Null Arguments in Jingpho and Lisu*

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(受付: 2022年8月13日, 受理: 2022年12月20日)

Abstract

This paper investigates the Lisu and Jingpho languages with a particular focus on the status of null arguments in these languages. Based on several diagnostics (the sloppy reading test, the quantificational interpretation test, and the adverbial interpretation test), it will argue that arguments in these languages can undergo an ellipsis process. The fact that argument ellipsis is available in these languages, which lack agreement between arguments and functional heads, supports the Anti-Agreement Hypothesis put forward in Saito (2007).

Keywords: null arguments, argument ellipsis, pro analysis, verb phrase ellipsis

1. Introduction

In this paper, I will compare the null arguments of Japanese with those of the Jingpho and Lisu languages¹. These languages share many similarities in their syntactic features². For instance, all of those languages are allowed null arguments. The unpronounced elements are contained in the following sentences. Japanese is in (1), Jingpho is in (2), and Lisu is in (3), respectively:

- (1) Kanako-mo *e* aisiteru. Kanako-also love Lit. 'Kanako loves *e*, too.'
- (2) Ma La mung *e* tsawra-ai.

 Ma La also love-ASP

 Lit. 'Ma La loves *e*. too.'
- (3) A-TMI e NI, Nn LO=³ A-T-also love-ASP Lit. 'A-T loves e, too.'

Null arguments have been studied cross-linguistically, including Japanese, Korean, Chinese, Malayalam, Mongolian, Javanese, Burmese, Irish, Hebrew, Russian, Greek, Turkish, Spanish, Basque, *et cetera* ⁴. In particular, the Japanese language is the most studied among them. In this paper, I will record and analyze Jingpho and Lisu. Furthermore, I will claim that the null arguments in Jingpho and Lisu behave similarly to those in Japanese.

The organization of this paper is as follows. In section 2, I will compare the verb phrase ellipsis (henceforth VPE) analysis, *pro* analysis, and argument ellipsis (AE) analysis of previous studies on Japanese null arguments and lay the foundation for the discussion in section 3. In section 3, I will apply the various diagnostics introduced in section 2. I will show that, like Japanese, null arguments in Jingpho and Lisu are best explained by Argument Ellipsis analysis. In section 4, I will introduce Saito's (2007) Anti-Agreement Hypothesis on the cross-linguistic distribution of AE and argue that the fact that null arguments of Jingpho and Lisu can be derived by AE can be seen as further support for Anti-Agreement Hypothesis. Section 5 is a conclusion.

2. Background on Arguments Ellipsis in Japanese

In the first half of this section, I will overview the three analyses of null arguments in Japanese. In the next half, I will discuss the three diagnoses of the status of null arguments: sloppy reading, quantificational interpretation, and adverbial interpretation from the literature.

2.1 Three Methods of Analyzing Null Arguments

Although there is no superficial difference in the null arguments, three distinct analyses exist in previous research: *pro* analysis, Verb Phrase Ellipsis (VPE) analysis, and Argument Ellipsis (AE) analysis. Let me take, for example, the discourse given in (4) that involves a null object to illustrate how those analyses are assumed to assign it the appropriate interpretation.

(4) a. John-wa kono hon-o yon-da
John-TOP this book-ACC read-PAST
'John read this book.'

b. Mary-mo *e* yon-da

Mary-also read-PAST

Lit. 'Mary read *e*, too.'

2.1.1 pro Analysis

First of all, the linguists such as Kuroda (1965), Saito (1985), and others analyze null arguments as *pro analysis*. The unpronounced element in the object position is proposed to be occupied by a phonologically empty pronominal element, namely *pro*, as shown in (5) below:

(5) a. John-wa kono hon-o yon-da
John-TOP this book-ACC read-PAST
'John read this book.'

b. Mary-mo pro yon-da Mary-also read-PAST

Lit. 'Mary read e, too.'

