

Japanese *tokoro*-clause constructions do not involve backward control

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Abstract

This paper argues against the treatment of Japanese *tokoro*-clause constructions as an instance of backward object control, which is claimed to hold between the null matrix object and the downstairs *tokoro*-clause subject: NP *ec_i* [NP_{*i*} V *tokoro*]-ACC V. Placing the focus of argument upon hitherto neglected variations of *tokoro*-clauses and their structural positions, I will show that *tokoro*-clauses can be categorised into two classes depending on the matrix predicate: one as a TP-adjunct situated structurally higher than the null matrix object, and the other as a direct object. Hence, in neither case is backward control involved. This lends further support to the existing argument that the referential dependency between the null matrix object and the *tokoro*-clause subject is not obligatory.

Keywords: backward object control, *tokoro*-clauses, TP-adjuncts, object *pro* drop, the Double-*o* Constraint

1. Introduction

As a starting-point for discussion, let us consider the nature of control. Control is an obligatory referential relation between two thematic positions: one overt and the other covert. The covert anaphor, called the controllee, is coreferential with the overt antecedent, called the controller. Over the past few decades in generative syntax, the main focus of interest has been placed on instances of *forward* control in which a controller is located in a position structurally higher than a controllee which is typically the subject of a nonfinite complement clause. Forward control is instantiated by such sentences as follows; in (1a) the matrix subject

John is the controller (subject control), and in (1b) the matrix indirect object *Mary* is the controller (object control).

- (1) a. John_i tried [PRO_i to find a new housemate]. (forward subject control)
 b. John persuaded Mary_i [PRO_i to find a new housemate]. (forward object control).

Since the seminal work of Polinsky and Potsdam (2002a,b), however, many attempts have been made to corroborate the existence of a *backward* instantiation of control. In backward control, the positions of controller and controllee are the reverse of those in forward control. As roughly schematised in (2), a controller is located in a position structurally lower than its controllee, whether it is a matrix subject as in (2a) (backward subject control) or a matrix (in)direct object as in (2b) (backward object control).

- (2) a. PRO_i V [controller_i V ...] (backward subject control)
 b. NP V PRO_i [controller_i V ...] (backward object control)

So far, as far as I know, backward subject control has been claimed to occur in Tsez (Polinsky and Potsdam, 2002a), Malagasy (Polinsky and Potsdam, 2002b), Telugu (Haddad, 2009), Romanian (Alboiu, 2007; Alexandou et al., 2009), Greek (Alexandou et al., 2009) and Spanish (Alexandou et al., 2009); and backward object control in Japanese (Kuroda, 1965, 1978, 1999; Harada, 1973; Fujii, 2004, 2006; Narita, 2007), Brazilian Portuguese (Farrell, 1995), Korean (Monahan, 2003) and Malagasy (Potsdam, 2006, 2009).¹ Although backward control is found across a spare range of languages and limited to specific constructions, its presence casts doubt on the existing PRO-based analysis of obligatory control. First of all, the

¹ See also Polinsky and Potsdam (2006) and Fukuda (2008) for an overview of existing backward control analyses.

PRO-based analysis has as its prerequisite that a PRO subject in a complement clause has a c-commanding controller (Rosenbaum, 1967). Since backward control analyses assume that a controller is situated structurally lower than a controllee, the PRO-based analysis has nothing to say about how the controllee can establish an obligatory referential relation with the downstairs controller. Furthermore, backward control even challenges the distribution of PRO. Analyses based on the PRO theorem (Chomsky, 1981) and null Case (Chomsky and Lasnik, 1993; Martin 1996, 2001; Bošković, 1997) limit the distribution of PRO to the subject position in nonfinite clauses.² Therefore, it is surprising for these analyses to see that PRO is in the matrix clause, and what is more, in the object position that is inevitably governed.

Notwithstanding problems with the PRO-based analysis, backward control is often argued to support the movement theory of control (henceforth MTC) (Bowers, 1981, 2008; O’Neil 1995; Hornstein, 1999, 2001, 2003; Boeckx and Hornstein, 2003, 2004, 2006; Boeckx, Hornstein and Nunes, 2010). Assuming that movement into θ -positions is admissible, the MTC assimilates obligatory control to raising constructions with the only difference lying in the number of θ -roles a controller checks in the course of movement.³ Coupled with the copy theory of movement (Chomsky, 1993), therefore, backward control can be reduced to a matter of which copy of a given A-chain will be pronounced at PF. That is, although a controller moves out of the embedded clause into the matrix clause in order to check a θ -role, the controller is forced to be pronounced in the base position, for independent reasons such as Case (see Monahan, 2003; Potsdam, 2006, 2009; Boeckx, Hornstein and Nunes, 2010).

² The PRO theorem (Chomsky, 1981) states that PRO must be ungoverned. Null Case analyses (Chomsky and Lasnik, 1993; Martin 1996, 2001; Bošković, 1997) state that PRO has a special ‘null’ Case that can only be checked by a tensed nonfinite T. Although the technicalities differ, both suppose that PRO is limited to the subject position of tensed nonfinite clauses (untensed nonfinite clauses being raising clauses) because this is the only position where it is not governed, and where it is assigned null Case.

³ Although Bowers does not adopt the position that movement into θ -positions is possible, I include his analysis as an instance of the MTC because of its basic similarity with others.

This paper is concerned with a classic example of backward object control in Japanese *tokoro*-clause (henceforth TC) constructions. Although TC constructions are considered a pioneering instance of backward control tracing its origin to a series of works in the sixties and seventies (e.g., Kuroda, 1965, 1978; Harada, 1973; Ohso, 1976; Hale and Kitagawa, 1976-77), its existence was little highlighted until recently because the theoretical machinery back then was not fully equipped to account for counter-cyclicity. It is the advent of the MTC that sheds light on TC constructions once again and allows them to be reanalysed in movement terms (Fujii, 2004, 2006; Narita, 2007). However, what I should like to highlight here is that these MTC-based analyses of TC sentences concentrate on the case of accusative TCs and tend to neglect the variations outlined by Kuroda (1999). Thus, it is important to enquire whether every TC has the same structure. The primary goal of this paper is to argue that Japanese TC constructions do not involve backward object control by paying special attention to the structural position of each type of TC. More specifically, I will argue that TCs are divided into two types according to the matrix verb: one as a TP-adjunct situated structurally higher than the null matrix object, and the other as a direct object. Consequently, in either case, TC constructions do not have the structure schematised in (2b), and therefore do not involve backward control. By so doing, this paper lends further support to the claim made by Ohso (1976), Hale and Kitagawa (1976-77), Fujii (2006) and Sudo (2008) that the referential dependency between the TC subject and the null matrix object is not obligatory.

This paper is structured as follows. After briefly outlining basic properties of TC constructions in the next section, in section 3, I will review the previous analyses of Harada (1973) and Kuroda (1978, 1999), and introduce the classification of different TC types. Section 4 reviews Fujii (2004) and Narita (2007) that utilise the MTC in accounting for TC constructions. In section 5, I will extensively discuss the structural position of each type of TC in order to demonstrate that backward control is not involved in this construction. Section

6 extends the existing analyses of Ohso (1976), Hale and Kitagawa (1976-77), Fujii (2006) and Sudo (2008) and argues that the arguments they adduce in support of a *pro* object can be applied to another type of TC. Section 7 deals with potential problems that may arise from my analysis, and section 8 concludes the paper.

2. Basic properties of *tokoro*-clause constructions

TC constructions are exemplified by sentences such as follows.⁴

- (3) a. Keekan-ga *ec*_i [doroboo-ga_i nige-ru tokoro]-o tsukamae-ta.
 Policeman-NOM [thief-NOM run.away-PRS tokoro]-ACC catch-PST
 ‘The policeman caught the thief_i as s/he_i tried to run away.’
- b. John-ga *ec*_i [Mary-ga_i ochikonde i-ru tokoro]-o nagusame-ta.
 John-NOM [Mary-NOM down be-PRS tokoro]-ACC console-PST
 ‘John consoled Mary_i when she_i was down.’

Here, the clause headed by the noun *tokoro* – which literally means ‘place or situation’- functions as giving background information of the circumstances in which the event denoted in the matrix clause takes place. Hence, the TC is most naturally interpreted as a circumstantial adverb introduced by conjuncts such as *as* or *when*, as the translation in (3) suggests. What is peculiar about this construction is that whilst the matrix verbs *tsukamae*- ‘catch’ in (3a) and *nagusame*- ‘console’ (3b) require a direct object, it does not surface in the matrix clause. Instead, this missing object appears in the TC, in most cases as the subject (*doroboo* ‘thief in 3a, and *Mary* in 3b). I shall henceforth refer to this argument within the TC

⁴ PST = past tense, PRS = present (non-past) tense

which is understood as a thematic object of the matrix verb as the T(okoro)-pivot, following the terminology of Narita (2007). In addition, attention is directed to the seemingly accusative Case particle *-o* attached to the TC. Since in Japanese Case value manifests as a particle following an NP, it appears at first glance as if the TC itself is the direct object of the matrix verb, in spite of its meaning as a circumstantial adverb. Accordingly, this anomalous behaviour of TC constructions leads us to ask (i) why the thematic object of the matrix verb appears as the T-pivot within the TC, and (ii) why the TC seems to be assigned a Case particle by the matrix verb.

Putting aside the latter question for the discussion later on, the answer to the first question may lie in the presence of a null matrix object, notated as *ec* in (3). Previous analyses assume that the T-pivot is interpreted as the thematic object of the matrix verb because there is a null matrix object coreferential with it. In the remainder of this section, I shall give three pieces of evidence for assuming a null matrix object.

First, Harada (1973) proposes that the matrix verb can place selection restrictions on the TC subject. As shown in (4), it is not feasible for *keekan* ‘policeman’ to catch *ame* ‘rain’ (except in a figurative meaning).

(4) *Keekan-ga ame-o tsukamae-ta.

Policeman-NOM rain-ACC catch-PST

‘The policeman caught rain.’

(Harada, 1973: his (31))

The same selection restriction can be observed if *ame* ‘rain’ is the subject of the TC as in (5). This cannot be accounted for without the null matrix object coreferential with the TC subject, because normally the matrix verb cannot place a selectional restriction on the embedded

subject.

(5) *Keekan-ga ec_i [ame-ga_i fut-tei-ru tokoro]-o tsukamae-ta.

Policeman-NOM [rain-NOM fall-PROG-PRS tokoro]-ACC catch-PST

‘The policeman caught rain when it was falling.’

(ibid.: his (30))

The second piece of evidence comes from Condition B of Binding Theory.⁵ Let us first look at the example in (6) which shows that the pronoun *kare* ‘he’ cannot corefer with the clause-mate antecedent *John* due to Condition B.

(6) *John-ga_i kare-o_i nagusame-ta.

John-NOM he-ACC console-PST

‘*John_i consoled him_i.’

(Fujii, 2004: his (24))

Fujii (2004) observes that the same holds if the pronoun *kare* ‘he’ is the TC subject as in (7a). This leads him to conclude that it is the null matrix object that violates Condition B in the matrix clause, because if the antecedent *John* and the pronoun *kare* ‘he’ belong to different clauses, it would not yield a Condition B violation. In this light, compare (7a) with (7b) in which the pronoun *kare* ‘he’ in the complement clause does not induce a Condition B violation.

⁵ Condition B (Chomsky, 1981: 188)

A pronominal is free in its governing category.

Governing category (ibid.: 188)

α is the governing category for β if and only if α is the minimal category containing β and a governor of β , where $\alpha = \text{NP or S}$.

(7) a. *John-ga_i *ec*_i [kare-ga_i ochikonde i-ru tokoro]-o nagusame-ta.

John-NOM [he-NOM down be-PRS tokoro]-ACC console-PST

‘*John_i consoled him_i when he_i was down.’

(ibid.: his (25))

b. John-ga_i [kare-ga_i shooshinsu-ru koto]-o negat-ta.

John-NOM [he-NOM promote-PRS C]-ACC wish-PST

‘John_i wished that he_i would be promoted.’

Lastly, the null matrix object becomes visible in such environments as passive and cleft sentences (Harada, 1973). (8) is a case in which the null matrix object is passivised from its active counterpart in (3a).⁶

(8) Doroboo-ga_i *t*_i [*pro*_i nige-ru tokoro]-o keekan-niyotte

Thief-NOM [*pro* run.away-PRS tokoro]-ACC policeman-by

tsukamae-rare-ta.

catch-PASS-PAST

‘The thief_i was caught by the policeman as s/he_i tried to run away.’

(Based on Harada, 1973: his (12))

There are two possible cleft sentences counterparts of (3a), among which (9a) shows that the null matrix object is focused, and (9b) that the TC is focused. Observe that the focused elements are placed just before the copular *da*.

⁶ One may wonder if (8) is derived by passivising a raised embedded subject. However, Kuno (1972) argues that a raised embedded subject cannot undergo pure passivisation. See Harada (1973, section 3.2) in support of this view.

- (9) a. [Keekan-ga t_i [pro_i nige-ru tokoro]-o tsukamae-ta-no]-wa
 [Policeman-NOM [pro run.away-PRS tokoro]-ACC catch-PST-C]-TOP
 doroboo-o_i-da.
 thief-ACC-COP
 ‘It was the thief_i that the policeman caught when s/he_i tried to run away.’
- b. [Keekan-ga doroboo-o_i t_j tsukamae-ta-no]-wa
 [Policeman-NOM thief-ACC catch-PST-C]-TOP
 [pro_i /soitsu-ga_i nige-ru tokoro]-o_j-da.
 [pro /that.guy-NOM run.away-PRS tokoro]-ACC-COP
 ‘It was when the thief_i tried to run away that the policeman caught him/her_i.’

(Based on Harada, 1973: his (10))

In the face of these cleft sentences, one may be tempted to argue that these could involve the T-pivot being raised to the matrix clause. However, if the T-pivot is raised, it should not be able to leave a non-pronominal element like *soitsu* ‘that guy’ in (9b) in its original position. On the other hand, the assumption that there is a null matrix object does not suffer from this problem if we suppose that the subject in the TC is *pro* in this case and that it can be overt if its antecedent occurs earlier in the discourse as in (9b). From these considerations, the presence of the null matrix object is solidly established.

3. Is the *tokoro*-clause an adverb or a relative clause?

In the previous section, we saw that there is a null argument in the matrix clause that serves as a genuine object of the matrix verb. If the matrix verb already has an object, it is

unclear what function TCs have. In this section, I shall overview two opposing views on the function of TCs between an adverbial analysis (Harada, 1973) and a relative clause analysis (Kuroda, 1978). At the end of the section, it will be made clear following Kuroda (1999) that TCs are divided into several different types, and that their structures are not all the same.

3.1 Harada (1973)

Let us begin by looking at a passive counterpart of the TC sentence in (10a). We have seen that the null matrix object can be passivised as in (10b)(=8). In contrast, it is not possible to passivise the TC itself as in (10c).⁷

- (10) a. Keekan-ga ec_i [doroboo-ga_i nige-ru tokoro]-o tsukamae-ta.
Policeman-NOM [thief-NOM run.away-PRS tokoro]-ACC catch-PST
‘The policeman caught the thief_i as s/he_i tried to run away.’
b. Doroboo-ga_i t_i [pro_i nige-ru tokoro]-ga

⁷ In relation to TC constructions, head-internal relative clauses (HIRC) should be mentioned here. HIRCs look similar to TCs with the only superficial difference being that HIRCs are headed by the nominaliser *no* instead of *tokoro*.

