Argument Ellipsis in Javanese and the Definiteness Restriction on Subjects at the Syntax-Information Structure Interface

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Abstract: Recent work (Oku 1998; Kim 1999; Saito 2007; Takahashi 2008a, b) has proposed that certain null arguments in Japanese/Korean are best analyzed as involving LF Copy rather than null pronouns. Şener and Takahashi (2010) have proposed that this process is blocked by syntactic agreement on the basis of the comparative study of argument ellipsis in Japanese and Turkish. Specifically, both null objects and null subjects can be the targets of LF Copy in Japanese because of the absence of agreement whereas only null objects can be in Turkish due to the presence of subject agreement. Against this background, this paper provides new data on argument ellipsis from Javanese showing that the agreement is not the sole key factor in controlling the LF Copy process. Javanese presents an interesting issue because it exhibits exactly the same subject-object discrepancy as Turkish despite the lack of syntactic agreement. Drawing on evidence from the ban on indefinite subjects and subject *wh*-in-situ (Poedjosoedarmo 1977; Cole et al. 2002), I propose that it is the definiteness restriction on the subject position in Javanese which prevents the null subject as the by-product of LF Copy. I further show that this analysis correctly predicts the same asymmetry in Mandarin Chinese given that this language also exhibits a strong tendency for the preverbal subject position to be definite (Cheng and Sybesma 1999).

1. Introduction

This paper investigates the phenomenon of argument ellipsis in Javanese, a Western Malayo-Polynesian language spoken in Indonesia, where subjects and objects are deleted under identity with antecedents in the preceding sentences/contexts. Researchers on East Asian languages such as Japanese, Korean and Chinese (Otani and Whitman 1991; Oku 1998; Kim 1999; Saito 2007; Takahashi 2008a, b) have shown that there are certain null arguments that involve PF-deletion/LF-copy rather than empty pronouns. One recent line of research on this topic, pursued by Saito (2007) and Şener and Takahashi (2010), has put forth a hypothesis that null subjects and objects in Japanese/Korean are the by-product of LF Copy (Oku 1998) which copies a linguistic element from a full-fledged clause onto a corresponding empty slot in an elliptic clause, but this process is blocked by syntactic agreement. Şener and Takahashi (2010) have shown that this agreement-based approach to argument ellipsis provides an illuminating account for the curious typological discrepancy between Japanese and Turkish. Using the sloppy reading and quantificational readings as diagnostics for elliptic arguments, they demonstrate that both null subjects and null objects can be the targets of LF copy in Japanese whereas only null objects can in Turkish. Şener and Takahashi (2010) suggest that it is the presence of subject agreement in Turkish and the absence thereof in Japanese which accounts for this asymmetry.

Javanese presents an interesting typological issue in this light because it is an agreement-less language, just like Japanese, but exhibits the same subject-object asymmetry as Turkish. I propose that the key factor controlling the LF copy process of empty arguments in Javanese is the definiteness restriction on the subject position. For the LF copy process to yield the sloppy and quantificational readings, it has to copy a linguistic antecedent in its indefinite use into the corresponding grammatical slot in an incomplete clause. However, this copy is blocked in

subject position in Javanese because of the definiteness requirement imposed on the position. I further show that this analysis correctly predicts that in Mandarin, null objects can show the sloppy/quantificational readings but null subjects can only exhibit the strict/E-type readings.

2. Argument Ellipsis, LF Copy and Syntactic Agreement

Recent work, including Oku (1998), Saito (2007) and Takahashi (2008a, b), has proposed that there are certain null arguments in Japanese that are best analyzed as the result of ellipsis rather than empty pronouns (Kuroda 1965; Ohso 1976; Hoji 1985; Saito 1985, among others). Here, I review two pieces of evidence in favor for this analysis. The first piece of evidence is concerned with the sloppy reading available for null objects and subjects. Consider examples (1a, b).