In (5), *pro* is interpreted just like lexical pronouns like *sore* 'it', *kare* 'he', and *kanozyo* 'she.' That is, it picks up as its referent something contextually salient. In the case of (5b), the *pro* is understood to refer to the thing that has just been mentioned as *kono hon* 'this book' in the antecedent sentence (5a). Moreover, if the pronoun *kono hon-o* is replaced by the *pro*, it can be translated into *Mary read it* (=this book) in (6):

(6) Mary-mo kono hon-o yon-da Mary-also this book-ACC read-PAST Lit. 'Mary read this book, too.'

2.1.2 Verb Phrase Ellipsis

An alternative to the *pro* analysis, the VPE analysis of null objects, has been proposed by Otani and Whitman (1991). The insight that underlies this analysis is that the null object constructions in question are the Japanese counterpart to the English VPE as in (7):

- (7) a. Bill reads a book.
 - b. John doesn't.

Thus, the sentence given in (7) is assumed to involve the derivations shown in (8):

(8) a. John-wa [vpkono hon-o yon_V-da_T. $t_{\rm V}$ read-PAST John-NOM this book-ACC 'John read this book.' b. Mary-mo [yp-kono hon-o yon_V-da_T. John-also this book-ACC read-PAST Lit. 'Mary read e, too.'

The advocate of the VPE analysis of Japanese null objects, Otani and Whitman, assumes that the verb first raises to the T(ense) head, and then ellipsis applies to the remnant verb phrase (VP) as shown in (8b). The strike-through indicates that the underlying structure is not phonologically spelled-out. Accordingly, with the V(erb) head escaping from the ellipsis site, the VPE involved here appears only to elide the object. Ellipsis must be licensed by identity with some linguistic antecedent. Thus, for the VP in (8b) to be elided, the content of the VP must be identical to the immediately preceding sentence (8a), whose VP contains the object *kono hon* 'this book.' Therefore, the ellipsis site is also assumed to have the same object. Consequently, the null object ends up being interpreted as referring to the same thing as the object in the antecedent sentence.

2.1.3 Argument Ellipsis

Let us move on to the AE analysis of null arguments (Oku (1998), Saito (2007), Şener and Takahashi (2010), Takahashi (2007, 2008, 2013, 2014), and Fukaya (2018). Although the advocates of this analysis sympathize with the VPE analysis in assuming ellipsis is involved in the derivation of the null argument constructions, they propose that it is the argument itself, rather than VP dominating it, that undergoes ellipsis as shown in (9b):

- (9) a. John-wa kono hon-o yon-da John-TOP this book-ACC read-PAST 'John read this book.'
 - b. Mary-mo kono hon-o yon-da

 Mary-also this book-ACC read-PAST

 Lit. 'Mary read *e*, too.'

As indicated in (9b), the object position is occupied by *kono hon-o* and undergoes ellipsis. The elided position in (9b) can be interpreted as *Mary read this book, too*. The following section examines the three types of analyses in null arguments.

2.2 Diagnostics

The three types of analysis of null arguments reviewed above will be compared and evaluated with respect to three diagnostic criteria that are widely used in the literature: sloppy reading, quantificational interpretation, and the (lack of) adverbial interpretation.

2.2.1 Sloppy reading

A first diagnosis of the status of missing arguments is to check whether the null argument allows for the so-called sloppy identity reading. The sloppy reading results when the antecedent of an ellipsis contains a bound pronoun. Take, for example, the English discourse given in (10):

- (10) a. John respects his mother.
 - b. Bill does, too.

In this example, suppose that the pronoun in an antecedent sentence is interpreted as bound by the subject *John*. Then, a possible interpretation in the ellipsis sentence is such that *Bill respects his own mother*, where *his mother* refers to *Bill's, not John's mother*. This is what I call the sloppy reading. Replacing the ellipsis site with the VP selecting the pronoun *her*, however, results in the unavailability of sloppy reading, as shown in (11) below:

- (11) a. John respects his mother.
 - b. Bill respects her, too.

