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# **Argument Ellipsis in Japanese Right Dislocation**\*

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### **1. Introduction**

Despite its strict head-final character, Japanese has a construction where some phrase appears in the postverbal position, which is called Japanese Right Dislocation (henceforth JRD). As shown in (1), both subjects and objects can appear postverbally, and there is a corresponding gap in the preverbal position.<sup>1</sup> (1c) schematizes the structure of JRD.

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<sup>&</sup>lt;sup>1</sup>JRD sentences are often found in colloquial speech. The particle *-yo* is attached to verbs to make the sentences more colloquial. Throughout this paper, postverbal phrases are underlined, and  $\Delta$  is used to indicate a gap without any theoretical commitments. Adjuncts can also appear postverbally (see Kuno 1978, Inoue 1978, Simon 1989, and Soshi and Hagiwara 2004, among others). However, I focus on JRD with arguments in this paper, leaving more detailed analysis of JRD with adjuncts for future research.

- (1) a.  $\Delta_i$  Ano hon-o yonda-yo, <u>Taroo-gai</u> that book-ACC read-PRT Taroo-NOM '(lit.)  $\Delta_i$  read that book, Taroo<sub>i</sub>'
  - b. Taroo-ga  $\Delta_i$  yonda-yo, <u>ano hon-o\_i</u> Taroo-NOM read-PRT that book-ACC '(lit.) Taroo read  $\Delta_i$ , that book<sub>i</sub>'

## c. $[\ldots \Delta_i \ldots V], XP_i$

Previous approaches to JRD can be roughly classified into at least four types, as schematically summarized in (2).

(2) a. Rightward movement approach

[ZP [YP ... t<sub>i</sub> ... V], XP<sub>i</sub>]
b. Double preposing approach

[ZP XP<sub>i</sub> [YP ... t<sub>i</sub> ... V]]

c. Repetition + deletion approach

[YP ... pro<sub>i</sub> ... V], [ZP XP<sub>i</sub> [YP ... t<sub>i</sub> ...]]

d. Base-generation approach

$$[_{ZP}[_{YP} \dots pro_i \dots V], XP_i]$$

Under the rightward movement approach in (2a) (see, e.g. Haraguchi 1973, Simon 1989, and Murayama 1999), the XP is directly moved to the sentence-final position. The double preposing approach in (2b) (Kurogi 2007; see also Abe 1999 for a discussion) claims that the XP undergoes leftward movement, and then the YP undergoes remnant movement. The repetition + deletion approach in (2c) (see, e.g. Kuno 1978, Abe 1999, Tanaka 2001, and Yamashita 2008; see also Kayne 1994, Endo 1996, and Whitman 2000 for slightly different implementations) assumes two near-identical clauses. Then, the XP is moved leftward within the second clause, and the rest of it gets deleted. Finally, under the base-generation approach in (2d) (see. e.g. Sells 1999 and Soshi and Hagiwara 2004), the XP is base-generated in the sentence-final position, and it is related to *pro* in the preverbal position.

Although these approaches differ in various ways, I focus on the following two aspects, which become relevant in the later discussions. First, notice that under the rightward movement and the double preposing approach, the gap in the preverbal position is claimed to be a trace of movement, while it is analyzed as *pro* under the repetition + deletion and the base-generation approach. Second, under the repetition + deletion approach, JRD consists of two clauses, while under the others, there is only one clause per sentence. In this paper, I first point out that JRD with Negative Polarity Items formed with the suffix *-sika* (henceforth *-sika* NPIs) and JRD with quantifiers pose a problem to these previous approaches, and then I propose a solution. Section 2 points out the fact that the gaps of JRD with *-sika* NPIs and with quantifiers behave unlike either traces or *pros*, which is unexpected under the previous approaches. Section 3 proposes that some instances of the gap in JRD are created via ellipsis. To substantiate this proposal, I claim, adapting the repetition + deletion approach, that they are created by an ellipsis process called *Argument Ellipsis* (see, e.g. Oku 1998, Kim 1999, Saito 2004, 2007a, 2007b, Takahashi 2008, and Takita 2008a, b), which is introduced there. In Section 4 I provide a piece of evidence in favor of the proposed analysis. Specifically, I point out that there are striking correlations between JRD and Argument Ellipsis with respect to the behavior of *wh*-phrases. Section 5 summarizes this paper with a brief discussion of some implications.

#### 2. The Problem for the Previous Approaches

To see the problem mentioned above, let us first consider the examples in (3). Tanaka (2001) observes that the gap in JRD can be realized as a full-fledged phrase or as an overt pronoun, as in (3a). This is called the "gapless" JRD, and has been taken to support the repetition + deletion approach.

