

On the Predicateless Copula Construction in Japanese*

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This paper examines the structure and derivation of such Japanese sentences as Taro-wa hon-o kaw-ta. (Sosite) Hanako-mo da. 'Taro bought a book, and Hanako did, too.' At first glance the copula that occurs in the second sentence appears to be in the same TP as XP(-mo) as in [_{TP} XP(-mo) Copula T_{fin}], but careful examination reveals that the tense and polarity of the copula do not need to match those of a deleted predicate. In order to account for this observation, it is argued that the copula and the deleted predicate each have their own TP as in [_{TP} [_{TP} ... ~~YP~~ T_{fin}] Copula T_{fin}], which in turn suggests that the construction is derived from an underlying structure involving a cleft sentence.

Keywords: identity condition on ellipsis, cleft construction, copulas

In Japanese there is an elliptical construction with a copula, which I call Predicateless Copula Construction (henceforth PCC).

- (1) Taro-wa hon-o kaw-ta. (Sosite) Hanako-mo da.
Taro-Top book-Acc buy-past and Hanako-also Cop.pres
'Taro bought a book, and Hanako did, too.'
- (2) Taro-wa hon-o kaw-ta (ga) zassi-mo da.
Taro-Top book-Acc buy-past but magazine-also Cop.pres
'Taro bought a book, and a magazine as well.'
- (3) Taro-wa 8-zi-ni ie-o de-ta. Iya, 7-zi-ni da.
Taro-Top 8-o'clock-at house-Acc leave-past no 7-o'clock-at Cop.pres
'Taro left home at eight. No, at seven.'

In (1) the VP, *hon-o kaw*, is missing from the second sentence. It is also possible to elide a subject and a predicate (2), or even a whole clause except a contrasted adjunct (3). In this respect it is like stripping in English (4). In the stripping construction in Japanese everything except a contrasted element and a particle that accompanies it is left out from the second sentence (5).

- (4) a. Taro bought a book, and Hanako, too.
b. Taro bought a book, and a magazine, too.
c. Taro left home at eight, but not at seven.
- (5) a. Taro-wa hon-o kaw-ta. (Sosite) Hanako-mo.
Taro-Top book-Acc buy-past and Hanako-also
'Taro bought a book, and Hanako, too.'

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- b. Taro-wa hon-o kaw-ta. (Sosite) zassi-mo.¹
 Taro-Top book-Acc buy-past and magazine-also
 ‘Taro bought a book, and a magazine, too.’
- c. Taro-wa Tokyo-de biziutukan-ni ik-ta. (Sosite) Kyoto-de-mo.
 Taro-Top Tokyo-in museum-to go-past and Kyoto-in-also
 ‘Taro went to a museum in Tokyo, and in Kyoto, too.’

The PCC and the stripping construction are similar in that the first sentence has to be finite (6),² and that a subordinating conjunction is not allowed (7).

- (6) *Taro-ga hon-o kawi/kaw-te, Hanako-mo da.
 Taro-Nom book-Acc buy.inf/kaw-participle Hanako-also Cop.pres
 ‘Taro bought a book, and Hanako did, too.’
- (7) *Taro-ga hon-o kaw-ta toki Hanako-mo da.
 Taro-Nom book-Acc buy-past when Hanako-also Cop.pres
 ‘When Taro bought a book, Hanako did, too.’

The PCC often occurs across sentences, since two finite clauses cannot be conjoined by *sosite* ‘and’ in one sentence. And a coordinating conjunction is often dropped. This has to do with the way discourse is structured in the language.

What distinguishes the PCC from the stripping construction is the presence of a copula.³ As we have seen in (1-3), the copula occurs in the PCC, which can be represented schematically as in (8).

- (8) [_{TP} XP ... T_{fin}]. [(Conj) [_{TP} YP(-mo) Copula T_{fin}]].

Similar constructions are available in Korean and Chinese.⁴

¹ Stripping constructions are easier to interpret when a contrasted element in the first sentence is scrambled to the sentence-initial position as in (i) and (ii). Intonation also affects the acceptability of stripping. I need to leave these issues open for future research.

- (i) Hon-o Taro-wa kaw-ta. (Sosite) zassi-mo.
 book-Acc Taro-Top buy-past and magazine-also
 ‘Taro bought a book, and a magazine, too.’
- (ii) Tokyo-de Taro-wa biziutukan-ni ik-ta. (Sosite) Kyoto-de-mo.
 Tokyo-in Taro-Top museum-to go-past and Kyoto-in-also
 ‘Taro went to a museum in Tokyo, and in Kyoto, too.’

² However, we will observe in Section 3.1 that some predicates allow a nonfinite form in the first conjunct.

³ With our focus on the PCC, the copula-less stripping cases in (5) will not be dealt with in this paper. Fukaya and Hoji (1999) and Fukaya (2007) treat sentences such as (1-3) as instances of stripping, but whether the PCC and the copula-less stripping construction should be treated in the same way or not awaits further research.

⁴ Xu (2003) and Soh (2007) observe that some modal verbs can occur in the elliptical construction in Chinese (i).

- (i) Ta neng qu. Wo ye neng.
 he can go I also can
 ‘He can go. I can too.’ (Soh (2007: 179))

In Japanese some speakers allow auxiliary-like elements to occur in the construction, but the judgments vary considerably across speakers.

- (ii) Taro-ga ryuugaku suru rasii. %Hanako-mo rasii yo.
 Taro-Nom study-abroad do I hear Hanako-also I.hear yo.
 ‘I hear Taro is going to study abroad. I hear Hanako is, too.’

- (9) a. John-i sakwa-lul make (kuliko) Mary-to ya. (Korean)
 John-Nom apple-Acc eats and Mary-Foc is
 ‘John eats apples, and MARY does too.’ (Kim and Sohn (1998: 460))
- b. John xihuan tade mama, Bill ye shi. (Chinese)
 John like his mother Bill also be
 ‘John likes his mother, and Bill does as well.’ (Xu (2003: 164))

In this paper we will examine the structure and derivation of the PCC in Japanese. For the sake of discussion we assume that deletion at PF is involved in the construction, though our discussion is not affected if LF reconstruction approach to ellipsis is taken instead.

