

A Window into the Syntax of Control: Event Opacity in Japanese and English

STANLEY DUBINSKY
SHOKO HAMANO

Abstract

This paper explores Control properties of adverbial clauses consisting of an accusative NP and a locative PP headed by *ni*. The paper presents evidence motivating an Obligatory Control (OC) analysis of this adverbial, showing that syntactic OC in Japanese is blocked in the presence of vP/TP. The observed blocking effects are shown to be caused by event-features associated with the projection of vP/TP. This observation is formalized by amending Hornstein's (1999) proposal for doing away with the Theta-criterion. Our extension of Hornstein 1999 asserts that an NP cannot check Theta-roles from distinct events, and allows for NP movement through an event-denoting vP/TP just in case the NP does not acquire additional Theta-roles in the derivation. The last section examines flaws in Landau's (2000, 2003, 2004) tense-based explanations of exhaustive and partial control, showing that control categories are determined on the basis of event-structure (rather than the tense of the complement).

Introduction

This paper examines the Control properties of the adjunct phrase in (1), consisting of an accusative NP and a locative *ni* phrase (henceforth a “bare *ni*” adjunct). In (1), *kiseru o kuti ni* ‘with a pipe in [his] mouth’ modifies the main clause *Ken wa ... tatiagatta* ‘Ken stood up’. This adjunct (see Martin, 1975 and Kuwahira, 1998) is special in two ways: (i) accusative Case on *kiseru* does not involve the verb *tatiagatta*; and (ii) *kuti ni* involves Obligatory Control (OC) by the matrix subject. The adjunct in (1) appears to alternate with that in (2), which differs from (1) in having vP/TP structure, i.e. the ‘light’ verb *si* ‘do’ and the gerundive marker *te*.

- (1) Ken-wa [kiseru-o kuti ni] tatiagatta
 TOP pipe-ACC mouth at stood.up
 ‘Ken stood up with a pipe in [his] mouth.’
- (2) Ken-wa [kiseru-o kuti ni site] tatiagatta
 TOP pipe-ACC mouth at do.TE stood.up
 ‘Ken stood up with a pipe in [his] mouth.’

(1) and (2) are not exactly equivalent, in that (2) involves separate events of ‘having a pipe in one’s mouth’ and ‘standing up’. Yet, they are close enough that some (Martin, 1975) have claimed (1) to be derived from (2) via deletion of *site*.

Section 1 briefly introduces the distinction between (1) and (2), reviewing the fact that the bare *ni* adjunct in (1) is not derivationally related to the superficially similar ‘NP *o* NP *ni site*’ in (2) (henceforth “*ni site*” adjunct). Section 2 (Control and the bare *ni* construction) motivates an OC analysis of the bare *ni* adverbial in (1), showing that Control is syntactic, and that vP/TP in (2) blocks syntactic OC in Japanese. Section 3 (Event-induced opacity to Control) presents evidence showing that event-features associated with vP/TP are responsible for blocking syntactic OC into Japanese PPs and VPs. It will be shown that an event-index in vP/TP, assigned by the *-te* affix in (2), blocks syntactic Control. This is formalized by amending Hornstein’s (1999:78-79) proposal for doing away with the Theta-criterion and allowing movement into Theta positions (with “no upper bound on the number of Theta-roles a chain can have”). Our extension of his proposal asserts that an NP cannot check Theta-roles from distinct events, and allows for NP movement through an event-denoting vP/TP just in case the NP does not acquire additional Theta-roles in the derivation. Finally, section 4 (Exhaustive Control and the calculus of events) extends the investigation to English and examines flaws in Landau’s (2000, 2003, 2004) tense-based explanations of exhaustive and partial control, showing that control categories are determined on the basis of the event-structure (rather than the tense) of the complement.

1 Distilling the Construction

If (1) were derived from the deletion of *site* in (2), it would explain the accusative *o*-marking of *kiseru*. The meaning is indeed close enough that some (e.g. Martin, 1975) have claimed that (1) involves *site*-deletion. This is not, however, a viable analysis. While some cases may involve ellipsis, the whole class of constructions cannot be so derived. Specifically, (i) some bare *ni* adverbials do not admit *site*, (ii) some *site* adverbials do not allow it to be omitted, and (iii) when *ni* and *ni-site* appear to alternate, it correlates with differences in meaning.

The distinction between (1) and (2) is elaborated in Dubinsky and Hamano (2003), which presents an account for accusative Case on the first NP in the ‘NP-*o* NP-*ni*’ adjunct in (1). There it is shown that the accusative NP is not an argument of, and doesn’t get Case from, the main verb. This is apparent in (1), where the main verb *tatiagatta* ‘stood up’ is intransitive. Rather, the bare *ni* phrase is an AspP, carrying the value [+result], which in turn selects a PP headed by *ni*. On this view, the adjunct *kiseru o kuti ni* involves movement of *kiseru* from Spec of the PP *kuti ni* to Spec,AspP, allowing Case to be checked, as in (3).

(3) [AspP [kiseru-*o*]₁ [PP t₁ kuti ni+STATE] Asp+RESULT] (from (1))

This analysis naturally extends previous observations about accusative Case in Japanese, such as in Iida (1987), where it is shown that an aspectual postposition (e.g. *-go* ‘after’ or *-tyuu* ‘during’) can license accusative Case on the object complement of a transitive verbal noun. The bare *ni* construction shows that accusative Case can (in very limited circumstances) depend on aspect alone, independent even of argument structure. The proposed analysis was prefigured by other work on this topic. Travis’ (1991) posited ‘inner aspect’ phrase, a functional projection (of Tense) intermediate between the lower and higher VPs in a transitive clause. Borer (1999) took a similar approach to accusative Case, attributing accusative Case-checking to an AspP and characterizing the specifier of this functional projection as the ‘subject-of-result’. Unlike previous proposals though, our analysis of Case in bare *ni* suggests that accusative-checking AspP can be projected independently of argument structure or verbal projections. In this way, our analysis extends these claims about the relation between Case and aspect, showing that Case can be a reflex of aspect alone.

2 Control and the Bare *ni* Construction

Having claimed that bare *ni* adjuncts are not derived via deletion of vP/TP, we turn to their Control properties, which also distinguishes them from *ni site* adjuncts. Here we show (i) that bare *ni* adjuncts involve Obligatory (i.e. Exhaustive) Control (OC), while *ni site* adjuncts do not, and (ii) that OC in bare *ni* adjuncts is syntactic, requiring structural transparency between the controller and the controllee. In this regard, we claim that *ni site* adjuncts project TP, and that an event feature associated with TP is what blocks Control into *ni site* adjuncts.

2.1 Making the Case for Control This section presents arguments that bare *ni* involves OC: (i) the *ni*-marked NP must be possessed by the sentential subject (its controller), (ii) the possessor of the NP cannot be overt (pronominal or anaphoric), and (iii) a bare *ni* phrase cannot be a sentential subject or topic.

2.1.1 Bare *ni* Adjunct Requires a Possessed Noun Consider the data in (4).

- (4) a. Mari-wa [tue-o yoko ni] tatiagatta
 TOP cane-ACC side at stood.up
 ‘Mari stood up, with the cane at [her] side.’ ONLY
- b. Mari-wa [tue-o yoko ni site] tatiagatta
 TOP cane-ACC side at do.TE stood.up
 ‘Mari stood up, with the cane at [her] side.’ OR
 ‘Mari stood up, having laid the cane flat [i.e. on its side].’