The second sentence of (11b) cannot be assigned the sloppy reading where *Bill* is understood to respect *his own mother*, but it can only mean that *Bill* respects a contextually salient female individual, namely *John's mother*; for example. Thus, by checking whether the sloppy reading is available in null arguments in Japanese or not, we can diagnose whether the null argument is derived by some sort of ellipsis process or involves null pronominal elements.

Let us apply the sloppy identity test to Japanese null arguments in (12) below:

(12) a. Taroo-wa zibun-no hahaoya-o sonkeisiteiru
Taroo-TOP self-GEN mother-ACC respect
Lit. 'Taroo respects self's mother.'

b. Ken-mo *e* sonkeisiteiru

Ken-also respect

Lit. 'Ken respects e, too.'

(Takahashi (2014: 89))

As it turns out, the second sentence allows for the sloppy reading where *Ken also respects his own mother*. This fact suggests that the null object construction should at least be able to be derived by AE or VPE; because the *pro* analysis alone cannot predict the availability of sloppy reading. Now, let us consider the subject, as shown in (13):

(13) a. Taroo-wa zibun-no kodomo-ga eigo-o hanasu to omotteiru.

Taroo-TOP self-GEN child-NOM English-ACC speak that think

'Taroo thinks that self's child speaks English.'

b. Ken-wa e furansugo-o hanasu to omotteiru.

Ken-TOP French-ACC speak that think

'Ken thinks that e speaks French.'

(Oku (1998: 93))

In (13b), the null subject can also be assigned the sloppy reading *Ken thinks that Ken's child speaks French*. This fact entails that the ellipsis process can apply not only to null objects but also to null subjects. Notice that the ellipsis domain of VPE does not contain the position of the subject. Therefore, the sloppy reading of the null subject can only be accounted for by the AE analysis of null arguments.

In summary, the *pro* analysis predicts no sloppy reading for null arguments at all; the VPE analysis predicts that null objects but not null subjects will allow for the sloppy reading; the AE analysis predicts the availability of the sloppy reading for both null subjects and objects.

2.2.2 Quantificational interpretation

Another test is whether the null argument, with a non-referential antecedent, can be assigned a quantificational interpretation (Takahashi (2008a, b)). The availability of a quantificational interpretation for a null element is taken by Takahashi (2008 a b) to be a hallmark of ellipsis. Let me first illustrate what we mean by a quantificational interpretation with the English example in (14):

- (14) a. John respects three teachers.
 - b. Mary does, too.

The VPE sentence (14b), with (14a) understood as its antecedent, allows for two readings: the so-called E-type reading, where the three teachers respected by Mary are the same as those respected by John, and the so-called quantificational reading, where Mary respects three teachers and the teachers respected by Mary and those respected by John need not be the same. The E-type reading is also available when a pronoun is used instead of VPE, as in (15b). On the other hand, (15b) does not allow for the quantificational reading that (14b) does:

- (15) a. John respects three teachers.
 - b. Mary respects them, too.

Therefore, observing whether the quantification interpretation is available for the null argument in Japanese or not, we can test whether the null argument is obtained by some ellipsis operation or involves null pronominal elements.

Let us apply the quantification interpretation test to null arguments in Japanese in example (16) below:

(16) a. Taroo-wa sannin-no sensei-o sonkeisiteiru.

Taroo-TOP three-GEN teacher-ACC respect

'Taroo respects three teachers.'

b. Hanako-mo e sonkeisiteiru.

Hanako-also respect

'Lit. Hanako respects e, too.'

(Takahashi (2014: 92))

As it turns out, (16b) allows for the quantificational interpretation of the null object; it can mean that *Hanako also respects three teachers* that *may or may not be the same as those respected by Taroo*. However, the *pro* analysis cannot explain the availability of the quantification interpretation. Next, let us turn to the null subject construction in (17):

(17) a. Sannin-no mahootukai-ga Taroo-ni ai-ni kita. three-GEN wizard-NOM Taroo-DAT see-to came 'Three wizards came to see Taroo.'

b. e Hanako-ni-mo ai-ni kita. Hanako-DAT-also see-to came 'Lit. e came to see Hanako, too.'

