

Focus Mismatch under Ellipsis in Japanese, Polarity and Head Movement

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1. Introduction ¹

This paper investigates the phenomenon of focus mismatch under ellipsis in Japanese involving focus particles such as *dake* ‘only’ and *bakari* ‘only’ (Akiyama 2014; Moriyama 2017). It explores its theoretical implications for the derivations of elliptic arguments in the language, the size of their ellipsis sites, and the interaction of head movement with scope economy in syntactic derivation.

2. Focus Mismatch under Ellipsis and the LF-Copy Theory of Argument Ellipsis

Akiyama (2014) and Moriyama (2017) observe that an argument suffixed with focus particles such as *dake* ‘only’ and *bakari* ‘only’ cannot undergo Argument Ellipsis (AE), as illustrated in (1) and (2). For example, in (1), the elided null object in the second clause can refer back to *susi* in the first clause (the focus-exclusive reading), but not to *susi-dake* (the focus-inclusive reading), even though the relevant correlate within the antecedent clause is visibly suffixed with the focus particle *dake* ‘only’.

- (1) Taroo-wa susi-dake-o tabeta. Hanako-mo *e* tabeta.
Taro-TOP sushi-only-ACC ate Hanako-also ate
lit. ‘Taro ate only sushi. Hanako also ate *e*.’
[?? Focus-inclusive (only-XP) reading; ✓ focus-exclusive (XP) reading]

- (2) Taroo-wa saikin kappuramen-bakari-o tabeteiru. Hanako-mo *e* tabeteiru.
Taro-TOP these.days cup.noodle-only-ACC eat Hanako-also eat
lit. ‘Taro has been eating only cup noodles these days. Hanako also has been eating *e*.’
[??only-XP reading; ✓ XP reading]

Examples (3–5) show that focus mismatch between an antecedent argument and its elliptical correspondent is not restricted to direct object positions, but is also observed in other grammatical positions including subjects, indirect objects and postpositional objects.

¹ The project reported here is supported by the Grant-in-Aid for Scientific Research (C) of the Japan Society for the Promotion of Science (Project # 19K00560) (April 2019–March 2023). A complete version of this short paper is available as Sato (2020). I benefitted greatly from helpful comments from Yoshi Dobashi, Yuka Imai, Hideki Kishimoto, Shin Kitada, Moka Michihata, Kazushige Moriyama, Jian Gang Ngui, Masashi Nomura, Satoshi Tomioka as well as my students in my advanced syntax seminar at Seisen University (Fall 2019). Special thanks to Mamoru Saito for valuable discussions and questions on the analysis presented here. Needless to say, all errors are mostly likely to be blamed on Covid-19 or the present author.

- (3) Taroo-wa [CP seikyusyo-dake-ga todoita-to] itta. Hanako-mo
 Taro-TOP invoice-only-NOM arrived-COMP said Hanako-also
 [CP *e* todoita-to] itta.
 arrived-COMP said
 lit. 'Taro said that only invoices arrived. Hanako also said that *e* arrived.'
 [??only-XP reading; ✓ XP reading]
- (4) Taroo-wa sensei-ni ronbun-dake-o okutta. Hanako-mo senpai-ni *e* okutta.
 Taro-TOP teacher-to paper-only-ACC sent Hanako-also senior-to sent
 lit. 'Taro sent only his paper to his teacher. Hanako also sent *e* to her senior.'
 [??only-XP reading; ✓ XP reading]
- (5) Taroo-wa koen-de Hikari-dake-to asondeita. Hanako-mo *e* asondeita.
 Taro-TOP park-in Hikari-only-with was.playing Hanako-also was.playing
 lit. 'Taro was playing only with Hikari in the park. Hanako was also playing *e*.'
 [??only-XP reading; ✓ XP reading]

I maintain that the impossibility of the focus-inclusive reading in (1) follows from Saito's (2017) recent proposal that AE, implemented in terms of LF-Copy (Oku 1998; Saito 2007, 2017; Sakamoto 2017, 2019), cannot apply to an item which forms an operator-variable relationship at LF. Among other arguments he provides, Saito argues that this analysis correctly predicts that a *wh*-phrase is ineligible to undergo AE, as shown by the ungrammaticality of (6b).