Note that *yoko ni* in (4a), without *site*, can only be interpreted as ‘at her side’ (a possessed body part), while in (4b) it can mean ‘at her side’ or ‘on its [the cane’s] side’. There is nothing in principle that precludes the bare *ni* phrase in (4a) from meaning ‘with the cane laid flat’. However, the hypothesis that the possessor of the *ni* phrase is Controlled by the matrix subject predicts this. Further illustration of this is seen in (5) and (6). In (6), the *ni* phrase contains the inalienably possessed noun *kokoro* ‘heart’, and either *ni* or *ni site* is possible.

- (5) Taroo-wa [ziten-o **kokoro**-no sasae ni (site)] benkyoo-siteita
 TOP dictionary-ACC heart-GEN support at do.TE study-was.doing
 ‘Taro was studying with a dictionary as psychological support (lit: support for [his] heart).’
- (6) a. *Taroo-wa [ziten-o **tukue**-no sasae ni] benkyoo-siteita
 TOP dictionary-ACC desk-GEN support at study-was.doing
 b. Taroo-wa [ziten-o **tukue**-no sasae ni site] benkyoo-siteita
 TOP dictionary-ACC desk-GEN support at do.TE study-was.doing
 ‘Taro was studying with a dictionary as support for the desk.’

In (6), though, *kokoro* is felicitously replaced by the *tukue* ‘desk’ only in (6b) with *ni site* and not in (6a) which has bare *ni*. The unacceptability of (6a) is understandable if the bare *ni* requires OC in the form of inalienable possession; *kokoro* ‘heart’ is a semantically appropriate controllee, but *tukue* ‘desk’ is not.

2.1.2 Possessor of ‘NP ni’ Is a Controlled Nominal Rather than pro The possessor of the *ni*-marked nominal in a bare *ni* adjunct may not be an overt pronoun, e.g. (7a) with *kanozyo no* ‘her’. In contrast, it can be overt in a *ni site* adjunct, e.g. (7b) where *kanozyo no* is optional.

- (7) a. Mari₁-wa neko-o (***kanozyo**₁-no) aite ni syokuzi-o siteiru.
 TOP cat-ACC she-GEN companion as meal-ACC is.doing
 ‘Mari is eating a meal with a cat as her companion.’
 b. Mari₁-wa neko-o (**kanozyo**₁-no) aite ni site syokuzi-o siteiru.
 TOP cat-ACC she-GEN companion as do.TE meal-ACC is.doing
 ‘Mari is eating a meal with a cat as her companion.’
 c. Mari₁-wa neko-o **tooza**-no aite ni (site) syokuzi-o siteiru.
 TOP cat-ACC temporary-GEN companion as do.TE meal-ACC is.doing
 ‘Mari is eating a meal with a cat as temporary companion.’

Note that *aite* can indeed have a modifier in the bare *ni* adjunct. Example (7c) contrasts with (7a), where *tooza no* ‘temporary’ modifies *aite*, with or without

site. Thus, the ungrammaticality of (7a) with *kanozyo no* has only to do with the overt element being a possessive coindexed with the matrix subject.

Similar facts are seen with the reflexive *zibun* (Miyamoto, 1999, reports parallel facts regarding controlled verbal nouns (VNs)). The reflexive *zibun no* may not appear before *aite ni* in the bare *ni* adjunct (7a), replacing *kanozyo no*, although replacing *kanozyo no* with *zibun no* would be perfectly grammatical in (7b) with *ni site*. Note that *zibun* is not categorically ruled out of a bare *ni* adjunct, as in (8) where it appears before *neko* ‘cat’, with or without *site*.

- (8) Taroo₁-wa [(**zibun**₁-no) neko-o aite ni (site)] syokuzi-o sita
TOP self-GEN cat-ACC companion as do.TE meal-ACC did
 ‘Taro₁ ate a meal with a [self’s₁] cat as [his] companion.’

The ungrammaticality of *kanozyo* (or *zibun* in its place) in (7a) is understandable if (7a), but not (7b), involves Obligatory Control of the *ni*-marked nominal in the bare *ni* adjunct. If (7a) involves OC of the possessor of *aite*, then we predict correctly the impossibility of inserting *zibun* or *kanozyo* into this position.

2.1.3 Bare *ni* Adjunct Cannot Be a Matrix Subject/Topic Finally, we find that bare *ni* and *ni site* adjuncts can be distinguished in their ability to appear in subject/topic position, as in (9).¹ The ungrammaticality of (9) with bare *ni* supports the hypothesis that *katate* is subject to OC. Its grammaticality with *ni site* accords with the hypothesis that the *ni site* adjunct involves little *pro*.

- (9) Zisyo-o katate ni *(site) wa kangaekonda.
dictionary-ACC one.hand at do.TE TOP think-fell
 ‘(every time) I held a dictionary in my hand, I fell deep into thought.’

2.1.4 Bare ‘NP *ni*’ Phrase has an OC Possessor Given these facts, we adopt an analysis of (1) and (2), as shown in (10), in which the bare *ni* adjunct involves OC of a null possessor and in which the *ni site* adjunct involves a small *pro* possessor.

- (10) a. Ken₁-wa [kiseru-o [~~Ken~~₁^{POSS} kuti] ni] tatiagatta =(1)
 b. Ken₁-wa [kiseru-o [*pro*₁^{POSS} kuti] ni site] tatiagatta =(2)

¹ Note that there is no general prohibition to having a bare *ni* phrase marked by *wa*, as (i) shows.

- (i) Katate ni wa zisyo-o katate ni wa pen-o motte kangaekonda.
one.hand at TOP dictionary-ACC one.hand at TOP pen-ACC hold.TE fell.into.thought
 ‘I fell deep into thought, holding a dictionary in one hand and a pen in the other.’

Here, the presence of the verb *motte* (which assigns case to *zisyo* and *pen*) allows the phrase *katate ni* to be scrambled around the object and marked with *wa*.

In (10a), the possessor of *kuti* is a copy of the subject *Ken* (deleted at PF), and in (10b) it is little *pro*. Note how this analysis accounts for the interpretations observed in (4), above. Example (4a) only has one interpretation on account of the fact that syntactic Control has applied to the structure, leaving the unpronounced possessor copy of *Mari* coindexed with the matrix subject copy. Example (4b) on the other hand has little *pro*, which may be freely coindexed with either *Mari* (giving an interpretation equivalent to (4a)) or with *tue* ‘cane’.

2.2 The Category of the Adjuncts: Bare *ni* is PP, *ni site* is TP The bare *ni* and the *ni site* adjuncts differ in meaning, and in a way that goes beyond alternations between control structures and little *pro*. The difference lies in the event-splitting nature of the *te* projection. Following Nakatani (2003) and others (see Matsuo, 1936; Nishida, 1977; Ogihara, 1998; and Yoshikawa, 1973; also Hasegawa 1996 for a different perspective), we will assume *te* to head TP.

Recall the second interpretation given for (4b), where laying the cane on its side is followed by *Mari*’s standing up. Sequentiality of this sort correlates with *ni site*, while the state depicted by bare *ni* is always part of the matrix clause event/state. Other examples are illustrative. (11) is parallel to (1) and (2), with the main verb *sinda* ‘died’. Compared with (1), (11a) is unacceptable because the bare *ni* adjunct expresses the manner of *Ken*’s dying and makes little sense here. In contrast, (11b) is fine, since the *ni site* adjunct suggests only a sequential linkage between the fact of *Ken*’s dying and his having had a pipe in his mouth.

- (11) a. #*Ken-wa* [*kiseru-o kuti ni*] *sinda*
 TOP pipe-ACC mouth at died
 b. *Ken-wa* [*kiseru-o kuti ni site*] *sinda*
 TOP pipe-ACC mouth at do.te died
 ‘*Ken* died with a pipe in [*his*] mouth.’

