

## ARGUMENT ELLIPSIS IN JAPANESE AND MALAYALAM \*

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In recent years, evidence has been mounting for the hypothesis that null arguments in several languages represented most notably by Japanese are derived by ellipsis rather than involve empty pronouns (see Kim 1999, Oku 1998, Saito 2004, and Takahashi 2008a, among others). This article subjects Malayalam, a null argument language like Japanese, to close scrutiny, and considers whether its null arguments can arise through ellipsis, pointing out similarities and differences between the two languages in terms of the availability of elliptic null elements. It will turn out that while Malayalam largely behaves like Japanese, it exhibits a few very intriguing divergences, posing a new explicandum to the cross-linguistic study of ellipsis.

### 1. Argument Ellipsis in Japanese

Before considering data in Malayalam, let us take a brief look at the examples that have led to the ellipsis analysis of null arguments (or just the argument ellipsis analysis) in Japanese. Cases like the following are used to show the possibility of object ellipsis in the language (*e* stands for a null element):

- (1) a. Taro-wa zibun-no hahaoya-o aisiteiru.  
Taro-TOP self-gen mother-ACC love  
'Taro loves his mother.'

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- b. Hana-wa *e* nikundeiru.  
 Hana-top hate  
 ‘lit. Hana hates *e*.’
- c. Hana-wa kanozyo-o nikundeiru.  
 Hana-TOP her-ACC hate  
 ‘Hana hates her.’

As noted by Otani and Whitman (1991), null objects in Japanese permit sloppy interpretation. Thus, if anteceded by (1a), the null object construction in (1b) is ambiguous between the strict reading that Hana hates Taro’s mother and the sloppy reading that Hana hates her own mother. The availability of the second construal is particularly important. The sentence in (1c) is minimally different from (1b) in containing a pronoun in the object position. If it is used in place of (1b) in the same context, it only has the strict reading. If the null object in (1b) were a pronoun, the example should be expected to be limited to the strict interpretation just like (1c). To account for the sloppy construal in (1b), proponents of the ellipsis analysis assume that the sentence so construed involves ellipsis, as shown below (strike-through indicates ellipsis):

- (2) Hana-wa ~~zibun-no hahaoya-o~~ nikundeiru  
 Hana-TOP self-GEN mother-ACC hate  
 ‘lit. Hana hates ~~self’s mother~~’

It is assumed here that the sentence underlyingly has a full-fledged object, which is elided under identity with the object in the antecedent sentence to yield the null object construction.<sup>1</sup>

Null subjects behave similarly, as observed by Oku (1998). Consider the following examples:

- (3) a. Taro-wa [<sub>CP</sub> zibun-no hahaoya-ga eigo-o hanasu to] omotteiru.  
 Taro-TOP self-GEN mother-NOM English-ACC speak that think  
 ‘Taro thinks that his mother speaks English.’
- b. Hana-wa [<sub>CP</sub> *e* furansugo-o hanasu to] omotteiru.  
 Hana-TOP French-ACC speak that think  
 ‘lit. Hana thinks that *e* speaks French.’

The subject of the embedded clause in (3b) is null. When (3b) is preceded by (3a), it is ambiguous between the strict and the sloppy interpretation. The possibility of the latter construal has been taken by the advocates of the ellipsis analysis to be evidence that the null

<sup>1</sup> See Takahashi (2008b) and Takita (2011) for further arguments in favor of the ellipsis analysis of null objects.

subject is derived by ellipsis.

The sort of ellipsis considered here is not limited to nominal arguments. As Takahashi (2008a) observes, for instance, selected PPs are amenable to ellipsis.<sup>2</sup>

- (4) a. Taro to Hana-ga [PP otagai kara] tegami-o moratta.  
 Taro and Hana-NOM each.other from letter-ACC received  
 ‘Taro and Hana received letters from each other.’
- b. Ken to Yumi-wa e<sub>PP</sub> meeru-o moratta.  
 Ken and Yumi-TOP e-mail-ACC received  
 ‘lit. Ken and Yumi received e-mails.’

Though the source PP is implicit in (4b), it is understood and significantly yields the sloppy interpretation that Ken and Yumi received e-mails from each other.

The term *argument ellipsis* is so coined in part to highlight the fact, first pointed out by Oku (1998), that ellipsis cannot apply to adjuncts. This is illustrated by the following data:

- (5) a. Taro-wa subayaku sono mondai-o toita.  
 Taro-TOP quickly that problem-ACC solved  
 ‘Taro solved that problem quickly.’
- b. Hana-wa kono mondai-o tokanakatta.  
 Hana-TOP this problem-ACC not.solved  
 ‘Hana did not solve this problem.’
- c. Hana-wa subayaku kono mondai-o tokanakatta.  
 Hana-TOP quickly this problem-ACC not.solved  
 ‘Hana did not solve this problem quickly.’
- d. Hana-wa tokanakatta.  
 Hana-TOP not.solved  
 ‘lit. Hana did not solve.’
- e. Hana-wa subayaku sono mondai-o tokanakatta.  
 Hana-TOP quickly that problem-ACC not.solved  
 ‘Hana did not solve that problem quickly.’