(1) a. Taro-wa zibun-no tegami-o suteta.
Taro-NOM self-GEN letter-ACC discarded
'*Lit*. Taro discarded self's letter.'

b. Hanako-mo *e* suteta.
Hanako-also discarded
'*Lit*. Hanako also discarded *e*.'

c. Hanako-mo sore-o suteta.
Hanako-also 3SG-ACC discarded
'Hanako also discarded it.'

(1b) involves the null object which is anaphoric to the object in (1a). The missing object in (1b) can be interpreted as either Taro's mother (strict reading) or Hanako's mother (sloppy reading).

The second interpretation would be mysterious if the empty object position were unanimously occupied by a null pronoun because pronouns only accept the strict interpretation. Thus, when the null object in (1b) is replaced with an overt pronoun (*sore* 'it') as in (1c), only the strict reading is available. Oku (1998) argues that the sloppy reading in (1b) arises due to LF Copy. According to this analysis, the LF representation for the example in (1b) is as in (2).

(2) LF: Hanako-mo [$_{NP}$ **zibun-no tegami-o**] suteta.

In this representation, the NP *zibun-no tegami-o* 'self's letter' is copied in the object position of the elliptic sentence in (1b) from the object position of the preceding clause in (1a). The sloppy reading obtains because *zibun* 'self' is bound to the subject *Hanako*.

Oku (1998) observes that subjects in Japanese can also be elliptic. (3b) involves the null subject in the embedded clause somehow anaphoric to the corresponding subject in (3a). Just like the null object in (1b), the null subject in (3b) allows the strict interpretation ("Hanako said that Hanako's child knew English") as well as the sloppy interpretation ("Hanako said that Hanako's child knew French.")

(3) a. Taro-wa [zibun-no kodomo-ga eigo-o sitteiru to] itta.
Taro-TOP self-GEN child-NOM English-ACC know that said
'*Lit*. Taro said that self's child knew English.'

b. Hanako-wa [*e* furansugo-o sitteiru to] itta.
Hanako-TOP French-ACC know that said
'*Lit*. Hanako said that *e* knew French.'

(Şener and Takahashi 2010: 84)

The second piece of evidence for the LF Copy analysis to Japanese null arguments comes from what Takahashi (2008a) calls the quantificational reading. Consider (4a, b):

(4) a. Taro-wa sannin-no sensei-o sonkeisiteiru.
Taro-TOP three-GEN teacher-ACC respect
'Taro respects three teachers.'

b. Hanako-mo *e* sonkeisiteiru.
Hanako-also respect
'*Lit*. Hanako respects *e*, too.'

c. Hanako-mo karera-o sonkeisiteiru.
Hanako-also 3PL-ACC respect
'Hanako also respects them.'

((4a, b) from Şener and Takahashi 2010: 81-82)

(4b) allows two readings. One reading (the E-type reading; see Evans 1980) is that Hanako respects the same set of three teachers that Taro respects. The other reading (the quantificational reading) is that the set of three teachers that Hanako respects is different from the set of three teachers that Taro respects. The E-type reading can be easily accommodated by an empty

pronoun. However, the quantificational reading would be unexpected because an overt pronoun (i.e., *karera* 'they') only allows the E-type reading, as shown in (4c). The LF Copy analysis, on the other hand, straightforwardly accounts for the quantificational reading. The example in (4b) has the LF representation in (5).

(5) LF: Hanako-mo [$_{NP}$ **sannin-no sensei-o**] sonkeisiteiru

In this representation, the quantified expression *sannin-no sensei-o* 'three teachers' is copied in the object position from the corresponding object position in the antecedent clause. As a result, it is not surprising that the understood object quantifier in (5) behaves independently of its antecedent in the preceding clause, yielding the quantificational reading, as desired.

The quantificational reading also obtains for elliptic subjects. The null subject in (6b) permits the E-type reading ("the group of three girls who came to see Taro is the same as the group of three girls who came to see Ken") as well as the quantificational reading ("the group of three girls who came to see Taro is different from the group of three girls who came to see Ken").

(6) a. Sannin-no onnnanoko-ga Taro-ni ai-ni kita.
three-GEN girl-NOM Taro-DAT see-to came
'Three girls came to see Taro.'

b. *e* Ken-ni-mo ai-ni kita.
Ken-dat-also see-to came
'*Lit*. *e* came to see Ken, too.'