(Takahashi (2014: 93))

(17b) allows for the quantificational interpretation of the null subject. The fact suggests that the ellipsis process can apply to both the null subjects as well as the null objects. This necessitates the AE analysis of null arguments in general; because the scope of VPE does not include the position of subjects.

2.2.3 Adverbial interpretation

A third and final test I review in this section, namely the adverbial interpretation test, which is utilized by Oku (1998), Saito (2007), Takahashi (2013, 2014), and Otani and Whiteman (1991), tells the VPE analysis on the one hand from the *pro* analysis and AE analysis on the other. The test involves a discourse in which the antecedent sentence contains a VP adverb, and the second sentence is a null object construction with no VP adverb. It is known that the VPE in English can potentially target a VP containing a VP adverb. See (18)

- (18) a. Bill washed a car carefully.
 - b. John didn't.

(18b) can be interpreted as *John didn't wash a car carefully*. Analogously, we can infer that in Japanese, if null objects are analyzed in terms of VPE, then the ellipsis sentence will support the reading containing the semantic contribution of the VP adverb that appears in the antecedent sentence. However, this prediction is not borne out. Consider (19):

(19) a. Bill-wa kuruma-o teineini aratta
Bill-Top car-ACC carefully washed
'Bill washed a car carefully.'
b. John-wa e arawanakatta.
John-Top washed.not

Lit. 'John didn't wash e.'

(Oku (1998: 172))

(19a) contains a VP adverb *teineini* "carefully." Notice that (19b) does not support the reading where *John did not wash a car carefully*. Therefore, we can conclude from this test that VPE cannot be involved in the derivation of null objects.

2.2.6 Summary

So far, I have reviewed the three types of null arguments and diagnosed them with sloppy, quantificational, and adverbial interpretations. The observation is summarized in the following Table:

Table 1

| | VPE analysis | | pro analysis | | AE analysis | |
|---------------------------------|--------------|----------|--------------|--------|-------------|----------|
| | subject | object | subject | object | subject | object |
| Sloppy reading | × | √ | × | × | ✓ | ✓ |
| Quantificational interpretation | × | ✓ | × | × | √ | ✓ |
| Adverbial interpretation | × | | √ | | ✓ | |

[✓] stands for predictable and × stands for unpredictable in VPE, pro, and AE analyses

Table 1 shows that as far as VPE analysis is concerned, only the null object has the sloppy reading and quantificational interpretation, but the null subject does not have both of them, and neither the null object nor subject has an adverbial interpretation. As regards the *pro* analysis, neither the null object nor subject can be assigned the sloppy reading and quantificational interpretation; on the other hand, they are only compatible with the fact about the adverbial interpretation. The AE analysis can account for the facts about the sloppy reading, quantificational, and adverbial interpretation. Therefore, we can conclude that null arguments should be analyzed as AE in Japanese.

3. Diagnosing Null Arguments in Jingpho and Lisu

As discussed in section 2, Japanese null arguments favor AE in the three diagnostic tests assessing null arguments. This section attempts to diagnose the status of the null arguments in Jingpho and Lisu based on the three kinds of tests reviewed in light of the Japanese: sloppy reading, quantificational interpretation, and adverbial interpretation. The conclusion to be reached in this section is that argument ellipsis must be needed to derive the null arguments in Jingpho and Lisu, just as in Japanese.

3.1 Sloppy reading

First, let us see whether null subjects and objects in Jingpho allow for sloppy readings. Consider (20), which involves the null object in the second sentence.