The sentence in (5a) contains the manner adverb *subayaku* ‘quickly’ and is intended to serve

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<sup>2</sup> Takahashi (2008a) also notes that selected CPs can be elided.

as the antecedent for (5b), where the adverb is missing. The fact here is that while (5b) means that Hana did not solve this problem, it does not mean that Hana did not solve this problem quickly: namely, the adverb is not understood in the interpretation of (5b). If it were, the sentence could be construed in the same way as (5c), where the adverb is explicitly expressed. Clearly, (5b) lacks the reading that Hana solved this problem, but not in a quick manner, which is available in (5c). Therefore, (5b) cannot be analyzed as below:

- (6) Hana-wa ~~subayaku~~ kono mondai-o tokanakatta  
 Hana-TOP quickly this problem-ACC not.solved  
 ‘Hana did not solve this problem ~~quickly~~’

Here the adverb is intended to be present in the sentence but elided under identity with the adverb in (5a). If (5b) could be analyzed as in (6), it should yield the same interpretation as (5c). Because (5b) cannot be interpreted like (5c), the analysis in (6) should not be allowed, and this follows if adjuncts cannot undergo ellipsis.<sup>3</sup>

The situation does not change even if the object is suppressed from (5b), as in (5d). If (5d) is anteceded by (5a), it can mean that Hana did not solve that problem, but crucially, it cannot mean that Hana did not solve that problem quickly. That is, (5d) cannot be interpreted like (5e), where the adverb as well as the object is explicitly repeated. The fact that the adverb is not understood in (5d) reinforces the assumption that adjuncts are not subject to ellipsis.<sup>4</sup>

The argument ellipsis analysis gives rise to a very important issue in the cross-linguistic research on null arguments. Once it is established that Japanese allows elliptic arguments, an immediate question to be asked is whether null arguments in other languages can be analyzed in the same way. In this regard, Oku (1998) considers the following data from Spanish, observing that null subjects in the language are not amenable to the ellipsis analysis:

- (7) a. María cree que su propuesta será aceptada.  
 María believes that her proposal will-be accepted  
 ‘María believes that her proposal will be accepted.’  
 b. Juan también cree que *e* será aceptada.  
 Juan also believes that it will-beaccepted  
 ‘Juan also believes that it will be accepted.’

<sup>3</sup> As to why adjuncts cannot be elided, see Oku (1998) and Takahashi (forthcoming).

<sup>4</sup> Of course, adjuncts can be elided if they are contained in constituents that are eligible for ellipsis. For example, in *John solved the problem quickly, but Mary didn't*, the second sentence can mean that Mary didn't solve the problem quickly. In this case, the adverb is elided along with the other VP-internal elements by VP-ellipsis. What is argued in the text is that adjuncts themselves cannot undergo ellipsis.

Preceded by (7a), (7b) can mean that Juan believes that María's proposal will be accepted, but cannot have the reading that Juan believes that Juan's proposal will be accepted. Namely, the null subject in (7b) is not interpreted sloppily. This is in accordance with the standard view in the literature that null subjects in Spanish are empty pronouns: as noted above with regard to (1c), pronouns usually do not give rise to sloppy interpretation. If the null subject in (7b) were elliptic, it should yield the sloppy reading.

One should wonder what prevents the null subject in (7b) from being derived by ellipsis. Following Saito (2007) and Takahashi (forthcoming), I assume that agreement plays an important role in regulating the occurrence of elliptic arguments. Let us consider the following schematic representation of argument ellipsis:

- (8) a. ...  $F_{1\{\varphi\}}$  ...  $DP_{\{\varphi, \text{Case}\}}$  ...  
 b. ...  $F_{1\{\varphi\}}$  ...  $DP_{\{\varphi, \overline{\text{Case}}\}}$  ...  
 c. ...  $F_{2\{\varphi\}}$  ...     ...  
 d. \*...  $F_{2\{\varphi\}}$  ...  $DP_{\{\varphi, \overline{\text{Case}}\}}$  ...

The derivation of the antecedent sentence is illustrated in (8a-b), where an argument, indicated as DP, is associated with a functional head ( $F_1$ ): if DP is a subject,  $F_1$  is T; if DP is an object,  $F_1$  is  $v$ . Let us assume Chomsky's (2000) theory of agreement here. Being uninterpretable, the  $\varphi$ -features of  $F_1$  must be erased by entering into an agreement relation with the  $\varphi$ -features of DP. The Case-feature of DP plays a crucial role here, making DP active or visible for the operation. Once the agreement relation is established, the  $\varphi$ -features of  $F_1$  and the Case-feature of DP, both uninterpretable, are erased as shown in (8b). Suppose now that it is followed by the elliptic sentence, the derivation of which is given in (8c-d). Saito (2007) assumes with Williams (1977) and others that ellipsis involves copying. Thus, the elliptic sentence starts off with an unfilled argument position, as shown by the underline in (8c), and it is subsequently (namely, in the covert component) filled with the argument copied from (8b), resulting in (8d). Now, a problem arises in (8d): the Case-feature of the copied DP is already erased in the antecedent sentence prior to copying, and hence it is not eligible to have an agreement relation with  $F_2$ . Consequently, the  $\varphi$ -features of  $F_2$  remain to be erased, causing the derivation to crash.