- (10) Taro-wa hon-o kaw-ta. Hanako-mo [~~hon-o~~—~~kaw-ta~~] da.
 Taro-Top book-Acc buy-past Hanako-also book-Acc buy-past Cop.pres

When deletion takes place, we will indicate within square brackets materials that get deleted in the second sentence.⁵ We will call a predicate in the first sentence as an antecedent predicate, and a predicate in the deleted materials as a deleted predicate.⁶ For example, in (10) *kaw-ta* in the first sentence is an antecedent predicate, and *kaw-ta* in the second sentence is a deleted predicate.

The aim of this preliminary study is to clarify the nature of identity condition on ellipsis imposed on the Japanese PCC. It has been observed in the literature that morphological mismatches are sometimes tolerated in ellipsis, and whether such mismatches are also allowed with the antecedent predicate and the deleted predicate of the PCC will be examined in Section 2, following a brief survey of the previous analyses in Section 1. Section 3 will look into a relation between the antecedent predicate and the copula. In Section 4 we will discuss our findings, and Section 5 will conclude the paper.

1. Previous Analyses

Let us review two representative analyses proposed for the PCC.⁷ One analysis posits focus movement

⁵ We indicate the deleted material in the pre-copular position for expository purposes only. We do not intend to claim that the PCC is derived from structures like (10). In fact in section 4 we will show that a cleft sentence such as *Hon-o kaw-ta-no-wa Hanako-mo da* is a plausible underlying structure for the PCC.

⁶ The term “predicate” is used here to indicate an amalgam of a verb/an adjective and functional heads above them including auxiliary elements.

⁷ See Fukaya and Hoji (1999) and Fukaya (2007) for another analysis, who take the LF reconstruction approach and argue that the PCC (‘stripping’ in their terms) and sluicing constitute the same phenomenon, and that the case-marked PCC should be treated differently from the non-case-marked one.

- (i) A: Sensei-ga Bill-ni kogoto-o itteta yo.
 teacher-Nom Bill-Dat scolding-Acc was.saying yo
 ‘The teacher was scolding Bill.’
- B: Boku-wa [_{CP} Tom-(ni) (da) to] omotteita yo.
 I-Top Tom-Dat Cop that thought yo
 ‘I thought (it was) Tom (that he was scolding).’ (adapted from Fukaya and Hoji (1999: 147))
- (ii) a. Case-marked PCC
 [_{TP} [Bill_i-ni] [_{TP} sensei-ga t_i kogoto-o itteta]] yo. Boku-wa [_{CP} [_{CP} [_{TP} [Tom-ni] [_{TP} sensei-ga t kogoto-o itteta]]] da to] omotteita yo. (adapted from Fukaya and Hoji (1999: 149) and Fukaya (2007: 125))
- b. Non-case-marked PCC
 Boku-wa [_{CP} [_{TP} *pro* [_{VP} Tom da]] to] omotteita yo. (adapted from Fukaya (2007: 163))

In the case-marked PCC (iia), Constituent Raising takes place in the antecedent clause at LF and adjoins to TP the constituent *Bill-ni*, which corresponds to the focus constituent *Tom-ni*. In the second sentence, *Tom-ni* is base-generated in an adjoined position to TP, and the antecedent TP is copied onto the empty TP. On the other hand, the non-case-marked PCC (iib) can be an ordinary copula sentence with a *pro* subject.

followed by deletion.⁸

- (11) Taro-wa hon-o kaw-ta. [_{FocP} Hanako_i-mo [_{XP} ~~hon-o kaw-ta~~-(no)]] da]
 Taro-Top book-Acc buy-past Hanako-also book-Acc buy-past C Cop.pres

For example, in (11) a focus phrase *Hanako* moves to Spec of FocP, and XP including the trace of *Hanako* is deleted. As for the occurrence of a copula, Kim and Sohn (1998) propose that what is deleted after focus movement in the PCC in Korean is AgrsP, and that a copula is inserted as a last resort to support T, which is left behind by AgrsP deletion. Hiraiwa (2006) considers the possibility of deriving the PCC in Japanese from the *no da* in-situ focus construction via focus movement and FinP deletion, where the copula *da* is regarded as a focus head, left behind by deletion of FinP.⁹

Another analysis is to consider that the PCC is derived from an underlying cleft structure in parallel with sluicing, as suggested by Kuwabara (1996), Nishiyama et al. (1996) and Kizu (1997, 2005).

- (12) Taro-wa hon-o kaw-ta. [~~Hon-o kaw-ta no wa~~] Hanako-mo da.
 Taro-Top book-Acc buy-past book-Acc buy-past C Top Hanako-also Cop.pres

In (12) the PCC is derived by deleting *hon-o kaw-ta no wa*, which denotes presupposition in the underlying cleft sentence.

We will consider these analyses in more detail in Section 4 after presenting our data concerning the identity condition in Section 2 and the copula in Section 3.

2. Identity between an Antecedent Predicate and a Deleted Predicate

In this section we consider whether the identity condition on deletion holds in the Japanese PCC by examining the forms of the deleted predicate and its antecedent.

Let us start with voice mismatches. Unlike VP ellipsis in English (13a), but like sluicing in English (13b), a deleted verb in the Japanese PCC cannot be construed as passive when its antecedent is active, nor as active when its antecedent is passive.

