jimcts

Information Value and Argument/ Adjunct Asymmetry in Ellipsis in Japanese

Professor of Research Faculty of Media and Communication, Hokkaido University
OKU Satoshi

abstract

In this paper, I will discuss some properties of argument ellipsis (AE) and adjunct ellipsis (AdjE) in Japanese, and argue that they are constrained by syntax as well as information value conditions. The collaboration of syntactic selection property and discourse conditions properly explains ellipsis phenomena in Japanese. I first review that AE is syntactically constrained (Section 1). Then, I argue that ellipsis-resistant arguments do not satisfy Defocusing Requirement, a necessary condition for ellipsis, and that two alternatives trying to account for ellipsis-resistant arguments are not successful (Section 2). I then show that AdjE is possible in Japanese when the adjuncts satisfy Defocusing Requirement in a given context (Section 3). Finally, the ellipsis-tolerance of adjuncts can be explained when we properly take into consideration the selection property of the verb together with discourse conditions (Section 4).

1 Introduction

It has been known since Kuroda (1965) that Japanese allows arguments (subject/object) to be phonologically null as shown in (1) and (2).[1] Oku (1998) then argues that they are derived by argument ellipsis (AE, henceforth) (see also Saito 2007, 2017a, Takahashi 2008, among many others).

(1) a. John-wa [zibun-no tegami-o] suteta.
John-TOP self-GEN letter-ACC discarded
'John$_i$ threw out self$_i$'s letters.'

b. Mary-mo [e] suteta.
Mary-also discarded
[e] = John's letters (strict identity reading)
[e] = Mary's letters (sloppy identity reading)
(slightly modified from Otani and Whitman 1991: 346-347)

(2) a. Mary-wa [zibun-no teian-ga saiyo-sare-ru-to] omotteiru.
Mary-TOP [self-GEN proposal-NOM accept-PASS-PRES-C] think
'Mary$_2$ thinks that her$_2$ proposal will be accepted.'

b. John-mo [[e] saiyo-sare-ru-to] omotteiru.
John-also [accept-PASS-PRES-C] think
'Lit. John also thinks that [e] will be accepted.' (Oku 1998: 166)
[e] = Mary's proposal (strict identity reading)
[e] = John's proposal (sloppy identity reading)

If we compare these with the corresponding sentences in English, it is clear that AE is syntactically constrained. Namely, even when the argument in question is easily recoverable from the discourse/context, AE is not possible in English as shown in (3) and (4).[2] The overt pronouns *them* and *it* have to be used instead.

(3) a. John discarded his letters.
b. * Mary also discarded [e].
Cf. Mary also discarded **them**.

(4) a. John thinks that his proposal will be accepted.
b. * Mary also thinks that [e] will be accepted.
Cf. Mary also thinks that **it** will be accepted.

Oku (2016), however, points out that Japanese AE is constrained by discourse-related conditions as well. In particular, to-be-elided arguments must satisfy the defocusing condition (Tancredi 1992), and thus when arguments are inevitably focused in a specific sentence, they cannot be elided. Oku (2021) further explores the properties of ellipsis-resistant elements, trying to cover the area of adjunct-ellipsis (AdjE, henceforth) as well.

The purpose of this paper is to claim that the collaboration of syntactic selection

and information value can explain the ellipsis-tolerance of arguments and adjuncts and some difference between them. This perspective has not been seriously explored in the field of ellipsis study as far as I am aware, and thus will shed a new light on the field. In Section 2, I first review cases in which AE is not possible in Japanese and propose a defocusing condition to account for them. I also review two different proposals (Funakoshi 2012 and Saito 2017a) which attempt to explain some cases of ellipsis-resistant arguments, and I will show neither of them is very successful. Then, in Section 3, I argue that the same condition related to information value explains the availability of AdjE. This observation shows that contrary to what has been generally assumed since Oku (1998), AdjE is available when the relevant defocusing condition is satisfied. Finally, in Section 4, I claim that θ-related selection and Kuno's (1982) discourse condition are crucial factors that make AdjE less obtainable than AE in some cases. Section 5 is the summary.

2 Ellipsis-Resistant Argument and Defocusing Requirement

2.1 Focus-Marked Arguments and *Wh*-Phrases

In this section, I argue, expanding Oku (2016), that ellipsis-resistant arguments reported in the literature all do not satisfy one crucial condition for ellipsis. Look at (5), which is a typical instance of AE in Japanese.[3]

(5) a. Taroo-wa zibun-no syokki-o araw-anak-atta.
Taro-TOP self-GEN tableware-ACC wash-NEG-PAST
'Taro didn't wash his tableware.'

b. Hanako-wa [e] arat-ta.
Hanako-TOP wash-PAST
'lit. Hanako washed.

With (5a) as the antecedent clause, the empty object [e] in (5b) can be understood as *zibun-no syokki-o* 'self's tableware-ACC' where *zibun* 'self' is bound by the subject Hanako. This is a sloppy identity reading which is a standard diagnosis for AE (Oku 1998). Notice that the subject Hanako in (5b) is focused contrastively with Taro in (5a), and the verb *arat-ta* 'washed' in (5b) is also focused contrastively with the negative counterpart *araw-anak-atta* 'didn't wash' in (5a). On the other hand, the elided object is presupposed and defocused in (5b) in this discourse. I therefore propose (6) as a relevant condition the target elements of ellipsis must satisfy (see also Tancredi 1992).

(6) Defocusing Requirement
Ellipsis presupposes the defocusing of the target constituent.

Now, Defocusing Requirement (6) predicts that arguments with a focus particle such as *sae* 'even' or *dake* 'only' are resistant to ellipsis. Oku (2015, 2016) argue

that the prediction is borne out. Look at (7).