Other data confirm the close connection between the bare *ni* adjunct and its containing VP. First, the *ni site* adjunct expresses an event/state independent of the main clause, while the bare *ni* adjunct is often dependent upon the meaning and aspectual properties of the main verb. Compare (12) and (13). (12a) has the main verb *miteita* ‘was watching’ and (12b) has the main verb *mita* ‘saw/noticed’.

- (12) a. *John-wa kasa-o katate ni site Mary-o miteita.*
 TOP umbrella-ACC one.hand at do.TE ACC was.watching
 ‘Holding an umbrella in his hand, John was watching *Mary*.’
 b. *John-wa kasa-o katate ni site Mary-o mita.*
 TOP umbrella-ACC one.hand at do.TE ACC saw
 ‘Holding an umbrella in his hand, John saw *Mary*.’

- (13) a. John wa kasa-o katate ni Mary-o **miteita**.
TOP umbrella-ACC one.hand at ACC was.watching
 ‘John was watching Mary, holding an umbrella in his hand.’
 b. #John wa kasa-o katate ni Mary-o **mita**.
TOP umbrella-ACC one.hand at ACC saw
 ‘John saw Mary, holding an umbrella in his hand.’
 c. John wa kasa-o katate ni Mary-o **misueta**.
TOP umbrella-ACC one.hand at ACC stared.at
 ‘John stared at saw Mary, holding an umbrella in his hand.’

In contrast with the depictive *ni site* adjunct in (12), the bare *ni* adjunct in (13) has a manner interpretation. The meaning of (13a) is that John was absent-mindedly looking at Mary holding an umbrella. In other words, John’s having an umbrella is in some sense the manner of his looking at Mary in this sentence. In (12b) and (13b), the main verb *mita* means ‘see’, as in ‘notice’ or ‘catch sight of’. The manner reading associated with bare *ni* is not available for (13b), possibly because the absent-mindedness interpretation is hard to get when the main clause denotes a telic event of such short duration. Example (13b) can be contrasted with (13c), in which the main verb (now *misueta* ‘stared at’) allows the manner denotation of the adverbial. In this instance, John’s holding an umbrella is indicative of a menacing posture and denotes the manner of his staring.

Secondly, the bare *ni* adjunct has a manner interpretation consistent with its being embedded in the matrix VP, while the *ni site* adjunct does not. A closer examination of (4) brings this out more clearly. Recall that (4a) has a bare *ni* adjunct whose only interpretation is ‘with a cane at her [Mari’s] side’, and that the *ni site* adjunct in (4b) can also have this interpretation. As it happens, the bare *ni* adjunct in (4a) is most likely to mean that she stood up with the cane at her side, **using it for support**. The *ni site* adjunct, in contrast, is depictive and does not entail any manner-like interpretation. Further evidence of this is provided in Dubinsky and Hamano (2003, 2006). All these observations support the analysis given in (10), in which the adjunct in (1) is a bare AspP and that in (2) has vP/TP structure. This is laid out in (14), and we propose that it is the vP/TP phrase headed by *si/te* which blocks Control in (14b)/(2).

- (14) a. Ken wa [AspP kiseru o [~~Ken~~^{POSS} kuti] ni] tatiagatta = (1)
 b. Ken₁ wa [TP [vP [AspP kiseru o [pro₁^{POSS} kuti] ni] si] te] tatiagatta = (2)

3 Event-Induced Opacity to Control

Section 3.1 takes a closer look at the properties of *te* suffixed and bare verb forms in Japanese. With that explanation in hand, section 3.2 examines event-induced opacity to OC in Japanese, extending these observations to English in section 4.

3.1 -te Verbs and Bare (*renyookei*) Verbs This section examines properties of two types of subordination in Japanese: *te* and bare VP (*renyookei*) subordination.

The *te* affix is primarily used when the event/state denoted by the subordinate clause is closely related to that denoted by the matrix clause. For this reason, *te* has often been treated as a conjunction (see Martin, 1975). The relation between the *te* clause and the matrix is multifaceted, and ranges from cases in which *te* is quite interpretable (e.g. cause) to cases in which *te* appears to be semantically vacuous. Some examples of the possibilities are: (i) each clause (the main clause and the *te* clause) denotes a distinct property of a common subject; (ii) the clauses denote two simultaneous or parallel events; (iii) the *te* clause event immediately precedes the matrix clause event²; (iv) the *te* clause denotes the cause of the matrix clause event; (v) the *te* clause denotes a means for achieving the matrix clause event; and (vi) the *te* clause denotes the basis of the judgment in the matrix clause. Note also that the tense interpretation of a *te* clause is dependent on the tense of the main clause (or on the appearance of other temporal expressions). Thus, even though the integration of two events/states denoted by the *te* expression and its matrix may be so complete as to reduce the second predicate to an auxiliary, many such expressions retain the sense of ‘sequence’ common to *te* expressions, as examples in (15) show.

- | | | |
|------|------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| (15) | a. tabete miru
<i>eat.TE see</i>
‘eat and see’ / ‘try eating’ | b. tabete miseru
<i>eat.TE show</i>
‘eat and show’/‘demonstrate eating’ |
| | c. tabete morau
<i>eat.TE receive</i>
‘benefit from s.o. having eaten’ | d. tabete oku
<i>eat.TE put</i>
‘prepare by having eaten’ |

In contrast with the *te* form, subordinations with bare (*renyookei*)³ verb stems, rather than denoting any (in)dependent event or state, are interpreted as part of the event/state denotation of the main clause. This contrast between inflected forms and bare uninflected forms is quite salient, and very productive. Of any pair involving such a contrast, the one with a tense-type inflection

² As Nakatani points out, some (including Nakatani himself, Kuno, 1973; Matsuo, 1936; Yoshikawa, 1973) take temporal sequencing to be the basic function of the *te* connector.

³ Use of *renyookei* in (ia) involves coordination of independent (related) clauses and freely alternates with (ib), with no change in meaning. We take (ia) to involve stylistic deletion of *te*.

- | | |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (i) | a. Koohee-o nomi kurowassan-o tabe sinbun-o yomu.
<i>coffee-ACC drink croissant-ACC eat newspaper-ACC reads</i> |
| | b. Koohee-o nonde kurowassan-o tabete sinbun-o yomu.
<i>coffee-ACC drink.TE croissant-ACC eat.TE newspaper-ACC reads</i>
‘[s/he] drinks coffee, eats a croissant, and reads a newspaper.’ |

3.2 Event-Induced Opacity and Control Having seen that bare *ni* is transparent for Control by the matrix subject, in contrast with *ni site*, and having had a closer look at the function of *te* in the verbal syntax, we now turn to an explanation of *site*-induced opacity, and its implications for a larger theory of syntactic control.

It is clear from our examination of the contrast between (1) and (2) that *te* blocks Control in (2). This is confirmed by examining the pair of constructions involving the verb stem *tabe* ‘eat’ in (19). *Tabetai* (19a) is an OC construction which only means ‘I want to eat’. In contrast, *tabete hosii* (19b) normally means only ‘I want someone else to eat’. Analyzed in (20a), *tabe* forms a phrase that is subject to OC from the matrix subject of *ta(i)* ‘want’. In (20b), however, the phrase headed by *te* blocks Control into the VP, just as it does with the PP in (2), and the matrix and embedded clauses each have their own null pronouns.