(Şener and Takahashi 2010: 84)

Şener and Takahashi (2010) conduct a comparative survey of Japanese and Turkish with respect to argument ellipsis. Just like Japanese, Turkish allows both null subjects and objects (Erguvanlı-Taylan 1984; Kornfilt 1987, 1997; Özsoy 1988; Turan 1995; Aygen 2001; Öztürk 2004). Şener and Takahashi (2010) observe is that despite this similarity, null objects, but not null subjects, exhibit the sloppy reading and quantificational reading. Let us review relevant facts below. First, the null object in (7b) allows not only the strict reading ("Mete praised John's mother") but also the sloppy reading ("Mete praised Mete's mother"). Similarly, the null object in (8b) allows the E-type reading as well as the quantificational reading. That is, (8b) can read either as "Phylis interrogated the same three burglars whom John caught" (the E-type reading) or as "Phylis interrogated a set of three burglars, but it is different from the set of three burglars whom John caught" (the quantificational reading).

(7) a. Can [*pro* anne-si]-ni ekeştir-di.
John his mother-3SG-ACC criticize-PAST
'John criticized his mother.'

b. Mete-yse *e* öv-dü.
Mete-however praise-PAST
'*Lit*. Mete, however, praised *e*.'

(Şener and Takahashi 2010: 87)

(8) a. Can üç hırsız yakala-dı.
John three burglar catch-PAST
'John caught three burglars.'

b. Filiz-se *e* sorgula-dı.
Phylis-however interrogate-PAST
'*Lit*. Phylis, however, interrogated *e*.'

(Şener and Takahashi 2010: 88)

Interestingly enough, null subjects in Turkish behave differently from null subjects in Japanese because the former permit neither the sloppy reading nor the quantificational reading. Thus, (9b) has the strict reading ("Phylis knows that John's son learns French") but lacks the sloppy reading ("Phylis knows that Phylis' son knows French"). Similarly, (10b) only allows the E-type reading where a set of three teachers who criticized John praised Phylis.'

(9) a. Can [[*pro* oğl-u] İngilizce öğren-iyor diye] bil-iyor.
John his son-3SG English learn-PRES COMP know-PRES
'John knows that his son learns English.'

b. Filiz-se [*e* Fransızca öğren-iyor diye] bil-iyor.
Phylis-however French learn-PRES COMP know-PRES
'*Lit*. Phylis, however, knows that *e* learns French.'

(Şener and Takahashi 2010: 91)

(10) a. Üç öğretmen Can-ı eleştir-di.
three teacher John-ACC criticize-PAST
'Three teachers criticized John.'

b. *e* Filiz-i-yse öv-dü.

Phylis-ACC-however praise-PAST

'*Lit*. *e* praised Phylis.'

(Şener and Takahashi 2010: 91)

The observations made here, therefore, show that null subjects in Turkish can be pronominal but cannot be analyzed as the result of LF Copy.

We have seen above that although Turkish and Japanese allow elliptic objects, subjects can be elliptic in Japanese but must be pronominal in Turkish. Adopting Saito's (2007) theory of argument ellipsis, Şener and Takahashi propose that this typological difference is derived from the presence of subject agreement in Turkish and the absence thereof in Japanese. Chomsky (2000) maintains that the uninterpretable ϕ–features of a probe/functional head (T or *v*) agree with and get erased by the matching interpretable ϕ–features of the closest goal/DP with an uninterpretable Case feature. Let us illustrate this system in (11):

(11) … T $_{\{\text{-}\cancel{\varphi}\text{-}\}}$ … DP $_{\{\text{-}\varphi\text{-}, \cancel{\text{Case}}\}}$ …

Agree

In (11), the probe T searches for the goal DP. The DP here qualifies as a goal because it has an uninterpretable Case feature. Thus, the uninterpretable ϕ–features of the T are erased, together with the uninterpretable Case feature of the DP. With this background in mind, now consider what goes wrong with the elliptic subject in Turkish. (12) shows that in Turkish, the form of the agreement suffix changes according to the subject in person and number.