- (i) Keekan-ga [yopparai-ga sawaide i-ta *no*]-o tsukamae-ta.
Policeman-NOM [drunk.person-NOM shout be-PST *no*]-ACC catch-PST
‘The policeman caught the drunk shouting.’

Notwithstanding the superficial similarity, there is a big difference between the two. That is, unlike TCs, HIRCs can be passivised.

- (ii) [Yopparai-ga sawaide i-ta *no*]-ga keekan-niyotte tsukamae-rare-ta.
[drunk.person-NOM shout be-PST *no*]-NOM policeman-by catch-PASS-PST

For this reason, many researchers analyse HIRCs as complements (but see Mihara, 1994; Mihara and Hiraiwa, 2006 for an adverbial analysis). And it is true that some propose a sort of backward control analysis on the assumption that there is a null relative head (e.g., Ito, 1986; Ishii, 1989; Watanabe, 1992). The important thing to note, however, is that it seems no one has explicitly argued that HIRCs involve obligatory control. I will not follow up this point any further as it would carry us too far away from the purpose of this paper. The reader is referred to Shimoyama (1999), Kim (2004) among many others.

Thief-NOM [pro run.away-PRS tokoro]-NOM

keekan-niyotte tsukamae-rare-ta.

policeman-by catch-PASS-PST

‘The thief_i was caught by the policeman while s/he_i tried to run away.’

c. * [Doroboo-ga_i nige-ru tokoro]-ga_j ec_i t_j

[Thief-NOM run.away-PRS tokoro]-NOM

keekan-niyotte tsukamae-rare-ta.

policeman-by catch-PASS-PST

‘*The moment when the thief tried to run away was caught by the policeman.’

The ungrammaticality of (10c) immediately follows if we assume that the TC is not the direct object of the matrix verb, in spite of the accusative particle *–o* which might suggest that it is. Coupled with the observation that the null matrix object can be passivised as in (10b), it is therefore plausible to think that TCs are adverbs.

A further piece of evidence that motivates Harada (1973) to assume an adverbial analysis is the observation that TCs can cooccur with intransitive verbs. According to Harada (1973), few intransitive verbs like *mitsuka-ru* ‘be.found’ and *tsukama-ru* ‘be.caught’ can appear with TCs as shown in (11). Given that these verbs do not have corresponding active verb forms **mitsu-ku* or **tasu-ku*, it is apparent that they are not derived from active sentences via passivisation.⁸

- (11) a. Sono doroboo-wa_i [pro_i nige-ru tokoro]-o keekan-ni
 That thief-TOP [pro run.away-PRS tokoro]-ACC policeman-by
 tsukamat-ta.

⁸ But Kuroda (1999) notes that these verbs are lexical passives, and so have properties as accusative verbs.

be.caught-PST

‘That thief_i was caught by the policeman when s/he_i tried to run away.’

b. Taro_i-wa_i [*pro*_i kanningu-o shi-tei-ru tokoro]-o

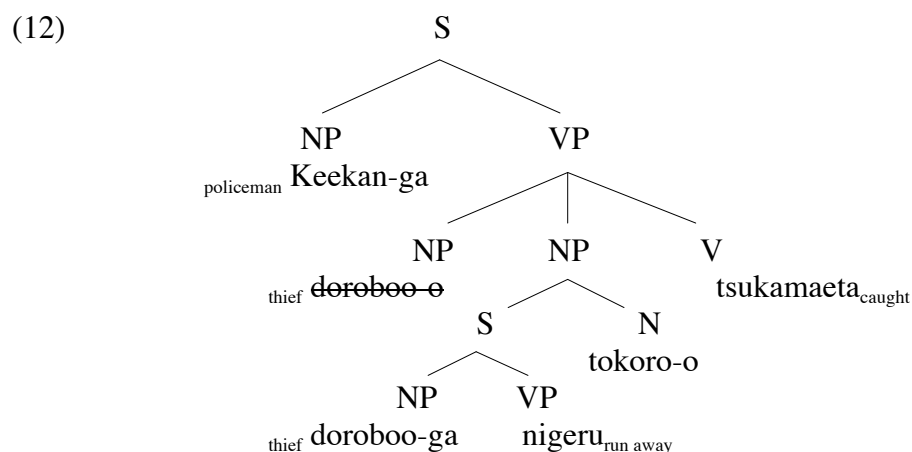
Taro-TOP [*pro* cheating-ACC do-PROG-PRS tokoro]-ACC

sensee-ni mitsukat-ta.

teacher-by be.found-PST

‘Taro was found cheating on the exam by the teacher.’

On the basis of these considerations, Harada (1973) suggests that TC sentences have a structures like that in (12), while dismissing the particle *-o* as a postposition. Note that in this tripartite structure, the null matrix object *c*-commands the TC subject.



Building on Kuroda’s (1965) insights, Harada (1973) contends that (13a) is derived from (14a) via Counter Equi NP deletion deleting the earlier NP of two identical NPs. Note that it is *counter* (backward) because the matrix object is considered to be structurally superior to the T-pivot. In contrast, normal forward Equi NP deletion (14b) would give rise to an ungrammatical configuration as shown in (13b).

- (13) a. Keekan-ga ec_i [doroboo-ga_i nige-ru tokoro]-o tsukamae-ta.
Policeman-NOM [thief-NOM run.away-PRS tokoro]-ACC catch-PST
‘The policeman caught the thief_i as s/he_i tried to run away.’
- b. *Keekan-ga doroboo-o_i [ec_i nige-ru tokoro]-o tsukamae-ta.
Policeman-NOM thief-ACC [run.away-PRS tokoro]-ACC catch-PST
- (14) a. *Counter Equi NP deletion* (=13a)
SUBJ ~~NP-ACC_i~~ [NP-NOM_i VP tokoro]-ACC V
- b. *Forward Equi NP deletion* (=13b)
*SUBJ NP-ACC_i [~~NP-NOM_i~~ VP tokoro]-ACC V

The reason why forward Equi yields ungrammaticality is that there is a language-particular constraint excluding configurations with two *-o* marked NPs. This constraint, called the Double-*o* Constraint (Shibatani, 1973) can be found to apply in other constructions in Japanese as well. For instance, the Double-*o* Constraint prohibits movement of the genitive NPs in possessor raising (15) and light verb (16) constructions, because it would end up in structures with two NPs marked with *-o*.

- (15) a. Ken-ga [Naomi-no atama]-o tatai-ta.
Ken-NOM [Naomi-GEN head]-ACC hit-PST
‘Ken hit Naomi’s head.’
- b. ??Ken-ga Naomi-o_i [t_i atama]-o tatai-ta.
Ken-NOM Naomi-ACC [head]-ACC hit-PST
‘Ken hit Naomi on the head.’

(16) a. Ken-ga [Navajo-go-no kenkyuu]-o shi-ta.

Ken-NOM [Navajo-language-GEN research]-ACC do-PST

‘Ken studied Navajo.’

b.??Ken-ga navajo-go-o_i [t_i kenkyuu]-o shi-ta.

Ken-NOM navajo-language-ACC [research]-ACC do-PST

‘Ken studied Navajo.’

(Hiraiwa, 2010: 730)

Although there has been a debate regarding the exact domain to which the Double-*o* Constraint applies, Harada’s (1973) view is that the Double-*o* Constraint applies to VPs as shown in the definition in (17).

(17) *The Double-o Constraint*

A derivation is marked as ill-formed if it terminates in a surface structure which contains two occurrences of NPs marked with *o* both of which are immediately dominated by the same VP-node.

(Harada, 1973: his (55))

Turning back to the structure of TC sentences in (12), we see that the matrix object and the TC both assigned *-o* are immediately dominated by the same VP-node. Therefore, in order to avoid violation of the Double-*o* Constraint, it is necessary to delete one of the *-o* marked NPs. Since forward Equi NP deletion would retain two *-o* marked NPs, Counter Equi NP deletion is required to delete the matrix object for the sole purpose of ‘salvaging’ the structure. In other words, Counter Equi NP deletion is what Harada (1973) calls a *peeking rule* that forsee

a resulting configuration and applies only if it violates the Double-*o* Constraint.

This leads us to wonder if it is possible for Counter Equi NP deletion not to operate in cases where a given configuration does not result in two *-o* marked NPs. As we have already seen, the passive sentence in (8) and the cleft sentences in (9) exactly fall into this case. In passive sentences, one of the *-o* marked NPs, namely the matrix object, becomes nominative, marked by *-ga*. So, this is not relevant to the Double-*o* Constraint any longer. In cleft sentences like those in (9), one of the *-o* marked NPs, whether it is the matrix object or the TC, is taken out of VP and placed in the pre-copular position. Hence, even though there are two *-o* marked NPs in a sentence, they are outside the scope of the domain to which the Double-*o* Constraint applies. Accordingly, in these cases, forward Equi NP deletion applies, and the TC subject is deleted instead.

3.2 Kuroda (1978)

Against the view of Harada (1973) that the TC is an adverb, Kuroda (1978) contends that it is a relative clause adjoined to the matrix object. His reason for assuming so is that there are cases in which the TC appears to be selected by the matrix verb. As shown in (18a), the verb *butsukar-u* ‘bump into’ can only take a dative complement. Observe that the same Case-marking pattern obtains in the TC sentence in (18b).

(18) a. Taroo-ga Hanako-*o/ni butsukat-ta.

Taro-NOM Hanako-*ACC/DAT bump.into-PST

‘Taro bumped into Hanako.’

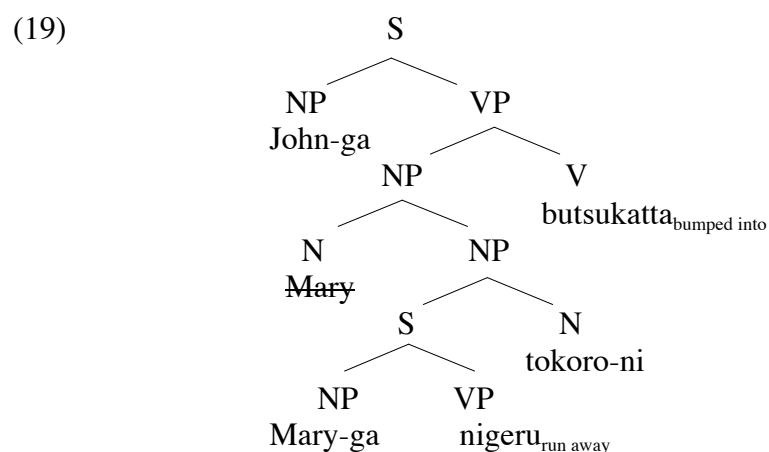
b. Taroo-ga [Hanako-ga nige-ru tokoro]-*o/ni butsukat-ta.

Taro-NOM [Hanako-NOM run.into-PRS tokoro]-*ACC/DAT bump.into-PST

‘Taro bumped into Hanako_i as she_i tried to run away.’

(Kuroda, 1978: 42)

If the TC is an adverb, it cannot be assigned structural Case by the matrix verb. This suggests that TCs are in the complement position whereby they are selected and assigned Case by the matrix verb. More precisely, Kuroda (1978) suggests that the TC modifies the matrix object by right-adjoining to it as a sort of relative clause, and in this position the TC is Case-marked by the matrix verb. The structure is given in (19). Note that in this structure also, Kuroda (1978) assumes that Counter Equi deletes the matrix object.



3.3 Kuroda (1999)

In later work, Kuroda (1999) updates his analysis and identifies two novel types of TCs. One is accusative object TCs selected by perception verbs such as *kansatsusu-ru* ‘watch, observe’.

- (20) John-ga [Mary-ga tabe-tei-ru tokoro]-o kansatsushi-ta.
 John-NOM [Mary-NOM eat-PROG-PRS tokoro]-ACC watch-PST

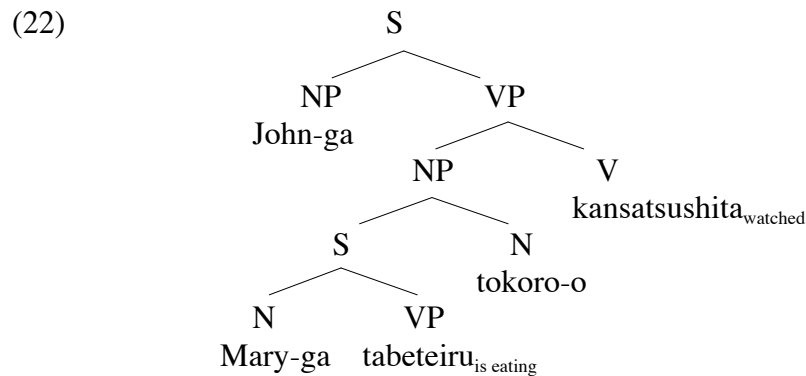
‘John watched Mary eating.’

His reason for supposing that this TC is a direct object is that it can be passivised as in (21a).

Observe also that this type of TC does not induce a Condition B effect as in (21b) (Fujii, 2004).

- (21) a. [Mary-ga tabe-tei-ru tokoro]-ga John-niyotte kansatsus-are-ta.
 [Mary-NOM eat-PROG-PRS tokoro]-NOM John-by watch-PASS-PST
 ‘Mary was watched eating by John.’
- b. John-ga_i [kare-ga_i kagami-ni utsut-tei-ru tokoro]-o kansatsushi-ta.
 John-NOM [he-NOM mirror-in reflect-PROG-PRS tokoro]-ACC watch-PST
 ‘John_i watched while he_i reflects in the mirror.’

Thus, it is plausible to posit that this type of TC sentence does not involve control, with the TC on its own as the direct object. The structure for this type of TC sentence is schematised in (22).



Another type Kuroda (1999) discusses is TCs in the subject position of a sentence (though its existence is hinted at in Kuroda, 1978: 45). Subject TCs can appear with such

predicates as adjectives/nominal adjectives (23a), psych predicates (23b) and lexical passives (23c).

(23) a. [Kono koma-ga mawat-tei-ru tokoro]-ga kirei-da.

[This top-NOM spin-PROG-PRS tokoro]-NOM beautiful-COP

‘This top is beautiful when it is spinning.’

(Kuroda, 1978: 45)

b. [Ano doroboo-ga nigete ik-u tokoro]-ga okashikat-ta.

[That thief-NOM run.away go-PRS tokoro]-NOM amusing-PST

‘That thief was amusing when s/he was running away.’

(Kuroda, 1999: 138)

c. [Fuzi sanchoo-ga kumo-ni kakurete ik-u tokoro]-ga matsunoki-no

[Mt.Fuji summit-NOM cloud-into hide go-PRS tokoro]-NOM pine.tree-GEN

aida-kara mie-ru.

between-from can.be.seen-PRS

‘The summit of the Mount Fuji can be seen between pine trees when hiding into clouds.’

(ibid.: 136)

Kuroda (1999) contends that subject TCs also have an NP-adjunction structure on a par with dative TCs as in (19). Specifically, (23a) has the structure in (24), and Counter Equi NP deletion deletes the preceding *kono koma* ‘this top’.

(24) [~~[Kono koma]-ga~~ kono koma-ga mawat-tei-ru tokoro]-ga kirei-da.

[[This top]-NOM this top-NOM spin-PROG-PRStokoro]-NOM beautiful-COP

‘This top is beautiful when it is spinning.’