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(20) a. Ma La-gaw shi-a kanu-hpe hkungga-ai
Ma La-TOP his-GEN mother-ACC respect-ASP
'Ma La respects his mother'
b. Naw Aung mung e hkungga-ai
Naw Aung also respect-ASP
Lit. 'Naw Aung also respects e, too.'
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In Jingpho, the item *shi* can function as a bound pronoun. Thus, the antecedent sentence (20a), whose object contains a genitive-marked *shi-a* 'his' receives the interpretation that *Ma La_i respects his_i own mother*. Following (20a) with interpretation, the second sentence (20b) allows for the interpretation that *Naw Aung_i also respects his_i own mother*. That is, the null object yields a sloppy reading. This entails that at least either AE or VPE should be available in this language, for the *pro* analysis fails to predict the sloppy reading. Now let us consider which of the analytic options, AE or VPE, is adequate for this language in light of the null subject constructions. (21a) involves a bound pronoun *shi-a kasha* 'his child' as the subject of the embedded clause, and is interpreted as *Ma La_i said that his_i own child liked Ja Nu*.

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(21)a. Ma La-gaw tsun dat-ai shi-a kasha Ja Nu-hpe ra-ai.
Ma La-TOP say-ASP self-GEN child Ja Nu-ACC like-ASP 'Ma La said that his child liked Ja Nu.'
b. Naw Aung-gaw tsun dat-ai [e] Mary-hpe ra-ai
Naw Aung-TOP say-ASP Mary-ACC like-ASP
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Lit. 'Naw Aung said that e liked Mary.'

Crucially, (18b) allows for the sloppy reading of the embedded null subject *Naw Aung_i* said that his_j child liked Mary. The availability of the sloppy reading of the null subject indicates that VPE is inadequate for accounting for the range of the sloppy readings, whereas AE can account for the sloppy reading of the null subject as well as the null object.

Now let us turn to null arguments in Lisu. The data of null objects is illustrated in (22):

In Lisu, YI 'his' can function as a bound variable, giving rise to the interpretation of (22a) that $A-T_i$

respects his_i own mother. Notice that the second sentence in this discourse can mean that E-S- T_i respects her_i mother, too. This involves the sloppy reading of the null object. The possibility of sloppy reading shows that the null object can be analyzed as AE and VPE analyses, but it cannot be pro analysis. Let us see whether null subjects also allow for sloppy reading; see (23):

(23) a. A-T NY B♥ KO LO-. CI-ɔY ₦ N∃ NY A-S-MI T♥ NI, Nn LO=

A-T-TOP say-ASP self child NOM A-S-MI-ACC like-ASP

'A-T said his child liked A-S-MI.'

b. E-S-T NY B♥ KO LO-. [e] Mary T♥ NI, Nn LO=

E-S-T TOP say ASP Mary-ACC like-ASP

In (23b), the embedded null subject yields the sloppy reading E-S- T_j said her_j child liked Mary. Thus, in Lisu, too, null arguments are best analyzed as derived through argument ellipsis.

To summarize, in Jingpho and Lisu, null subjects and null objects allow for sloppy reading, which I take as an argument for argument ellipsis being an option in these languages.

3.1 Quantificational interpretation

Lit. 'E-S-T said e liked Mary.'

In this section, let us apply the quantificational interpretation test to diagnose the status of null arguments in Jingpho and Lisu. Let's start with Jingpho. The data of null objects in Jingpho is demonstrated in (24) below:

- (24) a. Ma La-gaw sara masum-hpe hkungga-ai.

 Ma La-TOP teacher three-CL-ACC respect-ASP

 'Ma La respects three teachers.'
 - b. Naw Aung mung *e* hkungga-ai Naw Aung also respect-ASP Lit. 'Naw Aung also respects *e*, too.'

The null object in the second sentence can be interpreted as contributing its own quantificational force, and the sentence can mean that *Naw Aung also respects three teachers*, where *the three teachers respected by him and those respected by Ma La* need not overlap. Now, turn to the null subjects, as in (25):

- (25) a. Natjaw masum-gaw Ma La-hpe sa yu-ngut sai Wizard three-CL-TOP Ma La-ACC come see-ASP 'Three wizards came to see Ma La.'
 - b. e Naw Aung-hpe mung sa yu-ngut sai

 Naw Aung-ACC also come see-ASP

 Lit. 'e also came to see Naw Aung, too.'