(3)	a.	Taroo-ga	{ <sup>√</sup> LGB-o	$/^{\vee}$ sore-o $/^{\vee}\Delta$ } <sub>i</sub>	yonda-yo,	LGB-o <sub>i</sub>
		Taroo-NOM	LGB-ACC	it-ACC	read-PRT	LGB-ACC
		'(lit.) Taroo	read {LGB/			

b. LGB-o<sub>i</sub> Taroo-ga {\*LGB-o /\*sore-o/ $^{\vee}\Delta$ }<sub>i</sub> yonda-yo LGB-ACC Taroo-NOM LGB-ACC it-ACC read-PRT '(lit.) LGB<sub>i</sub>, Taroo read {LGB/it/ $\Delta$ }'

Unlike the gapless JRD, such "resumption" within a single clause is not possible for leftward movement in Japanese, no matter how displacement is analyzed (see, e.g. Saito 1985), as in (3b). Hence, the gapless JRD poses a problem to the approaches other than the repetition + deletion approach, since they posit only one clause for the representation of a single JRD sentence. On the other hand, under the repetition + deletion approach, nothing prohibits *pro* in the first clause from being replaced by a full-fledged phrase or an overt pronoun, since JRD is analyzed to consist of two clauses.

Bearing this in mind, let us consider JRD with *-sika* NPIs and with quantifiers. The examples in (4) illustrate some basic properties of *-sika* 

NPIs.<sup>2</sup>

(4)	a.	Taroo-ga Taroo-NOM	LGB-o LGB-ACC	yonda read	'Taroo read LGB'
	b.	Taroo-ga Taroo-NOM	LGB <b>-sika</b> LGB-sika	yom- <b>ana</b> -katta read-NEG-PAST	'Taroo read only LGB'
	c.	Taroo-ga Taroo-NOM	LGB-o LGB-acc	yom- <b>ana</b> -katta read-NEG-PAST	'Taroo didn't read LGB

(4a) is the baseline, and in (4b) the object is turned into an NPI by the suffix *-sika*. As an NPI, negation is required. Note that (4b) is truth-conditionally incompatible with (4c), which contains only negation. That is, (4b) entails (4a), while (4c) contradicts (4a).

Then, let us consider the examples in (5). As shown in (5a), Kuno (1978) points out that *-sika* NPIs can appear in JRD (see also Murayama 1999 for more examples). (5b) is the crucial example, which, to my knowledge, has been rarely discussed in the previous literature.

- (5) a. Taroo-ga  $\Delta_i$  yom-ana-katta-yo, <u>LGB-sika\_i</u> Taroo-NOM read-NEG-PAST-PRT LGB-SIKA '(lit.) Taroo read  $\Delta_i$ , only LGB<sub>i</sub>'
  - b. Taroo-ga {<sup>V</sup>LGB-sika/\*sore-o}<sub>i</sub> yom-ana-katta-yo, <u>LGB-sika</u><sub>i</sub> Taroo-NOM LGB-SIKA it-ACC read-NEG-PAST-PRT LGB-SIKA '(lit.) Taroo read {only LGB/it}<sub>i</sub>, only LGB<sub>i</sub>'

The examples in (5) indicate that the gap in JRD with *-sika* NPIs can be realized as a full-fledged phrase, but it cannot as an overt pronoun. As shown in (6), JRD with quantifiers exhibits the same pattern.<sup>3</sup>

(6) Taroo-ga { $\sqrt[]{nanika-o}} / *sore-o/{}^{\sqrt[]{}}\Delta$ }<sub>i</sub> yonda-yo, <u>nanika-o</u><sub>i</sub> Taroo-NOM something-ACC it-ACC read-PRT something-ACC '(lit.) Taroo read {something/it/ $\Delta$ }<sub>i</sub>, something<sub>i</sub>'

That is, the gap may be realized as a full-fledged quantifier, but not as an overt pronoun.

The pattern observed in (5) and (6) is schematically summarized as (7).

(7) [... { $^{\sqrt{NPI/quantifier}}$ /\*pronoun/ $^{\sqrt{\Delta}}_i$  ... V], {NPI/quantifier}<sub>i</sub>

 <sup>&</sup>lt;sup>2</sup>See Muraki 1978, Takahashi 1990, Aoyagi and Ishii 1994, Kato 1994, Tanaka 1997, and Saito 2005 for detailed discussions of *-sika* NPIs.
 <sup>3</sup>Attributing it to Haraguchi (1973), Abe (1999) observes that indefinite nouns behave in a

<sup>&</sup>lt;sup>3</sup>Attributing it to Haraguchi (1973), Abe (1999) observes that indefinite nouns behave in a similar way.

As in the case of the gapless JRD discussed above, the possibility of fullfledged phrases in the preverbal position is problematic for the rightward movement and the double preposing approach, since the gap is nothing but a trace under these approaches. Meanwhile, the impossibility of pronouns in that position causes a trouble for the repetition + deletion and the basegeneration approach, since the gap in question is *pro* under these approaches. In the next section, I argue that the problem can be solved once we admit the possibility of creating the gaps via ellipsis.

#### 3. Proposal

I propose that some instances of the gaps in JRD are derived by Argument Ellipsis, which directly elides an argument of a predicate under identity with an appropriate antecedent. First, I illustrate how this proposal explains the pattern in (7) in Section 3.1, and then, I provide some independent motivations of the crucial operation, i.e. Argument Ellipsis, in Section 3.2.