(7) a. Taroo-wa zibun-no syokki-sae araw-anak-atta.
Taro-TOP self-GEN tableware-even wash-NEG-PAST
'Taro didn't wash even his tableware.'

b. Hanako-wa [e] tyanto arat-ta.
Hanako-TOP properly wash-PAST
'lit. Hanako washed [e] properly. [e] = ?? even her tableware
[e] = her tableware

With (7a) as the antecedent clause, the most natural interpretation for (7b) is that Hanako washed her tableware properly, where the meaning of *sae* 'even' is absent. (7b) does not seem to have the *sae*-inclusive-reading which would have the implication that Hanako washed others' tableware properly and also washed her own tableware (although she does not have to wash her own). Next consider (8).

(8) a. Taroo-wa zibun-no syokki-dake-o arat-ta.
Taro-TOP self-GEN tableware-only-ACC wash-PAST
'Taro washed only his tableware.'

b. Hanako-wa [e] araw-anak-atta.
Hanako-TOP wash-NEG-PAST
'lit. Hanako didn't wash [e].' [e] = ?? only her tableware
[e] = her tableware

Again, the most natural interpretation of (8b) is that Hanako didn't wash her tableware. It seems less natural to have the interpretation that what Hanako didn't wash is just her own tableware implying that she washed others' tableware. NPs with a focus marker are resistant to ellipsis.[4]

Let us next consider another type of argument which is ellipsis-resistant: *wh*-phrases. Ikawa (2013) observes that *wh*-phrases such as *nani* 'what' is resistant to AE (see also Sugisaki 2013 and Saito 2017a).

(9) a. John-wa nani-o katta no?
John-TOP what-ACC bought Q
'What did John buy?'

b. * Bill-wa [e] katta no?
Bill-TOP bought Q
* '(intended) What did Bill buy?'

The missing object in (9b) should be recoverable as *nani-o* 'what-ACC' since the candidate antecedent is clearly given in (9a); yet (9b) is seriously degraded as the intended AE interpretation.[5] I claim that this observation is neatly accounted for by Defocusing Requirement (6). In (9a), for instance, it is reasonable to assume that the speaker presupposes that John bought something and asks the identity of that "something." In other words, the subject and the verb carry the presupposed information and the object *nani* 'what' is the new/focused information. Assuming that the inherent function of a *wh*-phrase is being focused in the sentence, it is natural that (9b) is unacceptable in the intended meaning since it is against Defocusing

Requirement.

2.2 Two Alternative Accounts

In this section, I will briefly discuss two different accounts for the ellipsis-resistant arguments we just observed above: i.e., Funakoshi's (2012) V-stranding VP-ellipsis analysis and Saito's (2017a) operator-variable chain analysis. I will show that Funakoshi's analysis is not only unnecessary given (6), but also cannot derive some instances of AE. I will further argue that Saito's analysis has an empirical problem when AE involves an operator-variable chain created by universal quantifiers.

Funakoshi (2012) proposes a V-stranding VP-ellipsis analysis *a la* Otani and Whitman (1991), which is followed by Hayashi and Fujii (2015), Funakoshi (2016), Sato and Maeda (2021), and so on. Funakoshi argues that the null object can be derived not by AE, but by VP-ellipsis as in (10b).

(10) a. Taroo-wa zibun-no syokki-o araw-anak-atta.
Taro-TOP self-GEN tableware-ACC wash-NEG-PAST
'Taro didn't wash his tableware.'

b. Hanako-wa ~~[VP zibun-no syokki-o tv]~~ [V araw]-ta.
Hanako-TOP [VP self-GEN tableware] wash-PAST
'Lit. Hanako washed ~~[self's tableware]~~'

The verb *araw* 'wash' moves up and adjoins to a higher functional head, say T, which hosts the past tense marker *ta* as shown in (10b). Then, VP-ellipsis applies so that the object is elided, resulting in a sentence where the object is phonologically null and the head V is intact. Now, the reason why the focus-marked argument is ellipsis-resistant, Funakoshi argues, is the following. Consider (11).

(11) a. Taroo-wa zibun-no syokki-dake-o arat-ta.
Taro-TOP self-GEN tableware-only-ACC wash-PAST
'Taro washed only his tableware.'

b. Hanako-wa
Hanako-TOP
[FocP [NP zibun-no syokki-dake-o] [VP tNP tv]] [V araw]-anak-atta.
self-GEN tableware-only-ACC wash-NEG-PAST

➔ VP-ellipsis

b.' ... [FocP [NP zibun-no syokki-dake-o] ~~[VP tNP tv]~~] [V araw]-anak-atta.

The focus-marked argument *zibun-no syokki-dake-o* 'only her tableware' moves out of VP to Spec of FocusP as shown in (11b). Then, VP-ellipsis cannot delete the object NP as shown in (11b'). The focus-marked NP escapes deletion, making it ellipsis-resistant.

Notice that one crucial condition for V-stranding VP-ellipsis to work is that V head must move out of VP as in (11b). Now, I will show that null argument is derivable even in a structure in which V-head stays within VP.[6] Although it has

been controversial whether Japanese has overt V-raising in syntax,[7] there are cases in which V stays within VP. When the verb has a particle such as *-sae* 'even' for instance, the verb does not move up to T and the dummy verb *su* 'do' supports the tense in T as in (12a).