- | | | |
|------|-----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| (19) | a. Tabe-tai.
<i>eat-want</i>
‘I want to eat.’
(eater = wanter = speaker) | b. Tabete hosii.
<i>eat.TE want</i>
‘I want him to eat.’
(eater ≠ wanter = speaker) |
| (20) | a. pro [VP pro <i>tabe</i>] tai
b. pro ₁ [TP [VP pro ₂ <i>tabe</i>] <i>te</i>] hosii | (pro = speaker)
(pro ₁ ≠ pro ₂) ⁴ |

3.3 Classic Cases of Control in Japanese In light of these facts, let us examine classic case of Control in Japanese, as in (21). Based on OC of bare *ni* adjuncts and the opacity to Control shown by *ni site* adjuncts, the embedded clause in (21) is expected to be, if anything, even more opaque to Control than a *ni site* adjunct. The embedded verb *yomu* is inflected for non-past tense, and this presumptive TP is further embedded as a complement of the nominal *yoo*.

- (21) Taroo-ga Mary ni [Mary sono hon-o yomu yoo-ni] meizita
NOM ni that book-ACC read manner-ni ordered
‘Taro ordered Mary to read that book.’

⁴ Obviation between the two pronouns in (20b) is forced by pragmatic implicature (i.e., the availability of (19a) precludes using (19b) to express its meaning). Obviation in (19b)/(20b) can be overridden by context, showing that it is pragmatically induced rather than syntactic. Consider (i).

- (i) Mazu zibun ni ganbatte hosii yo nee?
first self DAT persist.TE want to.be.sure isn't.it
‘Don’t you agree that you want yourself to do your best before anyone else?’

In this case, *zibun* ‘self’ is contrasted with others, and the contrastive context trumps obviation in (i) in the same familiar way that contrastive context overrides “Condition C” effects in (ii).

- (ii) Not only does everyone else not admire Chase, but Chase doesn’t even admire Chase.

Thus, it is useful to consider whether (21) involves Control after all, and if so, to determine what sort of Control it manifests. For the purposes of this discussion, we will refer to structures such as (21) as “control” constructions (using scare-quotes to indicate uncertainty as to whether they involve syntactic Control). Comparisons between Japanese “control” and analogous cases in Korean suggest that only the latter has syntactic Control in these constructions (see Monahan, 2003). In Korean, complement clauses lack the tense morphology that might block syntactic control in Japanese. Support for this view is found in Kuno (1976), where “control” constructions are shown to contrast with Raising to Object (RtoO) constructions in their ability to have an overt resumptive pronoun in the complement clause. As the data here illustrate, “control” complements [(22) =Kuno (67b)] allow it, and RtoO complements [(23) =Kuno (68)] do not.

- (22) ?Yamada-wa Tanaka₁ ni kare₁-ga sore-o suru koto-o meizita.
TOP DAT he-NOM that-ACC do NMNL-ACC ordered
 ‘Yamada ordered Tanaka₁ that he₁ do that.’
- (23) *Yamada-wa Tanaka₁-o kare₁-ga baka da to omotteita.
TOP ACC he-NOM fool is COMP thought
 ‘Yamada thought of Tanaka that he is a fool.’

It is further the case that even the slight awkwardness of the overt pronominal subject in (22) can be eliminated under the right contrastive conditions, as in (24). Here, (24) is comparable to the *ni site* clause in (7b) rather than the controlled bare *ni* phrase in (7a). It is further the case that the subject of the *yoo ni* clause may, quite exceptionally, be other than the object of *meizita*, as (25) shows.

- (24) Mary₁ ni, Taroo zyanakute, kanozyo₁-ga sono kaisya-o
ni is.not she-NOM that company-ACC
 tyoosa-suru yoo-ni meizita
investigate-do manner-ni ordered
 ‘I ordered Mary that she, and not Taroo, should investigate that company.’
- (25) Mary₁ ni, kanozyo₁ zyanakute, Taroo-ga sono kaisya-o
ni she is.not NOM that company-ACC
 tyoosa-suru yoo-ni meizita
investigate-do manner-ni ordered
 ‘I ordered Mary that Taroo, and not she, should investigate that company.’

The acceptability of (24) and (25) casts some doubt on a Control analysis of (21). At the same time, null subjects of constructions such as (21) do display (many of) the distributional restrictions normally attributed to OC constructions.

One explanation for the facts is that Control in Japanese may subsume two different constructions that share many properties. On this view, the subject of the tensed *yoo ni* clause in (21) involves “semantic” Control, while the constructions having bare VPs or PPs (e.g. bare *ni* adjuncts) involve “syntactic” Control and perhaps movement (see Aoshima, 2003, for a different view). A key semantic difference between these two varieties of Control is that the hypothesized “semantic” Control constructions involve separable events, while the hypothesized movement cases do not. While we cannot pursue here an account of semantic Control, the syntactic Control phenomena do offer a contribution to the debate between PRO-based and movement-based theories of Control.

Let us review first, the opacity to Control exhibited by English finite complement clauses, as in (26b), and the explanation offered for the distribution of PRO in clauses such as (26a) under the “null Case” hypothesis (Martin, 2001).

- (26) a. Mary₁ persuaded Jane₂ [PRO₂ to leave]
 b. Mary₁ persuaded Jane₂ [she_{1/2} should leave]

Bresnan (1972) and Stowell (1982) observed that the infinitival complement of a control verb (as opposed to that of a raising verb) has what Bresnan called “unrealized future” tense, while raising complements have no independent tense specification. Starting with this observation, Martin (2001) proposed that control complements differ from raising complements in that the former assign “null Case”, while the latter assign no Case at all (opening the way for an ECM or Raising analysis of these). Martin associates “null Case” with [+tense, –finite] clauses (i.e., those associated with control structures). Thus, for Martin, [+tense, +finite] checks the nominative Case of *he* in (27a), [+tense, –finite] checks the null Case of PRO in (27b), and [–tense, –finite] checks no Case at all in (27c). Martin’s null Case approach to PRO explains, among other things, the movement of PRO in control clauses that contain passive, as in (28), heretofore a puzzle under the ungoverned PRO theory of GB theory.

- (27) a. Sheila believes [he is nice]
 b. Sheila₁ wants [PRO₁ to be nice]
 c. Sheila believes [him to be nice]
 (28) Sheila₁ wants [PRO₁ to be liked ___₁ by everyone]

In (28), PRO moves to the infinitival complement TP to check its null Case. Thus, in English, the feature [+tense] induces opacity to Case assignment from the outside (among other things), and [+finite] blocks syntactic Control (by disallowing PRO under a non-movement approach to Control).

The Japanese facts examined here provide a tentative means of assessing the general plausibility of a PRO-based approach to Control. Syntactic control in Japanese is restricted, as we have found, to embedded clauses with bare verbs (*renyookei*) or bare PPs, and we need ask, with respect to a PRO-based account, what licenses PRO in (10a) and what property of *te* blocks PRO in (10b).

One view of *te* and tense is presented in Nakatani (2003:380). Nakatani claims that *te* and *ta* are both morphological realizations of past tense, where the tense feature is “realized as *ta* when governed by C, and as *te* otherwise”. Seen in this light, the opacity of (10b)/(2) to Control would be analogous to the opacity of English finite complement clauses seen in (26b). In other words, if *ta* and *te* are both [+tense, +finite, +past], then we should not expect PRO as the subject of a *te* clause, any more than we would expect it to surface as the subject of a *ta* clause. This view of *te* makes it relatively simple to rule out PRO in *te* clauses, the subject position of a *te* clause being identical to a tensed complement clause with regard to government or null Case (i.e. the position is “governed” and null Case is unavailable). Another (perhaps more accurate) view of *te* comes out of the discussion in section 3.1, where we proposed that *te* is not a subordinated version of past tense *ta*, and that it does not project any independent [+past] meaning. Rather, *te* correlates with the denotation of an event (with the specific tense of the *te* clause being determined by the matrix verb and its semantic relation to it). Thus, if *ta* is [+tense, +finite, +past], then *te* is either [+tense, –finite] or simply [+tense]. The one thing that unifies the semantics of *te* and *ta* is that both are proposition-denoting projections that carry an event feature.