- (13) a. The system can be used by anyone who wants to. (Merchant (2008: 169))
 b. *Someone brought roses, but we don't know by whom. (Tanaka (2011: 478))
- (14) A: Taro-ga Ken-o nagur-ta.
 Taro-Nom Ken-Acc hit-past
 'Taro hit Ken.'
- B: a. Saburo-mo [~~Ken-o nagur-ta/Taro-ga nagur-ta~~] da.
 Saburo-also Ken-Acc hit-past /Taro-Nom hit-past Cop.pres
 'Saburo did, too./Taro hit Saburo, too.'
- b. Saburo-o-mo [~~Taro-ga nagur-ta~~] da.
 Saburo-Acc-also Taro-Nom hit-past Cop.pres
 'Taro hit Saburo, too.'

⁸ This is similar to Merchant's (2004) analysis of fragment answers, though he only deals with cases where a copula does not occur.

⁹ He rejects this possibility in favor of a truncated cleft analysis of the PCC based on the data concerning Negative Concord Items. See footnote 19.

- c. Tigau yo. Saburo-ga [~~Ken-o~~ nagur-ta] da yo.¹⁰
 wrong yo Saburo-Nom Ken-Acc hit-past Cop.pres yo
 ‘No. It’s Saburo (that hit Ken).’

As (14Ba) shows, *Saburo-mo*, without an overt nominative case marker *ga* or an accusative case marker *o*, can be interpreted either as a subject or as an object, when the antecedent predicate is in active voice. When an accusative case marker is present in the construction (14Bb) Saburo is interpreted as a patient of the hitting event. In (14Bc) with a nominative case-marked subject, the sentence can be interpreted only as an active sentence, and not as a passive sentence, i.e., it cannot mean that Saburo was hit. In other words, (14Bc) indicates that the deleted predicate must be interpreted as active when the antecedent predicate is active.

Now consider cases in which the antecedent predicate is passive.

- (15) A: Taro-ga Hanako-ni nagur-are-ta.
 Taro-Nom Hanako-by hit-pass-past
 ‘Taro was hit by Hanako.’
- B: a. Saburo-mo [~~Hanako-ni nagur-are-ta~~] da.
 Saburo-also Hanako-by hit-pass-past Cop.pres
 ‘Saburo was (hit by Hanako), too.’
- b. Tigau yo. Saburo-ga [~~Hanako-ni nagur-are-ta~~] da yo.
 wrong yo Saburo-Nom Hanako-by hit-pass-past Cop.pres yo
 ‘No. It’s Saburo (that was hit by Hanako).’
- c. Saburo-ni-mo [~~Taro-ga nagur-are-ta~~] da.
 Saburo-by-also Taro-Nom hit-pass-past Cop.pres
 ‘Taro was hit by Saburo, too.’
- d. *Saburo-o(-mo) [~~Hanako-ni nagur-are-ta~~] da.
 Saburo-Acc-also Hanako-by hit-pass-past Cop.pres
 ‘It’s Saburo (also) that Hanako hit.’

In (15Ba) *Saburo-mo* can only be construed as a subject just as the nominative-marked DP in (15Bb), i.e. as a patient of the hitting event, and not as an agent of the event. In order to refer to an agent, it is necessary to use *Saburo-ni-mo* as in (15Bc). These facts follow if the deleted predicate occurs in direct passive in (15B) like its antecedent, since *ni*, which marks an agent in passive sentences, cannot be dropped.^{11,12} Notice that an

¹⁰ A nominative *ga*-marked DP cannot occur alone with a copula, but must be accompanied by such expressions as *tigauyo*, probably to indicate explicitly that it is a corrective.

¹¹ For example *ni*-marking is obligatory in cleft sentences.

(i) Taro-ga nagur-are-ta no wa Hanako *(ni) da.
 Taro-Nom hit-pass-past no Top Hanako by Cop.pres
 ‘It was by Hanako that Taro was hit.’

¹² The PCC with a non-case-marked DP does not seem to require matching in voice.

(i) A: Taro-ga nagur-are-ta.
 Taro-Nom hit-pass-past
 ‘Taro was hit.’

B: Hanako da.
 Hanako Cop.pres
 ‘It (the one who hit Taro) is Hanako.’

In (i) it is difficult to construe *Hanako* as *Hanako-ni* ‘by Hanako’ because *ni* marking is not optional. The deleted verb seems to be interpreted as active despite the fact that its antecedent is passive. In fact the PCC with a non-case-marked DP does not even require a linguistic antecedent.

(ii) Looking at a flower arrangement
 Hanako(-*ga) da.
 Hanako Nom Cop.pres

accusative-marked DP is not allowed (15Bd), even though the string *Saburo-o(-mo) Hanako-ni nagur-are-ta* is acceptable under an indirect passive reading.

(16) also shows the distinction between direct passivization and indirect passivization.

- (16) A: Hanako-ga musuko-o koros-are-ta.
 Hanako-Nom son-Acc kill-pass-past
 ‘Hanako had his son killed.’
 B: Taro-mo [~~musuko-o koros-are-ta~~] da.
 Taro-also son-Acc kill-pass-past Cop.pres
 ‘Taro had his son killed, too.’

When the antecedent is indirectly passivized (16A), the second sentence also needs to be indirectly passivized (16B). It is difficult to construe (16B) as Taro was also killed, though this reading would be expected to be available if the deleted predicate involved direct passivization. These data indicate that syntactic structures as well as morphological forms must be taken into consideration in determining the identity between the antecedent and the deleted material with respect to voice in the PCC in accordance with Merchant’s (2008) and Tanaka’s (2011) analyses of lack of voice mismatches in English sluicing.¹³

Next let us turn to honorification. In Japanese we use an honorific form to show respect to our superiors (17a).

‘It’s Hanako (who arranged the flowers).’

In Hankamer and Sag’s (1976) term, it is deep anaphora, and contrasts with a nominative-marked DP, which does not seem to allow a pragmatic antecedent. A DP with *mo* ‘also’ behaves similarly with a case-marked DP in this respect.