This theory predicts that argument ellipsis should not be allowed in languages where functional heads such as T and  $v$  agree with arguments. This is borne out in Spanish, as noted above. It has (rich) agreement between subjects and T, and null subjects there cannot be elliptic. On the other hand, agreement is completely absent in Japanese. If this is taken to indicate that the relevant functional heads simply lack  $\varphi$ -features in the language, the sort of derivational crash noted in (8) should never happen there, so that argument ellipsis can be

permitted rather freely.<sup>5</sup>

Bearing these in mind, let us turn our attention to Malayalam in the next section to determine whether its null arguments can arise through ellipsis or not.

## 2. Data in Malayalam

First of all, let us confirm that Malayalam is a language like Japanese where arguments such as subjects and objects can drop in finite clauses (the Malayalam data in what follows are supplied by K. A. Jayaseelan (personal communication) unless indicated otherwise).

- (9) a. John ewiDe (pooyi)?  
 John where (went)  
 ‘Where did John go?’
- b. *e* wiiTT-il-eek’k’ə pooyi.  
 house-LOC-DAT went  
 ‘He went home.’
- (10) a. Mary entinə aaNə karayunn-atə?  
 Mary why is cry-NMNL  
 ‘Why is it that Mary is crying?’
- b. John *e* s’akaar’icc-atə kaaraNam.  
 John scold-NMNL because  
 ‘Because John scolded her.’

The sentences in (9b) and (10b) are intended to be replies to the questions in (9a) and (10a), respectively. In (9b), the subject is unexpressed, but it can be understood to refer to the subject in (9a). In (10b), the object is suppressed though it can be easily identified as referring to the subject in (10a).

### 2.1. Object Ellipsis in Malayalam

Let us consider whether null arguments can be elliptic in Malayalam. Let us start with the following examples with null objects:

- (11) a. John tan-te amma-ye sneehik’k’unnu.  
 John self-GEN mother-ACC love  
 ‘John loves his mother.’

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<sup>5</sup> See Saito (2007) and Takahashi (forthcoming) for discussions related to argument ellipsis and agreement, and Kuroda (1988) and Fukui (1988) for arguments that Japanese lacks agreement.

- b. Bill-um *e* sneehik'k'unnu.  
 Bill-also love  
 'lit. Bill loves *e*, too.'

The antecedent sentence in (11a) contains a reflexive in the object and it refers to the subject *John* in the same sentence. (11b) is a null object construction. If preceded by (11a), it can mean either that Bill loves John's mother or that Bill loves his own mother. That is, the null object is ambiguous between the strict and the sloppy interpretation. The possibility of the latter construal indicates that the null object can arise through ellipsis.

This can be buttressed by the following data:

- (12) a. aarə aaNə tann-e tanne wimars'icc-atə?  
 who is self-ACC EMPH criticized-NMNL  
 'Who is it that criticized himself?'  
 b. John *e* wimars'iccu  
 John criticized  
 'lit. John criticized *e*.'

The sentence in (12a) is a *wh*-question, where the reflexive itself is the object of the verb corresponding to *criticized*. As a reply to (12a), (12b) is used and contains a null object. In this context, (12b) most naturally means that John criticized himself. Note that this fact clearly indicates that argument ellipsis is operative here. The argument ellipsis analysis deals with the data as follows (just for convenience, the Malayalam data are illustrated with English words and word order):

- (13) a. Who is it that criticized self?  
 b. John criticized ~~self~~.

Since the second sentence contains the reflexive in the object position, its actual interpretation is straightforwardly captured. If, on the other hand, null arguments were restricted to empty pronouns in the language, the data would have to be analyzed as below:

- (14) a. Who is it that criticized self?  
 b. \*John<sub>1</sub> criticized *pro*<sub>1</sub>

In (14b), the null object is analyzed as an empty pronoun, which should be coindexed with the subject to produce the interpretation of the sentence. But the representation should violate Condition (B) of the Binding Theory (Chomsky 1981) just like \**John*<sub>1</sub> *loves him*<sub>1</sub>, and would be ruled out erroneously. This consideration, therefore, provides a rather strong argument for

the availability of argument ellipsis for null objects in Malayalam.<sup>6</sup>

Note also that the sloppy interpretation in question can be obtained even when antecedent and elliptic sentences have different verbs, as below:

- (15) a. John tan-te bhaarya-ye sneehik'k'unnu.  
 John self-GEN wife-ACC love  
 'John loves his wife.'
- b. pakSe Bill e weRukk'unnu.  
 but Bill hate  
 'lit. But Bill hates *e*.'