Whether we accept Nakatani’s analysis, though, there is no clear way to license PRO in constructions that do not have *te*. The *renyookei* VP form does not denote an event separable from its matrix, has no properties that could correlate with Tense, and denotes something more like a property than a proposition. It is the epitome of a tenseless projection. Now, given that it is the *renyookei* phrases (not the *te* phrases) which contain controlled nominals, there seems little hope for a PRO-based theory of Control here. There is nothing to block government (if PRO need be ungoverned) and there is no plausible way to assign null Case (if PRO were to need that). If anything, null Case PRO ought to be licensed in the *te* clauses and not in the *renyookei* phrases, rather than the other way around.

None of the facts thus far conflict with a movement-based theory of Control, since movement out of a VP is not subject to any such Case-Tense relations. This suggests that the movement analysis in (10a) is the correct one.⁵

⁵ This raises questions regarding the purported Raising to Object (RtoO) construction in Japanese, which under some accounts involves Raising out of a [+tense, +finite] clause. Such concerns, while central to this picture, lie beyond the scope of this paper. Suffice it to say that we doubt that RtoO in English and Japanese are directly comparable. See Yoon (2005) for a plausible analysis.

The assumption that the Control involves movement, coupled with the idea that *te* projects a phrase that denotes an event, presents a possible explanation for blocking of Control in *ni site* adjuncts. This explanation proceeds from Hornstein’s (1999:78-79) proposal for eliminating the Theta-criterion (allowing movement into Theta positions with “no upper bound on the number of Theta-roles a chain can have”). We accept that proposal with the following amendments:

- a. TP (in denoting a proposition) carries an event feature (whether or not it has any other interpretable tense or finiteness properties);
- b. An NP moving through Spec,TP will Agree with the event-feature of TP and be assigned an event index, EN;
- c. An NP with index EN cannot check further Theta-roles in a derivation.

This essentially means that an NP cannot check Theta-roles from distinct events, and allows for NP movement through an event-denoting TP just in case the NP does not acquire additional Theta-roles in the derivation. This would, in a movement theory of Control, permit Raising but not Control across TP. Consider in (29) how it would work for Japanese.

(29) *Ken^{EN} wa [TP Ken^{EN} [VP kiseru o [Ken^{POSS} kuti] ni si] te_{EVENTN}] tatiagatta
= (2)

In (29), the event feature in TP provides *Ken* with an index, EN. This event-indexed NP cannot check the Theta-feature of *tatiagatta* when it merges in the higher clauses, rendering the derivation uninterpretable at LF.⁶

The analysis presented in (29) also explains why *te* clauses, which otherwise behave as though they involve V-raising (i.e. clause reduction), do not permit syntactic (movement-triggered) Control. As shown in McCawley & Momoi (1986a, 1986b), embedded *te* clauses present a variety of properties which distinguish them from embedded tensed clauses. For example, while the NPI *sika* ‘only’ cannot normally be licensed in an embedded tensed clause by a matrix negation, a matrix negation can license it in a *te* complement. Consider (30) [=McCawley & Momoi, 1986a:(12)].

(30) a. *Taroo wa ‘sensoo to heiwa’ **sika** yonda koto-o iwanakatta.
TOP ‘War and Peace’ **only** read fact-ACC did.**not**.say

⁶ This approach extends Wurmbrand (2005), in which the case is made for (i) infinitives being uniformly tenseless, and (ii) the future orientation of some infinitives being attributed to *woll* in the derivation. Here, attributing the “Control-gate” to an event feature, we allow for the possibility of syntactic Control both in infinitival clauses that lack the feature and in clauses having no functional projection that could even support such a feature (e.g. the bare *ni* phrases).

- b. Taroo wa ‘sensoo to heiwa’ **sika** yomanakatta koto-o itta.
TOP ‘War and Peace’ only did.not.read fact-ACC said
 ‘Taroo said that he read only *War and Peace*.’
- c. Boku wa Taroo ni ‘sensoo to heiwa’ **sika** yonde morawanakatta.
TOP from ‘War and Peace’ only read.TE did.not.receive
 ‘I got Taro to read only *War and Peace*.’

As the contrast between (30a) and (30c) shows, *sika* cannot be licensed by a *na* negation outside a tensed complement, but can be licensed by *na* from outside a *te* complement clause. In the analysis put forward above, clause reduction/V-raising would not ameliorate the violation in (29). Whether or not V-*te* ultimately raises to the matrix verb (i.e. whether the derivation produces one clause for the purposes of binding) has no bearing on Control, since it is the assignment of an event index to the nominal in its domain which precludes that nominal’s checking any further Theta-roles. Section 4 will examine some Control phenomena in English, to see whether event features might explain other aspects of Control.

4 Exhaustive Control (EC) and the Calculus of Events

Recent work on Control (Landau, 2000, 2003, 2004; Rooryck, 2005; Wurmbrand, 2002, 2005, etc.) has examined distinctions between exhaustive control (EC) constructions and the more general class of obligatory control (OC) structures that includes them. This section will assess possible approaches to EC constructions (primarily in English), and then consider how the foregoing analysis of controlled adverbial PPs in Japanese can contribute to resolving some of the key issues.

4.1 EC and PC in English Landau (2000) sets out a typology of control in which OC is subdivided into exhaustive control (EC) and partial control (PC).⁷ The EC verbs, says Landau, are: implicative, aspectual, or modal; while the PC verbs are: factive, propositional, desiderative, and interrogative. EC verbs, in contrast with PC verbs, do not allow partial control, hence the terminological distinction. They also do not allow control shift and cannot co-occur with non-controlled complement clauses. In (31), the EC verb *try* does not allow partial control, in contrast with *want*. In (32b), the EC verb *force* does not allow subject control, even with the appropriate complement (in contrast with the PC verb *persuade*, which can exceptionally be a subject control verb, (32d)). And in (33), only the PC verb *want* permits a complement that does not involve Control.

- (31) a. *John tried to meet at noon. [John meets with others.]
 b. John wanted to meet at noon. [John meets with others.]

⁷ We are grateful to Cherlon Ussery for sharing her paper, Ussery (2005), with us, and for calling our attention to some of the empirical gaps in Landau (2000).

- (32) a. John forced Sara to leave. [Sara leaves.]
 b. *John forced Sara to be allowed to leave. [John leaves.]
 c. John persuaded Sara to leave. [Sara leaves.]
 d. John persuaded Sara to be allowed to leave. [John leaves.]
- (33) a. *John tried Judy to meet him at noon.
 b. John wanted Judy to meet him at noon.

EC verbs (e.g. *force*), in contrast with PC verbs (e.g. *persuade*), also do not allow ‘progressive’ coercion (Rooryck, 2005). In (34), only the PC verb (*persuade*) can be modified by *slowly*. There are cases in which *slowly* can appear with *force*, but there it modifies the embedded verb as well. In (35), Judy’s mind changed slowly, as a result of ‘progressive’ coercion from John.

- (34) a. *John slowly forced Judy to leave early.
 b. John slowly persuaded Judy to leave early.
- (35) John slowly forced Judy to change her mind.

The complements of EC verbs also cannot have tense that is distinct from the matrix clause, while PC verbs can (Landau, 2000:57). In (36a), ‘John’s trying’ and ‘his solving the problem’ cannot occur at different times, while this is possible in (36b), where *try* is replaced with *want*.

- (36) a. *Yesterday, John tried to solve the problem tomorrow.
 b. Yesterday, John wanted to solve the problem tomorrow.

Finally, the assertion denoted by the complement of an EC verb cannot be negated separately from the matrix proposition. In (37a), the assertion of *force to X* entails *to X*. With *persuade*, in (37b), this is not the case.