(25b) also licenses the quantificational interpretation of the subject, meaning that *three wizards came* to see Maw Aung, too, where those who came to see Naw Aung and those who came to see Ma La need not overlap. Thus, the availability of quantificational interpretation both for null subjects and objects suggests that subjects, as well as objects, can undergo ellipsis, with the VPE and *pro* analyses inadequate. The *pro* analysis cannot derive the quantificational interpretation of null objects.

Next, let us consider null arguments in Lisu, as in (26) below:

- (26) a. A-T NY M. d S RO T♥ dn LO=
 A-T-TOP teacher three-CL-ACC respect-ASP
 'A-T respects three teachers.'
 b. E-S-T MI e dn LO=
 E-S-T also respect-ASP
 Lit. 'E-S-T also respects e, too.'
- (26b) licenses the quantificational interpretation *E-S-T also respects three teachers, too, where the three teachers respected by E-S-T and those respected by A-T are not necessarily the same.* Let us see how the null subjects in (27) behave with respect to quantification:
- (27) a. NI: d S RO NY A-T T♥ NYI L KO LO= Wizard three-CL-TOP A-T-ACC see come-ASP 'Three wizards came to see A-T.'
 b. e E-S-T T♥ MI NYI L KO LO= E-S-T-ACC also see come-ASP Lit. 'e came to see E-S-T. too.'
- (27b) also permits the quantificational interpretation in the null subject position, which means *three* wizards also came to see E-S-T, too, whereas the three wizards who came to see E-S-T and those who came to see A-T are unnecessary to be the same. Accordingly, the availability of quantificational interpretation in the null object and subject positions indicates that both of them go through the ellipsis process. We can conclude that AE analysis allows both the null object and the null subject constructions; VPE analysis only allows the object position; pro analysis allows neither the null object

position nor the null subject positions in Lisu.

3.2 Adverbial interpretation

Finally, this section applies the adverbial interpretation test to Jingpho and Lisu. Consider the following Jingpho data in (28), whose antecedent sentence contains a VP adverb *sadi-let* 'carefully,' while the second sentence does not contain one overtly:

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(28) a. Ma La-gaw mawdaw-hpe sadi-let kashin-ngut sai Ma La-TOP car-ACC carefully wash-ASP 'Ma La washed a car carefully.'
b. Naw Aung-gaw e n kashin da -ai Naw Aung-TOP not wash not-ASP Lit. 'Naw Aung didn't wash e.'
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While the antecedent sentence specifies how *Ma La washed a car*, the second sentence is not construed as doing so and merely means that *Naw Aung did not wash a car*. Thus, VPE cannot be the correct analysis of null objects. Let us consider the Lisu data in (29):

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(29) a. A-T NY MO-TO T♥ R MO SI ■ I KO LO=

A-T-TOP car ACC carefully wash-ASP

'A-T washed the car carefully.'

b. E-S-T NY e M ■ I KO KQ=

E-S-T-TOP not wash-ASP not

Lit. 'E-S-T didn't wash e.'
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The antecedent clause in (29a) specifies it as *A-T washed the car carefully*, whereas the second clause does not mean the same as its antecedent. It is understood that *E-S-T didn't wash a car* which does not include the adverb *R MO SI* 'carefully.' Therefore, VPE analysis cannot correctly analyze the null object in Lisu.

In summary, the availability of the sloppy reading and the quantificational interpretations both for null subjects and null objects both in Jingpho and Lisu and the lack of the adverbial interpretation in null object constructions both in Jingpho and Lisu lead us to conclude that argument ellipsis should be available for deriving null arguments in both languages.