Whereas the antecedent sentence in (15a) has the verb corresponding to *love*, the null object sentence in (15b) has the verb corresponding to *hate*. (15b) can have the sloppy reading that Bill hates his own wife, in addition to the strict reading that Bill hates John's wife. The possibility of the first construal indicates that the object can be elliptic.

The observation above is important in showing that elliptic null objects in Malayalam

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<sup>6</sup> Kannada, another Dravidian language that allows null arguments, displays an interesting set of data. The following examples are supplied by R. Amritavalli (personal communication):

- (i) a. John tann-a heNDati-yannu priitisuttaane.  
 John self-GEN wife-ACC loves  
 'John loves his wife.'
- b. Bill-uu e priitisuttanne.  
 Bill-also loves  
 'lit. Bill loves *e*, too.'
- (ii) a. yaaru tann-ann-ee baidu-koND-anu?  
 who self-ACC-EMPH cursed-REFL-3MSG  
 'Who cursed himself?'
- b. \*John e baidu-koND-anu.  
 John cursed-REFL-3MSG  
 'lit. John cursed *e*.'

The examples in (i) are comparable to the Malayalam data in (11). Anteceded by (ia), (ib) can have the sloppy reading. This shows that Kannada allows object ellipsis, too. There is a complication, however, if we consider the Kannada counterpart of (12), which is given in (ii). The null object construction in (iib) is just ungrammatical, in contrast with (12b). Notice that unlike Malayalam, Kannada must have the reflexive morpheme on the verb if the reflexive pronoun appears in the object position, as shown in (iia). I suspect that this morphology is a kind of object agreement, which blocks ellipsis of the object in (iib).



can arise through argument ellipsis (or ellipsis of objects) rather than through so-called V-stranding VP-ellipsis (Goldberg 2005, McCloskey 1991, and Otani and Whitman 1991). Based on her detailed analysis of the null object construction in Hebrew, Goldberg (2005) contends that V-stranding VP-ellipsis is operative in the language. Consider the following examples in Hebrew, cited from Goldberg 2005:

- (16) a. (Ha'im) Miryam hevi'a et Dvora la-xanut?  
Q Miryam brought ACC Dvora to.the-store

'(Did) Miryam bring Dvora to the store?'

- b. Ziroo, hi hevi'a.  
yes she brought

'lit. Yes, she brought.'

- c. \*Ziroo, hi lakxa.  
yes she took

'lit. Yes, she took.'

- d. \*Lo, hi ŠALXA!  
no she sent

'lit. No, she SENT!'

The question in (16a) serves as the antecedent for each of the sentences in (16b-d). Although truncated, (16b) can mean that she brought Dvora to the store. Goldberg argues that it involves VP-ellipsis with concomitant V-raising, as shown below (English words are used just for expository purposes):

- (17) [<sub>TP</sub> she [<sub>T</sub> [<sub>T</sub> brought-T] [<sub>VP</sub> ~~to the store~~]]]

The main verb undergoes movement to T, and subsequently ellipsis applies to elide VP, which contains the verbal trace (or copy), the object, and the locative PP. The ungrammaticality of (16c-d) indicates that the kind of VP-ellipsis illustrated in (17) cannot take place there. Goldberg argues that V-stranding VP-ellipsis (or VP-ellipsis in general) is constrained by the requirement that the antecedent clause and the elliptic clause share the same verb. Since the verbs in (16c-d) are different from the verb in (16a), VP-ellipsis cannot apply to the sentences (see Goldberg 2005 for details).

Returning to (15), we notice that the antecedent and the elliptic sentence have different verbs. If the same verb requirement is a universal constraint, (15b) should not be able to involve VP-ellipsis. Then, the elliptic null object there must arise through ellipsis of the object itself, namely through argument ellipsis.

## 2.2. Subject Ellipsis in Malayalam

Let us go on to examine whether null subjects can be elliptic in Malayalam. The following are relevant data:

- (18) a. John paRaññu [tan-te kuTTi English samsaarik'k'um ennə].  
 John said self-GEN child English will.speak COMP  
 'John said that his child would speak English.'
- b. Mary paRaññu [*e* French samsaarik'k'um ennə].  
 Mary said French will.speak COMP  
 'lit. Mary said that *e* would speak French.'
- (19) a. John paRaññu [tan-te makan Microsoft-il jooli ceyy'unnu ennə]  
 John said self-GEN son Microsoft-in job do COMP  
 'John said that his son was working at Microsoft.'
- b. Bill paRaññu [*e* IBM-il jooli ceyy'unnu ennə]  
 Bill said IBM-in job do COMP  
 'lit. Bill said that *e* was working at IBM.'