- (37) a. #John forced Judy to leave early, but then she wound up staying on.
 b. John persuaded Judy to leave early, but then she wound up staying on.

A key aspect of Landau’s analysis of PC constructions is the assertion that “PC-complements are tensed; [and] EC complements are untensed” (Landau, 2000:56). Departing from prior assertions made in the literature (Bresnan, 1972; Stowell, 1982), Landau shows that PC compliments need not have “hypothetical or unrealized” (i.e. irrealis) tense. The complements of factive verbs, for example, are clearly realis and precede the event time of the matrix clause, as in (38)

- (38) Today, John regretted kissing his aunt last week. [Landau, 2000:58(94a)]

Nevertheless, Landau claims, the tense specification of PC complements is independent of the matrix clause. In Landau’s analysis, it is the intervention of Tense in the controlled complement that allows a plural PRO to be controlled by a singular matrix subject in PC constructions. Consider the examples that he presents in his analysis (Landau, 2000:66(106)).

- (39) a. The chair_{SINGULAR} decided [PRO_{SINGULAR} to wear a T-shirt]
 b. The committee_{PLURAL} decided [PRO_{PLURAL} to gather during the strike]
 c. The chair_{SINGULAR} decided [PRO_{PLURAL} to gather during the strike]
 d.*The committee_{PLURAL} decided [PRO_{SINGULAR} to wear a T-shirt]

According to Landau, number agreement holds between (i) the matrix subject and the Tense-Agr head of the complement clause, and (ii) between the Tense-Agr head of the complement clause and PRO. When the matrix subject is plural, it forces a plural specification on the lower Tense-Agr head, insuring that PRO must also be plural. This accounts for the ungrammaticality of (39d), where PRO_{SINGULAR} fails to agree with the local Tense-Agr head. When the matrix subject is singular, however, the embedded Tense-Agr may be unspecified for number, allowing for a controlled PRO_{SINGULAR} as in (39a), or a controlled PRO_{PLURAL} as in the crucial case of successful PC, (39c).

4.2 Problems with the Calculus of Tense Without denying Landau’s claim regarding the independent tense of PC complement clauses, we believe that event structure, rather than tense, might be a better basis for analyzing the EC/PC distinction. We believe that the absence of an event feature (or projection) in the complement clause motivates EC, and that the autonomous Tense of (certain) PC complements depends on the presence of an autonomous event. After considering problems with the tense-based account, we motivate an alternative in section 4.4.

First, there are cases in which the complements of both a PC verb and an EC verb appear to denote the same irrealis tense, as in (40).

- (40) a. Terry tried to win the race.
 b. Terry wanted to win the race.

The accomplishment of winning the race would be “hypothetical or unrealized” with respect to both the matrix EC control verb *try* and the matrix PC control verb *want*. As the interpretations of Tense in (40a) and (40b) are indistinguishable, it seems difficult to maintain the assertion that “PC-complements are tensed; [and] EC complements are untensed” in regard to this (and similar pairs). That is, if *to win the race* is untensed in (40a) and tensed in (40b), then we should expect to find some measurable interpretive difference between the clauses.

A second problem has to do with the verbal morphology of controlled complements across the two (EC/PC) classes. As we have already seen, there are no overt morphological distinctions between *to*-infinitives in PC and EC constructions. For Landau (2000), this is not a problem, as he analyzes them all as having CP-TP structure, with the PC complements (but not the EC complements) also having T-to-C movement. However, not all controlled complements contain a *to*-infinitive. Some controlled complements are headed by *ing* gerunds, and this is independent of the EC/PC distinction. Consider (41). Here, the EC verb *try* and the PC verb *regret* can each take a gerundive complement, while the PC verb *want* and the EC verb *need* cannot. Add to this, the fact that the EC/PC distinction is maintained with gerundive complements, as in (42).

- (41) a. Terry tried winning the race.
 b. *Terry wanted winning the race.
 c. *Terry needs winning the race.
 d. Terry regrets winning the race.
- (42) a. *Terry tried [PRO_{PLURAL} gathering during the strike]
 b. Terry regrets [PRO_{PLURAL} gathering during the strike]

For Landau's analysis to work in (42), gerunds would have to have the same CP-TP structure as *to*-infinitivals, and have T-to-C movement licensed only in the PC cases. However, there is little evidence that gerundives involve a C projection at all (Norbert Hornstein, p.c.). Gerunds have no overt C head, and there are no embedded gerundive questions, topics, or focus constructions, facts which all point to the lack of a CP wherein these could be hosted. While it is not impossible in principle for Landau's account to accommodate these facts, it does mean that differences between *to*-infinitives and gerunds are not syntactic/structural, and it puts the onus of explaining these differences outside of the syntax.

The morphological mismatch between the proposed complement structures and their morphology become more intractable when nominalizations are considered. We find that nominal analogues of EC and PC verbs exhibit the same behavior as their verbal counterparts. Consider the EC nouns *attempt* and *coercion* (cf. *try* and *force*) and the PC nouns *desire* and *persuasion* (cf. *want* and *persuade*). The EC nouns do not permit partial control, cf. (43) and (31). Neither do they allow control shift (44) or non-controlled complements (45). Compare (44) and (45) with (32) and (33). In (44b), *coercion* does not allow subject control, even with the appropriate complement (in contrast with *persuasion*, which can exceptionally have subject control, (44d)). In (45), only *desire* allows a complement not involving Control.

- (43) a. *John's attempt to meet at noon. [John meets with others.]

- b. John's desire to meet at noon. [John meets with others.]
- c.*John's coercion of Arthur to meet at noon. [John meets with others.]
- d. John's persuasion of Arthur to meet at noon. [John meets with others.]
- (44) a. John's coercion of Sara to leave. [Sara leaves.]
- b.*John's coercion of Sara to be allowed to leave. [John leaves.]
- c. John's persuasion of Sara to leave. [Sara leaves.]
- d. John's persuasion of Sara to be allowed to leave. [John leaves.]
- (45) a.*John's attempt for Judy to meet him at noon.
- b. John's desire for Judy to meet him at noon.

EC nouns (e.g. *coercion*) are also distinguished from PC nouns (e.g. *persuasion*) in not permitting 'progressive' coercion as in (46), cf. (34), where only *persuasion* is readily modified by the adverb *slow*. Cases in which *slow* can appear with *coercion* are situations where it modifies the complement as well.

- (46) a.*John's slow coercion of Judy to leave early.
- b. John's slow persuasion of Judy to leave early.

Finally, complements of an EC noun cannot have tense distinct from that denoted by the noun itself, while PC nouns can. In (47a), 'John's attempt' and 'his solving the problem' cannot occur at different times, while this is possible in (47b), where *attempt* is replaced with *desire*. Compare (47) and (36).

- (47) a.*John's attempt, yesterday, to solve the problem tomorrow.
- b. John's desire, yesterday, to solve the problem tomorrow.

Given that the EC/PC distinctions hold for nouns as well as verbs, they ought to have the same analysis. Here the problem for Landau's account does not involve the structure of the complement, as much as the structure of the matrix. In order to account for the PC nominalizations, we would have to assume: (i) that the complement structure associated with nominals is identical to their verbal counterparts, and (ii) that control nominals invoke the same agreement features and feature matching mechanisms as clauses. While is not an impossible proposition, it would require substantial motivation and justification (from sources outside of the control data). Until that motivation is forthcoming, and until there is firmer motivation for the uniform Tense-Agr structure that must be proposed for *to*-infinitives and gerunds, we must reserve judgment regarding the EC/PC analysis proposed in Landau (2000).