(12) a. Ziroo-wa [VP zibun-no ronbun-o gakkaide happyoo-si-sae] sita
Jiro-TOP self-GEN paper-ACC conference present-do-even did
'Jiro even presented his paper in a conference'
VP-fronting

b. [VP zibun-no ronbun-o gakkai-de happyoo-si-sae] Ziroo-wa tVP sita
self-GEN paper-ACC conference-at present-do-even Jiro-TOP did

In (12b), VP-fronting applies which clearly shows that V head *happyou-su* 'present' together with the particle *-sae* 'even' stays within VP. Now, consider (13) which shows that the verb stays within VP since it has the particle *-sae* 'even' attached, but yet AE is applicable to the object that is contained in the VP.

(13) Context: Taro and Jiro are working hard and have written several papers on their research topics.

a. Taroo-wa zibun-no ronbun-o sensee-ni teisyutusita dake da ga ...
Taro-TOP self-GEN paper-ACC teacher-to submitted only COP but
'Taro submitted his paper only to his supervisor but ...'

b. Ziroo-wa [VP [e] kokusai gakkai-de happyoo-si-sae] sita
Jiro-TOP international conference-at present-do-even did
'Lit. Jiro [VP even presented [e] at a conference]'

[e] in (13b) is understood as 'his (Jiro's) paper.' Null arguments are derived even when V-raising does not apply. What makes the argument null here is AE, and thus, V-stranding VP-ellipsis is not necessary to derive null arguments.[8]

Next, let us consider Saito's (2017a) account of why *wh*-phrases are ellipsis-resistant. Look at (9), repeated here as (14), which indicates that *wh*-phrases cannot be elided.

(14) a. John-wa nani-o katta no? (= (9))
John-TOP what-ACC bought Q
'What did John buy?'

b. * Bill-wa [e] katta no?
Bill-TOP bought Q
* '(intended) What did Bill buy?'

Saito (2017a, 2017b) argue that *wh*-phrases in Japanese move covertly to Spec of CP to create an operator-variable chain. For instance, the LF representation of (14a) is (15a), where the operator [for which x, x a thing] and the variable x in the object position form an operator-variable chain.

(15) a. [for which x, x a thing] John-wa x katta no?
Operator -TOP variable bought Q

b. Bill-wa x katta no
Bill-TOP bought Q

Now, Saito (2017a) argues that having (15a) as the antecedent clause, LF representation of (15b) is either (16a) (where only the operator portion is copied) or (16b) (where only the variable portion is copied), assuming that LF copy is not applicable to an operator-variable chain.[9]

(16) a. * [for which x, x a thing] Bill-wa katta no
-TOP bought Q

b. * Bill-wa x katta no
-TOP bought Q

(16a) is illegitimate as an LF representation because the operator does not bind anything (i.e., vacuous quantification); (16b) is an uninterpretable LF representation because the variable is unbound there. In other words, assuming that LF copy operation cannot apply to an operator-variable chain, LF copy analysis of Japanese AE explains why *wh*-phrases are resistant to AE. However, Oku (2016) argues that there is one type of scope example where the object undergoes quantifier raising (QR) over the subject and thus creates an operator-variable chain at LF but AE is nonetheless possible.

Let us consider one such case reported by Oku (2016). According to Reinhart (2006), QR is necessary to explain the inverse scope reading in (17).

(17) A doctor will examine every patient.
a. [∃x, x a doctor][∀y, y a patient][x will examine y].
b. [∀y, y a patient][∃x, x a doctor][x will examine y].

In (17), both the surface scope reading and the inverse scope reading are available whose LF representations are (17a) and (17b), respectively. Reinhart follows Fox (2000) and claims that (17b) is obtained by a syntactic operation QR, and that QR applies when its application gives a new scope interpretation that would not be obtained otherwise.

It has been claimed that Japanese is a scope rigid language and inverse scope interpretations of quantifiers are not easily obtainable (see Kuroda 1965, Lasnik and Saito 1992, for instance). However, Oku (2008) argues that there are cases in which inverse scope readings are strongly favored in Japanese. Look at (18).

(18) a. TA-ga hitori dono CALL kyoositu-ni-mo taiki-suru.
TA-TOP one every CALL room-at-also stand.ready
'A TA stands by in every CALL room.'

b. Keikan-ga hitori dono iriguti-mo gaado-sitei-ru.
police officer-TOP one every gate-also guard-PROG-PRES
'A police officer is guarding every gate.'

It is natural to have the interpretation that there are different TAs in each room in (18a) and the interpretation that there are different police officers at each gate in (18b). Both are instances of inverse scope reading. Oku (2008, 2016), following Reinhart (2006), claim that QR of a universally quantified NP/PP over an existen-

tially quantified subject NP is possible and necessary in cases such as (18). Then, the LF representations of the inverse scope interpretation for (18a) and (18b) are (19a) and (19b), respectively.

(19) a. [∀x: x a CALL room] [∃y: y a TA][y stands by in x]
Operator variable

b. [∀x: x a gate] [∃y: y a police officer][y is guarding x]
Operator variable

The phrase *dono CALL kyoositu-ni-mo* 'in every CALL room' forms an operator-variable chain in (19a), and the phrase *dono iriguti-mo* 'every gate' forms an operator-variable chain in (19b). If Saito's (2017a) proposal is valid in these cases, AE should not be applicable to the universally quantified phrases. Oku (2016), however, shows that AE of the universally quantified NP is acceptable.

(20) a. Gozentyuu-wa TA-ga hitori dono CALL kyositu-ni-mo taiki-suru.
Morning-TOP TA-NOM one every CALL room-at-also stand.by
'In the morning, a TA stands by in every CALL room.'

b. Gogo-wa RA-ga hitori [e] taiki-suru.
Afternoon-TOP RA-NOM one stand.by
'Lit. In the afternoon, an RA stands by.'