(12) a. (Ben) bu makale-yi yavaşyavaş oku-yacağ-ım.
(I) this article-ACC slowly read-FUT-1SG
'I will read this article slowly.'

b. (Biz) her hafta sinema-ya gid-er-iz.
(we) every week movie-DAT go-AOR-1PL.
'We go to the movies every week.'

(Şener and Takahashi 2010: 86)

Let us assume that the presence of subject agreement in (12a, b) means that the functional head T in Turkish possesses uninterpretable ϕ–features. These features, then, are erased by a DP with an uninterpretable Case feature. This step is shown in (13a). Suppose that after this operation, the DP in (13a) is copied onto the elliptic subject position, as shown in (13b). The derivation crashes at this point. The Case feature of the DP has already been checked and erased in the antecedent clause before LF Copy. Thus, the DP cannot serve as a licit goal to erase the uninterpretable ϕ–features of another probe/T in the consequent clause. As a result, the uninterpretable ϕ–features remain unchecked, causing the derivation to crash. This step is shown in (13c).

(13) a. …$F_{1\ \{\text{-}\varphi\text{-}\}}$ … $DP_{1\ \{\text{-}\varphi\text{-},\ \sout{\text{Case}}\}}$…

b. * …$F_{2\ \{\text{-}\varphi\text{-}\}}$ … _____…

c. * …$F_{2\ \{\text{-}\varphi\text{-}\}}$ … $DP_{1\{\text{-}\varphi\text{-},\ \sout{\text{Case}}\}}$…

On the other hand, it has been a traditional observation in the literature (Fukui 1986; Kuroda 1988) that Japanese lacks agreement altogether, which means that functional heads such as T and

v do not possess uninterpretable ϕ−features. A subject can be copied at LF from the antecedent clause onto a corresponding subject position in the consequent clause without causing the derivation to crash. This analysis also explains why objects can be elliptic both in Japanese and Turkish because these languages do lack object agreement.

Şener and Takahashi provide further data from certain adjunct clauses and Exceptional Case-Marking constructions showing that the presence of subject agreement is indeed the relevant factor that blocks the elliptic subject option. Firstly, Öztürk (2006) (see also Ayegen 2001 and Kornfilt 2002) notes that the null subject does not require agreement in a certain type of adjunct clause as in (14B).

(14) A: John$_1$ [Bill$_2$ gel-ince] mi gid-ecek?
John Bill come-when Q go-FUT
'Will John go when Bill comes?'
B: Evet, [*pro*$_2$ gel-ince] *pro*$_1$ gid-ecek.
Yes come-when he go-FUT
'Yes, he will go when he comes.'

(Şener and Takahashi 2010: 95)

Şener and Takahashi's analysis thus predicts that the null subject can be elliptic precisely in this syntactic configuration. This prediction is indeed borne out by the fact that the null subject in (15b) permits the sloppy reading ("Phylis is pleased because Phylis's son has learned French").

(15) a. Can [[*pro* oğl-u] [İngilizce öğren-ince] sevin-di.
John his 3SG.POSS English learn-because be.pleased-PRES.PERF
'John is pleased because his son has learned English.'

b. Filiz-se [*e* Fransızca öğren-ince] sevin-di.
Phylis-however French learn-because be.pleased-PRES.PERF
'*Lit*. Phylis, however, is pleased because *e* has learned French.'

(Şener and Takahashi 2010: 95)

Secondly, in ECM constructions in Turkish exemplified in (16a, b), the form of the embedded verb is invariant regardless of the type of the ECM subject. Assuming that there is no subject-verb agreement in this construction, we predict that the null subject in such a construction should be able to exhibit the sloppy reading. This prediction is once again borne out in (16b). (16b) allows the sloppy reading ("Susan thinks that Susan's niece will start grade school").

