sachie$_i$-ga   Karthik$_j$-ni   PRO$_{j/*i}$/zibun$_{j/*i}$-ga shukudai-o
      Sachie-Nom   Karthik-Dat   self-Nom   homework-Acc
      shi-ro-to   meeree-shi-ta.
      do-Imp-C   order-do-Dc
      'Sachie ordered Karthik to do the homework.'   (p. 118)

This shared property with both PRO and an overt anaphor in Japanese illustrates that the overt anaphor in Japanese is a case of lexical realization of PRO. Hence, PRO can appear as an overt lexical form. To summarize the discussion in this chapter, PRO can appear in more environments than has previously been realized.

Chapter 5 "The phenomenology of obligatory control" discusses a number of properties of obligatory control. Obligatory control is a certain dependency relation between the controller and the controllee: the controller occurs in the clause immediately dominating the clause whose subject is the controllee, which is defined in (22):

(22)   *The OC signature*
          In a control construction [… X$_i$ … [$_S$ PRO$_i$ …] …], where
          X controls the PRO subject of the clause S:
      a. The controller(s) X must be (a) co-dependent(s) of S.
      b. PRO (or part of it) must be interpreted as a bound variable.
                                                          (p. 29)

In this review, I would like to point out five sorts of properties. Incidentally, one more property, control in DP, is discussed in the book (section 5.6), but I would like to omit it to maintain the consistency of the discus-

sion.   Since this property is related to the internal structure of the nominal, its inclusion could cause a lack of consistency in this review.

The first property is that the choice of the controller involves semantic principles as well as syntactic principles.   Postal (1970) observes that the controller of PRO in an infinitival clause has the same status as the antecedent for an embedded pronominal subject in a modal finite clause, as illustrated in (23):

(23)   a. $Harry_j$ told Max_i [$PRO_{i/*j}$ to enlist in the army].
       b. $Harry_j$ told Max_i [that $he_{i/*j}$ ought to/should enlist in the army].
       c. $Bill_j$ asked Tom_i [when $PRO_{*i/j}$ to fire the canon].
       d. $Bill_j$ asked Tom_i [when $he_{*i/j}$ should fire the canon].   (p. 126)

These facts strongly suggest that the choice of the controller is not determined solely by syntactic locality principles like (4) but semantic factors are also a crucial factor to select the controller.

The second property is so-called partial control examined by Wilkinson (1971).   The example in (24) is a case in point:

(24) I_i regretted [PRO_{i+} killing Sam the way we did] because he was such a nice guy.   (p. 156)

This sentence indicates that the PRO can be controlled by the people who include the main subject *I*.

The third property is concerned with the split control phenomenon.   For example, the antecedents of the PRO in (25) are *John* and *Mary*.

(25) $John_i$ proposed to $Mary_j$ [PRO_{i+j} to meet each other at 6].

(p. 172)

As mentioned in (6) above, this violates the identity constraint imposed between the controller and the controllee.

The fourth property is implicit control as in (26):

(26)   It was nice to shave oneself.   (p. 175)

Postal (1970) argues, based on examples of this type, that the null subject of the control infinitival clause is an unspecified implicit argument, which binds the object anaphor *oneself*.

The fifth property is PRO-gate.   Higginbotham (1980) maintains that a weak crossover (WCO) effect arises when the subject includes the overt pronoun followed by variables as in (27a) but no WCO effect arises when the pronoun is replaced with PRO as in (27b):

(27) a. ?? [For his$_i$ wife to visit his$_i$ old neighborhood] would embar-
         rass [someone I know]$_i$.
      b. [PRO$_i$ to visit his$_i$ old neighborhood] would embarrass
         [someone I know]$_i$.   (p. 187)

This contrast remains a problem; the question is why the intervention of
PRO between the quantifier and the pronoun in the subject obviates the
WCO violation.

   Chapter 6 "Adjunct control" examines the syntactic properties of adjunct
control. The author emphasizes that the analysis of adjunct control depends
crucially on where the adjunct clause is attached in the syntactic structure
and how the adjunct clause is interpreted. Every syntactic and semantic
analysis of the adjunct clause remains controversial. In this sense, a lot
of problems are open ended with respect to the analysis of the adjunct
control. That said, the author points out that adjunct control is basically
subject to the same constraints as argument obligatory control discussed in
chapter 5. In this review, I would only like to provide two types of evi-
dence. First, the controller is a local argument of the clause immediately
dominating the adjunct:

(28) a. Mary$_i$ grew up [PRO$_i$ to be a famous actress].
      b. We bought Mary$_i$ the dog [PRO$_i$ to play with].