(21) a. A-too-de-wa keikan-ga hitori dono iriguti-mo
A-building-at-TOP police officer-NOM one every gate-also
gaado-sitei-ru.
guard-PROG-PRES
'At building A, a police officer is guarding every gate.'

b. B-too-de-wa keibiin-ga hitori [e] gaado-sitei-ru.
B-building-at-TOP security guard-NOM one guard-PROG-PRES
'Lit. At building B, a security guard is guarding.'

The elided portion [e] in (20b) can be interpreted as *dono CALL kyoositu-ni-mo* 'in every CALL room' and the elided portion [e] in (21b) can be interpreted as *dono irituti-mo* 'every gate.' Crucially the inverse scope reading is easily available (the most natural in fact) in (20b) and (21b). To the extent that they are acceptable in the intended inverse scope interpretation, the data reveals that AE is possible to a phrase even when the phrase forms an operator-variable chain at LF. This suggests that what is at issue is not the existence of the operator-variable chain, but rather whether the alleged target is necessarily focused or not. *Wh*-phrases are inherently focused in the sense that they ask the identity of an element in a sentence in which all other elements are presupposed as we discussed in Section 2.1 above. However, such a focus requirement is not an inherent property of universally quantified phrases. Rather, they can be presupposed and thus defocused as shown in (20b) and (21b): the sentence-initial temporal phrases and the subject phrases are contrasted between (20a) and (20b), and the sentence-initial locative phrases and the subjects are contrasted between (21a) and (21b). Hence, Defocusing Requirement (6) is good and sufficient to explain why *wh*-phrases are inherently ellipsis-resistant,

while universally quantified phrases are not.

In this section, I discussed cases in which AE is not applicable in Japanese, and I proposed that they are ellipsis-resistant because they do not satisfy one crucial condition for ellipsis: Defocusing Requirement (6). Then, I argued that Funakoshi's (2012) V-stranding VP-ellipsis analysis is not necessary to account for ellipsis-resistant arguments. I also showed that Saito's (2017a) operator-variable chain approach is not valid when the universally quantified NP is involved. In the next section, I will argue that Defocusing Requirement (6) together with the selection properties of arguments and adjuncts explains the reported difference between arguments and adjuncts in terms of the ellipsis-tolerance.

3 Adjunct Ellipsis and Defocusing Requirement

It has been controversial whether adjunct ellipsis (AdjE) is available in Japanese. Some researchers such as Oku (2016), Kobayashi (2020), and Tanabe and Kobayashi (2022b) propose an AdjE analysis for null adjuncts,[10] while others such as Hayashi and Fujii (2015), Funakoshi (2016), Sato and Maeda (2021) claim that null adjuncts in Japanese are derived by V-stranding ellipsis, assuming that AdjE is not a mechanism available in Japanese.[11] In this section, I present, based on Oku (2016) and Tanabe and Kobayashi (2022a), several instances of null adjuncts which can be derived, not necessarily by V-stranding VP-ellipsis, but by AdjE, as far as focus/defocus conditions are properly controlled so that Defocus Requirement (6), repeated here as (22), is satisfied.

(22) Defocusing Requirement (= (6))
Ellipsis presupposes the defocusing of the target constituent.

First of all, Saito (2017a) shows that locative PPs can be elided. Let us look at (23).

(23) a. Taroo-wa [zibun-no oya-no ie-ni] sunde iru.
Taro-TOP self-GEN parent-GEN house-in live
'Taro lives in his parents' house.'
b. Demo, Hanako-wa [e] sunde inai
but Hanako-TOP live NEG
'Lit. But Hanako does not live.'

The sloppy identity reading is easily available for [e] in (23b); the sentence means Hanako does not live in her parents' place. In (23), the subjects, Taro and Hanako, are contrasted and the verbs are contrasted in polarity; *sunde iru* 'living' vs *sunde inai* 'not living.' Crucially the locative PP is presupposed in (23b). This locative PP is an argument, as Saito mentions, which is selected (θ-marked) by the verb *sumu* 'live,' and thus it is not an adjunct. However, genuine locative adjuncts also can be

elided. Consider (24).[12]

(24) a. John-wa zibun-no heya-de Hamlet-o yomi,
John-TOP self-GEN room-in Hamlet-ACC read-and
'John read *Hamlet* in his room, and,'

b. Bill-wa [e] Lear Oh-o yonda.
Bill-TOP King Lear-ACC read-PAST
'Bill read *King Lear*.' (cf. Kamio and Takami 1998: 134)

In (24), the subject Bill and the object Lear Oh in (24b) are focused, contrastively with John and Hamlet in (24a). On the other hand, the locative PP *zibun-no heya-de* 'in self's room' is presupposed, satisfying Defocusing Requirement (22). It is very natural to interpret [e] as *zibun-no heya* (meaning Bill's room); the sloppy identity reading, which indicates that the [e] is an instance of an elided adjunct.

Although Saito (2017a) argues, based on Oku (1998), that reason adjuncts and manner adjuncts are not elidable, Oku (2016) demonstrates that if we properly control the discourse condition, AdjE is applicable. Suppose that the antecedent clause and the ellipsis target clause are contrasted in terms of the subject and the object, for instance, and the manner adverb portion can be presupposed and defocused. Then, Defocusing Requirement for ellipsis is satisfied and the AdjE reading is predicted to be possible. Consider (25).

(25) Manner Adverb Ellipsis

a. Ziroo-wa zibun-no burasi-de sono kuruma-o aratta ga
Jiro-TOP self-GEN brush-with the car-ACC washed but
'Jiro$_i$ washed the car with his$_i$ brush, but'

b. Taroo-wa [e] **kono** kuruma-o aratta
Taro-TOP **this** car-ACC washed
'Lit. Taro$_j$ washed **this** car.'