(16) a. Pelin [[*pro* yeğen-i]-ni lise-ye başla-yacak] san-ıyor.
Pelin her niece-3SG-ACC high school-DAT start-FUT think-PRES
'Pelin thinks her niece will start high school.'

b. Suzan-se [*e* ilkokul-a başla-yacak] san-ıyor.
Susan-however grade school-DAT start-FUT think-PRES
'*Lit*. Susan, however, thinks *e* will start grade school.'

(Şener and Takahashi 2010: 96)

3. Argument Ellipsis in Javanese and the Irrelevance of Agreement

Javanese is a Western Malayo-Polynesian language spoken by more than 75 million people in the central and eastern parts of the island of Java in Indonesia. It boasts a complex register system consisting of *karma* (formal), *madya* (semi-formal) and *ngoko* (informal) registers. It is a head-initial SVO language with an elaborate voice system (active voice, theme voice, accidental voice, and other various applicative voices) but lacks agreement or tense morphology. The data reported in this paper are in the *ngoko* register, and were elicited from and checked during December 2011-February 2012 by three bilingual Indonesian-Javanese speakers from Kendal, a *kabupaten* (regency) in the northern division of the province of Central Java, 34 kilometers west of Semarang, the capital of the province of Central Java.

The most important grammatical property relevant for the present purposes is that Javanese makes extensive use of pro-drop/topic-drop, just like Japanese, Turkish and other Asian languages with massive pro-drop. Javanese sheds a new light on the nature of parameters that allow/block argument ellipsis across languages. I will provide new data collected from my fieldwork showing that in Javanese, objects can be elliptic but subjects can only be pronominal. This observation is paradoxical given Saito's (2007)/Şener and Takahashi's (2010) position that the LF Copy option is blocked by the presence of agreement because null subjects in Javanese cannot be elliptic but Javanese is an agreement-less language just like Japanese. This consideration, then, raises the question what is an alternative key factor that blocks the elliptic option in Javanese as opposed to Japanese.

Let us first consider object ellipsis in Javanese. Consider (17a, b) and (18a, b).

(17) a. Esti seneng guru-ne.
Esti like teacher-her
'Esti likes her teacher.'

b. Budi ya seneng *e*.
Budi also like
'*Lit*. Budi also likes *e*.'

(18) a. Esti ketemu mahasiswa telu.
Esti meet student three
'Esti met three students.'

b. Budi ya keteme *e*.
Budi also met
'*Lit*. Budi also met *e*.'

The null object in (17b) allows the strict reading as well as the sloppy reading. Similarly, the null object in (18b) allows both the E-type reading and the quantificational reading. These results show that the null object in Javanese can be elliptic, just like the null object in Japanese and Turkish. Let us now turn out attention to subject ellipsis cases illustrated in (19b) and (20b).

(19) a. Esti ngomong [guru-ne isa basa Prancis].
Esti say teacher-her can language French
'Esti said that her teacher can speak French.'

b. Budi ngomong [*e* isa basa Jepang].
Budi say can language Japanese
'*Lit*. Budi said that *e* can speak Japanese.'

(20) a. Esti ngomong [mahasiswa telu teka arep ketemu dewe'e].
Esti say student three come to meet her
'Esti said that three students came to meet her.'

b. Budi ngomong [*e* teka arep ketemu dewe'e].
Budi say come to see him
'*Lit*. Budi said that *e* came to see him.'

The example in (19b) permits only the strict reading. Similarly, the example in (20b) only allows the E-type reading. In this regard, then, the null subject in Javanese behaves like the null subject in Turkish, not like the null subject in Japanese.

Below is a table which summarizes the type of null arguments available in the three languages examined thus far with respect to the availability of the sloppy reading and the quantificational reading.