A piece of evidence Kuroda adduces in support of this NP-adjunction structure comes from cleft sentences. Note that, assuming that the NP-adjunction structure is on the right track, there are two possible ways of constructing cleft sentences out of (24). One is to dislocate the deleted head NP [_{NP} *kono koma*] ‘this top’, and the other is to dislocate the TC itself [_{NP} *kono koma-ga mawat-tei-ru tokoro*] ‘when this top is spinning’ to the position just before the copular. Kuroda demonstrates that the latter option is readily available as in (25a), whilst the former option is acceptable yet a little awkward because the string *ga-da* (NOM-be) sounds unnatural as in (25b).

- (25) a. [[*Kono koma*]-ga_i *t_j kirei-na-no*]-wa [*pro_i mawat-tei-ru tokoro*]-ga_j-da.
[[This top]-NOM beautiful-COP-C]-TOP [*pro spin-PROG-PRS tokoro*]-NOM-COP
‘It is when spinning that this top is beautiful.’
- b.? [[*t_i pro_j mawat-tei-ru tokoro*]-ga *kirei-na-no*]-wa [*kono koma*]-ga_{ij}-da.
[[*pro spin-PROG-PRS tokoro*]-NOM beautiful-COP-C]-TOP [this top]-NOM-COP
‘It is this top that is beautiful when spinning.’

However, this alone is insufficient to justify the NP-adjunction structure in (24), because it seems reasonable to argue that the cleft sentences in (25) are derived from a multiple subject structure in (26), independently of the NP-adjunction structure.

- (26) [*Kono koma*]-ga_i [*pro_i mawat-tei-ru tokoro*]-ga *kirei-da*.
[This top]-NOM [*pro spin-PROG-PRS tokoro*]-NOM beautiful-COP
‘It is this top that is beautiful when spinning.’

Recall that at the heart of TC constructions is the property that the T-pivot is understood as the thematic object of the matrix verb. In a similar vein, if the NP-adjunction structure assumed by Kuroda (1999) is correct, it is predicted that there is a T-pivot within a subject TC that works as the thematic subject of the matrix verb. Take (24) as an example. What the structure in (24) predicts is that [*kono koma*] ‘this top’ is the T-pivot and acts as a thematic subject of the matrix verb. However, that this is not the case can be demonstrated by examples like (27).

- (27) *pro*_i kitanai-nimokakawarazu, [*kono koma-wa*_i mawat-tei-ru tokoro]-ga
 pro dirty-though [this top-TOP spin-PROG-PRS tokoro]-NOM
 kirei-da.
 beautiful-COP
 ‘Though this top is dirty, it is beautiful when spinning.’

If [*kono koma*] ‘this top’ is the T-pivot, the second conjunct in (27) should have a reading in which ‘this top’ alone is construed as the thematic subject of ‘is beautiful’ as in ‘this top is beautiful’. However, this statement is contradictory to what the first conjunct says: ‘this top is dirty’. Thus this suggests that what is understood as the thematic subject of ‘is beautiful’ is not ‘this top’, but rather the entire TC [*kono koma-wa mawat-tei-ru tokoro*] ‘when this top is spinning’. Should this be the case, instead of (24), subject TCs should have simple structures like (28).

- (28) [Kono koma-ga mawat-tei-ru tokoro]-ga kirei-da.
 [This top-NOM spin-PROG-PRS tokoro]-NOM beautiful-COP
 ‘This top is beautiful when spinning.’

Although it is not easy to find direct support for the structure in (28), Binding Condition B is helpful at least for psych predicates. Let us first note that Condition B keeps the pronoun *kare* ‘he’ from being coreferential with *John* in (29), assuming that the theme *kare* ‘he’ is situated in a position lower than the experiencer *John* when Condition B applies (Belletti and Rizzi, 1988).

- (29) *Kare-ga_i John-o_i t_i odorokase-ta.
 He-NOM John-ACC surprise-PST
 ‘*He_i surprised John_i.’

Observe that this violation does not appear if the pronoun *kare* ‘he’ is the subject in the subject TC.

- (30) [Kare-ga_i terebi-ni utsut-ta tokoro]-ga John-o_i odorokase-ta.
 [He-NOM TV-ON appear-PST tokoro]-NOM John-ACC surprise-PST
 ‘The scene in which he_i appeared on TV surprised John_i.’

This data cannot be accounted for if we assume the NP-adjunction structure, since the NP-adjunction structure does not differ from (29) in terms of Condition B with the pronoun subject *kare* ‘he’ originating as a head of the relative clause. Therefore, this lends support to the structure in (28) in which the pronoun subject *kare* ‘he’ is contained within the TC, separated from the matrix binding domain.

Furthermore, since subject TCs are not marked by *-o* and exempt from the Double-*o* Constraint, there is no need to resort to Counter Equi NP deletion. If Counter Equi NP deletion is not relevant, it is unclear how the head NP is deleted in a backward manner.

Accordingly, in default of strong evidence to the contrary, it is plausible to suppose a simple structure like (28) for subject TCs. In the remainder of this paper, therefore, I will exclude subject TCs from the discussion.

3.4 Summary

Summarising the argument in this section, TCs can be classified into at least into 4 types, according to the matrix verb type, the particle attached to them, and their structures. The first type (Type 1) is the accusative TC which we have so far mainly examined in sentences like those in (3). Type 1 TCs can occur with majority of transitive verbs such as *tsukamae-ru* ‘catch’ and *nagusame-ru* ‘console’, and according to Harada (1973) and Kuroda (1999) they are adverbs (VP-adjuncts). The second type (Type 2) TCs are also accusative, and as we have just seen in (22), these are the direct object of perception verbs.

In addition to these, Kuroda (1999) divides dative TCs into two types according to the matrix verb. One of them, the third type (Type 3) is the one selected by verbs such as *dekuwas-u* ‘come across’, *dea-u* ‘encounter’, etc. These verbs have in common that they can select either a situation or an animate entity as their complement. Type 3 TCs are exemplified by sentences such as follows.

- (31) Keekan-ga ec_i [doroboo-ga_i nige-ru tokoro]-ni dekuwashi-ta.
Policeman-NOM [thief-NOM run.away-PRS tokoro]-DAT come.across-PST
‘The policeman came across the thief_i when s/he_i tried to run away.’

The latter dative TCs (Type 4) are selected by verbs that take a dative (indirect) object as a GOAL. These verbs include two-place verbs such as *oitsuk-u* ‘catch up with’, *tadoritsuk-u*

‘reach’, and three-place verbs like *oshie-ru* ‘teach’, *todoke-ru* ‘deliver’, etc. (32) is an example of Type 4 TCs.

- (32) a. Keekan-ga *ec_i* [doroboo-ga_i hashi-ru tokoro]-ni oitsui-ta.
 Policeman-NOM [thief-NOM run-PRS tokoro]-DAT catch.up.with-PST
 ‘The policeman caught up with the thief_i when s/he_i was running.’
- b. John-ga *ec_i* [Mary-ga mayot-tei-ru tokoro]-ni michi-o oshie-ta.
 John-NOM [Mary-NOM be.lost-PROG-PRS tokoro]-DAT way-ACC tell-PST
 ‘John told Mary where to go when she was lost.’

Kuroda (1999) suggests that Type 3 and Type 4 TCs form a natural class, and have an NP-adjunction structure like that in (19). See the table in (33) for the classification of TC types.

(33)

TC types	Matrix verb types	Structure
Type1 (acc)	The majority of transitive verbs: <i>tsukamae-ru</i> ‘catch’, <i>nagusame-ru</i> ‘console’, <i>tasuke-ru</i> ‘help’, etc.	VP-adjunct (12)
Type2 (acc)	Perception verbs: <i>kansatsusu-ru</i> ‘watch’, <i>soozoosu-ru</i> ‘imagine’, <i>kirokusu-ru</i> ‘record’, etc.	Direct object (22)
Type3 (dat)	Verbs that take either an animate object or a situation: <i>dekuwas-u</i> ‘come across’, <i>dea-u</i> ‘encounter’, etc.	NP-adjunct (19)
Type4 (dat)	Verbs that take a dative (indirect) object as a GOAL: <i>oitsuk-u</i> ‘catch up with’, <i>tadoritsuk-u</i> ‘reach’, <i>oshie-ru</i> ‘teach/tell’, <i>todoke-ru</i> ‘deliver’, etc.	NP-adjunct (19)

It is important to mention here that although the structures Harada (1973) and Kuroda (1978, 1999) suggest for TCs differ, they share something in common except for Type 2 TCs: namely, Counter Equi NP deletion. As the reader may already have noticed, this is made possible since they assume structures in which the TC is situated structurally lower than the null matrix object. This is so, whether the TC is an adverb (VP-adjunct) as in Harada's analysis or a relative clause (NP-adjunct) as in Kuroda's analysis. The primary goal of this paper is, by reconsidering the structures based on the classification in (33), to demonstrate that TCs do not have the kind of structures posited by Harada (1973) and Kuroda (1978, 1999) involving Counter Equi NP deletion. But before plunging into the main argument, let us take time to see how Counter Equi NP deletion can be recast in keeping with the MTC.

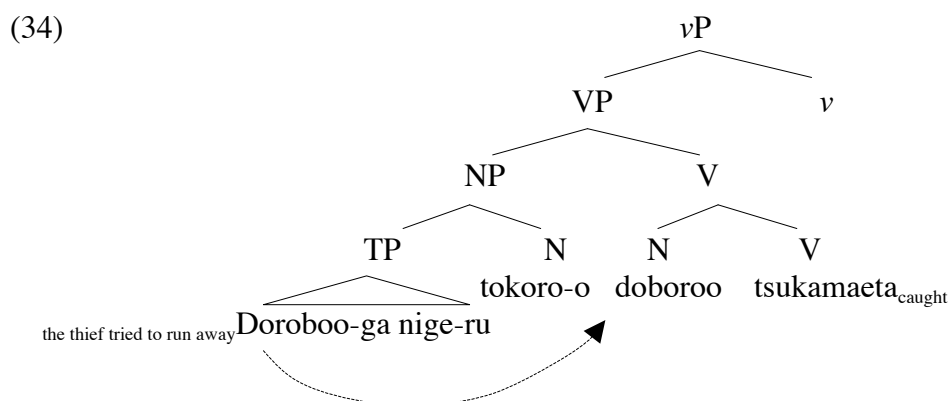
4. The movement approach without spellout

As discussed at the outset of this paper, the advent of the MTC makes it possible to analyse backward control in terms of certain interface conditions on pronouncing a copy of A movement chains. Since Japanese TC constructions are one of the oldest attested instances of backward control, it should come as no surprise that they are compatible with the MTC. In this section, I will review two such movement approaches to TC constructions.

4.1. Fujii (2004)

In order to capture Counter Equi NP deletion in the framework of the Minimalist Programme (Chomsky, 1993, et seq.), Fujii (2004) makes use of feature movement. Recall that the data from Condition B suggests that the T-pivot behaves as if it is in the matrix clause

in Type 1 TCs. In order to account for this ‘high behaviour’ of the T-pivot, Fujii (2004) argues that a bundle of features of the T-pivot relevant for binding are attracted to the checking domain of the matrix verb for thematic reasons. More specifically, he assumes that θ -roles are features (Horsntein, 1999) and that they are weak in Japanese (Bošković and Takahashi, 1998). As a consequence of these assumptions, Counter Equi NP deletion is superseded by covert feature movement of the T-pivot. His structure for Type 1 TCs is schematized in (34).



4.2 Narita (2007)

Whilst sharing the core assumptions of the movement approach to TC constructions, Narita (2007) differs from Fujii (2004) in denying movement into θ -positions. The reasons for this denial come in two varieties. Recall that Type 4 TCs when occurring with three-place verbs look like an indirect object of the matrix verb as shown in (32b). It is generally assumed that an indirect object in its base position is not c-commanded by V because it is in the specifier position of V (e.g., Larson, 1988). If so, feature movement of the T-pivot from the indirect TC leads to an unusual situation in which the T-pivot features are moved to a non-commanding V. In order to get around this problem, as Narita (2007) notes, we have to resort to an ad hoc device like covert sideward feature movement (see Nunes, 2001, 2004)

The second reason is concerned with the position of the T-pivot within a TC. Although

the T-pivot is the subject of a TC in most cases, Narita (2007) suggests the possibility that it can also be a direct object like *John* in (35a) or an indirect object like *Mai* in (35b) (here the T-pivot is underlined for ease of exposition).

- (35) a. Sono omawari-ga [bookan-ga John-o naguritaoshiteshimat-ta tokoro]-ni
 That cop-NOM [thug-NOM John-ACC had.knocked.down-PST tokoro]-DAT
 ookyuushochi-o shi-ta.
 first.aid-ACC do-PST
 ‘That cop gave first aid to John_i when a thug knocked down him_i.’

(Based on Narita, 2007: (6))

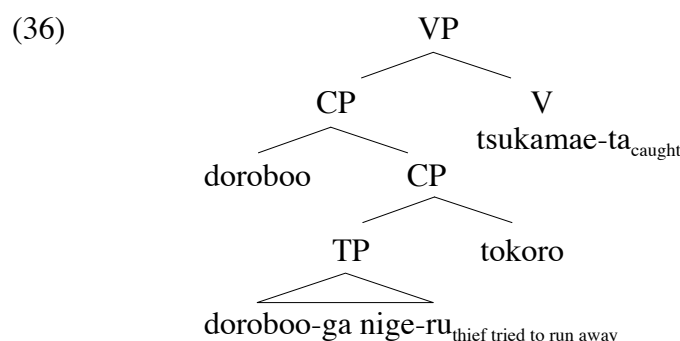
- b. Isao-ga [Tsubasa-ga Mai-ni hanataba-o watasoo-to shi-ta
 Isao-NOM [Tsubasa-NOM Mai-DAT bouquet-ACC about.to.give do-PST
 tokoro]-o (te-o hiite) tsuresat-ta.
 tokoro]-ACC (hand-ACC taking) take.away-PST
 ‘Isao took away Mai_i by taking her hand when Tsubasa was about to give a bouquet to her_i.’

(ibid: (8))

If feature movement of the T-pivot to V is involved, this would pose a problem, because both the direct object and indirect object must skip the TC subject before reaching the checking domain of the matrix verb. Since the TC subject asymmetrically c-commands the direct/indirect object of the TC, it is a closer goal for the matrix verb. Thus, movement of the direct/indirect object should be blocked by minimality.

According to Narita, these problems can be overcome if movement of the T-pivot is not driven by a θ -feature checking. Instead, he proposes that movement of the T-pivot is induced

by checking an EPP feature on *tokoro* which resides on C. This amounts to saying that the T-pivot is adjoined to C, and if this adjunction constitutes a segment of C, as Narita contends, the T-pivot can receive a θ -role when the TC merges with the matrix verb. Two problems just mentioned can also be overcome. First, because the T-pivot does not move up to the matrix V, the problem of the T-pivot moving from an indirect TC to a non c-commanding probe does not arise. As far as the second problem is concerned, Narita assumes that the (in)direct object first moves to the edge of the ν P phase. Hence viewed from C, the TC subject in the Spec ν P position and the (in)direct object are equidistant. Accordingly, minimality can be obviated. His structure for TC constructions is schematized in (36).⁹



(Narita, 2007: 191)

Aside from these intricate technicalities, of most importance in Narita's analysis is that he proposes that this movement is an instance of pre-Spellout Covert movement in line with Bobaljik (2002), Bošković (2002) and Kato (2004). At the heart of these approaches is the idea that a chain head copy is rendered silent due to certain PF conditions. Here, the condition at issue is concerned with Case as cited in (37).