In (25b), the sloppy identity reading for [e] is available; that is, [e] means 'with Taro's brush.' Again in (25), the subjects are contrasted and the objects are also contrasted so that Taro and *kono kuruma* 'this car' are focused in (25b). The manner adverb, on the other hand, can be presupposed and defocused in (25b), which makes the adjunct-inclusive reading easily obtainable.

Further, Tanabe and Kobayashi (2022a) reports an interesting observation, which suggests that reason adjuncts are also ellipsis-tolerant. Consider (26), which I modify from Tanabe's original examples to make it clear that they involve the sloppy identity reading.

(26) Reason Adverb Ellipsis

a. Taroo-wa [zibun-no tetudukimisu-de] TOELF-o
Taro-TOP self-GEN procedural.mistake-by TOELF-ACC
uke-rare-nak-atta
take-can-NEG-PAST
'Taro could not take the TOEFL because of his procedural mistake.'

b. Hanako-wa [e] TOEIC-o uke-rare-nak-atta
Hanako-TOP TOEIC-ACC take-can-NEG-PAST
'Lit. Hanako could not take the TOEIC.'

Here again, (26b) can be interpreted as adjunct-inclusive; hence, Hanako could not take the TOEIC because of her procedural mistake: the [e] in (26b) can be an instance of reason adjunct ellipsis. The subjects are contrasted and the objects are contrasted but the reason adjunct parts are not; rather *zibun-no tetudukimisu-de* 'because of self's procedural mistake' is presupposed and defocused. All of these examples indicate that AdjE is available when Defocusing Requirement is satisfied.

Finally, based on Tanabe and Kobayashi's (2022b) observation, I present an example of null adjunct which cannot be derived by V-stranding VP-ellipsis.

(27) a. Hanako-wa
Hanako-TOP
[zibun-no tantooi-no kyoka-o torazuni]
self-GEN attending.doctor-GEN permission-ACC without.taking
gaisyutu si-ta.
go.out. do-PAST
'Hanako went out (of the hospital) without taking the permission from her attending physician.'

b. Taroo-wa [e] [gaihaku-si-sae] si-ta.
Taro-TOP sleepover-do-even do-PAST
'Taro even stayed overnight.'

As far as I can see, the adjunct-inclusive reading is naturally available for (27b). Notice here that the verb *gaihaku-su* 'stay overnight' has the particle *-sae* 'even' and thus does not move out of VP. This means that the V-stranding VP-ellipsis strategy is not applicable to derive (27b). Then, it is reasonable to conclude that AdjE is at work here.

In this section, I presented several empirical data to show that not only argument locative PPs but also locative, manner, and reason adjuncts can all be the target of ellipsis. I further showed that AdjE is obtainable even in the structure where the V-stranding VP-ellipsis is not applicable to derive an adjunct-inclusive reading. AdjE is available and necessary in Japanese syntax. One crucial condition for AdjE is Defocusing Requirement, which is a condition necessary for ellipsis in general because AE also must satisfy it as we discussed in Section 2 above. Finally in the next section, I will argue that the syntactic selection together with Defocusing Requirement explains the reported difference between arguments and adjuncts in terms of ellipsis-tolerance.

4 Ellipsis-Tolerance, Selection and Information Structure.

Since Oku (1998), it has been taken for granted by many researchers that adjunct ellipsis (AdjE) is not possible in Japanese. Let us first look at (28).

(28) a. Bill-wa kuruma-o teineini arat-ta
Bill-TOP car-ACC carefully wash-PAST
'Bill washed the car carefully.'

b. John-wa kuruma-o araw-anak-atta
John-TOP car-ACC wash-NEG-PAST (Oku 1998: 174)

(28b) means that John did not wash a/the car at all, and the adjunct-inclusive reading is extremely difficult to obtain. However, we showed in the previous section that an adjunct-inclusive reading is possible when Defocusing Requirement is satisfied. Therefore, following Oku (2016), I claim that AdjE is an available syntactic mechanism in principle, and information-related conditions sometimes make adjuncts ellipsis-resistant. In what follows, I will examine the relevant examples to clarify why some instances of adjuncts look more ellipsis-resistant than arguments. Let us first consider (29) and (30). (30) represents four different alternatives that follow (29).

(29) John-wa zibun-no kuruma-o teineini arat-ta.
John-TOP zelf-GEN car-ACC carefully wash-PAST
'John washed his car carefully.'

(30) a. Mary-wa zibun-no kuruma-o teineini araw-anak-atta.
Mary-TOP self-GEN car-ACC carefully wash-NEG-PAST
'Mary did not wash her car carefully.'

b. Mary-wa [e_1] teineini araw-anak-atta.
Mary-TOP carefully wash-NEG PAST

c. Mary-wa zibun-no kuruma-o ([e_2]) araw-anak-atta.
Mary-TOP self-GEN car-ACC wash-NEG-PAST

d. Mary-wa [e_1] ([e_2]) araw-anak-atta.
Mary-TOP wash-NEG PAST

Having (29) as the antecedent clause, what is contrasted in the clauses in (30) is the subjects, John vs. Mary, and the verbs in terms of polarity, washed vs. not washed. Hence, Mary and *araw-anak-atta* 'did not wash' are contrastively focused, and the object NP and the manner adverb can be presupposed and defocused. (30a) is acceptable although it may sound slightly redundant since the presupposed parts are fully repeated. (30d) is good in the intended ellipsis reading since both the presupposed object and the presupposed adjunct are elided.[13]

Now, [e_1] in (30b) is understood as Mary's car, while it is very difficult to interpret [e_2] in (30c) as *teineini* 'carefully.' (30c) simply means that Mary did not wash

her car at all and the adjunct-inclusive interpretation is hard to obtain. Oku (2016) attempts to explain why (30c) cannot have the adjunct-inclusive reading based upon Kuno's (1982) discourse condition (31). The adjunct alone cannot be elided as in (30c) because only one of the two nonfocus constituents is deleted.