- (6) a. Dare-ga Haiderabaado-e itta-ka sitteimasu-ka?
 who-NOM Hyderabad-to went-Q know-Q
 'Do you know who went to Hyderabad?'
 b. Iie. *Demo *e* Siena-e itta-ka-nara sitteimasu.
 no but Siena-to went-Q-if know
 intended: 'No, but I know the answer if the question is, who went to Siena?'
 c. * [for which *x*, *x* a person] went to Siena
 d. * *x* went to Siena (Saito 2017:727–728)

Since *dare* 'who' constitutes an operator-variable chain (roughly, {[for which *x*, *x* a person], *x*}) at LF, copying the operator or the variable parts of the relevant chain alone onto the empty subject slot in (6b) at LF yields the partial representations shown in (6c) and (6d), respectively. However, neither representation is interpretable at LF: (6c) involves vacuous quantification whereas (6d) involves an unbounded variable. The focus-inclusive reading in (1), then, is correctly blocked under Saito's theory, given the reasonable assumption that a *dake*-marked phrase forms an operator-variable relationship through either focus movement (Shoji 1986; Hoshi and Miyoshi 2007; Funakoshi 2016) or Quantifier Raising (Takahashi 2010), a choice immaterial for our present concerns.

I suggest that the focus-exclusive reading in (1), by contrast, is obtained when LF-Copy targets *susi* alone in the antecedent clause to copy onto the corresponding empty object slot in the subsequent elliptical clause at LF. That LF-Copy may target an argument alone minus any particle attached to it is independently supported by the observation that AE tolerates case particle mismatches (Saito 2007; Takahashi 2006, 2012). For example, the transitive verb

oikaesu ‘to chase away’ assigns the accusative Case, not the dative Case, to its direct object, as shown in (7).

- (7) Taroo-wa zibun-no hahaoya-o/*ni oikaesita.
 Taro-TOP self-GEN mother-ACC/DAT chased.away
 ‘Taro chased her mother away.’

Keeping this observation in mind, Saito (2007) points out that the grammaticality of the null object example in (8) indicates that the target of LF-Copy lacks Case features; if the Case values mattered for the application of this operation, then (8) would be rendered ungrammatical on a par with (7) due to the dative Case feature of the object *zibun-no hahaoya-ni* ‘to self’s mother’ at LF.

- (8) Taroo-wa zibun-no hahaoya-ni atta-ga, Hanako-wa *e* oikaesita.
 Taro-TOP self-GEN mother-DAT met-but Hanako-TOP chased.away
 lit. ‘Taro met his mother, but Hanako chased *e* away.’ (Saito 2007:217)

Given that *dake* ‘only’ is a (focus) particle, just like regular case markers in Japanese, it follows that the same copying operation may well target the direct object argument *sushi* ‘sushi’ in (1) alone to the exclusion of the focus particle to yield the focus-exclusive reading obtained in (1).

Kishimoto’s (2006, 2010) observation below provides independent supporting evidence for my proposed analysis. Kishimoto observes that when focus particles such as *dake* ‘only’ and *bakari* ‘only’ occur attached to the right of a verbal complex, they can be associated with any argument contained within the whole clause headed by the complex. Thus, (9a) may be associated with the focus interpretation shown in (9b) and (9c), where *dake* ‘only’ modifies the subject and object arguments, respectively. In a similar vein, the first full-fledged clause in the example in (10), with *bakari* ‘only’ being attached to the verbal complex, may be interpreted as synonymous with the example in (2), where the same focus particle is attached directly to the direct object.

- (9) a. John-ga hon-o yonda-dake-da.
 John-NOM book-ACC read-only-COP
 ‘It is only the case that John read books.’
 b. John-dake-ga hon-o yonda.
 John-only-NOM book-ACC read
 ‘Only John read books.’
 c. John-ga hon-dake-o yonda.
 John-NOM book-only read
 ‘John read only books.’ (Kishimoto 2006:88–89)

- (10) Taroo-wa saikin kappuramen-o tabete-bakari-iru. Hanako-mo *e*
 Taro-TOP these.days cup.noodle-ACC eat-only-be Hanako-also
 tabete-bakari-iru.
 eat-only-be
 lit. ‘Taro has been eating only cup noodles these days. Hanako also has been eating *e*.’
 [✓ only-XP reading; ✓ XP reading]

Crucial for our present purposes is that (10), but not (2), allows the focus-inclusive reading despite the fact that the two examples seem synonymous otherwise. The contrast between the two examples with respect to the availability of this particular reading is exactly what my proposed analysis predicts. (2) contains the object marked with *dake* ‘only’, and hence creates an operator-variable configuration at LF, which blocks successful application of LF-Copy from targeting the null object position. The direct object in (10), by contrast, does not involve this configuration, and hence can be copied at LF onto the empty argument slot.