(37) *The Economy Principle of A-chain Pronunciation*

⁹ Note that this structure is virtually identical to the NP-adjunction structure proposed by Kuroda (1978).

An A-chain is pronounced at the Case-marked position.

(Narita, 2007: 194)

On the assumption that an A-chain is pronounced at the Case-marked position, the movement chain of the T-pivot is forced to be pronounced in the base position, considering that the adjunction-site at C is not a Case-marked position. This way, Counter Equi NP deletion is captured not as covert feature movement, but as movement without phonological outcome.

4.3 Objections

In this subsection, I intend to afford counterexamples to the movement approaches. If movement of the T-pivot (or its features) is involved, it is predicted to exhibit island sensitivities. However, I will illustrate against this prediction that TC constructions in general do not show island effects.

First, the examples below show that TC constructions are insensitive to *wh*-islands headed by *-kadooka* ‘whether/if’. As the T-pivot is so deeply embedded that it is difficult to parse, they do not sound perfectly natural on the intended reading in which the T-pivot (underlined here for expository purposes) is the thematic object of the matrix verb. But according to informants’ and my judgments, they are acceptable if an appropriate context is given.

- (38) Mary-wa [[John-ga hannin-*kadooka*] kenzi-ga toitsume-ta
Mary-TOP [[John-NOM criminal-*whether*] prosecutor-NOM cross-examine-PST
tokoro]-o uso-o tsuite kabat-ta.
tokoro]-ACC lie-ACC telling protect-PST

‘Mary protected John_i by telling a lie when the prosecutor cross-examined whether he_i was a criminal.’

(Type 1)

(39) ? Isha-wa [[kodomo-ga byooki-*kadooka*] hahaoya-ga shinpaishi-tei-ru

Doctor-TOP [[kid-NOM ill-*whether*] mother-NOM worry-PROG-PRS

tokoro]-o shinsatsudai-ni nosete kansatsushi-ta.

tokoro]-ACC couch-on put watch-PST

‘The doctor put the kid_i on the couch and examined him when his mother was worried if he_i was ill.’

(Type 2)

(40) ? Mary-wa_i [*pro*_i [keekan-ga John-o tsukamae-ta-*kadooka*]

Mary-TOP [*pro* [policeman-NOM John-ACC catch-PST-*whether*]

hanshinhangidat-ta tokoro]-ni eki-de battari dekuwashi-ta.

be.half.in.doubt-PST tokoro]-DAT station-at accidentally come.across-PST

‘Mary came across John_i at the train station when she was half in doubt whether the policeman had caught him_i.’

(Type 3)

(41) a. ? Keekan-ga [[*pro*_i doroboo-o kakumao-kadooka] John-ga_i

Policeman-NOM [[*pro* thief-ACC hide-*whether*] John-NOM

mayot-tei-ru tokoro]-ni oitsui-ta.

hesitate-PROG-PRS tokoro]-DAT catch.up.with-PST

‘The policeman caught up with the thief_i when John was hesitating whether he should hide him_i.’

b. ? John-wa [[Mary-ga genki-*kadooka*] hahaoya-ga shinpaishi-tei-ta

John-TOP [[Mary-NOM fine-*whether*] mother-NOM worry-PROG-PST

tokoro]-ni class-o daihyooshite hagemashi-no tegami-o todoke-ta.

tokoro]-DAT class-ACC representing cheer.up-GEN letter-ACC deliver-PST

‘John delivered an encouraging letter to Mary_i representing her classmates when her mother had been worried if she_i was fine.’

(Type 4)

Furthermore, TC sentences are insensitive to complex NP islands. Consider the sentences below in this connection.

- (42) ? Keekan-ga_i [*pro*_i [doroboo-ga nige-ta-toiu joohoo]-o e-ta
Policeman-NOM [*pro* [thief-NOM run.away-PST information]-ACC get-PST
tokoro]-o sakimawarishite tsukamae-ta.

tokoro]-ACC anticipating catch-PST

‘The policeman got there ahead and caught the thief_i when he got the information that s/he_i had run away.’

(Type 1)

- (43) ? Kantoku-ga_i [*pro*_i [senshu-ga hashi-ru kankyoo]-o henkooshi-ta
Coach-NOM [*pro* [athlete-NOM run-PRS environment]-ACC change-PST
tokoro]-o mooichido kansatsush-ita.

tokoro]-ACC again watch-PST

‘The coach watched the athlete_i once again when he had changed the environment where s/he_i runs.’

(Type 2)

- (44) ? John-wa [[Mary-ga manbikishi-ta-toiu uwasa]-ga demawat-tei-ta
John-TOP [[Mary-NOM shoplift-PST rumor]-NOM be.spread-PROG-PST

tokoro]-ni super-de battari dekuwashi-ta.

tokoro]-DAT supermarket-at by.chance come.across-PST

‘John came across Mary_i by chance at the supermarket when the rumor that she_i had shoplifted was spread.’

(Type 3)

(45) a. ? Keekan-ga_i [*pro*_i [doroboo-ga nige-ta tatemono]-o haakushi-ta

Policeman-NOM [*pro* [thief-NOM run.away-PST building]-ACC get.to.know-PST

tokoro]-ni sakimawarishite oitsui-ta.

tokoro]-DAT anticipate catch.up.with-PST

‘The policeman got there ahead and caught up with the thief_i when he found the building where s/he_i had run away into.’

b. John-wa_i [*pro*_i [Mary-ga single-dea-ru-toiu uwasa]-o kikitsuke-ta

John-TOP [*pro* [Mary-NOM single-COP-PRS rumor]-ACC hear-PST

tokoro]-ni love letter-o watashi-ta.

tokoro]-DAT love.letter-ACC give-PST

‘John gave a love letter to Mary_i when he heard a rumor that she_i was single.’

(Type 4)

These considerations lead to the plausible conclusion that TC constructions do not involve movement of the T-pivot. This point can be further strengthened by examining the structural position of TCs, which is the topic of the next section.

5. The structural position of *tokoro*-clauses

In this section, I propose novel structures for TC sentences by examining the structural position of all TC types identified in 3.4. Recall that in section 3, we saw that TCs have been analysed as situated structurally lower than the null matrix object (except Type 2), and that this is the source of backward control analyses of TC constructions. I aim to disprove this analysis by applying a series of diagnostics proposed mainly by Koizumi (1993) that illustrate the structural height of adjuncts. By so doing, it is my intention to show that the referential dependency between the T-pivot and the null matrix object is not backward.

But before leaping ahead to the main argument, let us see if there is generally a null matrix object in all types of TC sentences. Recall that Condition B can make this clear and we have already seen that Type 2 TC sentences do not have a null matrix object. Bearing this in mind, consider the sentences below.

- (46) *John-ga_i *ec*_i [kare-ga_i ochikonde i-ru tokoro]-o nagusame-ta.

John-NOM [he-NOM down be-PRS tokoro]-ACC console-PST

‘*John_i consoled him_i when he_i was down.’

(Type 1)

- (47) John-ga_i [kare-ga_i ochikonde i-ru tokoro]-o soozooshi-ta.

John-NOM [he-NOM down be-PRS tokoro]-ACC imagine-PST

‘John_i imagined that he_i was down.’

(Type 2)

(Fujii 2004)

- (48) John-ga_i [kare-ga_i terebi-ni utsut-tei-ru tokoro]-ni dekuwashi-ta.

John-NOM [he-NOM TV-on appear-PROG-PRS tokoro]-DAT come.across-PST

‘John_i came across a schene in which he_i appeared on TV.’

(Type 3)

(49) a. *John-ga_i ec_i [kare-ga_i hashit-tei-ru tokoro]-ni oitsui-ta.

John-NOM [he-NOM run-PROG-PRS tokoro]-DAT catch.up.with-PST

‘*John_i caught up with him_i when he_i was running.’

b. *John-ga_i ec_i [kare-ga_i ie-ni kaeritsui-ta tokoro]-ni

John-NOM [he-NOM home-at came.back-PST tokoro]-DAT

nimotsu-o todoke-ta.

parcel-ACC deliver-PST

‘*John_i delivered a parcel to him_i when he_i came back home.’

(Type 4)

The above sentences suggest that not only Type 2 TCs, but also Type 3 TCs do not show the intended Condition B effect. Therefore, we are led to consider that there is no null matrix object in Type 3 TC sentences, and that the Type 3 TC itself is the complement of the matrix verb.¹⁰¹¹ Considering that the perception verbs that take Type 2 TCs and the verbs that take

¹⁰ Hale and Kitagawa (1976-77: 53) independently argues that Type 3 TCs are a complement to the matrix verb by citing the following example.

(i) John-wa [ookii otoko-ga roozin-o naguri, roozin-ga himei-o age, toorikakat-ta onna-ga

John-TOP [big man-NOM old.man-ACC hit old.man-NOM scream-ACC raise passing.by-PST woman-NOM

tasuke-o yon-dei-ru tokoro]-ni dekuwashi-ta.

help-ACC call-PROG-PRS tokoro]-DAT come.across-PST

‘John ran into a scene in which a big man was beating an old man, the old man was screaming, and a woman passing by was calling for help.’

(Hale and Kitagawa, 1976-77: 53)

They argue that, if there is a matrix object, there is no known rule that deletes it under identity with these conjoined sentences within the TC. Rather, they assume that it is natural to think that this TC is a dative argument of the verb *dekuwas-u* ‘come across’.

¹¹ If Type 3 TCs are complements, a natural question to ask is whether they can be passivised. Contrary to expectation, this is not the case.

(i) Keekan-ga [doroboo-ga nige-ru tokoro]-ni dekuwashi-ta.

Policeman-NOM [thief-NOM run.away-PST tokoro]-DAT come.across-PAST

‘The policeman came across the thief_i when s/he_i tried to run away.’

Type 3 TCs such as *dekuwas-u* ‘come across’ both can select a situation as their complement, it may not be a surprise to find that they can also select a circumstantial TC as their complement.

Having established that Type 2 and Type 3 TCs are complements, we can now turn to focus on the structural position of Type 1 and Type 4 TCs.

5.1 *The interaction between negation and zen’in ‘everyone’*

This subsection is concerned with the interaction between negation and *zen’in* ‘everyone’. Miyagawa (2010) argues that when *zen’in* ‘everyone’ is in a position c-commanded by negation, it can have a partial negation reading as the translation suggests in (50). It can also have a total negation reading, but it is weaker than the partial negation reading unless focal stress is placed on *zen’in*, or *zen’in* is fronted.

(50) Sensee-ga zen’in-o shikara-nakat-ta.

Teacher-NOM everyone-ACC scold-NEG-PST

‘The teacher did not scold everyone’

^{OK}Partial negation: ‘The teacher scolded some people, but not everyone’

^{OK}Total negation: ‘The teacher scolded no one.’

(ii)*[Doroboo-ga nige-ru tokoro]-ga keekan-niyotte dekuwas-are-ra.

[Thief-NOM run.away-PRS tokoro]-NOM policeman-by come.across-PASS-PST

‘The scene where the thief tried to run away was come across by the policeman.’

However, the impossibility of passivisation results from the fact that these verbs themselves resist passivisation.

(iii)*Doroboo-ga keekan-niyotte dekuwas-are-ta.

Thief-NOM policeman-by come.across-PASS-PST

‘The thief was come across by the policeman.’

By testing whether *zen'in* within TCs can have a partial negation reading, it will become evident whether or not the TC is situated below negation. In this light, consider (51)-(54).

- (51) Sensee-wa [zen'in-ga_i ochikonde i-ru tokoro]-o [_{vp} *ec*_i
Teacher-TOP [everyone-NOM down be-PRS tokoro]-ACC
nagusame]-nakat-ta.
console]-NEG-PST
'??The teacher consoled some but not all of them when everyone was down'
(Type 1)

- (52) Kensakan-wa [_{vp} [zen'in-ga tabe-ru tokoro]-o kansatsushi]-nakat-ta.
Inspector-NOM [[everyone-NOM eat-PRS tokoro]-ACC watch]-NEG-PST
'^{OK}The inspector watched some but not all of them eating'
(Type 2)

- (53) Kanshi-wa [_{vp} [zen'in-ga nige-ru tokoro]-ni dekuwasa]-nakat-ta.
Guard-TOP [[everyone-NOM run.away-PRS tokoro]-DAT com.across]-NEG-PST
'^{OK}The guard came across some but not all of them running away'.
(Type 3)

- (54) a. Keekan-wa [zen'in-ga_i nige-ru tokoro]-ni [_{vp} *ec*_i
Policeman-TOP [everyone-NOM run.away-PRS tokoro]-DAT
oitsuka]-nakat-ta.
catch.up.with]-NEG-PST
'??The policeman caught up with some but not all of them running away.'
- b. John-wa [zen'in-ga_i mayot-tei-ru tokoro]-ni [_{vp} *ec*_i michi-o
John-TOP [everyone-NOM lost-PROG-PRS tokoro]-DAT [way-ACC
oshie]-nakat-ta.

tell]-NEG-PST

‘??John told the way to some but not to all of them when everyone was lost’

(Type 4)

As the translations suggest, it is hard to get a partial negation reading in Type 1 and Type 4 TC sentences. On the other hand, a partial negation reading is acceptable in Type 2 and Type 3 TC sentences.¹² As far as Type 2 and Type 3 are concerned, this is expected because if they are the complement of the matrix verb, they should be in a position c-commanded by negation. The absence of the partial negation reading in Type 1 and Type 4 amounts to suggesting that these types of TCs are not c-commanded by NegP, which according to Pollock (1989) is positioned between *v*P and TP. Hence, it seems reasonable to suppose that Type 1 and Type 4 TCs are above *v*P.

5.2 Negation of a focused *v*P

In his paper on the structural position of adjuncts, Koizumi (1993) suggests several diagnostics for classifying adjuncts into VP-adjuncts (or *v*P adjuncts in current terminology), TP-adjuncts and MP-adjuncts (MP being Modal Phrase). One of the diagnostics is concerned with negative sentences with a focused *v*P, which is related to the test we have just seen in 5.1.

It is usually the case that when a focused *v*P, namely *v*P-*wa*, is negated, what is negated is constituents included within *v*P. Thus, by investigating whether or not each adjunct is negated, we are able to establish the attachment site of the adjunct. For instance, the sentence

¹² Compared to partial negation readings, total negation readings are not so obvious here. However, as far as Type 1 and Type 4 TCs are concerned, one could feel as if there is no interaction between negation and *zen'in* ‘everyone’. More specifically, taking (51) as an instance, it may not mean ‘the teacher consoled none of them’, but it simply means ‘everyone was down, and the teacher did not console them’ without the connotation of total negation.

in (55a) has an interpretation in which only the adjunct headed by *nagara* ‘while’ is negated. That is, it means ‘Kiyomi studied, but not while watching TV.’ On the other hand, the sentence in (55b) does not have an interpretation such that only the adjunct headed by *kagiri* ‘as long as’ is negated.

(55) a. Kiyomi-wa [_{VP} [terebi-o mi-nagara] benkyooshi-wa shi]-nakat-ta.

Kiyomi-TOP [[TV-ACC watch-while] study-TOP do]-NEG-PST

‘Kiyomi did not study while watching TV.’

^{OK}Kiyomi studied, but not while watching TV.

b. Kiyomi-wa [futtobooru-ga owar-anai-kagiri]

Kiyomi-TOP [football-NOM finish-NEG-as.long.as]

[_{VP} benkyooshi-wa shi]-nakat-ta.