4.3 Events in Place of Tense Rather than have Tense (or manipulations of Tense) constitute the basic difference between EC and PC, consider an event-based approach. Take a basic contrast involving EC and PC verbs as in (48).

- (48) a. John forced Sara to leave.
b. John persuaded Sara to leave.

It is clearly evident from the sentences in (48) that the second involves two autonomous events, while the first involves only one. In (48a), the act of forcing and the event of leaving are part of the same temporal-causal event frame (with ‘leaving’ following ‘forcing’ as an immediate consequence). Nothing is ‘unrealized’ about the tense of the complement. The sentence depicts a single (albeit complex) event, in which Sara’s leaving was initiated or directly caused by John’s act of force. While the implementation of force precedes the completion of the act of leaving, there is no way to parse the meaning of the sentence into two autonomous events. In (48b), if John persuaded Sara to leave, then Sara’s leaving must take place at some time after the persuasion was effected, the tense of the complement corresponding to Bresnan’s (1972) ‘unrealized future’. John effects a change in attitude upon Sara (this is the matrix clause event), and there is a subsequent event of Sara leaving.

The autonomy of events in (48b) is apparent from the fact that they may occur at different times, and that the second event is not entailed by the first, as in (49). Evidence for non-autonomy in (48a) comes from the fact that the matrix and complement clause do not readily admit different temporal modification, and there is an entailment from *force X to leave* to *X leaves*, as in (50).

- (49) a. Yesterday, John persuaded Sara to leave tomorrow.
b. John persuaded Sara to leave, but then she wound up staying.
- (50) a.#Yesterday, John forced Sara to leave tomorrow.
b.#John forced Sara to leave, but then she wound up staying.

This is the case for all EC verbs. All of the following are complex depictions of single events: *manage to leave*, *try to leave*, *decline to leave*, *begin to leave*, *stop leaving*, *have to leave*, *need to leave*. There is no way to separate an event or state of ‘trying’ from ‘leaving’ in *try to leave*. This contrasts with the PC phrase *want to leave*, in which *want* denotes a mental state or attitude, and the ‘wanting’ and ‘leaving’ are autonomous. This is true even of EC and PC verbs, such as *fail* and *deny*, whose meaning negates the event denoted by the complement.

- (51) a. Today, John denied leaving yesterday.

- b. John denied leaving, but actually did leave.
- c.#Today, John failed to leave yesterday.
- d.#John failed to leave, but actually did leave.

These facts all suggest that what separates EC and PC constructions is neither Tense, as Landau claims, nor “joint intention”, as proposed in Jackendoff and Culicover (2003). Rather, complements in EC constructions are an aspect or property of the matrix clause event. Complements in PC constructions, on the other hand, denote their own event. If this view is correct, then Landau’s observation about EC complements not having their own tense falls out from their not denoting any separable event to support it. An event-based distinction also readily accommodates the EC/PC contrast in nominal expressions, for which the relationship between matrix and complement tense could not be a factor.

In this light, a semantic approach, such as Chierchia’s (1983 [1988]) seems initially attractive. For him, complements of EC verbs are properties, and those of PC verbs are propositions. In syntactic terms, *try* selects a subjectless predicate, e.g. *to leave*, while *want* selects a proposition, e.g. PRO *to leave*, as in (52) below. To illustrate how semantic control would work in distinguishing OC from NOC, Chierchia contrasts the sentences in (53). In both (53a) and (53b), *playing tennis* is a property (rather than a proposition). It follows from the meaning of *enjoy* that if *John* is in the *enjoy* relation with the property of *playing tennis*, then John is happy when he “instantiates” that property. In contrast, the meaning of *talk about* allows its subject, *John*, to be in the *talk about* relation with its object property, *playing tennis*, without having to instantiate that property.

- (52) a. John tried [to leave]
- b. John₁ wanted [PRO₁ to leave]
- (53) a. John enjoys playing tennis.
- b. John talks about playing tennis.

In the discussion that follows, we revisit the case of bare *ni* adjuncts in order to show how the syntax of these argues against, among other things, a semantically formalized event-based account of opacity to Control. Instead, we will show how our proposal (above) for an event-feature to block movement is to be preferred.

4.4 Bare *ni* Adjuncts and Event-Based Opacity to Movement As we observed above in the (all too brief) summary of Chierchia’s semantic analysis of OC, the link between the controller and the controlled property in an OC construction is the matrix predicate, and the thematic requirements that it places on its subject and complement(s). As Chierchia (1988:296) puts it, “the controller must bear a

specific theta-role with respect to the matrix predicate (i.e. must be the agent or the goal, etc.). We will call this property ‘thematic uniqueness’.”

The status of bare *ni* phrases as adjuncts undermines a semantic approach to these, since OC in these adverbials is not tied to the meaning of any set of matrix predicates, and the controller need not have any particular thematic role. Unlike purpose clauses, which exhibit OC and “thematic uniqueness” (i.e. they must have an Agent controller), bare *ni* phrases can co-occur with nearly any matrix predicate and can have controllers with a variety of thematic roles.

The requirement that the bare *ni* construction contain a possessed noun (in the *ni* part of the phrase, as opposed to the *o* part) seems hard to square with a semantic approach that relies on property denotations to explain OC. Recall (5) and (6), and the contrast between *ziten-o kokoro-no sasae ni* ‘with a dictionary as support for [his] heart’ and *ziten-o tukue-no sasae ni* ‘with a dictionary as support for [the] desk’. There isn’t any reason to consider these phrases denotationally distinct. They both denote (similar) properties and could both be expected to exhibit OC (or not). The fact that only (5) does so undermines a semantic analysis, since the denotation type of the phrase is identical in both cases.

Another clearly syntactic aspect of the bare *ni* adjunct is the fact that the controlled possessor cannot be overt. As we saw in (7), neither a pronoun nor a reflexive may appear in place of the null possessor. This contrasts with the presence of overt pronominal or reflexive possessors in the same position in *ni site* clauses. In (8), we found that overt possessors were licensed in the non-controlled constituent of the bare *ni* phrase, and that the controlled constituent could in fact have an overt genitive nominal so long as it isn’t the controlled possessor. None of these facts seems directly explicable outside of a syntactic analysis. Taken altogether, these facts make a semantic account of control quite less attractive than one that relies on syntactic derivations/representations.

It is clear from data presented earlier that bare *ni* and *ni site* adjuncts are distinguished by the fact that the former do not denote events separable from the matrix and the latter do so. This is apparent from the fact that the bare *ni* phrase is dependent on the meaning and aspectual properties of the matrix verb, and that it is always interpreted as a manner adverb and never a depictive adverb. In this regard, the semantic contrasts between the bare *ni* phrase and the *ni site* clause parallel the contrasts that we observed in the previous section between EC verbs (e.g. *try*, *force*, and *fail*) and PC verbs (e.g. *want*, *persuade*, and *deny*). In this regard, we think it reasonable to conclude, as we suggested above, (31), that agreement with an event-feature (EventN) in the complement TP blocks movement necessary to derive a controller-controllee relation in *ni site* clauses.

Whether this constraint might apply more broadly, e.g. to English, lies beyond the scope of this paper. But if it does, then it would entail that only EC constructions involve movement in English. *John tried to win* would be derived

through movement, (54a), since the lower clause does not denote an event and has no distinct event-feature. In contrast, *John wanted to win* would need to have some other derivation, since (54b) would be uninterpretable, *John* not being able to check a Theta-feature in the higher clause once it acquires an event index.