	Japanese		Turkish		Javanese	
	Subject	Object	Subject	Object	Subject	Object
Sloppy Reading?	YES	YES	NO	YES	NO	YES
Quantificational Reading?	YES	YES	NO	YES	NO	YES
Agreement?	NO	NO	YES	NO	NO	NO

Table 1: The Cross-Linguistic Distribution of the Null Arguments

As is clear from Table 1, null arguments in Javanese behave typologically just like null arguments in Turkish but this result is not expected under the agreement-based theory of LF Copy because Javanese possesses neither subject agreement nor object agreement. Given the robust evidence presented in Şener and Takahashi (2010), the key role of syntactic agreement as controlling the LF Copy process in the comparative syntax of argument ellipsis in Japanese and Turkish is undeniable. However, the interpretive patterns observed in Javanese clearly suggest that we are in need of a new alternative parameter for Javanese which blocks the LF copy option in the subject position. In the next section, I will show that the lack of subject ellipsis in Javanese can be accounted for by capitalizing a well-known transparent parallelism in Javanese which must hold between syntactic structure and information structure.

4. Argument Ellipsis in Javanese and Transparent Syntax-Information Structure Interface

It is widely acknowledged in the literature on many Western Austronesian languages (see Soemarmo 1970 for Indonesian, Mashudi 1976 for Formal Malay and Soemarmo 1970 and Poedjosoedarmo 1977 for Javanese; see Davies 1999 for Madurese). In Javanese, only proper names and nouns marked with a demonstrative particle or the definite suffix can appear in this position. There is a robust correlation across languages between information theoretic constructs such as topic and focus and grammatical constructs such as subject and predicate (Lambrecht 1994, Van Valin and LaPolla 1997). Cole et al. (2002) have recently proposed that this correlation becomes the inviolable part of the Javanese grammar such that the grammatical subject must be the topic. Since topics, by their very nature, refer to an entity previously introduced into the discourse, they are definite and not allowed to introduce a new discourse referent (Gundel and Fretheim 2004). Here, we review two arguments presented by Cole et al. in favor of this transparent mapping between subject and topic/definiteness. Firstly, in Javanese, an indefinite NP cannot appear in subject position, as illustrated in (21a).

(21) a. * [$_{NP}$ Wong lanang] [$_{VP}$ gek turu].
person male PROG sleep
'A boy is sleeping.'

b. [$_{NP}$ Wong lanang kuwi] [$_{VP}$ gek turu].
person male that PROG sleep
'The boy is sleeping.'

c. [$_{TP}$ *pro* [$_{VP}$ ono wong lanang gek turu]].

exist person male PROG sleep

'There is a boy who is sleeping.'

(Cole et al.2002: 103)

The example in (21b) shows that the same NP may appear in subject position when marked by the demonstrative *kuwi* 'that'. For an indefinite NP/discourse referent to be introduced, Javanese must employ a construction like the one shown in (21c). Secondly, Javanese is a *wh*-in-situ language. Thus, *wh*-phrases can appear in a wide variety of positions as a direct object (22a, b), possessor (23a), indirect object (23b), and object of prepositions (23c).

(22) a. Siti meh mangan **apa**?

Siti FUT AV.eat what

'What will Siti eat?'

b. Tono wis ngambung **sapa**?

Tono PAST AV.kiss who

'Who did Tono kiss?'

(Cole et al.2002: 93)

(23) a. Tono ngepruk kancane **sapa**?

Tono AV.hit friend-poss who

'Whose friend did Tono hit?'

b. Tono ngei **sapa** apel kuwi?

Tono AV.give who apple that

'To whom did Tono give the apple?'

c. Tono nulis surat kuwi nggo **sapa**?

Tono AV.write letter that for who

'For whom did Tono write the letter?'

(Cole et al.2002: 93)

Strikingly, however, the *wh*-in-situ strategy is unavailable for *wh*-phrases in subject position, as shown by the ungrammaticality of (24a, b). In such a case, Javanese must use the cleft construction illustrated in (25a, b) which is headed by the complementizer *sing*.

(24) a. * **Sapa** meh mangan apel?

who FUT AV.eat apple

'Who will eat the apple?'

b. * **Apa** nggawe kowe seneng?

what AV.make 2SG like

'What makes you happy?'

(Cole et al.2002: 93)

(25) a. **Sapa** sing meh mangan apel?

who COMP FUT AV.eat apple

'Who is it that will eat the apple?'

b. **Apa** sing nggawe kowe seneng?

what COMP AV.make 2SG like

'What is it that makes you happy?'