[study-TOP do]-NEG-PST

‘Kiyomi did not study until the football game was over’

*Kiyomi studied, but not until the football game was over.

(Koizumi, 1993: 413)

Koizumi (1993) takes this as indicating that only the *nagara* ‘while’ adjunct in (55a) is a *vP*-adjunct taking scope under negation, and that the *kagiri* ‘as long as’ adjunct is situated above *vP*.

Bearing this in mind, let us examine TC constructions.

(56) John-wa [Mary-ga_i ochikonde i-ru tokoro]-o [_{VP} *ec*_i nagusame-wa
John-TOP [Mary-NOM down be-PRS tokoro]-ACC [console-TOP
shi]-nakat-ta.

do]-NEG-PST

‘??John consoled Mary, but not when she was down.’

(Type 1)

- (57) Kanshi-wa [_{VP} [yoogisha-ga ne-tei-ru tokoro]-o kansatsushi-wa
Guard-TOP [[suspect-NOM sleep-PROG-PRS tokoro]-ACC watch-TOP
shi]-nakat-ta.

do]-NEG-PST

‘^{OK}The guard watched the suspect, but not when s/he was asleep.’

(Type 2)

- (58) Sensee-wa [_{VP} [John-ga odot-tei-ru tokoro]-ni dekuwashi-wa
Teacher-TOP [[John-NOM dance-PROG-PRS tokoro]-DAT come.across-TOP
shi]-nakat-ta.

do]-NEG-PST

‘^{OK}The teacher came across John, but not when he was dancing.’

(Type 3)

- (59) a. Keekan-wa [doroboo-ga_i nige-ru tokoro]-ni [_{VP} *ec*_i
Policeman-TOP [thief-NOM run.away-PRS tokoro]-DAT [
oitsuki-wa shi]-nakat-ta.

catch.up.with-TOP do]-NEG-PST

‘??The policeman caught up with the thief, but not when s/he was running away.’

- b. John-wa [Mary-ga_i mayot-tei-ru tokoro]-ni [_{VP} *ec*_i michi-o oshie-wa
John-TOP [Mary-NOM lost-PROG-PRS tokoro]-DAT [way-ACC teach-TOP
shi]-nakat-ta.

do]-NEG-PST

‘??John told Mary her right way, but not when she was lost.’

Considering that it is hard to get an interpretation that Type 1 and Type 4 TCs are negated, it is plausible to conclude that they are not ν P-adjuncts that take scope under negation. Rather, the above data suggest that they are situated above ν P. In contrast, the fact that Type 2 and Type 3 TCs can take scope under negation is expected if they are complements to the matrix verb.

5.3 The focus particle *–sae* ‘even’

Another diagnostic Koizumi (1993) uses in testing the attachment site of adjuncts is the focus particle *–sae* ‘even’. *–Sae* can focus the maximal projection to which it is attached, or constituents dominated by that maximal projection (Kato, 1985; Ogino, 1990). For instance, the example in (60) in which *–sae* is attached to ν P has three possible readings. More specifically, [*ringo*] ‘apple’ is focused in (60a), [*tabe*] ‘to eat’ is focused in (60b), and [*ringo-o tabe*] ‘to eat an apple’ is focused in (60c).

(60) Kiyomi-wa [[ν P ringo-o tabe]-*sae*] shi-ta.

Kiyomi-TOP [[apple-ACC eat]-*even*] do-PST

‘Kiyomi even ate an apple.’

- a. Focus [*ringo*] ‘apple’: Among all the things Kiyomi ate, an apple was the least expected for Kiyomi to eat.
- b. Focus [*tabe*] ‘to eat’: Among all the things Kiyomi did with an apple, eating it was the least expected.
- c. Focus [*ringo-o tabe*] ‘to eat an apple’: Among all the things Kiyomi did, eating an

apple was the least expected for Kiyomi to do.

(Koizumi, 1993: 411-2)

When *-sae* is attached to *vP*, the distinction between *vP*-adjuncts and adjuncts above *vP* will be made clear by examining whether the adjuncts have a focus interpretation. In this connection, let us compare the sentences (61a) and (61b).

(61) a. Kiyomi-wa [_{vP} [terebi-o mi-nagara] benkyoo]-*sae* shi-ta.

Kiyomi-TOP [[TV-ACC watch-while] study]-*even* do-PST

‘Kiyomi even studied while watching TV.’

Focus [*terebi-o mi-nagara*] ‘while watching TV’ : ^{OK}Among all the things Kiyomi did when studying, watching TV was the least expected.’

b. Kiyomi-wa [koohii mame-ga nakunar-ana-i kagiri]

Kiyomi-TOP [coffee bean-NOM run.out-NEG-PRS as.long.as]

[_{vP} kaimono-ni iki]-*sae* shi-na-i

[shopping-to go]-*even* do-NEG-PRS

‘Kiyomi does not even go shopping unless coffee beans run out.’

Focus [*koohii mame-ga nakunar-ana-i kagiri*] ‘unless coffee beans run out’:

*Among all the reasons Kiyomi does not go shopping, the reason that coffee beans have not yet run out is the least expected.

(Koizumi, 1993: 412-3)

As the translations suggest, (61a) has a reading in which the adjunct headed by *nagara* ‘while’ is focused by *-sae* ‘even’, while (61b) does not have an interpretation whereby the adjunct headed by *kagiri* ‘as long as’ is focused. This is another piece of evidence that leads

Koizumi to conclude that the *nagara* ‘while’ adjunct is a *vP* adjunct, yet the *kagiri* ‘as long as’ adjunct originates above *vP*.

With this in mind, we are now equipped to examine whether TCs can be focused by *-sae* being attached to *vP*. In this light, consider the following sentences.

- (62) John-wa [Mary-ga_i ochikonde i-ru tokoro]-o [_{vP} *ec*_i
John-TOP [Mary-NOM down be-PRS tokoro]-ACC [
nagusame]-*sae* shi-ta.
console]-*even* do-PST
‘??Among all the situations in which John could console Mary, for John to do so
when Mary was down was the least expected.’

(Type 1)

- (63) Kanshi-wa [_{vP} [yoogisha-ga ne-tei-ru tokoro]-o kansatsu]-*sae*
Guard-TOP [[suspect-NOM sleep-PROG-PRS tokoro]-ACC watch]-*even*
shi-ta.
do-PST
‘^{OK}Among all the situations in which the guard could watch the suspect, to watch
him/her while s/he was asleep was the least expected.’

(Type 2)

- (64) Sono gakusee-wa [_{vP} [sensee-ga baa-kara deteku-ru tokoro]-ni
That student-TOP [[teacher-NOM bar-from come.out-PRS tokoro]-DAT
dekuwashi]-*sae* shi-ta.
come.across]-*even* do-PST
‘^{OK}Among all the situations in which that student could come across the teacher, to
come across the teacher coming out of the bar was the least expected.’

(65) a. Keekan-wa [doroboo-ga kuruma-de nige-ru tokoro]-ni [_{vP} *ec_i*

Policeman-TOP [thief-NOM car-by run.away-PRS tokoro]-DAT [

oitsuki]-*sae* shi-ta.

catch.up.with]-*even* do-PST

‘^{OK}Among all the situations in which the policeman could catch up with the thief, to catch up with the thief when s/he was running away in a car was the least expected.’

b. Sensee-wa [John-ga mayot-tei-ru tokoro]-ni [_{vP} *ec_i* michi-o

Teacher-TOP [John-NOM lost-PROG-PRS tokoro]-DAT [way-ACC

oshie]-*sae* shi-ta.

tell]-*even* do-PST

‘??Among all the situations in which the teacher could tell John his way, to do so when he got lost was the least expected.’

Although the judgments are subtle, there is a contrast of acceptability between Type 2 and Type 3 TCs on the one hand, and Type 1 and Type 4 on the other. The former readily allows an interpretation in which the TC is focused by *-sae* ‘even’, whereas the latter does not. This is consistent with the results of the diagnostics we have seen so far that only the former is within *vP*. What is puzzling, however, is the presence of (65a). Although the diagnostics in 5.1 and 5.2 have shown that this TC is outside the scope of negation, (65a) shows that the interpretation in which the TC is focused by *-sae* ‘even’ is easily obtainable.

I suggest that this anomaly arises from the special behaviour of achievement verbs like *oitsuk-u* ‘catch up with’. Take configurations like *x even caught up with y in a situation such as z*. Like the English focus particle ‘even’, what *-sae* can focus in this configuration is only *z*.

This is illustrated in (66).

- (66) Cheetah-wa [densha-ga_i hashit-tei-ru toki]-ni *pro_i oitsuki-sae* shi-ta.
 Cheetah-TOP [train-NOM run-PROG-PRS when]-DAT *pro* catch.up.with-even do-PST
 ‘Cheetah even caught up with the train when it was running.’
- a. Focus [*oitsuki*] ‘to catch up with’:??Among all the things Cheetah could do with the running train, to catch up with it was the least expected.
 - b. Focus [*densha*] ‘train’:??Among all the things Cheetah could catch up with, to catch up with the train was the least expected.
 - c. Focus [*densha-ga hashit-tei-ru toki*] ‘when the train is running’:^{OK}Among all the situations Cheetah could catch up with the train, to catch up with it when running was the least expected.

This property may well stem from the telic semantics of achievement verbs that the event denoted is presupposed to be completed. Because the event ‘to catch up with the train’ has already been achieved, there may not be likely alternatives in an existential implicature that can be compared to determine the focus value. Rather, it is preferable to place the focus on a situation z that can still have alternatives irrespective of the telicity of the predicate. For instance, we can compare ‘when the train is running’ with such alternatives as ‘when the train has stopped’. I suggest that the same applies to (65a). Though attached to vP, *-sae* in (65a) is most naturally interpreted as focusing the situation z denoted by the TC. If this is true, it follows that the *-sae* focus particle test is not relevant to determining the structural height of the Type 4 TC in question, because it is focused for an independent reason pertaining to the nature of achievement verbs. However, note that this does not refute the results obtained in 5.1 and 5.2 that the Type 4 TC with achievement verbs is outside the scope of negation, and

therefore outside ν P.

5.4 Sentential negation

We have argued thus far from the scope of negation and the focus particle *–sae* that Type 1 and Type 4 TCs are generated above ν P. However, we have not yet identified the exact site where these TCs are attached above ν P. In this subsection, I aim to clarify this.

There is yet another negative sentence used by Koizumi (1993: 415), in which the entire TP is within the scope of negation *wakede-wa nai* ‘it is not the case that’. This is exemplified by sentences like (67).

- (67) [TP Kiyomi-ga piza-o tabe-ta]-wakede-wa na-i.
[Kiyomi-NOM pizza-ACC eat-PST]-case-TOP NEG-PRS
‘It is not the case that Kiyomi ate pizza.’

(Koizumi, 1993: 415)

Applying this, we are thus able to understand whether each adjunct is below or above TP. When occurring in these sentences, both *nagara* ‘while’ adjuncts and *kagiri* ‘as long as’ adjuncts fall within the scope of negation as shown in (68).

- (68) a. Kiyomi-wa_i [TP [ν P [terebi-o mi-nagara] benkyooshi]-ta]-wakede-wa na-i.
Kiyomi-TOP [[[TV-ACC watch-while] study]-PST] case-TOP NEG-PRS
‘It is not the case that Kiyomi studied while watching TV.’
b. Kiyomi-wa_i [TP [futtobooru-ga owar-anai-kagiri] biiru-o
Kiyomi-TOP [[football-NOM finish-NEG-as.long.as] beer-ACC

nomi-tsuzuke-ru]-wakede-wa na-i.

drink-keep-PRS]-case-TOP NEG-PRS

‘It is not the case that Kiyomi keeps drinking until the football game is over.’

(Koizumi, 1993: 415)

In 5.1 to 5.3, we established that the *nagara* ‘while’ adjunct is a vP-adjunct and the *kagiri* ‘as long as’ adjunct is located outside vP. The state of affairs observed in (68) suggests that the *kagiri* ‘as long as’ adjunct is in fact a TP-adjunct under the scope of sentential negation. On the other hand, an adjunct headed by *-kara* ‘because’ does not fall under the scope of sentential negation. In this light, consider (69).

- (69) [Kenkyuushitsu-no denki-ga kie-tei-ru-kara] Kiyomi-wa_i
 [Office-GEN light-NOM out-PROG-PRS-because] Kiyomi-TOP
 [_{TP} gakkoo-ni ki-tei-ru]-wakede-wa na-i
 [school-to come-PROG-PRS]-case-TOP NEG-PRS
 ‘Since the light of his/her office is out, it is not the case that Kiyomi has
 come to school.’

(Koizumi, 1993: 416)

It follows from this example that the *kara* ‘because’ adjunct is situated outside TP, and according to Koizumi (1993) is adjoined to an MP positioned between TP and CP.

Bearing this in mind, let us examine TCs. As the sentences below illustrate, all types of TCs fall within the scope of sentential negation.

- (70) John-wa [_{TP} [Mary-ga_i ochikonde i-ru tokoro]-o *ec*_i

John-TOP [[Mary-NOM down is-PRS tokoro]-ACC

nagusame-ta]-wakede-wa na-i.

console-PST]-case-TOP NEG-PRS

‘It is not the case that John consoled Mary when she was down.’

(Type 1)

(71) Kanshi-wa [_{TP} [yoogisha-ga ne-tei-ru tokoro]-o

Guard-TOP [[suspect-NOM sleep-PROG-PRS tokoro]-ACC

kansatsushi-ta]-wakede-wa na-i

watch-PST]-case-TOP NEG-PRS

‘It is not the case that the guard watched the suspect sleeping.’

(Type 2)

(72) Mary-wa [_{TP} [John-ga zissaini manbikisu-ru tokoro]-ni

Mary-TOP [[John-NOM actually shoplift-PRS tokoro]-DAT

dekuwashi-ta]-wakede-wa na-i

come.across-PST]-case-TOP NEG-PRS

‘It is not the case that Mary came across the situation in which John actually shoplifted.’

(Type 3)

(73) a. Keekan-wa [_{TP} [doroboo-ga_i nige-ru tokoro]-ni *ec_i*

Policeman-TOP [[thief-NOM run.away-PRS tokoro]-DAT

oitsui-ta]-wakede-wa na-i.

catch.up.with-PST]-case-TOP NEG-PRS

‘It is not the case that the policeman caught up with the thief while s/he tried to run away.’

b. John-wa [_{TP} [Mary-ga_i mayot-tei-ru tokoro]-ni *ec_i* michi-o

John-TOP [[Mary-NOM lost-PRG-PRS tokoro]-DAT way-ACC
 oshie-ta]-wakede-wa na-i
 tell-PRS]-case-TOP NEG-PRS

‘It is not the case that John told Mary her way when she was lost.’

(Type 4)

This suggests that all types of TCs are situated within TP. If Type 2 and Type 3 TCs are complements, this is predicted as they are supposed to be within ν P. Of particular importance here are Type 1 and Type 4 TCs. We argued from 5.1 to 5.3 that these are situated above ν P. Now that it has become clear from evidence relating to sentential negation that these are within TP, the reasonable inference drawn here is that they are TP-adjuncts.

5.5 *pro-form* ‘*soo*’

An additional source of evidence to show that Type 1 and Type 4 TCs are TP-adjuncts comes from the *pro-form* *soo* ‘so’. As Koizumi (1993: 416-8) argues, Japanese *soo* is a *pro-form* that refers to TP. This is because the referent of *soo* includes tense but excludes modality. In (74b), what *soo* refers to is the proposition denoted by TP: namely [_{TP} *eego-ga deki-ru*].