- (iii) Seeing Taro reading a book
 #Hanako-mo da.
 Hanako-also Cop.pres
 ‘Hanako, too (, is reading a book).’
 #Zassi-mo da.
 magazine-also Cop.pres
 ‘A magazine, too.’

Fukaya and Hoji (1999) and Fukaya (2007) argue that case-marked DPs and non-case-marked DPs behave differently in clefts, sluicing and PCC. If we assume that *ga/o* is present syntactically in (iii) but is not pronounced, the unacceptability of (iii) and the unacceptability of a case-marked DP in (ii) can be unified as the same phenomenon: incompatibility of surface anaphora with a pragmatic antecedent, though this issue needs to be investigated in more depth.

¹³ Verbs that undergo lexical transitive/intransitive alternation do not tolerate mismatches either. In (i) and (ii) the intransitive *butukar/waki* cannot be an antecedent for the transitive *butuker/wakasi*.

- (i) A: Torakku-ga hei-ni butukar-ta.
 truck-Nom wall-on bump-past
 ‘A truck bumped into the wall.’
 B: *Hanako-ga [~~torakku-o hei-ni butuker-ta~~] da.
 Hanako-Nom truck-Acc wall-on make.bump-past Cop.pres
 ‘It’s Hanako who made the truck bump into the wall.’
 (ii) A: Yu-ga waki-ta.
 hot.water-Nom boil-past
 ‘Water is boiling.’
 B: *Hanako-ga [~~yu-o wakasi-ta~~] da.
 Hanako-Nom hot.water-Acc make.boil-past Cop.pres
 ‘It’s Hanako who boiled water.’

(iB) is marginally possible with a reading in which Hanako bumped into the wall, but as we have observed in footnote 10, this reading requires such expressions as *Tigayyo* ‘That’s not correct’. The sentence is totally unacceptable under the reading in which Hanako caused a truck to bump into the wall. Similarly, (iiB) is unacceptable with a reading in which Hanako is a transitive subject.

- (17) a. Yamada-sensei-wa hon-o o-kaki-nina-tta/?*kaki-ta.
 Yamada-professor-Top book-Acc Hon-write-Hon-past/write-past
 ‘Prof. Yamada wrote a book.’
- b. Yamada-sensei-wa hon-o o-kaki-nina-tta. *Boku-mo [~~hon-o~~—~~o~~ ~~kaki-nina-tta~~]
 Yamada-professor-Top book-Acc Hon-write-Hon-past I-also book-Acc Hon-write-Hon-past
 da.
 Cop.pres
 ‘Prof. Yamada wrote a book. I did, too.’
- c. Boku-wa hon-o kaki-ta. *Yamada-sensei-mo [~~hon-o~~—~~kaki-ta~~] da.¹⁴
 I-Top book-Acc write-past Yamada-professor-also book-Acc write-past Cop.pres
 ‘I wrote a book. Prof. Yamada did, too.’

The unacceptability of (17b, c) can be explained if the deleted predicate takes the same form as its antecedent, resulting in inappropriate use of an honorific form for a speaker (17b), or nonuse of an honorific form for a professor (17c).

Third, some auxiliary verbs show person restrictions on their subjects. For example, *tai* ‘want to’ is used with a first person subject whereas *tagaru* ‘want to’ occurs with a third person subject (18a, b).

- (18) a. Boku-wa mizu-ga nomi-tai/*tagaru.
 I-Top water-Nom drink-want.to/want.to
 ‘I want to drink water.’
- b. Taro-wa mizu-o nomi-tagaru/*tai.
 Taro-Top water-Acc drink-want.to/want.to
 ‘Taro wants to drink water.’
- c. Watasi-wa mizu-ga nomi-tai. *Taro-mo [~~mizu-ga~~—~~nomi-tai~~] da./ Boku-mo
 I-Top water-Nom drink-want.to Taro-also water-Nom drink-want.to Cop.pres I-also
 [~~mizu-ga~~—~~nomi-tai~~] da.
 water-Nom drink-want.to Cop.pres
 ‘I want to drink water. Taro does, too./I do, too’
- d. Taro-wa mizu-o nomi-tagaru. *Boku-mo [~~mizu-o~~—~~nomi-tagaru~~] da./ Hanako-mo
 Taro-Top water-Acc drink-want.to I-also water-Acc drink-want.to Cop.pres Hanako-also
 [~~mizu-o~~—~~nomi-tagaru~~] da.
 water-Acc drink-want.to Cop.pres
 ‘Taro wants to drink water. I do, too./Hanako does, too.’

When the antecedent predicate ends with *tai*, which requires a first person subject, the second sentence has to take the first person subject as well (18c). On the other hand, when the antecedent is in *tagaru*-form, requiring a third person subject, the third person subject is required in the second sentence as well (18d). Again we see that the deleted predicate takes the same form as the antecedent predicate.

Finally, when a reciprocal auxiliary *aw* ‘do something to each other’ is attached to a verb, the verbal complex requires a plural subject (19a).

- (19) a. Taro*(-to Hanako)-ga daki-aw-ta.
 Taro-and Hanako-Nom hug-reciprocal-past
 ‘Taro and Hanako hugged each other.’

¹⁴ Some people, especially those who are young, do not use honorific forms for professors these days. For those speakers, (17c) is acceptable.

- b. Taro-to Hanako-ga daki-aw-ta. Saburo*(-to Keiko)-mo [~~daki-aw-ta~~] da.
 Taro-and Hanako-Nom hug-reciprocal-past Saburo-and Keiko-also hug-reciprocal-past Cop.pres
 ‘Taro and Hanako hugged each other. Saburo and Keiko did, too.’

When the antecedent predicate is *V-aw*, the plural subject is required in the second sentence (19b), i.e. when the antecedent predicate contains *aw*, the deleted predicate has to contain one as well.

To sum up, it has been shown that the deleted predicate and its antecedent must match in the use of passivization, and that when the antecedent contains honorifics or auxiliaries that impose restrictions on their subject, the deleted predicate must take the same form as well. In addition, as far as passivization is concerned, it is not just the morphological forms of the predicates that must be identical, but the structural parallelism is required as well.