3. Polarity, Head Movement and the Derivations of Elliptic Arguments in Japanese

A closer examination reveals, however, that the focus-inclusive reading *is* actually grammatical in an elliptical clause if the polarity of the clause is properly manipulated, contrary to the conventional wisdom that focused expressions in general cannot undergo ellipsis (Shoji 1986; Tancredi 1992; Funakoshi 2012; Oku 2016). Specifically, the example in (1) as well as those in (11–13) below show that the relevant reading is acceptable only if the second elliptical clause is negative.

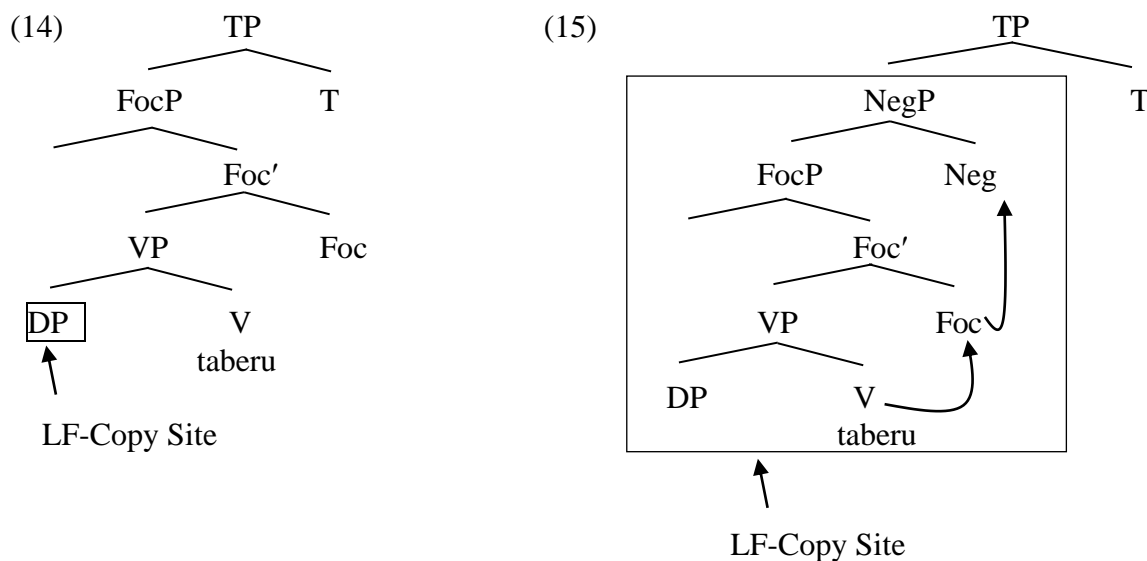
(11) Taroo-wa susi-dake-o tabeta. Hanako-wa *e* tabenakatta.
 Taro-TOP sushi-only-ACC ate Hanako-TOP didn't.eat
 lit. ‘Taro ate only sushi. Hanako didn’t eat *e*.’ [✓ only-XP reading]

(12) Taroo-wa susi-dake-o tabenakatta. Hanako-wa *e* tabeta.
 Taro-TOP sushi-only-ACC didn't.eat Hanako-TOP ate
 lit. ‘Taro didn’t eat only sushi. Hanako ate *e*.’ [?? only-XP reading]

(13) Taroo-wa susi-dake-o tabenakatta. Hanako-mo *e* tabenakatta.
 Taro-TOP sushi-only-ACC didn't.eat Hanako-TOP didn't.eat
 lit. ‘Taro didn’t eat only sushi. Hanako also didn’t eat *e*.’ [✓ only-XP reading]

This novel observation goes against my proposed extension above of Saito’s (2017) LF-Copy theory of AE to (1), which would wrongly predict that the focus-inclusive reading should be uniformly inaccessible whenever the correlate in the antecedent clause is marked with *dake* ‘only’.