(74) a. Kiyomi-wa [_{TP} *eego-ga deki-ru*] daroo.

Kiyomi-TOP [english-NOM able-PRS] probable

‘Kiyomi is probably able to speak English.’

b. Masami-mo *soo* daroo.

Masami-also so probable

‘Probably, so is Masami.’

(Koizumi, 1993: 416)

As we saw in the previous subsection that both *nagara* ‘while’ adjuncts and *kagiri* ‘as long as’ adjuncts are located within TP, whereas *kara* ‘because’ adjuncts are situated above TP. Therefore, if the *pro*-form *soo* refers to the proposition in TP, it is predicted that only *kara* ‘because’ adjuncts are outside the scope of *soo*. Koizumi (1993) argues that this is actually the case as the examples below suggest.

(75) a. Kiyomi-wa [TP [vP [TV-o mi-nagara] benkyoosu]-ru] daroo.

Kiyomi-TOP [[[TV-ACC watch-while] study]-PRS] probable

‘Probably, Kiyomi [TP will study while watching TV].’

b. Masami-mo soo daroo.

Masami-also so probable

‘Probably, so will Masami (*soo* = [TP will study while watching TV])’

(76) a. Kiyomi-wa_i [TP [koohii mame-ga nakunar-ana-i kagiri] kaimono-ni

Kiyomi-TOP [[coffee bean-NOM run.out-NEG-PRS as.long.as] shopping-to

ik-ana-i] daroo.

go-NEG-PRS] probable

‘Probably, Kiyomi [TP will not go shopping unless coffee beans run out].’

b. Masami-mo soo daroo.

Masami-also so probable

‘Probably, so will Masami. (*soo* = [TP will not go shopping unless coffee beans run out])’

- (77) a. [Kenkyuushitsu-no denki-ga kie-tei-ru-kara] Kiyomi-wa
 [Office-GEN light-NOM out-PROG-PRS-because] Kiyomi-TOP
 [_{TP} moo kaet-ta] daroo
 [already return-PST] probable
 ‘Since the light of his/her office is out, probably Kiyomi [_{TP} has already gone home].’
- b. Masami-mo (tabun) soo daroo.
 Masami-also (may be) so probable
 ‘Probably so is Masami (*soo* = [_{TP} has already gone home])
- (Koizumi, 1993: 427-8)

If Type 1 and Type 4 TCs are TP-adjuncts, they are expected to be included in the referent of *soo*. This prediction is borne out.

- (78) a. John-wa [_{TP} [Mary-ga_i ochikonde i-ru tokoro]-o *ec_i* nagusame-ru] daroo
 John-TOP [[Mary-NOM down be-PRS tokoro]-ACC console-PRS] probable
 ‘Probably John [_{TP} will console Mary when she is down].’
- b. Bob-mo soo daroo.
 Bob-also so probable
 ‘Probably so will Bob (*soo* = [_{TP} will console Mary when she is down])
- (Type 1)

- (79) a. John-wa [_{TP} [koinu-ga tabe-ru tokoro]-o kansatsusu-ru] daroo.
 John-TOP [[puppy-NOM eat-PRS tokoro]-ACC watch-PRS] probable
 ‘Probably John [_{TP} will watch the puppy eating].’

b. Mary-mo soo daroo

Mary-also so probable

‘Probably so will Mary (*soo* = [_{TP} will watch the puppy eating])

(Type 2)

(80) a. John-wa [_{TP} [sensee-ga okor-u tokoro]-ni dekuwas-u] daroo

John-TOP [[teacher-NOM get.angry-PRS tokoro]-DAT come.across-PRS]probable

‘Probably John [_{TP} will come across a situation in which the teacher gets angry].’

b. Mary-mo soo daroo.

Mary-also so probable

‘Probably so will Mary (*soo* = [_{TP} will come across a situation in which the teacher gets angry])

(Type 3)

(81) a. John-wa [_{TP} [doroboo-ga_i zitensha-de nige-ru tokoro]-ni *ec*_i

John-TOP [[thief-NOM bicycle-by run.away tokoro]-DAT

oitsuk-u] daroo.

catch.up.with-PRS] probable

‘Probably John [_{TP} will catch up with the thief while s/he is getting away on a bicycle].’

b. Bob-mo soo daroo.

Bob-also so probable

‘Probably so will Bob (*soo* = [_{TP} will catch up with the thief while s/he is getting away on a bicycle])

(82) a. John-wa [_{TP} [Bob-ga komat-tei-ru tokoro]-ni *ec*

John-TOP [[Bob-NOM be.in.trouble-PROG-PRS tokoro]-DAT

te-o kas-u] daroo.

hand-ACC lend-PRS] probable

‘Probably John [_{TP} will lend a helping hand to Bob when he is in trouble].’

b. Mary-mo soo daroo.

Mary-also so probable

‘Probably so will Mary (*soo* = [_{TP} will lend a helping hand to Bob when he is in trouble])

(Type 4)

Thus, it follows that all types of TCs fall within the scope of the *pro*-form *soo*, and that they are all within TP. Therefore, this data lends further support to the claim that Type 1 and Type 4 TCs are TP-adjuncts.

5.6 Summary

In this section, we have investigated the structural position of different types of TCs. Against the view of previous analyses that TCs are, apart from Type 2, situated below the null matrix object, the present analysis argued as a point of departure that not all TCs constitute a uniform class, building on Kuroda (1999). That is to say, TCs can be divided into two classes; one including Type 2 and Type 3 TCs, and another including Type 1 and Type 4 TCs. Evidence from Condition B suggests that not only Type 2 but also Type 3 TCs are sole complements to the matrix verb. To the extent that other evidence such as the scope of negation and the focus particle *-sae* all show that Type 2 and Type 3 TCs are within vP, the idea that they are the complements to the matrix verb is supported. Without the null matrix object, therefore, Type 2 and Type 3 TCs are exempt from the rubric of control, let alone backward control. The structure of these TCs is schematized as in (83).

(83) a. Keekan-ga [doroboo-ga nige-ru tokoro]-o kansatsushi-ta.

Policeman-NOM [thief-NOM run.away-PRS tokoro]-ACC watch-PST

‘The policeman watched the thief running away.’

(Type 2)

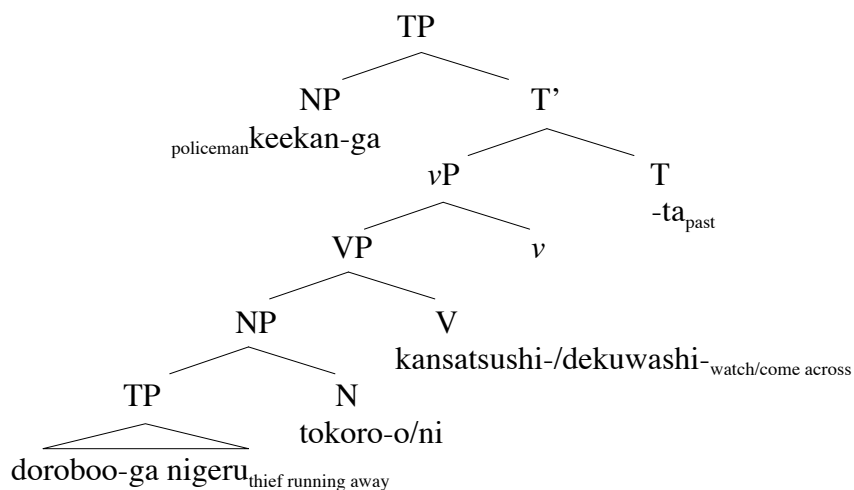
b. Keekan-ga [doroboo-ga nige-ru tokoro]-ni dekuwashi-ta.

Policeman-NOM [thief-NOM run.away-PRS tokoro]-DAT come.across-PST

‘The policeman came across the thief running away.’

(Type 3)

c.



On the other hand, for a different reason, Type 1 and Type 4 TCs are not considered to involve backward control. The diagnostics from 5.1 to 5.3 suggest that they are situated above vP, and those in 5.4 and 5.5 demonstrate that they are located within TP. These considerations lead to the plausible conclusion that they are adjuncts in a TP-domain. The structure of Type 1 and Type 4 TCs is schematised in (84) (here the structure for Type 4 TCs is only concerned with those occurring with two place achievement verbs).

(84) a. Keekan-ga [doroboo-ga_i nige-ru tokoro]-o *ec*_i tsukamae-ta.

Policeman-NOM [thief-NOM run.away-PRS tokoro]-ACC catch-PST

‘The policeman caught the thief_i as s/he_i tried to run away.’

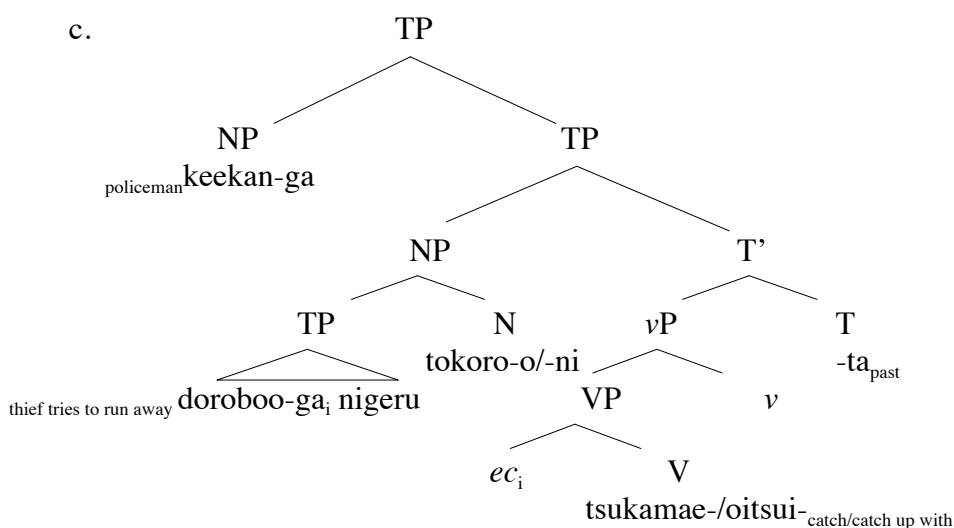
(Type 1)

b. Keekan-ga [doroboo-ga_i nige-ru tokoro]-ni *ec*_i oitsui-ta.

Policeman-NOM [thief-NOM run.away-PRS tokoro]-DAT catch.up.with-PST

‘The policeman caught up with the thief_i while s/he_i tried to run away.’

(Type 4)



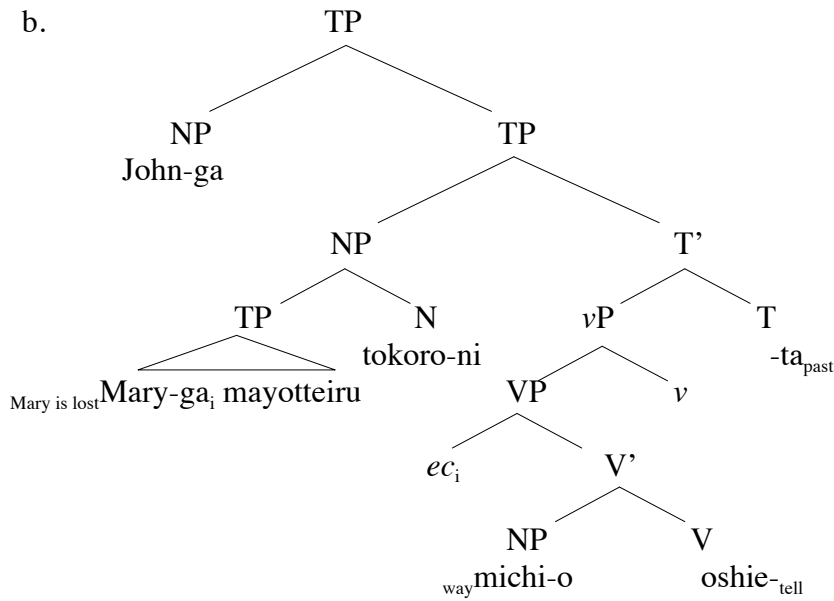
Lastly, when Type 4 TCs occur with three-place predicates like *oshie-ru* ‘tell’, *age-ru* ‘give’, they have structures like those in (85).

(85) a. John-ga [Mary-ga_i mayot-tei-ru tokoro]-ni *ec*_i michi-o oshie-ta.

John-NOM [Mary-NOM lost-PROG-PRS tokoro]-DAT way-ACC tell-PST

‘John told Mary_i her way when she_i was lost.’

(Type 4)



If Type 1 and Type 4 TCs are TP-adjuncts and so situated above the null matrix object, the referential dependency between the T-pivot and the null matrix object is not backward, but actually forward. Therefore, it is plausible to conclude that backward control analyses, irrespective of whether they involve Counter Equi NP deletion (Harada, 1973, Kuroda, 1978, 1999), or movement (Fujii, 2004, Narita, 2007), are untenable.

6. The nature of the null matrix object

I have thus far argued from the structural position of TCs that the referential dependency between the T-pivot and the null matrix object, if any, is not backward. In this section, I aim to show that this referential dependency is not that of obligatory control, which will provide a further counterargument to backward control analyses. In fact, there is already work by Ohso (1976), Hale and Kitagawa (1976-77), Fujii (2006) and Sudo (2008) which demonstrates that the null matrix object is not obligatory control (OC) PRO, but

non-obligatory control (NOC) *pro*.¹³ However, the point I wish to emphasise is that their analyses tend to concentrate on Type 1 TCs and overlook Type 4 TCs, which according to my analysis also involve a null matrix object. Hence, the purpose of this section is to demonstrate that the *pro* analyses of TC 1 suggested by Ohso (1976), Hale and Kitagawa (1976-77), Fujii (2006) and Sudo (2008) can also be applied to Type 4 TCs.

6.1 *Properties of pro*

I begin by elucidating the distinction between OC PRO and NOC *pro*. Well-known differences between OC and NOC are summarized below (see e.g., Koster, 1984; Bouchard, 1985; Higginbotham, 1992; Hornstein, 1999; Landau, 2000).

- (86) a. Long-distance control is impossible in OC, but possible in NOC.
 b. A non-c-commanding antecedent is impossible in OC, but possible in NOC.

¹³ To be more precise, Sudo (2008) suggests that the null matrix object in TC sentences is an E-type pronoun, building on the E-type pronoun analysis of Japanese HIRCs (e.g., Shimoyama, 1999; Kim, 2004). However, it seems that what Kubota and Smith (2007) propose in opposition to the E-type pronoun analysis of Japanese HIRCs can also be applied to TC sentences. For instance, one piece of evidence Sudo (2008) adduces in support of an E-type pronoun comes from cases in which there is no explicit antecedent.

(i) John-wa [koori-ga tokedashi-ta tokoro]-o chibichibi non-da.

John-TOP [ice-NOM begin.to.melt-PST tokoro]-ACC sip-PST

‘John sipped as the ice began to melt’

However, this may not be enough to justify the E-type pronoun analysis because the same effect can hold if we replace *tokoro* with *node* ‘because’.

(ii) John-wa [koori-ga tokedashi-ta node] chibichibi non-da.

John-TOP [ice-NOM begin.to.melt-PST because] sip-PST

‘Because the ice began to melt, John sipped it.’