(Cole et al.2002: 94)

Cole et al. propose that the constraint against *wh*-in-situ in subject position arises due to the transparent parallelism requirement between subject and topic. The subject position in Javanese is strictly reserved for a topic. Since all *wh*-phrases have inherent informational focus (Chomsky 1971, 1976; Jackendoff 1972), they are banned from appearing in the subject position in Javanese. Given the transparent syntax-information parallelism, the subject position in Javanese must be occupied by a topic. A *pro* is possible in this position because pronouns can serve as topics.

Now it is to be noted that for the sloppy/quantificational reading to obtain in an empty argument position, it is crucial that the full-fledged NP is copied onto the empty argument position in its indefinite use. Examples from Japanese and Spanish make this point clear.

(26) a. Seerusuman-ga Mary-no uchi-ni kita.

salesman-nom Mary-poss house-to came

'A salesman came to Mary's house.'

b. *e* John-no uchi-ni-mo kita.
John-poss house-to-also came
'*Lit*. *e* came to John's house, too.'

(Oku 1998: 166)

(27) a. Un vendedor fue a la casa de María.
a salesman went to the house of Maria
'A salesman went to Maria's house.'
b. También *pro* fue a la casa de Juan.
also *pro* went to the house of Juan
'*Lit*. Also *pro* went to Juan's house.'

(Oku 1998: 166)

In (27a), the salesman who visited John's house may be a different salesman from the one who visited Mary's house. This reading can be called the indefinite reading. As is well-known (see Kuroda 1992: ch1, Fukui 1995, and Hoji 1998 for extensive discussion), a bare nominal in Japanese such as *kuruma* 'car' can be variously interpreted as 'a car', 'the car', 'cars', 'the cars' and probably more. For our present purposes, it suffices to say that the "different-salesman" reading in (27a) obtains precisely because the LF Copy process can copy the NP into the empty subject position in its indefinite use. In (27b), however, the salesman who visited Juan's house must be the same person who visited Maria's house. This pattern comes as no surprise because *pro* must refer back to the entity already established in the previous discourse (i.e., the salesman who went to Maria's house). Now, what is going on in Javanese, then, is that this indefinite use

of the null argument cannot be copied onto the subject position in this language because the subject must be a topic and hence must be occupied by a definite discourse referent. Just like Japanese, Javanese allows bare nominal arguments in all grammatical positions, and a bare nominal such as *buku* 'book' can be interpreted as 'a book', 'the book', 'the books' or 'books', as shown in (28a-c), with the single exception that the bare noun in subject position must be construed as definite/topics.

(28) a. Buku larang.
book expensive
'{The book/the books/*A book/*books }{is/are} expensive.'

b. Esti tuku buku.
Esti buy book
'Esti bought a book/the book/books/the books.'

c. Esti nukokke uwong buku.
Esti AV.buy man book
'Esti bought {a man/the man/men/the men} {a book/the books/books/the books}.

d. Esti entuk informasi seko buku.
Esti get information from book
'Esti got information from a book/the book/books/the books.'

Despite the availability of the indefinite use of bare arguments, Javanese nonetheless does not allow the sloppy/quantificational reading, the reason being that the subject position in this language is so syntacticized as to host a *pro*/the definite use of the bare argument.

Our proposed analysis opens a new way to approach the typology of null arguments. Here, I wish to explore just one consequence with respect to the status of null arguments in Chinese. As is well-known since Huang (1984), Mandarin makes extensive use of topic-based subject/object drop, as shown in (29a-c).

(29) Speaker A: Zhangsan kanjian Lisi le ma?
Zhangsan see Lisi ASP Q
'Did Zhangsan see Lisi?'

Speaker B: a. *e* kanjian ta le.
see him ASP
'[He] saw him.'

b. Ta kanjian *e* le.
he see ASP
'He saw [him].'

c. *e* kanjian *e* le.
see ASP
'[He] saw [him].'