The examples in (18a) and (19a) are intended to serve as the antecedents for (18b) and (19b), respectively. While the embedded subjects contain the reflexive in the a-examples, the embedded subjects are null in the b-examples. The fact here is that (18b) and (19b) can be interpreted neither strictly nor sloppily. The only interpretations available are the ones where the null embedded subjects refer to the matrix subjects: thus, (18b) and (19b) only mean that Mary said that she (namely, Mary) would speak French and that Bill said that he (namely, Bill) was working at IBM, respectively. In particular, the impossibility of the sloppy readings indicates that null subjects cannot arise through ellipsis in Malayalam.<sup>7</sup>

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<sup>7</sup> The absence of the strict readings in (18) and (19) also demands an explanation. It seems that null subjects in Malayalam are quite different from their Japanese counterparts (see (3)) and are rather similar to null subjects in Chinese and Portuguese. For instance, consider the following example in Chinese, cited from Huang (1984):

- (i) Zhangsan shuo [*e* bu renshi Lisi].  
 Zhangsan say not know Lisi  
 'lit. Zhangsan said that *e* did not know Lisi.'

The most natural interpretation of this example is the one where the null embedded subject is bound by the matrix subject. (i) can be contrasted with the following comparable example in Japanese:

A word of caution is necessary here. The following data are minimally different from (18) in the form of the embedded subject in the antecedent sentence, but appear to allow the sloppy reading for (20b):

- (20) a. John paRaññu [taan English samsaarik'k'um ennə]  
 John said self English will.speak COMP  
 'John said that he would speak English.'
- b. Mary paRaññu [*e* French samsaarik'k'um ennə]  
 Mary said French will.speak COMP  
 'lit. Mary said that *e* would speak French.'

While (20a) means that John said that he (namely, John) would speak English, (20b) means that Mary said that she (namely, Mary) would speak French. The sloppy reading here is merely apparent because it can arise from binding of the null embedded subject by the matrix subject and can be obtained even when (20b) is used out of the blue without an antecedent like (20a) (see note 7). Therefore, one should not be misled by cases like (20).

We have arrived at the generalization that null subjects in Malayalam do not yield sloppy readings. This shows that subjects cannot be subject to argument ellipsis in the language. Why is Malayalam different from Japanese in this respect? Exactly like Japanese, Malayalam lacks agreement between arguments and functional heads: that is, it lacks agreement between subjects/objects and predicates (see Asher and Kumari 1997). Then it would be expected to behave like Japanese, allowing ellipsis of subjects as well as objects.

Now I argue that Malayalam does possess agreement, albeit abstract, between subjects and T. In Takahashi forthcoming, I point out that Chinese disallows subject ellipsis, and account for it by assuming that the language has agreement, though covert, between subjects and T. The following are relevant data:

- (21) a. Zhangsan shuo [ziji de haizi xihuan Xiaohong].  
 Zhangsan say self of child like Xiaohong  
 'Zhangsan said his child liked Xiaohong.'

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- (ii) Taro-ga [*e* Hana-o sitteiru to] itta.  
 Taro-NOM Hana-ACC know that said  
 'lit. Taro said that *e* knew Hana.'

Although the reading where the null embedded subject refers to the matrix subject is possible, another interpretation where it refers to someone else is equally permissible, albeit depending on the presence of a preceding context providing such a referent. Null subjects in Malayalam may be analyzed in the same way as their Chinese counterparts à la Huang (1984) (namely, as locally controlled *pros*, the exact identification of which is open to debate).

- b. Lisi shuo [*e* xihuan Xiaoli].  
 Lisi say like Xiaoli  
 ‘lit. Lisi said *e* liked Xiaoli.’

Anteceded by (21a), (21b) does not permit the sloppy interpretation that Lisi said that Lisi’s child liked Xiaoli. This shows that subjects cannot be elided in Chinese.

Following Miyagawa (2010), Takahashi (forthcoming) regards the presence of the so-called blocking effect on long-distance anaphor binding as an indication of subject agreement in the language. It is known that the reflexive *ziji* ‘self’ can be bound long-distance, as shown below (the examples in (22) and (23) are taken from Miyagawa 2010, where they are attributed to Pan 2000):

- (22) Zhangsan zhidao [Lisi dui ziji mei xinxin].  
 Zhangsan know Lisi to self not confidence  
 ‘lit. Zhangsan knows Lisi has no confidence in self.’

The reflexive in the embedded clause may be bound either by the embedded subject *Lisi* or by the matrix subject *Zhangsan*. The long-distance construal, however, is blocked if the intervening subject is changed to the first person or second person pronoun, as below:

- (23) Zhangsan juede [wo/ni dui ziji mei xinxin].  
 Zhangsan think I/you to self not confidence  
 ‘lit. Zhangsan thinks I/you have no confidence in self.’

Here the reflexive is only bound by the embedded subject. This fact is understood as follows: suppose that *ziji* undergoes LF movement to T, where it establishes a local relation with its antecedent in the specifier position of TP (Battistella 1989, Cole, Hermon, and Sung 1990, and so on), and that when remotely bound, it undergoes successive cyclic T-to-T movement. Suppose also that the reflexive receives the value of the person feature from the T head that it attaches to first. When (22) has the long-distance interpretation, for example, *ziji* first moves to the embedded T, which assigns it the value [3rd person], and then to the matrix T to have a local relation with the intended antecedent. The person values of the reflexive and its final landing site (the matrix T) match, both being [3rd]. On the other hand, if the reflexive were to be bound by the matrix subject in (23), it would move first to the embedded T to receive the value [1st (or 2nd)] before landing at the matrix T. In this case, the person value of the reflexive, which is [1st] or [2nd], would not match that of the matrix T, which is [3rd], so that the resulting representation should be ruled out. Note that this explanation presupposes that Chinese possesses agreement between subjects and T so that T can take on the  $\phi$ -feature value of the subjects.