3. Differences between an Antecedent Predicate and a Copula

3.1. Tense Mismatch between an Antecedent Predicate and a Copula

Having established that the identity condition on deletion is respected between the antecedent predicate and the deleted predicate of the PCC, let us examine which forms of a copula are allowed in the construction.

- (20) A: Taro-wa hon-o kawi-ni ik-u/iki-masu.
 Taro-Top book-Acc buy-to go-pres/go-polite.pres
 ‘Taro is going to buy a book.’
 B: a. Hanako-mo [~~hon-o — kawi-ni ik-u/iki-masu~~] da/desu.
 Hanako-also book-Acc buy-to go-pres/go-polite.pres Cop.pres/polite.pres
 ‘Hanako is, too.’
 b. #Hanako-mo [~~hon-o — kawi-ni ik-u/iki-masu~~] da-tta/desi-ta.
 Hanako-also book-Acc buy-to go-pres/go-polite.pres Cop-past/polite-past
 ‘Hanako was, too.’

When a verb in the antecedent clause is in present tense, the copula must be in present tense as well (20Ba).

We can see the same effect in embedded contexts.

- (21) Taro-wa Keiko-ga hon-o kawi-ni ik-u to i-u ga watasi-wa Hanako-mo
 Taro-Top Keiko-Nom book-Acc buy-to go-pres C say-pres but I-Top Hanako-also
 [~~hon-o — kawi-ni ik-u~~] da/*da-tta to omou.
 book-Acc buy-to go-pres Cop.pres/Cop-past C think
 ‘Taro says that Keiko is going to buy a book, but I think Hanako is, too.’

A mismatch in tense between the antecedent verb and the copula is not tolerated when the former is in present tense.

When we look at a case where the antecedent verb is in past tense, however, the situation is different.

- (22) A: Taro-wa ie-o kaw-ta/kawi-masi-ta.
 Taro-Top house-Acc buy-past/buy-polite-past
 ‘Taro bought a house.’
 B: a. Hanako-mo [~~ie-o — kaw-ta/kawi-masi-ta~~] da/desu.
 Hanako-also house-Acc buy-past/buy-polite-past Cop.pres/polite.pres

- b. Hanako-mo [~~ie-o~~ ~~kaw-ta/kawi-masi-ta~~] ??da-tta/*desi-ta.
 Hanako-also house-Acc buy-past/buy-polite-past Cop-past/polite-past
 ‘Hanako did, too.’

With a verb in past tense in the antecedent clause, the copula sounds better in present tense than in past tense, despite a mismatch in tense.¹⁵ Note that (22Ba) only has an interpretation in which Hanako bought a house; it does not allow present tense interpretation of the deleted event. It is the tense of the verb in the antecedent clause that determines the tense of the deleted material, and the tense of the copula does not affect interpretation.

The same holds true when the PCC is embedded.

- (23) Taro-wa Keiko-ga ie-o kaw-ta to i-tta ga, watasi-wa Hanako-mo [~~ie-o~~ ~~kaw-ta~~]
 Taro-Top Keiko-Nom house-Acc buy-past Comp say-past but I-Top Hanako-also house-Acc buy-past
 da/??da-tta to omou.
 Cop.pres/Cop-past C think
 ‘Taro said that Keiko bought a house, but I think Hanako did, too.’

Again the copula of the PCC sounds better in present tense than in past tense,¹⁶ and the interpretation of tense depends on the antecedent predicate.

It may seem strange that only the present tense form of the copula is allowed in the PCC, but it is not rare that copulas get grammaticalized and lose inflectional forms. Santos (2009) reports that yes-no questions in European Portuguese can be answered with a frozen third person singular verb form of *ser* ‘be’: the form *é* ‘is’ is used independently of the tense or aspect in the question, whereas the use of *foi* ‘was’ and *era* (past imperfective of *ser*) depends on the context.

- (24) Q: A Teresa comprou um casaco em Agosto?
 the Teresa bought a coat in August
 ‘Did Teresa buy a coat in August?’

A: É./Foi./*Era.
 Is/was/be[pastimperf, 3sg]

- (25) Q: A Teresa comprava casacos em Agosto?
 the Teresa buy[pastimperf, 3sg] coats in August
 ‘Did Teresa use to buy coats in August?’

A: É./Era./*Foi.
 is/be[pastimperf, 3sg]/was

(Santos (2009: 70))

The restricted tense of a copula allowed in the PCC in Japanese can be regarded as something similar to the use of *é* in the answer to a yes-no question in European Portuguese.

However, we must note exceptions to the generalization we have reached above concerning the restricted tense form of a copula in the PCC. A copula in past tense is sometimes allowed in the construction.

¹⁵ Though the judgment is delicate, when we compare (22Ba) with (22Bb), the former is better than the latter and not the other way around.

¹⁶ Some people find (i) better than (23).

- (i) Taro-ga hon-o kaw-ta. Saburo-mo da-tta yooda/rasii.
 Taro-Nombook-Acc buy-past Saburo-also Cop-past seem/I.hear
 ‘Taro bought a book. It seems/I hear that Saburo also did.’

When embedded within a clause with modals in present tense, the copula in past tense seems to be more tolerable. I need to leave this for future research.