(31) *Ban Against Partial Discourse Deletion*
If discourse deletion of recoverable constituents is to apply, apply it across the board to nonfocus constituents. Nonfocus constituents which are left behind by partial discourse deletion will be reinterpreted, if possible, as representing contrastive foci. (Kuno 1982: 84-85)

Simpson (2022), however, rightly points out that Kuno's (1982) discourse condition alone cannot explain this argument-adjunct difference, since (30b) is good as AE even though the argument is null while the adjunct is intact. This sharp contrast between argument and adjunct is one of the strong reasons to claim that the Japanese grammar allows AE but not AdjE. I will argue, however, that the contrast between (30b) (AE) and (30c) (AdjE) can be reasonably accounted for by a careful examination of discourse-related condition together with one crucial syntactic difference between arguments and adjuncts; that is, the former is selected (θ -marked) by the verb, while the latter is not.

Let us examine the relevant examples. The argument (e.g., self's car in (30)) is selected (θ -marked) by the verb *wash*; in other words, its existence at LF is semantically required. Even when it is phonologically empty, it is recoverable given an appropriate discourse context. The adjunct (e.g., carefully in (30)), in contrast, is not selected by the verb and thus its existence at LF not required by the verb itself. Thus, when it is phonologically empty it must have a stronger and richer support from the discourse than argument. Keeping this in mind, let us consider what is happening in (30b) and (30c). According to (31), the leftover adjunct *teineini* 'carefully' is reinterpreted as a focus in (30b). Then, *TEINEINI araw-anak-atta* 'did not wash carefully' strongly implies that Mary actually washed something (but NOT in a careful manner). This interpretation is compatible with selection requirement of the verb *wash*: the object NP must be semantically there even though it is defocused and phonologically empty. The collaboration of syntactic selection requirement and discourse condition neatly accounts for the AE reading in (30b).

In (30c), on the other hand, the leftover NP object *zibun-no kuruma* 'self's car' is reinterpreted as a focus, following (31). Now, I conjecture that this strongly induces the interpretation that Mary did not wash her car (at all). Notice that this interpretation is not compatible with the adjunct-inclusive reading which implies that Mary actually washed her car (although not in a careful manner). So, let me propose the following condition:

(32) Under potential adjunct-ellipsis contexts when only the adjunct is phonologically empty, the adjunct-inclusive reading is available only if it is not incompatible with the adjunct-exclusive reading.

As we will see below in (33b), adjunct-inclusive reading is not incompatible with

the adjunct-exclusive reading. Hence, AdjE is possible with Reason Adverb in (33). In contrast, the adjunct-inclusive reading (Mary actually washed her car) and the adjunct-exclusive reading (Mary did not washed her car at all) are incompatible. Thus, following (32), the adjunct-inclusive reading is strongly disfavored in (30c) even if the antecedent adjunct is available in the discourse. I conjecture that this peculiar property of adjuncts is due to the fact that adjuncts are not semantically selected.[14]

Note that the crucial property of the manner adverbs here is that they are the locus of negation when the predicate is negated, and it is strongly implied that the event denoted by the predicate actually happens, just not in a manner described by the adjunct. If the reasoning above is on the right track, it would be expected that adjuncts which are outside of the locus of negation can undergo AdjE, satisfying Defocusing Requirement. This expectation is borne out. As seen above, reason adverbs which are not under the scope of negation can be elided as in (26), repeated here as (33).

(33) Reason Adverb Ellipsis (= (26))

a. Taroo-wa [zibun-no tetudukimisu-de] TOELF-o
Taro-TOP self-GEN procedural.mistake-by TOELF-ACC
uke-rare-nak-atta
take-can-NEG-PAST
'Taro could not take the TOEFL because of his procedural mistake.'

b. Hanako-wa [e] TOEIC-o uke-rare-nak-atta
Hanako-TOP TOEIC-ACC take-can-NEG-PAST
'Lit. Hanako could not take the TOEIC.'

The reason adverb in (33a) is outside of the scope of negation; (33a) does not mean that Taro actually took TOELF exam but not because his own procedural mistake (which does not make any sense). Rather, (33a) means that because of his mistake, Taro could not take the exam. In (33b), the object NP TOEIC (as well as the subject Hanako) is contrastively focused and the sentence (without the adjunct) means that Hanako could not take TOEIC. Therefore, when we try to supply [e] with the antecedent adjunct, the resulting interpretation does not conflict with the original sentence without the adjunct meaning, satisfying (32). The defocused/presupposed reason adjunct can be the target of AdjE. This is why the adjunct-inclusive reading is easily available in (33b).

5 Summary

In this paper, I first briefly reviewed that argument ellipsis (AE) is syntactically constrained in Section 1. Then, in Section 2, I argued that ellipsis-resistant argu-

ments do not satisfy Defocusing Requirement, a necessary condition for ellipsis in general. I also showed that two alternatives trying to account for ellipsis-resistant arguments (Funakoshi 2012 and Saito 2017a) are not successful. In Section 3, I demonstrated that adjunct ellipsis (AdjE) is possible in Japanese when the adjuncts satisfy Defocusing Requirement in a given context. Finally in Section 4, the ellipsis-tolerance of adjuncts can be explained when we properly take into consideration the selection property of the verb together with discourse conditions.