(Huang 1984: 533)

Cheng and Sybesma (1999) observe that Mandarin exhibits a preference for the definite reading in subject position. Thus, they observe (p. 509) that Mandarin bare nouns can be interpreted as indefinite, definite or generic in postverbal position whereas they must be interpreted as definite or generic, but not as indefinite. This point is illustrated in (30a-c) and (31a-c).

(30) a. Hufei mai shu qu le.
Hufei buy book go SFP
'Hufei went to buy a book/books.'

b. Hufei he-wan-le tang.
Hufei drink-finish-ASP soup
'Hufei finished the soup.'

c. Wo xihuan gou.
I like dog
'I like dogs.'

(Cheng and Sybesma 1999: 510)

(31) a. Gou yao guo malu.
Dog want cross road
'The dog wants to cross the road.' *Not*: 'A dog wants to cross the road.'

b. Gou jintian tebie tinghua.
Dog today very obedient
'The dog/dogs {was/were} very obedient today.'

c. Gou ai chi rou.
dog love eat meat
'Dogs love to eat meat.'

(Cheng and Sybesma 1999: 510)]

Given this tendency for the subject to be definite, our analysis predicts that that null subjects in Mandarin cannot be elliptic but must be pronominal, as in Javanese. In other words,

such NP should exhibit neither the sloppy reading nor the quantificational reading. The interpretive patterns attested in (32-35) below show that the prediction is indeed borne out.

(32) a. Zhangsan kanjian-le tade mama.
Zhangsan see-PERF his mother
'Zhangsan saw his mother.'

b. Lisi ye *e* kanjian-le.
Lisi also see-PERF
'*Lit*. Lisi also saw *e*.'

(33) a. Zhangsan shup [ziji de haizi mei na qian].
Zhangsan say self GEN child NEG take money
'Zhangsan said that his child did not take money.

b. Lisi ye shup [*e* mei na money].
Lisi too say GEN take money
'*Lit*. Lisi also said that *e* did not take money.'

(Takahashi 2008b: 415)

(34) a. Zhangsan xi huan san wei lao shi.
Zhangsan like three CL teacher
'Zhangsan likes three teachers.'

b. Lisi ye *e* xi huan.

Lisi also like

'*Lit*. Lisi likes *e*, too.'

(35) a. San wei nu sheng lai jian Zhangsan.

Three CL girl come see Zhangsan

'Three girls came to see Zhangsan.'

b. *e* ye lai jian Lisi.

also came see Lisi

'*Lit*. *e* came to see Lisi, too.'

As first observed by Huang (1991) and Otani and Whitman (1991), null objects in Chinese allow the sloppy interpretation. Thus, the elliptic object in (32b) can refer either to Zhangsan's mother (strict reading) or to Lisi's mother (sloppy reading). By contrast, Takahashi (2008b) points out that the missing subject in (33b) can refer to Zhangsan's child (strict reading) but cannot refer to Lisi's child (sloppy reading). A similar subject-object asymmetry holds with respect to the availability of the quantificational reading. The null object in (34b) exhibits both the E-type and quantificational readings whereas the null subject in (35b) only allows the E-type reading.

4. Conclusions

This paper has investigated the ellipsis of subjects and objects in Javanese in light of the recent hypothesis that certain null arguments in Japanese/Korean/Turkish are the result of LF Copy rather than empty pronominals. I have shown that the elliptic patterns attested in Javanese cannot be entirely accommodated by the agreement-sensitive theory of LF Copy put forth in Saito (2007)

and Şener and Takahashi (2010) because this language has no syntactic agreement like Japanese but only the empty objects can be elliptic, as in Turkish. Based on this result, I have hypothesized that an alternative key factor in Javanese which blocks the relevant process in the subject position is the definiteness restriction on the subject position, a familiar observation in the literature on Western Malayo-Polynesian languages. This analysis, I have further shown, also correctly predicts that Mandarin Chinese exhibits the same subject-object asymmetry as Javanese: objects, but not subjects, can be the target of LF Copy, in this language because of its preference for definite subjects. It remains to be seen how persuasive the role of the definite subject requirement is in controlling the LF copy option in many other languages which allow null arguments.

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