- (54) a. John tried [_{VP} ~~John~~ [_{VP} to win]]
 b. *John^{EN} wanted [_{TP} ~~John~~^{EN} EventN [_{VP} ~~John~~ [_{VP} to win]]]

It may be that the event-feature works in a slightly different way in English, not ruling out movement per se, but still responsible for the EC/PC contrast. Certainly, appeal to an event-feature would allow a uniform account of the analogous EC/PC contrasts observed above in verbal and nominal control constructions, (31)-(37) and (43)-(47) respectively. Such questions are worthy of further research.

Acknowledgements

We acknowledge helpful questions and comments from: Samuel Bayer, William Davies, Peter Culicover, Shin Fukuda, Hitoshi Horiuchi, Norbert Hornstein, Maria Polinsky, and Cherlon Ussery; Tomohiro Fujii, Eric Potsdam, and Barbara Stiebels, and the other participants at a workshop on Control Verbs in Cross-Linguistic Perspective (Zentrum für Allgemeine Sprachwissenschaft, Typologie und Universalienforschung (ZAS), Berlin, May 2004); Jonathan Bobaljik, Shigeru Miyagawa, Susi Wurmbrand, and participants at the 14th Japanese/Korean Linguistics Conference (U of Arizona, November 2004); and for helpful questions in the preparation of our 14th Japanese/Korean Linguistics Conference paper, we thank Olena Aydarova, Anne Bezuidenhout, Barbara Broome, Anna Mikhaylova, Mila Tasseva-Kurkchieva, Henry Yum, and Lan Zhang, all of USC. For all errors, we thank ourselves. This article includes portions previously published by the authors in *Japanese/Korean Linguistics 14*, edited by Timothy Vance, © 2006 by CSLI Publications. The previously published portions appear with permission from CSLI Publications, Stanford University, Stanford, CA 94305-4115.

References

- Aoshima, S. 2003. Control structures and scrambling. *University of Maryland Working Papers in Linguistics* 12, pp. 1-25.
 Borer, H. 1999. Structuring Arguments. Unpublished handout, University of Southern California, Los Angeles.
 Bresnan, J. 1972. *Theory of complementation in English syntax*. Doctoral Dissertation, MIT, Cambridge, MA.
 Chierchia, G. 1983. *Topics in the syntax and semantics of infinitives and gerunds*. Doctoral Dissertation, University of Massachusetts, Amherst. (Published

- in 1988 as a title in the J. Hankamer, (ed.) *Outstanding Dissertations in Linguistics* series. New York: Garland Press.)
- Dubinsky, S., and Hamano, S. 2003. Case checking by AspP: The syntax and semantics of predicative postpositions. In W. McClure, (ed.) *Japanese/Korean Linguistics (JKL) 12*. Stanford, CA: CSLI Publications, pp. 231-42.
- Dubinsky, S., and Hamano, S. 2006. Control into adverbial predicate PPs. In T. J. Vance, (ed.) *Japanese/Korean Linguistics (JKL) 14*. Stanford, CA: CSLI Publications, pp. 177-188.
- Hasegawa, Y. 1996. The (non-vacuous) semantics of TE-linkage in Japanese. *Journal of Pragmatics* 25, pp. 763-790.
- Hornstein, N. 1999. Movement and Control. *Linguistic Inquiry* 30, pp. 69-96.
- Iida, M. 1987. Case-assignment by nominals in Japanese. In M. Iida, S. Wechsler, and D. Zec, (eds.) *Working papers in grammatical theory and discourse structure*. Stanford: CSLI Publications, pp. 93-138.
- Jackendoff, R., and Culicover, P. 2003. The semantic basis of Control in English. *Language* 79, pp. 517-556.
- Kuno, S. 1976. Subject Raising. In M. Shibatani, (ed.) *Syntax and Semantics 5: Japanese Generative Grammar*. New York: Academic Press, pp. 17-49. (revised version of S. Kuno. 1972. Subject Raising in Japanese. *Papers in Japanese Linguistics* 1, Number 1.)
- Kuwahira, T. 1998. Bunsyootai ni arawareru syootyaku gensyoo no koosatu. Paper presented at the Sixth Princeton Japanese Pedagogy Workshop, May 1998.
- Landau, I. 2000. *Elements of Control: Structure and meaning in infinitival constructions*. *Studies in Natural Language and Linguistic Theory* 51. Dordrecht: Kluwer Academic Publishers.
- Landau, I. 2003. Movement out of control. *Linguistic Inquiry* 34, pp. 471-98.
- Landau, I. 2004. The scale of finiteness and the calculus of control. *Natural Language and Linguistic Theory* 22, pp. 811-877.
- Martin, R. 2001. Null Case and the distribution of PRO. *Linguistic Inquiry* 32, pp. 141-166.
- Martin, S. 1975. *A reference grammar of Japanese*. New Haven: Yale University Press.
- Matsuo, S. 1936 [1961]. *Kokugo hooronkoo* [Considerations on Japanese grammar]. Tokyo: Hakuteisha.
- McCawley, J., and Momoi, K. 1986a. The constituent structure of *-te* complements. In S.-Y. Kuroda, (ed.) *Working papers from the first SDF workshop in Japanese syntax*. La Jolla: Dept. of Linguistics, University of California at San Diego, pp. 97-116.

- McCawley, J., and Momoi, K. 1986b. The constituent structure of *te* complements. *Papers in Japanese Linguistics* 11, pp. 1-60.
- Miyamoto, T. 1999. *The light verb construction in Japanese: The role of the verbal noun*. Amsterdam: John Benjamins Publishing Company.
- Monahan, P. 2003. Backward Object Control in Korean. *Proceedings of the 22nd West Coast Conference on Formal Linguistics (WCCFL 22)*. Somerville, MA: Cascadilla Press, pp. 356-369.
- Nakatani, K. 2003. Analyzing *-te*. In W. McClure, (ed.) *Japanese/Korean Linguistics (JKL) 12*, Stanford, CA: CSLI Publications, pp.277-287.
- Nishida, N. 1977. Zyosi (1) [Auxiliary articles (1)]. In S. Oono and T. Shibata, (eds.) *Iwanamikooza nihongo 7: Bunpoo II* [Iwanami courses in Japanese 7: Grammar II]. Tokyo: Iwanami, pp. 191-289.
- Ogihara, T. 1998. The ambiguity of the *-te iru* form in Japanese. *Journal of East Asian Linguistics* 7, pp. 87-120
- Rooryck, J. 2005. Control via selection. Paper presented at New Horizons in the Grammar of Raising and Control, a workshop at the 2005 LSA Linguistic Institute, Harvard University, Cambridge, MA, July 2005.
- Stowell, T. 1982. The tense of infinitives. *Linguistic Inquiry* 13, pp. 561-570.
- Travis, L. 1991. Derived Objects, Inner Aspect, and the Structure of VP. Paper presented at NELS 21.
- Ussery, C. 2005. The semantics of partial control. Unpublished Ms., University of Massachusetts, Amherst.
- Wurmbrand, S. 2002. Syntactic versus semantic control. In J.-W. Zwart and W. Abraham, (eds.) *Studies in comparative Germanic syntax*, Amsterdam: John Benjamins, pp. 95-129.
- Wurmbrand, S. 2005. Tense in infinitives. Paper presented at New Horizons in the Grammar of Raising and Control, a workshop at the 2005 LSA Linguistic Institute, Harvard University, Cambridge, MA, July 2005.
- Yoon, J. 2005. Raising of major arguments in Korean and Japanese. Paper presented at New Horizons in the Grammar of Raising and Control (LSA Institute Workshop). Harvard University, Cambridge, MA, July 2005.
- Yoshikawa, T. 1976. Gendai nihongo dooshi no asupekuto no kenkyu [A study of aspect in Japanese]. In H. Kindaichi (ed.), *Nihongo dooshi no asupekuto*. Tokyo: Mugishobo, pp. 155-327.