4. Analysis of Null Arguments in Jingpho and Lisu

This section discusses the implication of the conclusion arrived at in the preceding section for the cross-linguistic perspectives on the distribution of argument ellipsis. Namely, I will argue that the fact that Jingpho and Lisu allow for argument ellipsis provides further evidence for Saito's (2007)

Anti-Agreement Hypothesis.

The Anti-Agreement Hypothesis states that arguments that agree with functional heads like T and v cannot undergo argument ellipsis while those that do not can. For example, in Japanese, subjects and objects can be elided as reviewed in section 2 and do not agree with T nor v. See (30):

- (30) a. Watasi Anata Kare Watasitati Anatatati Karera-wa Taroo-o mi-ta I You He We You_{PL} They-TOP Taroo-ACC meet-ASP 'I/You/He/We/You/They met Taroo.'
 - b. Taroo-wa watasi anata watasitati anatatati karera-o at-ta
 Taroo-TOP me him us your them-ACC meet-ASP
 'Lit. Taroo met me/you/him/us/you/them.'

As shown in (30a), the verb *meet* does not agree with the subjects *I, You, He, We,* and *They*, and in (30b), the objects do not either. In English, on the other hand, where it is assumed in the literature that subjects agree with T and objects with v, it is reported that argument ellipsis is not an option. Furthermore, the Anti-Agreement Hypothesis has been supported by Şener and Takahashi (2010) from the perspective of Turkish, where they claim that subjects agree with T and resist ellipsis while objects do not agree with v and accept ellipsis.

Now, returning to Jingpho and Lisu, notice that the subjects and objects do not agree with any functional head in person, number, and gender in Jingpho and Lisu, as shown in (31) and (32), respectively:

- (31) a. Ngai Nanhte Shi Anhte Nanhte Shanhte-gaw Ma La-hpe mu dat a I You He We You_{PL} They-TOP Ma La-ACC see-ASP 'I/You/He/We/You/They saw Ma La.'
 - b. Ma La-gaw ngai nanhte shi anhte nanhte shanhte-hpe mu dat ai Ma La-TOP me you him us your them-ACC see-ASP 'Lit. Ma La saw me/you/him/us/you/them.'

In Jingpho, the subjects 'Ngai, Nanhte, Shi, Anhte, Nanhte, Shanhte' *I, You, He, We, You, They* do not agree with their verb 'mu dat' *see* in (31a), and the object 'Ngai, nanhte, shi, anhte, nanhte, shanhte' *me, you, him, us, your, them* do not agree with their verb see in (31b) as well. Let us consider the data in Lisu, as demonstrated in (32):

∧W NU: NUW: YI W: NY MA LA T∀ (32) a. AW/NU MO LO= You We You_{PL} They-TOP MA LA-ACC see-ASP 'I/You/He/We/You/They saw Ma La.' YI AW NU: NUW: YI W: T b. MA LA NY ۸W MO LO= MA LA-TOP me him us your them-ACC see-ASP 'Lit. Ma La saw me/you/him/us/you/them.'

Like Jingpho, there is no agreement between the subjects ΛW , NU, ΛW , NU:, NUW:, YIW 'You, He, We, You,' They and the verb MO 'see,' and there is also no agreement between the objects ΛW , NU, ΛW , NU:, NUW:, YIW and the verb MO 'see.' Therefore, the fact that these languages lack subject and object agreement and our claim that these languages allow for ellipsis of both subjects and objects together provide another support for the Anti-Agreement Hypothesis.

5. Conclusion

In this paper, I have shown that null subjects and objects in Jinghpo and Lisu are similar to those in Japanese in that they give rise to the sloppy reading and the quantificational reading and resist the adverbial interpretation. I proposed the argument ellipsis analysis of Jinghpo and Lisu's null argument to account for these facts. Furthermore, I have provided data to show that the arguments do not agree with functional heads T and v in Jingpho and Lisu, which I suggested supports Saito's Anti Agreement Hypothesis.