In contrast, Japanese does not exhibit the blocking effect in question. Miyagawa (2010) points out an example of the following sort, noting that there is no blocking effect:

- (24) Taro-wa [boku/kimi-ga zibun-no syasin-o totta to] itta.  
 Taro-TOP I/you-NOM self-GEN picture-ACC took that] said  
 ‘lit. Taro said that I/you took self’s picture.’

Here, the reflexive *zibun* may take the matrix subject *Taro* as its antecedent though the intervening subject is the first or second person pronoun. This is consistent with the assumption that agreement between subjects and T is absent in Japanese and hence that subjects can undergo argument ellipsis there.<sup>8</sup>

Returning to Malayalam, we expect it to exhibit the blocking effect just like Chinese. This is indeed borne out, as shown by the following examples:

- (25) a. John wicaarik’k’unnu [Bill tann-e weRukk’unnu ennə].  
 John think Bill self-ACC hate comp  
 ‘lit. John thinks that Bill hates self.’
- b. \*John wicaarik’k’unnu [ñaañ/nii tann-e weRukk’unnu ennə]  
 John think I/you self-ACC hate COMP  
 ‘lit. John thinks that I/you hate self.’

In (25a), the reflexive in the embedded object position can take the matrix subject as its antecedent. This relation is blocked in (25b), where the embedded subject is changed from *Bill* to the first or second person pronoun (see Jayaseelan 1997 for more on this topic). In this respect, Malayalam is grouped with Chinese, rather than with Japanese.

Further considerations that suggest the presence of (abstract) subject-T agreement in Malayalam come from the fact that Dravidian languages usually exhibit subject-T agreement. As shown below, Kannada, Tamil, and Telugu all possess visible agreement between subjects and predicates:

- (26) Kannada
- a. nannu mathanadutthne  
 I speak
- b. naavu mathanaduthheve  
 we speak
- c. avanu mathanadutthaiddhane  
 he speaks

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<sup>8</sup> In that case, the reflexive in Japanese must be licensed in a different way from its Chinese counterpart. At least, its licensing should not involve  $\phi$ -feature valuation.

- (27) Tamil
- a. naan pesukiren  
I speak
  - b. naangal pesukirom  
we speak
  - c. avan pesukiraan  
he speaks

- (28) Telugu
- a. nenu matladutaanu  
I speak
  - b. memu matladutamu  
we speak
  - c. atanu matladutadu  
he speaks

Although Malayalam does not exhibit agreement superficially (Asher and Kumari 1997), we may assume that the language still retains it in an abstract way, its presence being detectable with such syntactic phenomena as the blocking effect on reflexive binding and the impossibility of subject ellipsis.

To summarize, I have shown in this section that Malayalam is similar to Japanese in permitting ellipsis of objects but is different from it in disallowing ellipsis of subjects. This puts Malayalam in the same group as Chinese and Turkish, which also exhibit the subject-object asymmetry with respect to argument ellipsis (see Takahashi forthcoming).

### 3. Ellipsis of Adjuncts in Malayalam

If argument ellipsis is responsible for elliptic null objects in Malayalam, adjuncts should not be affected because argument ellipsis by definition is limited to arguments. Here we have a very intriguing array of facts. Let us begin with the following data:

- (29) a. John nannaayi kaaRə kazhuki.  
John well car washed  
'John washed a car well.'
- b. Bill *e* kazhuki-(y)illa.  
Bill washed-NEG  
'lit. Bill did not wash *e*.'

- (30) a. *nii innale kaaTT-il aana-ye kaNDu-oo?*  
 you yesterday forest-LOC elephant-ACC saw-q  
 ‘Did you see elephants yesterday in the forest?’
- b. *pro e kaNDu.*  
 I saw  
 ‘lit. I saw *e*.’

Anteceded by (29a), (29b) can mean that Bill did not wash a car well. Similarly, if (30b) is used after (30a), its interpretation can include the temporal and the locative adjunct (that is, the sentence can mean that *I saw elephants in the forest yesterday*). This is to be contrasted with the fact in Japanese observed in (5), where the adjunct is not understood in the interpretation of the sentence comparable to (29b).

Note that the objects as well as the adjuncts are null in (29b) and (30b). Let us examine whether ellipsis of adjuncts is contingent on ellipsis of objects or not. Relevant data are provided below:

- (31) a. *ñaan kaalə soopp-iTTə kazhuki.*  
 I feet soap-using washed  
 ‘I washed my feet with soap.’
- b. *(pakSe) awan e kazhuki-(y)illa.*  
 (but) he washed-NEG  
 ‘lit. (But) he did not wash *e*.’
- c. *awan cevi kazhuki-(y)illa.*  
 he ear washed-NEG  
 ‘He did not wash his ears.’