Thus, those effects Sudo argues are not specific to TC constructions, but can also obtain where the object is a null pronoun *pro* (though I will not dwell on this issue any further because of space limitation). Here, following Kubota and Smith (2007), it suffices to assume that the matrix object is simply *pro*.

- c. Split antecedents are impossible in OC, but possible in NOC.
- d. A strict reading under ellipsis is impossible in OC, but possible in NOC.

That these distinctions also hold in Japanese control structures is observed by Aoshima (2001), Nemoto (1993), Uchibori (2000) and Fujii (2006, ch. 1). Although in Japanese finiteness is not apparent in the absence of agreement morphology, according to Fujii (2006), tense in complement clauses distinguishes OC from NOC on the assumption that tense assigns nominative Case in Japanese (Takezawa, 1987). More specifically, complements to verbs like *kesshinsu-ru* ‘decide’ are untensed and hence exhibit OC, whereas complements to verbs such as *soozoosu-ru* ‘imagine’ are tensed (in the sense that they permit past/non-past tense alternation) and therefore exhibit NOC. Like English, NOC also obtains in such environments as sentential subjects. Below, I illustrate distinctions between OC and NOC in Japanese in accord with the properties shown in (86).

(87) *Long-distance antecedent*

- a. * Karera-wa_i [kantoku-ni [PRO_i otagai-o_i hihanshi-awu koto]-o
 They-TOP [director-DAT [PRO each.other-ACC criticise-Recip C]-ACC
 kesshinshite] hoshikat-ta.
 decide] want-PST
 ‘They_i wanted the director to decide PRO_i to criticise each other_i (in the next
 movie)’.

(Fujii, 2006: 37)

- b. Karera-wa_i [kantoku-ni [*pro*_i otagai-o_i hihanshi-ta koto]-o
 They-TOP [director-DAT [*pro* each.other-ACC criticise-PST C]-ACC

okotte] hoshiku nakat-ta.

get.angry] want NEG-PST

‘They_i did not want the director to get angry that they_i had criticised each other_i.’

(88) *No c-commanding antecedent*

- a. [Mary-no_i hahaoya]-ga_j John-ni_k [PRO_{*i/j/k} zibunzishin-o_{*i/j/k} home-ru yooni]
[Mary-GEN mother]-NOM John-DAT [PRO self-ACC praise-PRS C]
it-ta.
tell-PST

‘Mary_i’s mother_j told John_k PRO_{*i/j/k} to praise himself_k/herself_{*i/j}.’

- b. [Mary-no_i sensee]-ga_j [[*pro*_{i/j/k} sono ronbun-o hyookasu-ru koto]-ga
[Mary-GEN teacher]-NOM [[*pro* that paper-ACC evaluate-PRS C]-NOM
daizi-da to] it-ta.
important-COP C] say-PST

‘Mary_i’s teacher_j said that it is important *pro*_{i/j/k} to evaluate that paper.’

(Aoshima, 2001)

(89) *Split antecedents*

- a. John-ga_i Mary-ni_j [PRO_{*i+j} otagai-o_{*i+j} hyookasu-ru yooni] it-ta.
John-NOM Mary-DAT [PRO each.other-ACC evaluate-PRS C] tell-PST
‘John_i told Mary_j PRO_{*i+j} to evaluate each other_{*i+j}.’

(Aoshima, 2001)

- b. John-ga_i Mary-ni_j [[*pro*_{i+j} otagai-o_{i+j} hyookasu-ru koto]-ga
John-NOM Mary-DAT [[*pro* each.other-ACC evaluate-PRS C]-NOM
daizi-da to] it-ta.

important-COP C] tell-PST

‘John_i told Mary_j that it is important *pro*_{i+j} to evaluate each other_{i+j}.’

(90) *Strict reading under ellipsis*

a. A: Mary-wa_i [PRO_i zibun-no peesu-de shigoto-o tsuzuke-ru koto]-o

Mary-TOP [PRO self-GEN pace-at work-ACC continue-PRS C]-ACC

kesshinshi-ta.

decide-PST

‘Mary_i decided PRO_i to continue to work at her own pace.’

B: Buchoo-mo da.

Manager-also COP

‘Sloppy reading: the manager_i decided to work at his/her_i own pace’

‘*Strict reading: the manager decided that Mary should continue to work at her own pace.’

b. A: Mary-wa_i [*pro*_i zibun-no peesu-de shigoto-o tsuzuke-ru koto]-o

Mary-TOP [*pro* self-GEN pace-at work-ACC continue-PRS C]-ACC

tegami-ni kai-ta.

letter-in write-PST

‘Mary_i wrote in the letter that she_i would continue to work at her own pace.’

B: Buchoo-mo da.

Manager-also COP

‘Sloppy reading: the manager_i wrote in the letter that s/he_i would continue to work at his/her own pace.’

‘Strict reading: the manager wrote in the letter that Mary would continue to

work at her own pace.’

(Fujii, 2006: 42-3)

6.2 The null matrix object as NOC *pro*

Now that we have established the distinction between OC PRO and NOC *pro* in the previous subsection, we are able to determine whether the null matrix object in TC sentences is OC PRO or NOC *pro*. Since previous analyses have already argued that the null matrix object in Type 1 TCs is *pro*, I aim to show here that the same is true for Type 4 TCs. In what follows, I will apply the diagnostics just introduced to both Type 1 and Type 4 TCs.

- *Long-distance antecedent*

- (91) Yakuza-wa [teroristo-ga [hitozichi-ga_i kega-o shitei-na-i koto]-o
Yakuza-TOP [terrorist-NOM [hostage-NOM injury-ACC do-NEG-PRS C]-ACC
kakuninshi-ta tokoro]-o *pro*_i kyuushutsushi-ta.
make.sure-PST tokoro]-ACC *pro* rescue-PST
‘Yakuza rescued the hostage_i when the terrorist made sure that he_i was not injured.’

(Type 1)

(Fujii, 2006: 212)

- (92) a. John-wa [Mary-ga [Bob-ga_i ne-tei-ru koto]-o
John-TOP [Mary-NOM [Bob-NOM sleep-PROG-PRS C]-ACC
kakuninshi-ta tokoro]-ni *pro*_i osoikakat-ta.
make.sure-PST tokoro]-DAT *pro* attack-PST
‘John attacked Bob_i when Mary made sure that he_i was asleep.’

- b. John-wa [Mary-ga [Bob-ga_i masui-de ne-tei-ru koto]-o

John-TOP [Mary-NOM [Bob-NOM anesthesia-by sleep-PROG-PRS C]-ACC

kakuninshi-ta tokoro]-ni *pro*_i mesu-o ire-ta.

make.sure-PST tokoro]-DAT *pro* surgical.knife-ACC put-PST

‘John put a surgical knife to Bob_i when Mary made sure that he_i was asleep by anesthesia.’

(Type 4)

- *No c-commanding antecedent*

(93) Mary-ga [[John-no_i oya]-ga rusunishi-tei-ru tokoro]-o *pro*_i tazune-ta.

Mary-NOM [[John-GEN parents]-NOM absent-PROG-PRS tokoro]-ACC *pro* visit-PST

‘Mary visited John_i when his_i parents were absent.’

(Type 1)

(94) a. ? Mary-ga [[John-no_i zitsensha]-ga koshooshi-ta tokoro]-ni

Mary-NOM [[John-GEN bicycle]-NOM get.broken-Pst tokoro]-DAT

yatto *pro*_i oitsui-ta.

finally *pro* catch.up.with-Pst

‘Mary finally caught up with John_i when his_i bicycle got broken.’

b. John-wa [[Mary-no_i oya]-ga rusunishi-tei-ru tokoro]-ni

John-TOP [[Mary-GEN parents]-NOM absent-PROG-PRS tokoro]-DAT

*pro*_i present-o todoke-ta.

pro present-ACC deliver-PST

‘John delivered Mary_i a present when her_i parents were absent.’

(Type 4)

- *Split antecedents*

- (95) Gyofu-wa [shigi-ga_i hamaguri-o_j tsutsui-tei-ru tokoro]-o
 Fisherman-TOP [snipe-NOM clam-ACC poke-PROG-PRS tokoro]-ACC
*pro*_{i+j} tsukamae-ta.
pro catch-PST
 ‘The fisherman caught them_{i+j} when the snipe_i was poking the clam_j.’

(Sudo, 2008)

(Type 1)

- (96) a. Keekan-wa [John-ga_i yoogisha-o_j nigas-u tokoro]-ni
 Policeman-TOP [John-NOM suspect-ACC release-PRS tokoro]-DAT
*pro*_{i+j} oitsui-ta.
pro catch.up.with-PST
 ‘The policeman caught up with them_{i+j} when John_i was about to
 release the suspect_j.’
- b. John-wa [Bob-ga_i Mary-o_j dakishime-ta tokoro]-ni
 John-TOP [Bob-NOM Mary-ACC hug-PST tokoro]-DAT
*pro*_{i+j} kome-o abise-ta.
pro rice-ACC throw-PST
 ‘John threw rice to them_{i+j} when Bob_i hugged Mary_j.’

(Type 4)

- *Strict reading under ellipsis*

- (97) a. John-wa [zibun-no otooto-ga_i komat-tei-ru tokoro]-o
 John-TOP [self-GEN little.brother-NOM be.in.trouble-PROG-PRS tokoro]-ACC
*pro*_i tasuke-ta.
pro help-PST

‘John helped his little brother when he was in trouble.’

b. Bob-mo da.

Bob-also COP

‘Sloppy reading: Bob also helped his own little brother when he was in trouble.’

‘Strict reading: Bob also helped John’s little brother when he was in trouble.’

(Type 1)

(98) a. John-wa [zibun-no ototoo-ga nige-ru tokoro]-ni

John-TOP [self-GEN little.brother-NOM run.away-PRS tokoro]-DAT

oitsui-ta.

catch.up.with-PST

‘John caught up with his own little brother when he tried to run away.’

b. Bob-mo da.

Bob-also COP

‘Sloppy reading: Bob also caught up with his own little brother when he tried to run away.’

‘Strict reading: Bob also caught up with John’s little brother when he tried to run away.’

(99) a. John-wa [zibun-no ototoo-ga_i komat-tei-ru tokoro]-ni

John-TOP [self-GEN little.brother-NOM is.in.trouble-PROG-PRS tokoro]-DAT

*pro*_i te-o sashinobe-ta.

pro hand-ACC lend-PST

‘John lent a helping hand to his own little brother when he was in trouble.’

b. Bob-mo da.

Bob-also COP

‘Sloppy reading: Bob also lent a helping hand to his own little brother when he was in trouble.’

‘Strict reading: Bob also lent a helping hand to John’s little brother when he was in trouble.’

(Type 4)

All the diagnostics above illustrate that not only the null matrix object in Type 1 TCs but also those in Type 4 TCs exhibit the properties of NOC *pro*. It has become clear therefore that the null matrix object I have kept notating as *ec* so far is in fact *pro*.¹⁴ Accordingly, it should be concluded that it would be fallacious to assume Counter Equi NP deletion or movement in order to account for TC sentences because those approaches have as a prerequisite that they involve OC. Coupled with the structural position of TCs we have discussed, this observation provides a further argument against backward control analyses of TC constructions.

7. Remaining issues

This section discusses two issues that may stem from the present standpoint that Type 1 and Type 4 TCs are TP-adjuncts. The first problem is related to the particles attached to TCs which are, as we saw at the outset, a persistent problem pertaining to TC sentences. If these TCs are adjuncts, a natural question will arise as to how these particles – which appear to embody structural Case – are assigned by verbs. The second problem comes from the

¹⁴ The observation that the null matrix object is *pro* in turn supports the present proposal that the TC is an adjunct. This is because if the TC is in a complement position, the T-pivot is c-commanded by the referential null pronominal *pro*, and so this would lead to a Condition C violation. See Cormack and Smith (2004) for a related issue regarding Korean object control.

Double-*o* Constraint. Recall that it is the Double-*o* Constraint that deletes the matrix object and that the domain to which the Double-*o* Constraint applies is VP, according to Harada (1973). If Type 1 and Type 4 TCs are TP-adjuncts, therefore, we cannot have recourse to the Double-*o* Constraint any longer in order to account for why the matrix object should be null. I shall discuss each of these points in turn.

7.1 *The particles attached to tokoro-clauses*

A good place to start is to look once again at particles attached to each type of TC. Type 1 and Type 2 TCs are assigned the particle *–o*, whereas Type 3 and Type 4 TCs are assigned the particle *–ni*. As far as those particles attached to Type 2 and Type 3 TCs are concerned, these may not bother us here if these TCs are complements. If they are complements, it is plausible to argue that the particle *–o* attached to Type 2 TCs and the particle *–ni* attached to Type 3 TCs are actually Case particles – accusative and dative Case particles respectively – assigned by the matrix verb. Rather, central to the issue of particles is those attached to Type 1 and Type 4 TCs. If these TCs are TP-adjuncts as I propose here, there may not be an appropriate way for them to be assigned Case particles by the matrix verb. What offers a key to solving this problem is that the particle *–o* and the particle *–ni* can be ambiguous between Case particles and postpositions (see Sadakane and Koizumi, 1995; Takezawa and Whitman, 1998; Kishimoto, 2001, among others). If they were postpositions, we could at least eschew the possibility of Type 1 and Type 4 TCs being Case-marked by the verb.

Let us first consider the particle *–o* attached to Type 1 TCs. In fact, there is a good diagnostic for differentiating the postposition *–o* from the accusative Case particle *–o*. As argued by Mihara (1998), Case particles in Japanese can be omitted in colloquial conversation, whilst postpositions cannot. That this is true for the particle *–o* is shown in (100).

- (100) a. Ken-wa nani-o/Ø tabe-ta-no?
 Ken-TOP what-ACC/Ø eat-PST-Q
 ‘What did Ken eat?’
- b. Ken-wa doko-o/Ø arui-ta-no?
 Ken-TOP where-ACC/Ø walk-PST-Q
 ‘Where did Ken walk?’ (accusative case of path)
- c. Ken-wa dono-saka-o/*Ø zitensha-o isshookenmei oshi-ta no?
 Ken-TOP which-slope-ACC/*Ø bicycle-ACC hard push-PST Q
 ‘On which slope did Ken push the bicycle hard?’ (accusative of situation)
- (Hiraiwa, 2010: 733)

In the sentences in (100), the particle *–o* cannot be dropped only in (100c). This is because this *–o* is a postposition, traditionally called ‘accusative of situation’ that serves to give some additional information as to the situation in which the event takes place. Bearing this in mind, let us consider Type 1 and Type 2 TCs.

- (101) a. John-ga [Mary-ga_i ochikonde i-ru tokoro]-{o/??Ø} *pro*_i nagusame-ta.
 John-NOM [Mary-NOM down is-PRS tokoro]-{ACC/??Ø} *pro* console-PST
 ‘John consoled Mary_i when she_i was down.’
(Type 1)
- b. John-ga [Mary-ga ne-tei-ru tokoro]-{o/Ø} kansatsushi-ta.
 John-NOM [Mary-NOM sleep-PROG-PRS tokoro]-{ACC/Ø} watch-PST
 ‘John watched Mary sleeping.’
(Type 2)

(101) shows that the omission of the particle *-o* attached to Type 1 TCs is less acceptable than that attached to Type 2 TCs. As for Type 2 TCs, this is expected if this particle is an accusative Case particle assigned to the complement TC. On the other hand, the observation that *-o* attached to Type 1 TCs is hard to omit suggests that this is not an accusative Case particle but rather a postposition. Considering that the function of TCs is to specify the situation in which the matrix event takes place, it is not arbitrary to assume that this *-o* is a postposition of ‘accusative of situation’ in line with (100c).