- (26) a. Taro-wa hima-o moteamasite i-ta. Hanako-mo da/da-tta.¹⁷
 Taro-Top leisure-Acc cannot.manage be-past Hanako-also Cop.pres/Cop-past
 ‘Taro didn’t know what to do with his leisure. Hanako didn’t, either.’
- b. Pen-ga tukue-no ue-ni a-tta. Nooto-mo da/da-tta.
 pen-Nom desk-Gen top-at be-past notebook-also Cop.pres/Cop-past
 ‘There was a pen on the desk. A notebook was, too.’
- c. Susi-ga oisik-atta. Dezaato-mo da/da-tta.
 sushi-Nom delicious-past dessert-also Cop.pres/Cop-past
 ‘The sushi was delicious. The dessert was, too.’
- d. Taro-wa eigo-ga tokui da-tta. Hanako-mo da/da-tta.
 Taro-Top English-Nom good.at Cop-past Hanako-also Cop.pres/Cop-past
 ‘Taro was good at English. Hanako was, too.’
- e. Taro-wa kookoo-no kyoosi da-tta. Hanako-mo da/da-tta.
 Taro-Top high school-Gen teacher Cop-past Hanako-also Cop.pres/Cop-past
 ‘Taro was a high school teacher. Hanako was, too.’

Iru ‘be’ and *aru* ‘be’ are typical stative verbs, and when they are used in past tense in the antecedent clause, the copula can be in past tense as well (26a, b). (26c) is an example with an adjective, (26d) with an adjectival nominal, and (28e) with a predicate nominal.

These sentences all involve stative predicates, unlike the sentences in (20)-(23). Notice that stative predicative phrases (27a), but not eventive VPs (27b), can be substituted with *soo-da/soo-da-tta* ‘is (are) so/was (were) so.’¹⁸

- (27) a. Taro-wa hima-o moteamasite i-ta. Hanako-mo soo da-tta.
 Taro-Top leisure-Acc cannot.manage be-past Hanako-also so Cop-past
 ‘Taro didn’t know what to do with his leisure. Hanako didn’t, either.’
- b. Taro-wa ie-o kaw-ta. ??Hanako-mo soo da-tta.
 Taro-Top house-Acc buy-past Hanako-also so Cop-past
 ‘Taro bought a house. Hanako did so as well.’

And *soo* can be dropped in some contexts, as in *Da yo ne/Da-tta yo ne* ‘It is/was so,’ which are often used in colloquial Japanese. If so, the PCC with a stative predicate in the antecedent clause as in (26) can be derived in two ways: via the same process as in the construction with an eventive predicate, which does not allow a copula in past tense, or by *soo* deletion, which permits a copula in past tense.

¹⁷ When a stative verb in the antecedent clause is in present tense, a copula can be in past tense. The copula in present tense sounds awkward with *20-nen-mae-no*, which clearly denotes past.

(i) Taro-wa kono gakkoo-ni kayotte i-ru. 20-nen-mae-no Hanako-mo ??da/da-tta.
 Taro-Top this school-to go be-pres 20-years-ago-Gen Hanako-also Cop.pres/Cop-past
 ‘Taro goes to this school. Hanako also did twenty years ago.’

¹⁸ An anonymous reviewer pointed out to me the following example in which a nominative object occurs with a copula in past tense.

(i) Taro-wa eigo-ga tokui da-tta. Suugaku-mo da-tta.
 Taro-Top English-Nom good.at Cop-past mathematics-also Cop-past
 ‘Taro was good at English. Math, too.’

However, (i) does not sound very good to me, and the use of *soo* is not possible with the nominative object in the antecedent.

(ii) Taro-wa eigo-ga tokui da-tta. ??Suugaku-mo soo da/da-tta.
 Taro-Top English-Nom good.at Cop-past mathematics-also so Cop.pres/Cop-past
 ‘Taro was good at English. Math, too.’

There may be some variation across speakers. I would like to leave this for future research.

That the PCC with a stative predicate in the antecedent has an additional source can be supported by the following contrast.

- (28) a. *Taro-ga hon-o kawi/kaw-te, Hanako-mo da. (=6)
 Taro-Nom book-Acc buy.inf/buy-participle Hanako-also Cop.pres
 ‘Taro buys a book. Hanako does, too.’
 b. Taro-wa susi-ga sukide, Hanako-mo (soo) da.
 Taro-Top susi-Nom like.participle Hanako-also so Cop.pres
 ‘Taro likes sushi. Hanako does, too.’

As we have seen in (6), which is repeated here as (28a), an eventive predicate in an infinitival ‘*renyookei*’ form or a participial *-te* form cannot be an antecedent for the deleted predicate. However, a stative predicate can function as an antecedent in a participial form (28b). Since (28b) can be derived by *soo* deletion, it need not satisfy the finiteness requirement imposed on the PCC.

To summarize, we have seen that the copula of the PCC with an eventive predicate in the antecedent clause is restricted to present tense, and that the tense of the deleted material is determined not by the tense of the copula but by the tense of the predicate in the antecedent clause. In order to determine what kind of properties the PCC has, we need to tease apart the effect of *soo* deletion by investigating the construction with an eventive predicate in the antecedent clause.

3.2. Polarity Mismatch between an Antecedent Predicate and a Copula

In this subsection let us consider whether or not a mismatch in polarity is allowed between an antecedent clause and a copula in the PCC.

- (29) a. *Taro-wa 1-satu-mo hon-o kaw-ta.
 Taro-Top 1-copy-mo book-Acc buy-past
 ‘Taro bought any book.’ (literal translation)
 b. Taro-wa 1-satu-mo hon-o kawa-naka-tta.
 Taro-Top 1-copy-mo book-Acc buy-neg-past
 ‘Taro didn’t buy any book.’
 c. *Taro-wa Hanako-ga 1-satu-mo hon-o kaw-ta-to omowa-nak-atta.
 Taro-Top Hanako-Nom 1-copy-mo book-Acc buy-past-C think-neg-past
 ‘Taro did not think that Hanako bought any book.’ (literal translation)

I-satu-mo ‘even a single copy’ is a minimizer modifying *hon* ‘book,’ and it needs to be licensed by negation (29a, b). (29c) shows that it needs to be licensed within the minimal clause containing *hon-o*, since *I-satu-mo* floats from the sequence *hon-o I-satu-mo*. Because negation is located in a higher clause, the minimizer is not permitted in (29c). Now let us consider the PCC.