The sentence in (31a) is intended to antecede (31b-c). (31b) is a null object construction, and just as in (29b) and (30b), the adjunct in (31a) (the one corresponding to *with soap*) can be understood in its interpretation: that is, it can mean that he did not wash his feet with soap. Of special importance is the interpretation of (31c), where the object is overtly expressed. The sentence means that he did not wash his ears, but crucially does not mean that he did not wash his ears with soap: namely, its interpretation does not include the adjunct. Thus, the fact here is that whereas the adjunct can be elided in the null object construction in (31b), it cannot in (31c). Ellipsis of the adjunct is dependent on ellipsis of the object.

Another significant fact is obtained from the following data, where the antecedent and the subsequent sentence have different verbs:

- (32) a. John kaaRə weegam kazhuki.  
 John car quicklywashed  
 ‘John washed a car quickly.’
- b. Bill e nannaakki-(y)illa.  
 Bill repair-NEG  
 ‘lit. Bill did not repair e.’

Although (32b) is a null object construction, its interpretation does not include the adjunct corresponding to *quickly*. The sentence means that Bill did not repair a car, but not that Bill did not repair a car quickly. Comparing (32) with (29), (30), and (31a-b), we arrive at the generalization that adjunct ellipsis exhibits the same verb effect (recall the discussion about (16)).

Considering that ellipsis of adjuncts in Malayalam is contingent on null objects and is subject to the same verb requirement, we may assume that it does not involve ellipsis of adjuncts per se but rather ellipsis of a larger constituent like VP that contains adjuncts as well as objects. Given that the main verbs are overtly expressed in the relevant cases in (29b), (30b), and (31b), we are led to assume that they involve V-stranding VP-ellipsis (Goldberg 2005, McCloskey 1991, and Otani and Whitman 1991, among others). For example, (29) may be analyzed as in (33), where English glosses are used for convenience:

- (33) a. [<sub>TopP</sub> John<sub>1</sub> well<sub>2</sub> Topic [<sub>FocP</sub> car<sub>3</sub> [<sub>Foc'</sub> [<sub>Focus</sub> washed<sub>v</sub>]] [<sub>TP</sub> T [<sub>VP</sub> t<sub>1</sub> v [<sub>VP</sub> t<sub>2</sub> [<sub>VP</sub> t<sub>v</sub> t<sub>3</sub>]]]]]]]]]
- b. [<sub>FocP</sub> Bill<sub>4</sub> [<sub>Foc'</sub> [<sub>Foc</sub> not-washed<sub>v</sub>]] [<sub>TP</sub> T [<sub>NegP</sub> Neg [<sub>VP</sub> t<sub>4</sub> v [<sub>VP</sub> well [<sub>VP</sub> t<sub>v</sub> car]]]]]]]]]

Following Mathew (2012), let us assume that verbs undergo raising to the head position of Focus Phrase (FocP) in Malayalam.<sup>9</sup> In (33a-b), the verbs move out of VP to the head position of FocP via the intervening head positions including T, Neg (for (33b)), and v. In the language, focused phrases appear in the position immediately preceding verbs, as shown by the following examples cited from Jayaseelan 2001:

- (34) a. ninn-e aard aTiccu?  
 you-ACC who beat  
 ‘Who beat you?’
- b. \*aard ninn-e aTiccu?  
 who you-ACC beat

<sup>9</sup> Jayaseelan (2010) also argues that verbs are moved to some higher position in Malayalam, but for him, the movement operation involved is not head movement of verbs but phrasal movement of an XP containing them. This analysis is put aside here just because it is difficult to see how it can be integrated with V-stranding VP-ellipsis.



*Wh*-phrases are usually focused. Thus, the *wh*-phrase subject must appear immediately before the verb in (34). Mathew (2012) accounts for this preverbal focus phenomenon by assuming that while verbs move to the head position of FocP, focused elements occupy its specifier position, as in (33). In (33a), the object (*car*) is understood to be focused, while the other elements, namely the subject (*John*) and the adjunct (*well*), are assumed to be moved to the specifier position (or adjoined position) of Topic Phrase (TopP). In (33b), the subject (*Bill*) is in the specifier position of FocP (or alternatively may be in TopP, depending on how it is interpreted), but the object and the adjunct remain in VP, which is elided.<sup>10</sup>

The analysis along these lines leads to the expectation that Malayalam, an SOV language, should allow some material to appear in post-verbal positions. This is actually attested. The following data are pointed out by Jayaseelan (2001):

- (35) a. aarum kaND-illa, aana-ye.  
nobody saw-NEG elephant-ACC  
'Nobody saw the elephant.'
- b. aard ayaccu, ninn-e?  
who sent you-ACC  
'Who sent you?'
- c. ñaan kaaNice-iTT-illa, Mary-k'k'ə aakattə.  
I show-perf-NEG Mary-DAT that letter  
'I haven't shown that letter to Mary.'
- d. innale mazha peytu, iwiDe.  
yesterday rain rained here  
'It rained here yesterday.'
- e. iwiDe mazha peytu, innale.  
here rain rained yesterday  
'It rained here yesterday.'