I propose that the derivation of an elliptic argument construction in Japanese is different depending on its polarity value: A positive elliptical structure does not involve V-to-Neg movement, and hence can only be derived through AE, as shown in (14), whereas its negative counterpart is derived through V-Stranding Ellipsis (VSE) (Otani and Whitman 1991; Huang 1991; Goldberg 2005; Gribanova 2013; Funakoshi 2012, 2016; Hayashi and Fujii 2015), fed in our present case by overt V-to-Neg movement in syntax, as shown in (15).



Under this hybrid analysis, the positive elliptical clauses in (1) and (12) are associated with the derivation depicted in (14). The operator-variable configuration created by *susi-dake-o* ‘only sushi-ACC’ in the LF-representation of the antecedent clause cannot be copied onto the empty argument slot in the LF-derivation of the elliptical clause, thereby excluding the focus-inclusive reading in those cases. The negative elliptical clauses in (11) and (13), on the other hand, involve overt V-to-Neg movement in syntax in the derivations of both the antecedent and elliptical clauses. This head movement, then, has the effect of creating a large enough structure (namely, the NegP), as shown in (15), to allow for successful reconstruction of the whole operator-variable configuration from the LF-representation of the antecedent clause onto the complement position of Neg at LF. As stated in section 2, the focus-exclusive reading is obtained when LF-Copy targets the object XP minus the focus particle to be copied onto the empty object position in the derivations of both positive and negative clauses.

There are two independent arguments supporting the hybrid approach to the focus mismatch phenomenon under investigation. Firstly, given the well-known observation that adjuncts themselves cannot be elliptic in Japanese (Oku 1998; Funakoshi 2012; see also Simpson et al. 2013), the presence vs. absence of the null adjunct interpretation in a null argument construction has been taken as a useful probe into the nature of its derivation in terms of AE vs. VSE. The interpretive patterns reported in (16–19) show that a positive elliptical clause blocks a null adjunct interpretation whereas its negative variant allows such an interpretation.

- (16) Taroo-wa susi-o yukkuri tabeta. Hanako-mo *e* tabeta.
 Taro-TOP sushi-ACC slowly ate Hanako-also ate
 lit. ‘Taro ate sushi slowly. Hanako also ate *e*.’ [* null adjunct interpretation]

- (17) Taroo-wa susi-o yukkiri tabeta. Hanako-wa *e* tabenakatta.
 Taro-TOP sushi-ACC slowly ate Hanako-also didn’t eat
 lit. ‘Taro ate sushi slowly. Hanako didn’t eat *e*.’ [✓ null adjunct interpretation]

- (18) Taroo-wa susi-o yukkuri tabenakatta. Hanako-wa *e* tabeta.
 Taro-TOP sushi-ACC slowly didn't.eat Hanako-also ate
 lit. 'Taro didn't eat sushi slowly. Hanako ate *e*.' [?? null adjunct interpretation]
- (19) Taroo-wa susi-o yukkuri tabenakatta. Hanako-mo *e* tabenakatta.
 Taro-TOP sushi-ACC slowly didn't.eat Hanako-also didn't.eat
 lit. 'Taro didn't eat sushi slowly. Hanako also didn't eat *e*.' [✓ null adjunct interpretation]

My current analysis correctly predicts these interpretive patterns. The positive elliptical clauses in (16) and (18) can only be associated with the AE derivation depicted in (14), due to the lack of overt V-to-Neg movement in syntax, blocking the null adjunct interpretation. By contrast, the negative elliptical clauses in (17) and (19) are derived through the VSE derivation depicted in (15). The null adjunct interpretation is available because the LF-Copy site in the LF-representation of the negative clauses contains a large enough structure (namely, the NegP), which allows the recovery of the elided manner adverb *yukkuri* 'slowly'.

Secondly, it is widely acknowledged that the verbs in the antecedent and elliptical clauses must be identical for VSE to apply, but AE is not subject to this requirement (Doron 1999; Goldberg 2005; Funakoshi 2014). Given this verb-identity requirement, we can say that the availability vs. non-availability of two distinct verbs in the two clauses implicates the AE vs. VSE derivations of the elliptical clauses, respectively. In other words, my current analysis predicts that positive elliptical clauses as illustrated in (1) and (12), being associated with the AE derivation, should not need to obey the relevant requirement, whereas negative elliptical clauses as illustrated in (11) and (13) should obey it. The acceptability judgements reported in (20–23) show that this prediction is indeed borne out.