                                                             (pp. 221–222)

Second, the adjunct control permits partial control as well:

(29) Fred$_i$ preferred [PRO$_{i+}$ to meet after lunch].   (p. 227)

   Chapter 7 "Non-obligatory control" claims that non-obligatory control is a
pragmatic phenomenon involving logophoric reference and topicality. Non-
obligatory control is a kind of dependency relation, which is defined as in
(30):

(30)   *The NOC signature*
           In a control construction [… [$_S$ PRO …] …]:
      a. The controller need not be a grammatical element or a co-
          dependent of S.
      b. PRO need not be interpreted as a bound variable (i.e., it may
          be a free variable).
      c. PRO is [+human].   (p. 232)

   As for the logophoricity of non-obligatory control, the author relies on
Kuno's (1975) analysis, which takes PRO in the non-obligatory control to
be a logophor. In fact, the antecedents of logophoric pronouns and reflex-
ives are determined on the basis of mental perspective. Consider the fol-
lowing sentences:

(31) a. John said to Mary that it would be easy to prepare herself
         for the exam.
     b. *John said about Mary that it would be easy to prepare her-
         self for the exam.   (p. 245)

The null subject PRO of the infinitival clause can be controlled by *Mary*
in (31a) but not in (31b). Exactly the same argument applies to *picture*-
anaphors as in (32):

(32) a. John said to Mary that there was a picture of herself with a
         Mafia figure in the newspaper.
     b. *John said about Mary that there was a picture of herself
         with a Mafia figure in the newspaper.   (p. 245)

Therefore, the PRO in the non-obligatory control clause is a logophor simi-
lar to *picture*-anaphors.

As for the topicality of non-obligatory control, the antecedent of the
PRO in the non-obligatory control is either the discourse or the sentence
topic. Consider the following sentences:

(33) a. [After PRO_i collecting some money], a bank account was
         opened by the landlord$_i$.
     b. *[After PRO_i collecting some money], a bank account was
         opened by a businessman$_i$.   (p. 251)

The difference in grammaticality between (33a) and (33b) shows that the
definite NP can be a controller of the PRO but the indefinite NP cannot.
Since definite elements refer to old topicalized discourse referents, the an-
tecedent of the PRO in the non-obligatory control must be the discourse or
the sentence topic. Given these arguments with respect to logophoricity
and topicality, the author argues that non-obligatory control is a pragmatic
phenomenon.

Finally, chapter 8 "Conclusion" provides the view that control is an in-
tricately structured knowledge, which consists of significant generalizations
and principles about human language. Then, the author concludes the book
with a vision of control: the next thing that we have to do is to decompose
knowledge into theoretically useful parts and to explicate which component
of the grammar should fill the part.

3. Concluding Remarks

I would like to conclude this summary with some remarks on the great
significance of the book under review. Although this book provides no
specific theory of control, a huge range of previously discussed phenomena

are taken up and an overall picture of control is given.   Having said this, the book under review is a brilliant contribution to the present understanding of control and to the proper perspective toward an explanatory theory of control, so that I would like to recommend this book to all readers concerned with or interested in control.

REFERENCES

Bach, Emmon (1979) "Control in Montague Grammar," *Linguistic Inquiry* 10, 515–531.

Bowers, John (1973) *Grammatical Relations*, Doctoral dissertation, MIT.

Bresnan, Joan (1982) "Control and Complementation," *Linguistic Inquiry* 13, 343–434.

Chierchia, Gennaro (1984) *Topics in the Syntax and Semantics of Infinitives and Gerunds*, Doctoral dissertation, University of Massachusetts.

Davies, William D. and Stanley Dubinsky (2004) *The Grammar of Raising and Control: A Course in Syntactic Argumentation*, Blackwell, Oxford.

Higginbotham, James (1980) "Pronouns and Bound Variables," *Linguistic Inquiry* 11, 679–708.

Hornstein, Norbert (1999) "Movement and Control," *Linguistic Inquiry* 30, 69–96.

Hornstein, Norbert and Jairo Nunes (2014) "Minimalism and Control," *The Routledge Handbook of Syntax*, ed. by Andrew Carnie, Yosuke Sato and Daniel Siddiqi, 239–263, Routledge, London.

Kuno, Susumu (1975) "Super Equi-NP Deletion is a Pseudo-Transformation," *NELS* 5, 29–44.

Landau, Idan (2000) *Elements of Control: Structure and Meaning in Infinitival Constructions*, Kluwer, Dordrecht.

Lebeaux, David (1984) "Anaphoric Binding and the Definition of PRO," *NELS* 14, 253–274.

Polinsky, Maria (2013) "Raising and Control," *The Cambridge Handbook of Generative Syntax*, ed. by Marcel den Dikken, 577–606, Cambridge University Press, Cambridge.

Postal, Paul M. (1970) "On Coreferential Complement Subject Deletion," *Linguistic Inquiry* 1, 439–500.

Reed, Lisa A. (2014) *Strengthening the PRO Hypothesis*, Mouton de Gruyter, Berlin.

Rosenbaum, Peter (1967) *The Grammar of English Predicate Complement Constructions*, MIT Press, Cambridge, MA.

Rosenbaum, Peter (1970) "A Principle Governing Deletion in English Sentential Complementation," *Readings in English Transformational Grammar*, ed. by Roderick Jacobs and Peter Rosenbaum, 220–229, Ginn-Blaisdell, Waltham, MA.

Wilkinson, Robert (1971) "Complement Subject Deletion and Subset Relations," *Linguistic Inquiry* 2, 575–584.

Williams, Edwin (1980) "Predication," *Linguistic Inquiry* 11, 203–238.

Department of Liberal Arts
Faculty of Science Division I
Tokyo University of Science
1–3 Kagurazaka, Shinjuku-ku, Tokyo, 162–8601
e-mail: kitada@rs.tus.ac.jp