In (35a-b), the direct objects appear post-verbally. In (35c), the dative argument and the direct object occur after the verb. (35d-e) show that adjuncts can be placed in that position, too.

The considerations above suggest that Malayalam sentences where adjuncts are elided can be analyzed in terms of V-stranding VP-ellipsis as illustrated in (33). The fact that the Japanese counterparts of the Malayalam examples in (29b), (30b), and (31b) do not allow the

<sup>10</sup> In (33), the antecedent VP contains the traces (or copies) of the object and the adjunct whereas the elided VP has those elements unmoved. This sort of VP-ellipsis is permitted, as can be seen in cases like *This book, John likes. — I'm sure his mother doesn't.*

construals where adjuncts are implicated means that V-stranding VP-ellipsis is not available in Japanese. Kim (1999) and Oku (1998) independently argue for the absence of VP-ellipsis in Japanese, and I just follow them (interested readers are referred to those references).<sup>11</sup>

#### 4. Concluding Remarks

I have considered data in Malayalam that contain null elements. I have shown that the language is similar to Japanese in permitting object ellipsis but behaves differently with respect to ellipsis of subjects and adjuncts. Malayalam is less permissible in the sense that it does not allow subjects to be elliptic (thus, its null subjects must be *pros* or some empty categories that need to be locally bound). I have argued that Malayalam has agreement, albeit abstract, between subjects and T, which is responsible for the fact. The language is more tolerant in the sense that it allows adjuncts to be elided. I have argued that V-stranding VP-ellipsis is available in Malayalam and that apparent cases of adjunct ellipsis actually involve VP-ellipsis. Then, the difference between Japanese and Malayalam in this respect boils down to the absence or presence of V-stranding VP-ellipsis. Following Mathew (2012), I have suggested that Malayalam possesses verb movement, which is a prerequisite for V-stranding VP-ellipsis. On the other hand, there is no strong evidence for verb raising in Japanese, and this is compatible with the line of analysis advocated in this article.

I wish to end with a few remarks about issues concerning the line of research conducted here. First of all, while the data used here to examine the availability of argument ellipsis in Malayalam, namely those pertaining to sloppy readings, are fairly clear, they should be reinforced and confirmed by additional sets of data. In a bit to provide evidence for the argument ellipsis analysis in Japanese, Takahashi (2008b) considers null arguments anteceded by quantifiers and Takita (2011) examines cases involving negative polarity items.

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<sup>11</sup> Unlike Malayalam, Japanese lacks the preverbal focus requirement. Thus, the Japanese counterparts of (34a-b) are both grammatical:

- (i) a. Kimi-o dare-ga tataita no?  
       you-ACC who-NOM hit Q  
       ‘Who hit you?’
- b. Dare-ga kimi-o tataita no?  
       who-NOM you-ACC hit Q

This fact is compatible with the assumption that verbs do not undergo raising in Japanese at least in the way they do in Malayalam. On the other hand, Japanese is similar to Malayalam in that although it is also an SOV language, it sometimes allows non-verb final word order, which has been called the right dislocation construction in the literature (see Abe 1999, Takano forthcoming, and Tanaka 2001, among others). The authors just mentioned propose analyses of the phenomenon in Japanese that are totally different from the one in the text in terms of verb movement. Because I need to assume that the existence of the right dislocation construction does not lead to verb raising in Japanese, their analyses are consistent with my conjecture here.

These tests should be applied to Malayalam, too.

A second issue has to do with the impossibility of subject ellipsis in Malayalam. To account for that, I have suggested the hypothesis that the language has abstract agreement between subjects and T. This needs to be elaborated further and, if possible, supplemented with additional evidence. In 2.2 I motivated the hypothesis on the grounds that Malayalam belongs to the Dravidian family, other members of which do possess visible agreement between subjects and predicates. It might be that the agreement process in question in Malayalam has been turning from visible to abstract and may be in the course of extinction. This leads to the expectation that as the transition proceeds, the language should gradually become tolerant of subject ellipsis, like Japanese. It is interesting and important, therefore, to keep a close eye on null subjects in Malayalam.

Finally, when I considered elliptic null objects in Malayalam in 2.1, I concluded that they can arise through ellipsis of objects themselves. On the other hand, in section 3, where I examined ellipsis of adjuncts, I argued that VP-ellipsis is operative in the language. Put together, they mean that Malayalam has two ways to have elliptic objects: argument (or object) ellipsis and VP-ellipsis. Then, it should offer a rare opportunity to study the interaction of these two ellipsis processes in a single language, which, along with the other topics, is left for future research.

Although some uncertainties and challenges remain, I believe that the present study will contribute to a better understanding of the cross-linguistic distribution of elliptic arguments and facilitate further research on the topic.

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