Turning now to the particle *-ni* attached to Type 4 TCs, it appears that the omission diagnostic does not work well. As shown in (102), *-ni* cannot be omitted, whether it is a dative Case particle as in (102a) or a postposition as in (102b).

- (102) a. John-ga Mary- $\{ni/*\emptyset\}$ tegami-o age-ta.
 John-NOM Mary- $\{DAT/*\emptyset\}$ letter-ACC give-PST
 ‘John gave Mary a letter.’
- b. John-no hanashi-wa kono hon- $\{ni/*\emptyset\}$ motozui-tei-ru.
 John-GEN story-TOP this book- $\{on/*\emptyset\}$ based-PROG-PRS
 ‘John’s story is based on this book.’

Notwithstanding the fact that the omission test is void, an interesting contrast can be observed in relation to the particle *-ni* attached to Type 3 and Type 4 TCs. That is, when these TCs are separated from the matrix verb by other intervening elements, *-ni* attached to Type 4 TCs can alternate with *-o*, although this alternation is not possible in Type 3 TCs.¹⁵ In this light, consider (103) and (104).

¹⁵ A similar observation holds for *-ni* attached to HIRCs (Mihara and Hiraiwa, 2006).

- (103) Sensee-wa [John-ga hatarai-tei-ru tokoro]-{ni/*o} dooryoo-ni
 Teacher-TOP [John-NOM work-PROG-PRS tokoro]-{DAT/*ACC} colleague-by
 tsureteikare-ta baa-de dekuwashi-ta.
 be.taken-PST bar-at come.across-PST
 ‘The teacher came across John working at a bar where s/he was taken to by his/her
 colleague.’

(Type 3)

- (104) a. Keekan-wa [doroboo-ga_i nigete ik-u tokoro]-{ni/?o} *pro*_i
 Policeman-TOP [thief-NOM run.away go-PRS tokoro]-{DAT/?ACC} *pro*
 zitensha-de dasshushite oitsui-ta.
 bicycle-by dashing catch.up.with-PST
 ‘The policeman dashed by bicycle and caught up with the thief_i when s/he_i was
 running away.’
- b. John-wa [Mary-ga_i mayot-tei-ta tokoro]-{ni/?o} *pro*_i
 John-TOP [Mary-NOM lost-PROG-PST tokoro]-{DAT/?ACC} *pro*
 omomuroni chizu-o toridashite michi-o oshie-ta.
 calmly map-ACC taking.out way-ACC tell-PST
 ‘John calmly took out a map and told Mary her way when she was lost.’

(Type 4)

Although there is room for further investigation as to the exact mechanism underlying the dative-accusative particle alternation, what the above examples at least indicate is that the *–ni* attached to Type 3 TCs and the *–ni* attached to Type 4 TCs are not the same entity.¹⁶

¹⁶ See Fukuda (to appear) for an analysis of the dative-accusative alternation in Japanese.

There is another piece of evidence in favour of this view. Building on the analysis in Miyagawa (1989) of floating numeral quantifiers in Japanese, Sadakane and Koizumi (1995) propose a way of distinguishing the dative Case particle *–ni* from the postposition *–ni*. According to Miyagawa’s (1989) analysis, if there is an intervening maximal projection between a numeral quantifier and its associate, it blocks the link between them. On the assumption that the postposition *–ni* projects PP but the dative Case particle *–ni* does not have its own projection, the prediction would be that a numeral quantifier cannot be associated with an NP followed by the postposition *–ni*. In this connection, let us consider (105).

- (105) a. Toroo-ga tomodachi-ni *futari* shashin-o age-ta.
 Taro-NOM friend-DAT two.person picture-ACC give-PST
 ‘Taro gave two of his friends pictures.’
- b. *Kono ronbun-wa riron-ni *futatsu* motozui-tei-ru.
 This paper-TOP theory-on two.thing based-PROG-PRS
 ‘This paper is based on two theories.’

In (105a), the floating numeral quantifier *futari* ‘two persons’ can be associated with *tomodachi* ‘friends’. On the other hand, in (105b), *futatsu* ‘two things’ cannot be associated with *ronbun* ‘papers’. According to Sadakane and Koizumi (1995), therefore, this suggests that *–ni* in (105b) is a postposition. With this in mind, let us see whether a floating numeral quantifier can be associated with an NP within TCs.

- (106) Sensee-wa [gakusee-ga baa-kara deteku-ru tokoro]-ni *futari*
 Teacher-TOP [student-NOM bar-from come.out-PRS tokoro]-DAT two.person
 dekuwashi-ta.

come.across-PST

‘The teacher came across two students coming out of the bar.’

(Type 3)

(107) a.??Keekan-wa [doroboo-ga_i nigete ik-u tokoro]-ni *pro*_i

Policeman-TOP [thief-NOM run.away go-PRS tokoro]-DAT *pro*

furati oitsui-ta.

two.persons catch.up.with-PST

‘The policeman caught up with two thieves when they were running away.’

b.??Keekan-wa [gakusee-ga_i mayot-tei-ru tokoro]-ni *pro*_i

Policeman-TOP [student-NOM lost-PROG-PRS tokoro]-DAT *pro*

futari michi-o oshie-ta.

two.person way-ACC tell-PST

‘The policeman told two students their way when they were lost.’

(Type 4)

(106) shows that the floating numeral quantifier *futari* ‘two persons’ can be associated with the T-pivot *gakusee* ‘student’. On the other hand, in (107), the same numeral quantifier *futari* cannot be associated with the T-pivots *doroboo* ‘thief’ and *gakusee* ‘student’ respectively. Given this fact, one reasonable way of accounting for this is that *-ni* attached to Type 3 TCs in (106) is a dative Case particle, whilst *-ni* attached to Type 4 TCs in (107) is a postposition in line with (105). More specifically, if *-ni* in (107) is a postposition, this is exactly as predicted because the maximal projection PP blocks the association of the floating numeral quantifier and the T-pivot.

Viewed in this light, the particle *-o* attached to Type 1 TCs and the particle *-ni* attached to Type 4 TCs can be regarded as a postposition. Insofar as this is true, these particles –which

at first glance look like Case particles - are not an abstacle to the present proposal that Type 1 and Type 4 TCs are TP-adjuncts.

7.2 *Abstracting away from the Double-o Constraint*

In any analysis of backward control, it is necessary to posit some mechanism blocking the production of forward control insofar as backward control is the only option in a given configuration. In section 3, we saw it is the Double-*o* Constraint in Japanese that blocks the production of forward control in TC constructions. The Double-*o* Constraint precludes the occurrence of two accusative –*o* marked NPs in a certain domain, and according to Harada (1973) this domain is VP. Recently, Hiraiwa (2010) formalises this in the framework of the Minimalist Programme, and suggests that the Double-*o* Constraint is a prohibition against a single phasal Spell-Out domain having two accusative Cases at the point of Transfer. This is cited in (108).

(108) *A Phase Theory of the Double-o Constraint*

Multiple identical occurrences of the structural accusative Case value cannot be morphophonologically realized within a single Spell-Out domain at Transfer.

(Hiraiwa, 2010: 753)

Of particular note is that Hiraiwa (2010) assumes that TCs are relative clauses and therefore included within a *v*P phase. Since the Spell-Out domain of a *v*P phase is VP (see Chomsky, 2000, 2001), his analysis coincides with Harada (1973) in the sense that the domain to which the Double-*o* Constraint applies is VP.

In the face of this, we cannot resort to the Double-*o* Constraint any more in accounting

for why the matrix object is null. Since the present analysis treats Type 1 and Type 4 TCs as TP adjuncts, they are outside the domain to which the Double-*o* Constraint applies. What is more, given that it is not only *-o* marked Type 1 TCs but also *-ni* marked Type 4 TCs that are involved, the Double-*o* Constraint is not able to cover Type 4 TCs.

Instead of the Double-*o* Constraint, I propose that the matrix object becomes null in TC sentences simply as a result of object *pro*-drop (or zero pronominalisation). In Japanese, like other East Asian languages, the object of a sentence can be covert when its referent is given in discourse, and can be understood without explicitly mentioning it (see Huang, 1984). Since TCs give background information as to the situation where the matrix event happens, it is natural that the matrix object becomes covert by referring to an entity salient in that given situation. From this viewpoint, it is not syntax but rather pragmatics that is relevant for explaining why the matrix object is null in TC sentences. And in fact, this *pro*-drop approach is already taken by Ohso (1976) and Hale and Kitagawa (1976-77). However, they differ from my suggestion in that they require the Double-*o* Constraint for *pro*-drop to apply. But why do they still need the Double-*o* Constraint when the object can be made covert solely by pragmatics?

The reason for their adhering to the Double-*o* Constraint lies in the difference in the distribution of a *pro* object. According to Ohso (1976: 104), the matrix object is obligatorily covert in TC sentences, although this is not so as far as other adverbials are concerned. In this light, observe the sentences below (judgements are Ohso's)

- (109) a. John-wa [Hanako-ga_i nakidashi-ta monodakara] awatete kanojo-o_i/*pro*_i
 John-TOP [Hanako-NOM begin.to.cry-PST because] in.a.hurry she-ACC/*pro*
 soto-ni tsuredashi-ta.
 outside-to take.out-PST

‘Since Hanako_i started to cry, John took her_i out in a hurry.’

- b. Hanako-wa [Bill-ga_i kuruma-o kaes-anai node] kare-o_i/*pro*_i
Hanako-TOP [Bill-NOM car-ACC return-NEG because] he-ACC/*pro*
sagi-de uttae-ta.
fraud-for sue-PST

‘Hanako sued Bill_i for fraud because he_i didn’t return her car.’

- c. Keesatsu-wa [sono doroboo-ga_i nigete ik-u tokoro]-o
Policeman-TOP [that thief-NOM run.away go-PRS tokoro]-ACC
*kare-o_i/*pro*_i tsukamae-ta.
he-ACC/*pro* catch-PST

‘The policeman caught that thief_i as he_i was running away.’

(Ohso, 1976: 104)

Note that the matrix object can be an overt pronoun in (109a, b), but it must be covert in (109c). Ohso (1976) argues that this state of affairs cannot be accounted for solely in terms of pragmatics, and we need the Double-*o* Constraint in order to guarantee that the matrix object is made covert in TC sentences.

In opposition to this claim, I propose that what is really relevant here is whether there is room for the matrix object to refer to some other individual than the antecedent in the adverbs. In causal relations like those depicted in (109a, b), it is possible for the matrix object to refer not to the antecedent *Hanako* and *Bill* respectively, but to someone else in the discourse. Take (109a) as an example. Imagine that there are *John*, *Hanako* and *Mary* in the room, and *Mary* is the current girlfriend of John. *Hanako* who really fancies *John* suddenly begins crying in a fit of jealousy. In such a situation, it is natural that the matrix object *kanojo* ‘she’ refers to *Mary*; that is, *John* takes *Mary* out of the room. In a similar vein, in (109b), it is possible to

imagine such a situation in which it is actually *John* who rents a car from *Hanako*, but because he went abroad, he sublet the car to *Bill* who eventually did not return the car to *Hanako*. In this situation, it is feasible for the matrix object *kare* ‘he’ to refer to *John* because *John* has the legal responsibility to return the car. However, in the TC sentence (109c), it is not possible to think of a situation in which the policeman caught someone else other than the thief. This is because, unlike the causal relations in (109a, b), the event of the thief running away and the event of the policeman catching him take place in a parallel fashion, so that there is no temporal opening between the two events in which someone else could pop up in discourse. From this consideration, it may be reasonable to think that there is a tendency to let a pronoun object be overt if there are multiple choices of antecedents in discourse for the pronoun to refer to (even though it eventually refers to the one in the adverb). On the other hand, if there is no choice for a pronoun object but to refer to an antecedent specified by an adverb, it is most natural to keep it covert. This point can be made clear by looking at other circumstantial adverbs that straiten the situation in which the matrix event occurs. In this connection, let us consider (110).

- (110) a. Keekan-wa [doroboo-ga_i yudanshi-ta toki]-ni ??kare-o_i/pro_i tsukamae-ta.
Policeman-TOP [thief-NOM unguarded-PST when]-DAT he-ACC/pro catch-PST
‘The policeman caught the thief_i when he_i was unguarded.’
- b. John-wa [Mary-ga_i deteit-ta ato]-o ??kanojo-o_i/pro_i oikake-ta.
John-TOP [Mary-NOM go.out-PST after]-ACC she-ACC/pro follow-PST
‘John followed Mary_i after she_i went out.’

Like TCs, the circumstantial adverbs in (110) specify the situation in which the matrix event takes place. The situation being so narrowed down, a referent the matrix object can take is

limited. That is, there is virtually no room for the matrix pronominal object to refer to an individual other than the one specified by the adverbs. In accordance with my suggestion, the matrix pronominal object in (110) is thus made covert in this situation. What I should like to emphasise is that it is not the sequential use of *-o* that prohibits the overt pronominal object because as shown in (110a) the adverb followed by *-ni* gives rise to a similar effect. Thus, we may go on from these considerations to reach the plausible conclusion that, contrary to what is claimed by Ohso (1976) and Hale and Kitagawa (1976-77), the Double-*o* Constraint is not necessary to account for why the matrix object in TC sentences is covert. Rather, it is pragmatically forced to be covert because its referent is made apparent by the semantic nature of TCs.

8. Concluding remarks

To recapitulate, by reconsidering the structure of hitherto neglected types of TCs, I have demonstrated that TC sentences do not have the kind of structure proposed by previous analyses in which TCs are situated structurally lower than the null matrix object. While Type 1 TCs are mostly the centre of existing analyses, I have followed Kuroda's (1999) classification of TCs but argued for different structures. Specifically, I have suggested that Type 1 and Type 4 TCs are TP-adjuncts situated structurally higher than the null matrix object, and Type 2 and Type 3 TCs are the complement of the matrix verb. In either case, backward control is not involved. In addition, I have shown that not only the null matrix object in Type 1 TC sentences but also that in Type 4 TC sentences is NOC *pro*. This provides a further argument against backward control analyses since both Counter Equi NP deletion (Harada, 1973; Kuroda, 1978, 1999) and movement approaches (Fujii, 2004; Narita, 2007) build on the presumption that TC sentences involve OC.

Since backward control is a peripheral phenomenon that may not be general enough to be integrated into theory of grammar, one reasonable path to take is to investigate an empirical reason for it to be exceptional, rather than trying to accommodate it within a particular theory like the MTC. If my analysis is on the right track, Japanese TC constructions make a strong case for this view, since in this particular construction, what was considered a complement is in fact an adjunct, and what was regarded as an obligatory control relation is actually not. In this light, it is worth investigating if a similar reversal can be found in purported backward object control in other languages.¹⁷ Only under close empirical scrutiny will the true nature of such counter-cyclic configurations as backward control be revealed.

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¹⁷ In relation to this, it is worth mentioning Korean object control. Monahan (2003) argues that Korean object control involves backward object control in which the null matrix object is coreferential with the downstairs nominative complement subject. However, Cormack and Smith (2004) state that the null matrix object is *pro* and what seems to be a complement is actually a scrambled adjunct. Recently, Polinsky, Monahan and Kwon (2007) also suggest an analysis in harmony with Cormack and Smith (2004).

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