*I would like to express my deepest gratitude and appreciation to Dr. Hirokazu Tsutsumi for his valuable advice and countless discussions. I particularly want to thank the two people from the bottom of my heart who played crucial roles in the data collection in Myitkyina: Srn. Dum Hpau Bawk was an elementary teacher in a Burmese school who helped me with my Jingpho data from the sketch, and my brother U Lar Chee who was a former secretary of Myitkyina Myoma Lisu Baptist Church at the time, who made an effort to assist me to collect the Lisu data. Without them, this paper would not have been accomplished.

Notes

1) The data of Jingpho and Lisu were collected in Myitkyina, Kachin State, Myanmar. Both languages belong to the Tibeto-Burman language, so they are syntactically closely related to Burmese (Myanmar language). These languages are spoken in Kachin State, Myanmar, Yunnan, China, Thailand, and India.

The old Jingpho writing system is based on the Latin alphabet, created by American missionaries in the late 19th century. Ola Hanson was one of the first originators who arrived in Myanmar in 1890 and wrote the first Kachin-English dictionary. The new alphabet was reformed in 1965. Here, I would like to clarify the terms "Jingpho" and "Kachin." Both terminologies are interchangeable to refer to the Jingpho people and their language. In the Jingpho language, "Jingpho" stands for Jingpho people or tribe, and they prefer themselves and their language to be called "Jingpho." The Burmese government officially uses the term "Kachin" to refer to the Jingpho people or the other ethnic groups who speak Jingpho. Therefore, the term "Jingpho" is used in this paper.

The old Lisu Alphabet was invented around 1915 by Sara Ba Thaw in Myitkyina, Myanmar, and improved by British missionary James O. Fraser in 1939, who created the writing language for Lisu called 'Fraser Alphabet.' After that, Lisu's New Testament is published.

There have no schools for Jingpho people and Lisu people to learn their languages in Myitkyina. These languages have been passed on from generation to generation through churches which play an essential role in their communities. They acquire their speeches from the Bible and hold some classes for youngsters to learn how to read and write.

- 2) Jingpho and Lisu have several similarities with Japanese in syntactic features. For instance, both languages have the same word order, allow empty null arguments, and allow scrambling. The example of Jingpho is in (i), and Lisu is in (ii).
- (i) a. Ma La-gaw Ja Nu-hpe tsawra-ai.

 Ma La-TOP Ja Nu-ACC love-ASP

 'Ma La loves Ja Nu.'
 - b. Ja Nu-hpe Ma La-gaw tsawra-ai. Ja Nu-ACC Ma La-TOP love-ASP 'Ja Nu, Ma La loves.'
- (ii) a. A-T NY A-S-MI TV NI, Nn LO=
 A-T-TOP A-S-MI-ACC love-ASP
 'A-T loves A-S-MI.'
 - b. A-S-MI T▼ A-T NY NI, Nn LO= A-S-MI-ACC A-T-TOP love-ASP 'A-S-MI, A-T loves.

- 3) $\langle -. \rangle$, $\langle -. \rangle$, $\langle -. \rangle$ are tones. $\langle -. \rangle$ is a full stop in Lisu.
- 4) Regarding null arguments, which languages are being studied by whom cross-linguistically, are listed as follows: Japanese by (Oku (1998), Saito (2007), Şener and Takahashi (2010), Takahashi (2007, 2008, 2013, 2014), and Fukaya (2018); Korean by Kim (1999); Chinese by Li (2014), Takahashi (2024), Sato (2018b), Lee (2017, 2018); Malayalam by Takahashi (2013); Mongolian by Takahashi (2007); Javanese by Sato (2015); Burmese (Myanmar language) by Lee (2016); Irish by McCloskey (1991); Russian by Gribanova (2013); Greek by Marchant (2018); Turkish by Şener and Takahashi (2010); Spanish Oku (1998), Duguine (2014); Basque by Takahashi (2014), Duguine (2014).

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