Notes

*This is an expanded version of Oku (2016) and Oku (2021), and a part of it was presented at the 67th Meeting of ELSJ, Hokkaido Branch, held on October 30, 2022 (Hokkaido University). I thank Tomoya Tanabe who gave me a substantial amount of comments on the earlier draft of this paper. I am also grateful to two anonymous reviewers whose comments and suggestions have made the current paper clearer and more convincing. Any errors are, of course, my own.

1. Abbreviation of grammatical markers employed in this paper is the following: TOP = topic/contrastive marker *wa*, NOM = nominative, GEN = genitive, ACC = accusative, C = Complementizer, COP = copula, NEG = negation, PASS = passive, PAST = past, PRES = present, Q = question particle, PROG = progressive.
2. There is a substantial amount of literature on how to account for this syntactic difference between Japanese and English: See, for example, Oku (1998), Saito (2007, 2016), Şener and Takahashi (2010), Takahashi (2014).
3. There are two perspectives to analyze AE in Japanese; PF-deletion analysis (Takahashi 2020, among others) and LF-copy analysis (Oku 1998, Saito 2017a, among others). The two approaches make no significant difference on what we are going to discuss in this paper, and thus I am neutral to the difference here.
4. Sato (2020) reports cases where NP-*dake* 'only' can be elided. I will put such cases aside here and leave them to future research.
5. (9b) is possible only as a polarity question, asking if Bill bought something.
6. I owe Tomoya Tanabe (personal communication) who first pointed out this fact to me.
7. See, for instance, Otani and Whitman (1991), Koizumi (2000), and Funakoshi (2012, 2016) who support the existence of V-raising to T. For arguments against the V-raising, see Fukui and Sakai (2003), Sakai (1998), Takano (2005), and Kobayashi (2020), among others.
8. One reviewer correctly pointed out that (2b) above already showed that VP-ellipsis is not necessary to derived AE and thus the discussion around (13) looks redundant. However, Funakoshi (2012) argues, on independent grounds, that VP-ellipsis is necessary when an adjunct (e.g., *kokudai gakkai-de* 'at an international conference' in (13b)) is retained and the object is elided. For this analysis to work, the verb-head also must move out of VP; this is a crucial presumption throughout Funakoshi's V-stranding VP-ellipsis analysis for the object ellipsis in Japanese. (13b) is intended to show that even in this specific pattern of the object ellipsis, V-stranded VP-ellipsis does not work, because the verb-head has the particle *-sae* 'even' which blocks the head verb movement out of VP and thus Funakoshi's important presumption does not hold, but still, object AE is possible in (13b). VP-ellipsis is not necessary even in the special case Funakoshi is trying to argue for.
9. Saito (2017a) claims that LF-copying fails to produce a legitimate structure in (16) "precisely because the antecedent of ellipsis is an operator-variable chain." (Saito 2017a: 728)
10. See also Collins (2015) who argues that AdjE is available in English.

11. The validity of this crucial assumption seems to have been taken for granted in the majority of the Japanese ellipsis literature, but it has not been seriously addressed why it is so. Some exceptions are Oku (1998) and Takahashi (2020) who suggest a possible reason why AdjE is not available in Japanese.
12. I have modified Kamio and Takami's (1998) original sentences by making the locative PP contain *zibun* 'self' so that it is a real case of ellipsis that allows the sloppy identity interpretation. If the [e] in (24b) is replaced by an overt locative form *soko-de* 'there,' only the strict identity reading is obtainable, meaning that Bill read *King Lear* in John's room. Thus, the [e] here is not just an empty version of the *pro*-locative *soko-de* in Japanese.
13. There is one proviso concerning the intended interpretation of (30d). Although the adjunct-inclusive reading is obtainable in (30d), some speakers find such a reading is less likely especially compared with (30b). Let me point out, however, that when it is given in a polarity question context, the adjunct-inclusive reading is clearly obtainable. As the answer to the question in (i), (30d) is easily understood as adjunct-inclusive:

    (i) Mary-wa zibun-no kuruma-o teineini arat-ta no?
    Mary-TOP self-GEN car-ACC carefully wash-PAST Q
    'Did Mary wash her car carefully?'

    That is, when the issue is whether the event of Mary's careful washing her car happened or not, the negative answer is naturally given by the negated verb alone. The adjunct-inclusive reading is easily available in (30d).
14. I will leave to future study the further elaboration of this conjecture.

References

Collins, Chris. (2015) "Adjunct Deletion," ms. NYU.

Fox, Danny. (2000) *Economy and Semantic Interpretation*. The MIT Press, Cambridge, Mass.

Fukui, Naoki and Hiromu Sakai. (2003) "The Visibility Guideline for Functional Categories: Verb Raising in Japanese and Related Issues," *Lingua* 113, 321-347.

Funakoshi, Kenshi. (2012) "On Headless XP-Movement/Ellipsis," *Linguistic Inquiry* 43, 519-562.

Funakoshi, Kenshi. (2016) "Verb-Stranding Verb Phrase Ellipsis in Japanese," *Journal of East Asian Linguistics* 25, 113-142.

Funakoshi, Kenshi. (2020) "Verb-raising and VP-fronting in Japanese," *The Linguistic Review* 37, 117-146."

Hayashi, Shintaro and Tomohiro Fujii. (2015) "String Vacuous Head Movement: The Case of V-*te* in Japanese," *Gengo Kenkyu* (*Linguistic Research*) 147, 31-51.

Ikawa, Hajime. (2013) "What the Ineligibility of Wh-Phrases for Argument Ellipsis Tells Us: On the Inertness of Phonetically Null Elements," Online *Proceedings of GLOW in Asia 2012*. https://faculty.human.mie-u.ac.jp/~glow_mie/IX_Proceedings_Poster/07Ikawa.pdf

Kamio, Akio and Ken-ichi Takami. (1998) *Danwa to Zyoohoo Koozoo [Discourse and Information Structure]*. Kenkyusha, Tokyo.