- (20) Taroo-wa susi-o sonobade tabeta. Hanako-wa *e* motikaetta.
 Taro-TOP sushi-ACC on.the.spot ate Hanako-TOP took.away
 lit. 'Taro ate sushi on the spot. Hanako took *e* away.'
 (no verb-identity requirement)
- (21)?? Taroo-wa susi-o sonobade tabeta. Hanako-mo *e* motikaeranakatta.
 Taro-TOP sushi-ACC on.the.spot ate Hanako-also didn't.take.away
 lit. 'Taro ate sushi on the spot. Hanako also didn't take *e* away.'
 (verb-identity requirement)
- (22) Taroo-wa susi-o sonobade tabenakatta. Hanako-mo *e* motikaetta.
 Taro-TOP sushi-ACC on.the.spot didn't.eat Hanako-also took.away
 lit. 'Taro didn't eat sushi on the spot. Hanako also took *e* away.'
 (no verb-identity requirement)
- (23)?? Taroo-wa susi-o sonobade tabenakatta. Hanako-mo *e* motikaeranakatta.
 Taro-TOP sushi-ACC on.the.spot didn't.eat Hanako-also didn't.take.away
 lit. 'Taro didn't eat sushi on the spot. Hanako also didn't take *e* away.'
 (verb-identity requirement)

The examples in (20) and (22) allow two distinct verbs – *taberu* 'to eat' and *motikaeru* 'take away' – to be used in the antecedent and elliptical clauses, respectively whereas the examples

in (21) and (23) do not.

4. Concluding Remarks

The major findings of this paper are summarized in Table 1.

Ex.	1 st clause	2 nd clause	Readings	Derivation	Null adjunct	V-identity req.
(1)	+	+	??only XP	AE (no V-to-Neg mvt)	*(16)	No (20)
(11)	+	–	✓only XP	VSE (V-to-Neg mvt)	✓(17)	Yes (21)
(12)	–	+	??only XP	AE (no V-to-Neg mvt)	??(18)	No (22)
(13)	–	–	✓only XP	VSE (V-to-Neg mvt)	✓(19)	Yes (23)

Table 1: Focus Mismatch under Ellipsis in Japanese: Data, Analysis and Diagnostics

I have argued that the derivation of an elliptical clause containing focus particles such as *dake* ‘only’ and *bakari* ‘only’ takes two different routes depending on the polarity of the clause in question: AE vs. VSE. I have further argued that the different derivations, in turn, are governed by the presence vs. absence of overt V-to-Neg movement in narrow syntactic computation. The results reported here indicate that a pluralistic approach is called for which utilizes a combination of methods suited to different interpretive and syntactic contexts (e.g., null adjunct readings, the verb-identity requirement, and the polarity of a clause) to reach a comprehensive understanding of null arguments in Japanese; neither a monolithically AE nor VSE-based analysis will not help elucidate the rich complexity of the focus mismatch phenomenon.

The most significant implication of my proposed analysis concerns head movement in Japanese. My analysis raises a new question why the polarity of an elliptical clause interactions with head movement in this language in the manners depicted in (14–15). I conjecture that the correlation is deeply rooted in the theory of Scope Economy (Fox 2000), namely, that a scope-shifting operation is licensed only if it results in a truth-conditionally distinct interpretation at the syntax-semantics interface; see also Takahashi (2008) and Maeda (2019) for further Japanese-internal evidence in favor of Scope Economy based on interactions among AE, scrambling and scope ambiguities. According to this view, a negative clause as illustrated in (11), with a quantificational elliptic object marked with *dake* ‘only’, could potentially yield a new scope interpretation (i.e., Neg > only) in addition to the base scope interpretation (i.e., only > Neg), *provided that overt V-to-Neg movement takes place in its derivation*. Such is not the case with the derivation of a positive elliptical clause as illustrated in (1), which only contains one quantificational argument in direct object position. This conjecture, in turn, opens a new avenue of research suggesting that not only head movement exists in Japanese grammar, but also that it may well be an instance of semantically active head movement in narrow syntax (Kishimoto 2007, 2008; Sato and Maeda in press) instead of a merely ornamental post-syntactic/phonological phenomenon (Chomsky 2000, 2001).

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