- (30) Taro-wa hon-o kawa-nak-atta. 1-satu-mo [~~Taro-wa hon-o kawa-nak-atta~~] da.
 Taro-Top book-Acc buy-Neg-past 1-copy-mo Taro-Top book-Acc buy-Neg-past Cop.pres
 ‘Taro did not buy a book. Not even a single copy.’

When the antecedent predicate is negative, *I-satu-mo* is allowed to occur, even though the copula is affirmative. *I-satu-mo*, which needs to be licensed within the minimal clause containing *hon-o*, is licensed by the deleted

predicate, which is negative just as the antecedent.¹⁹

- (31) Taro-wa hon-o kaw-ta. *1-satu-mo [~~Taro-wa hon-o kaw-ta~~] de-wa-nai.
 Taro-Top book-Acc buy-past 1-copy-mo Taro-Top book-Acc buy-past Cop.inf-Top-neg
 ‘Taro bought a book. Not even a single copy.’ (literal translation)

In contrast, when the antecedent is affirmative (31), *1-satu-mo* is not permitted, even though the copula is negative. Since the minimal clause containing *hon-o* in the second sentence is affirmative just as the antecedent, it cannot license the occurrence of the minimizer. Negation that appears on the copula cannot license the minimizer, which is explained if the copula is located in a clause higher than the deleted predicate. These data clearly indicate that negation of the deleted predicate is distinct from negation of the copula.

This section has demonstrated that while the polarity of the deleted material is determined by its antecedent, polarity mismatches can be tolerated between the antecedent and the copula.

4. Discussion

We have observed that the antecedent predicate and the copula can have different values in tense and polarity, whereas the antecedent predicate and the deleted predicate must match in tense, polarity, voice, and the use of honorifics and auxiliaries. These facts follow naturally if the antecedent predicate and the deleted predicate are identical, and if the copula occurs in a different clause from the deleted predicate. Let us propose a structure in which the deleted TP is contained within another TP hosting the copula.²⁰

- (32) [_{TP} XP ... YP T_{fin}]. [(Conj) [_{TP} [_{TP} ZP(-mo) ... YP T_{fin}] Copula T_{fin}]].

In (32) the identity condition on deletion holds between the antecedent and the deleted material, and the copula has

¹⁹ In contrast to (30), Hiraiwa (2006) observes that a negative concord item, *daremo* ‘nobody’, which needs to occur in negatives, cannot occur in the PCC.

- (i) *Sono daigaku-wa hitori-sika saiyoosi-nai-tte iwa-re-teru kedo, boku-wa daremo (da) to omou.
 the university-Top one-only hire-neg-C say-pass-te(i)ru but I-Top nobody Cop.pres C think
 ‘It is said that the university will hire only one person, but I don’t think it will hire anybody.’
 (Hiraiwa (2006: 277))

Pointing out that *daremo* is not allowed to occur in a focus position of a cleft sentence (iia), but is allowed to occur in the *no da* construction (iib), he suggests that the ungrammaticality of (i) follows if the source of the PCC is not the *no da* construction but a cleft sentence.

- (ii) a. *Sono daigaku-ga saiyoosi-nak-atta no wa daremo da.
 the university-Nom hire-neg-past C Top nobody Cop.pres
 ‘It is nobody that the university hired.’
 b. Daremo sono daigaku-wa saiyoosi-nak-atta no da.
 Nobody the university-Top hire-neg-past C Cop.pres
 ‘The university did not hire anybody.’
 (Hiraiwa (2006: 278))

However, it is not the case that negative concord items such as *nanimo/daremo* are banned from the PCC altogether. There is a type of PCC, which introduces new materials that do not have any corresponding materials in the antecedent, like a sprouting construction (cf. Chung, Ladusay and McClosky (1995)), and in this type *nanimo/daremo* are allowed.

- (iii) Taro-wa noma-nak-atta. Nanimo da.
 Taro-Top drink-Neg-past nothing Cop.pres
 ‘Taro didn’t drink. Nothing.’
 (iv) Kyaku-tati-wa sono ryoori-o tabe-nak-atta. Daremo da.
 guest-assoc.pl.-Top the dish-Acc eat-Neg-past nobody Cop.pres
 ‘The guests did not eat the dishes. Nobody did.’

(30) is an example of this type of the PCC. It is necessary to distinguish different types of the PCC, which I leave for future research.

²⁰ Topic DPs like *Taro-wa* and focus DPs like *Hanako-mo* may move up to/occur in the CP periphery, but I leave the issue open in this paper.

its own tense and polarity.

With this structure in mind, let us examine Kim and Sohn's (1998) analysis of the PCC in Korean.²¹ As we have seen in Section 1, they propose that a focus phrase moves to Spec of FocP, followed by deletion of AgrSP, containing its trace. Then a copula, *ya*, is inserted to support a stranded tense.

- (33) a. John-i sakwa-lul meke (kuliko) Mary-to [e] ya
 John-Nom apple-Acc eats and Mary-Foc is
 'John eats apples, and MARY does too.' (Kim and Sohn (1998: 461))
- b. [_{FocP} Mary₁-to [_{Foc'} [_{TP} [_{AgrSP} t_i [_{Agrs'} [_{VP1} t_i [_{V1'} [_{VP2} sakwa-lul mek] V1]] Agrs]] [_T ya]] Foc]]

Their analysis cannot account for the data we have seen regarding the PCC in Japanese, because it does not explain why the copula and the antecedent can differ in tense value. Under their analysis the tense that is stranded by AgrSP deletion is that of the deleted predicate, because there is only one T in (33b). In addition, why it is the copula and not a dummy verb that is inserted to support tense is another problem that needs to be addressed.

The same problem arises with Hiraiwa and Ishihara's (2002) analysis of the *no da* in-situ focus construction. They regard *da* as a focus marker, which heads FocusP, and *no* as a Complementizer, which heads FinP in the *no da* construction.