Kobayashi, Ryoichiro. (2020) "A Case against the Verb-Stranding VP-Ellipsis analysis in Japanese." In Tai Sik Kin and Sae-Youn Cho, eds. *Proceedings of Seoul International Conference on Generative Grammar* 22, 298-304.

Koizumi, Masatoshi. (2000) "String Vacuous Overt Verb Raising," *Journal of East Asian Linguistics* 9, 185-227.

Kuno, Susumu. (1982) "Principles of Discourse Deletion — Case Studies from English, Russian and Japanese," *Journal of Semantics* 1, 61-93.

Kuroda, Shige-Yuki. (1965) *Generative Grammatical Studies in the Japanese Language*, Ph.D. dissertation, MIT.

Lasnik, Howard and Mamoru Saito. (1992) *Move α: Conditions on Its Application and Output*. The MIT Press, Cambridge, Mass.

Oku, Satoshi. (1998) *A Theory Selection and Reconstruction in the Minimalist Perspective*, Ph.D. dissertation, University of Connecticut.

Oku, Satoshi. (2008) "Toogo, Zyoohoo Koozoo, Ippan Nintiryoku [Syntax, Information Structure, General Cognition]." In Nobuko Hasegawa ed. *Toogoron-no Sintehnkai to Nihongo Kenkyuu: Meidai-o Koete [A New Development of Syntax and Studies of the Japanese Language: Beyond Propositions]*, Kaitakusha, Tokyo, 227-267.

Oku, Satoshi. (2015) "Sakuzyo Gensyoo-ni okeru Syootenkooka-to Koosentaku (Focus Effect and Selection in Ellipsis)," a paper presented at the 60th Hokkaido Branch Meeting of English Literature Society of Japan, held at Hokkaido University, November 1, 2015.

Oku, Satoshi. (2016) "A Note on Ellipsis-Resistant Constraints," *Nanzan Linguistics* 11, 56-70.

Oku, Satoshi. (2021) "Merge, Selection, and Ellipsis-Resistant Constituents" A paper presented at the 93rd General Meeting of English Literature Society of Japan, held online, May 23, 2021.

Otani, Kazuyo and John Whitman. (1991) "V-Raising and VP-Ellipsis," *Linguistic Inquiry* 22, 345-358.

Reinhart, Tanya. (2006) *Interface Strategies: Optimal and Costly Computations*. MIT Press.

Saito, Mamoru. (2007) "Notes on East Asian Argument Ellipsis," *Language Research* 43, 203-227.

Saito, Mamoru. (2016) "(A) Case for Labeling: Labeling in Languages without ϕ-feature Agreement," *The Linguistic Review* 31, 127-175.

Saito, Mamoru. (2017a) "Ellipsis." In Shibatani, Masayoshi, Shigeru Miyagawa & Hisashi Noda eds., *Handbook of Japanese Syntax*, De Gruyter Mouton, 701-750.

Saito, Mamoru. (2017b) "Japanese *Wh*-Phrases as Operators with Unspecified Quantificational Force," *Language and Linguistics* 18, 1-25.

Sakai, Hiromu. (1998) "Feature Checking and Morphological Merger," *Japanese/Korean Linguistics* 8, 189-201.

Sato, Yosuke. (2020) "Focus Mismatch under Ellipsis in Japanese: Polarity and Head Movement," ms. Seisen University.

Sato, Yosuke and Masako Maeda. (2021) "Syntactic Head Movement in Japanese: Evidence from Verb-Echo Answers and Negative Scope Reversal," *Linguistic Inquiry* 52, 359-376.

Şener, Serkan and Daiko Takahashi. (2010) "Ellipsis of Argument in Japanese and Turkish." *Nanzan Linguistics* 6, 79-99.

Simpson, Andrew. (2022) "In Defense of Verb-Stranding VP-Ellipsis," ms. University of Southern California.

Sugisaki, Koji. (2013) "Argument Ellipsis in Acquisition," *Nanzan Linguistics* 9, 147-171.

Takahashi, Daiko. (2006) "Apparent Parasitic Gaps and Null Arguments in Japanese," *Journal of East Asian Linguistics* 15, 1-35.

Takahashi, Daiko. (2008) "Noun Phrase Ellipsis." In Shigeru Miyagawa & Mamoru Saito eds., *The Oxford Handbook of Japanese Linguistics*, Oxford University Press, 394-422. *Linguistic Inquiry* 39, 307-326.

Takahashi, Daiko. (2014) "Argument Ellipsis, Anti-Agreement, and Scrambling." In Mamoru Saito (ed.), *Japanese Syntax in Comparative Perspective* 88-116. Oxford University Press.

Takahashi, Daiko. (2020) "Derivational Argument Ellipsis," *The Linguistic Review* 37, 47-74.

Takano, Yuji. (2005) "On Vacuous Verb Raising." In Jun Abe ed. *A Minimalist View of Components in Generative Grammar*, Tohoku Gakuin University, 67-90.

Tanabe, Tomoya and Ryoichiro Kobayashi. (2022a) "Arguments against Head-Stranding Ellipsis in Japanese: A Reply to Funakoshi (2016), ms. Hokkaido University and Tokyo University of Agriculture.

Tanabe, Tomoya and Ryoichiro Kobayashi. (2022b) "Null Adjuncts are not a Hallmark of Head-Stranding Ellipsis in Japanese," a paper presented at *WAFL* 16, held online, October 2, 2022.

Tancredi, Chris. (1992) *Deletion, Deaccenting, and Presupposition*, Ph.D. dissertation, MIT.

（令和4年10月31日受理、令和5年3月31日採択）