- (34) Taro-wa hon-o kaw-ta. [_{FocP} Hanako_i-mo [_{Foc'} [_{FinP} [_{TP} t_i hon-o kaw-ta] no] [_{Foc} da]]].
 Taro-Top book-Acc buy-past Hanako-also book-Acc buy-past C Cop.pres

Hiraiwa (2006) considers the possibility of deriving the PCC from the *no da* construction. In (34) after *Hanako* moves to Spec of FocP, FinP *hon-o kaw-ta no* is deleted, and the string *Hanako-mo da* is obtained. Under their analysis it is not clear how the tense and polarity of the copula are taken care of in the focus position. Since the copula of the *no da* construction as well as that of the PCC carry tense independently of the deleted predicate, positing *da* in Foc without its own TP is problematic.

Under the truncated cleft analysis proposed by Kuwabara (1996), Nishiyama et al. (1996) and Kizu (1997, 2005), the copula occurs in the PCC because it occurs in the underlying cleft structure.

- (35) Taro-wa hon-o kaw-ta. [~~Hon-o kaw-ta no wa~~] Hanako-mo da.
 Taro-Top book-Acc buy-past book-Acc buy-past C Top Hanako-also Cop.pres
 'Taro bought a book. Hanako also bought a book.'

The fact that the tense and the polarity of the copula can differ from those of the antecedent is not problematic under their analysis. If we follow Kizu's claim that the focus phrase *Hanako-mo* remains as a complement of the copula throughout the derivation of the cleft sentence, the copula can have its own TP independently of the predicate *kaw-ta* which is contained within the complement TP of the complementizer *no*, though the exact syntactic structure and derivation of cleft sentences in Japanese need to be clarified.^{22,23}

²¹ Korean may differ from Japanese with respect to tense/polarity mismatches between the antecedent predicate and the copula, but I have not been able to look into it. They give the following examples without discussion.

- (i) John-i sakwa-lul meke/mekesse (kuliko) MARY-to ya/yesse.
 John-Nom apple-Acc eats/ate and Mary-Foc is/was
 'John eats/ate apples and MARY does/did too.'
- (ii) John-i sakwa-lul mek-ci an(i)-ha/ha(e)sse (kuliko) MARY-to ani ya/yesse.
 John-Nom apple-Acc eat-Nm Neg-does/did and Mary-Foc Neg is/was
 'John does/did not eat apples, and MARY does/did not either.'

((i, ii): adapted from Kim and Sohn (1998: 466))

²² The structures proposed by Fukaya and Hoji (1999) and Fukaya (2007) (cf. footnote 7) are capable of handling

It seems plausible to regard cleft sentences as an underlying structure for the PCC, but there are some differences between the two. First, the present tense restriction does not hold with the cleft sentences.

- (36) Taro-ga kaw-ta no wa zassi-(o) da/da-tta.
 Taro-Nom buy-past C Top magazine-Acc Cop.pres/Cop-past
 ‘What Taro bought is/was a magazine.’

Whatever the nature of the restriction, it does not follow from the underlying structure. To identify what is responsible for the present tense restriction on the PCC, it may be necessary to look into differences in discourse properties between the two constructions.

Another difference is whether or not the relevant clause can host a DP with an additive particle in the structure. As has been pointed out in the literature, focus of a cleft sentence is interpreted as exhaustive, and thus it is not easy to have a DP with an additive particle *also* in the focus position.

- (37) a. ??It was also JOHN who saw Mary. (Percus (1997: 341))
 b. ??Taro-ga kaw-ta no wa zassi-mo da.²⁴
 Taro-Nom buy-past C Top magazine-also Cop.pres
 ‘It is also a magazine that Taro bought.’

As Kiss (1998: 252) notes, however, “*also* DP” is allowed “in a context where it can be understood to identify a member of a relevant set in addition to one or more members identified previously as such for which the predicate holds, with the rest of the set still excluded.”

- (38) A: Bill danced with Mary.
 B: No, it was Sam that danced with Mary.
 C: It was also John that danced with her. (Kiss (1998: 252))

The PCC with DP-*mo* also needs to occur in a context where the property denoted by a predicate has already been established to hold for some entities (39).

- (39) ??Hanako-mo da. (when uttered out of the blue)
 Hanako-also Cop.pres
 ‘Hanako as well.’

Since DP with an additive particle requires enough context both in the cleft sentences and the PCC, (37) supports the truncated cleft analysis of the PCC rather than posing a problem for it.

In this section we have discussed the previous proposals for the PCC, focusing on whether or not the two different values in tense and polarity of the antecedent and the copula can be handled. Among the three analyses considered, we have seen that this can be dealt with most readily under the truncated cleft analysis.

5. Summary

In this paper we have studied whether mismatches are allowed in the Japanese PCC between the antecedent

different values of tense and polarity between the copula and the embedded predicate. However, the occurrence of the copula in the PCC is merely stipulated under their analysis.

²³ Hiraiwa and Ishihara’s (2002) analysis of cleft sentences treats *da* as a focus head, just as in the *no da* construction.

Again the fact that the copula has its own tense is a problem for them.

²⁴ It sounds less acceptable to me when *da* is replaced with its past form *da-tta*.

predicate and the deleted predicate, and between the antecedent predicate and the copula. It has been shown that the deleted predicate and the antecedent must satisfy the identity condition on deletion, and that the copula need not have the same value in tense and polarity as the antecedent predicate. These properties have been claimed to follow from the TP embedding structure where the deleted predicate and the copula each have their own TP, which is compatible with the truncated cleft analysis.

Many issues remain to be considered. Obviously the exact structure of the underlying cleft sentences needs to be worked out. In addition the optionality of the copula as well as the role of case markers have to be examined. Discourse factors need to be taken into account as well, since the PCC occurs across sentences. A crosslinguistic comparison of the PCC is another topic to explore. We leave these issues for future research.

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