#### 3.1. How does the proposal work?

To implement the proposal, I adapt the repetition + deletion approach.<sup>4</sup> Then, JRD with *-sika* NPIs or with quantifiers is derived in the manner depicted in (8) (the order of the steps in (8b-c) is irrelevant).

- (8) a. Underlying structure [Clause1 ... NPI/quantifier ... V], [Clause2 ... NPI/quantifier ... V]
  - b. Argument Ellipsis in the first clause [Clause1 ... NPI/quantifier ... V], [Clause2 ... NPI/quantifier ... V]
  - c. Leftward movement followed by deletion in the second clause [Clause1 ... NPI/quantifier ... V], [Clause2 NPI/quantifier; [... t; ... V]]

As shown in (8a), underlyingly we have two identical clauses. This underly-

- (i) \*Taroo-sika LGB-sika yom-ana-katta
  - Taroo-SIKA LGB-SIKA read-NEG-PAST 'Only Taroo reads only LGB'

<sup>&</sup>lt;sup>4</sup>This choice is not without reasons. First, it naturally explains the gapless JRD (cf. (3a)), as argued by Tanaka (2001). Second, the core of my proposal is the idea that the gap results from ellipsis, licensed by the identical element in the postverbal position. This implies that we need to have two identical elements. Aoyagi and Ishii (1994), however, observe that single negation can license only one *-sika* NPI in a clause, as the ungrammaticality of (i) indicates.

Then, to execute my proposal under the approaches other than the repetition + deletion ap-

proach, it is necessary to complicate the licensing condition(s) of -sika NPIs. This is because these approaches posit only one clause, thus only one negation, for a single JRD sentence with a -sika NPI. On the other hand, this complication can be avoided under the repetition + deletion approach, since it allows us to posit two clauses, as in (8a).

ing structure should be independently allowed to derive the gapless JRD even under the original repetition + deletion approach. Then, the NPI/quantifier in the first clause undergoes Argument Ellipsis under identity with that in the second clause, as in (8b).<sup>5</sup> This step eventually gives us a gap in the preverbal position. Finally, as originally proposed by the repetition + deletion approach, the NPI/quantifier in the second clause undergoes leftward movement, and deletion of the rest of the clause takes place, giving rise to the desired surface string, as in (8c).<sup>6</sup> If Argument Ellipsis has not applied at the step in (8b), we obtain a JRD sentence which has a full-fledged *-sika* NPI or quantifier in the preverbal position.

The remaining task, then, is to explain the fact that overt pronouns are not allowed in the preverbal position in JRD with *-sika* NPIs and with quantifiers. Suppose that an overt pronoun is put in the first clause, and a *-sika* NPI or a quantifier in the second clause, as in (9). The examples in (9) correspond to the underlying structures of the relevant examples.

(9) a.\*Taroo-ga sore-o<sub>i</sub> yom-ana-katta-yo, Taroo-ga LGB-sika<sub>i</sub> Taroo-NOM it-ACC read-NEG-PAST-PRT Taroo-NOM LGB-SIKA yom-ana-katta-yo read-NEG-PAST-PRT '(lit.) Taroo didn't read it<sub>i</sub>, Taroo read only LGB<sub>i</sub>'

b.\*Taroo-ga sore-o<sub>i</sub> yonda-yo, Taroo-ga nanika-o<sub>i</sub> yonda-yo Taroo-NOM it-ACC read-PRT Taroo-NOM something-ACC read-PRT '(lit.) Taroo read it<sub>i</sub>, Taroo read something<sub>i</sub>'

In both examples, the former clause is semantically incompatible with the latter. This explains why the overt pronouns are not allowed in these cases.

Note that I am not claiming that *all* the gaps in JRD are necessarily derived by Argument Ellipsis. Overt pronouns should be allowed to appear in the preverbal position, as long as they do not trigger an incompatibility between the two clauses, as in (3a). The same holds for *pros*. That is, the gaps in sentences like (1a-b) and (3a) may be *pro*, or be derived by Argument Ellipsis. What is crucial here is that the gap *must* be a result of Argument

<sup>&</sup>lt;sup>5</sup>As far as I can tell, it does not affect the analysis whether Argument Ellipsis should be conceived as LF-copying or as PF-deletion. I indicate ellipsis in terms of PF-deletion just for the purpose of presentation.

<sup>&</sup>lt;sup>6</sup>As shown in (i), *-sika* NPIs can undergo long-distance scrambling, so it does not have to remain *in-situ* to be licensed by negation. Thus, we do not have to appeal to some non-constituent deletion to have a *-sika* NPI remnant. I would like to thank Marcel den Dikken (p.c.) for pointing out this issue.

LGB-sika<sub>i</sub>, Hanako-ga [Taroo-ga t<sub>i</sub> yom-ana-katta to] itteita (koto) LGB-SIKA Hanako-NOM Taroo-NOM read-NEG-PAST C said fact '(lit.) (the fact that) only LGB<sub>i</sub>, Hanako said that Taroo read t<sub>i</sub>'

Ellipsis, just in case the presence of pronouns, either overt or null, induces an incompatibility. *-Sika* NPIs and quantifiers create such configurations.

# 3.2. What is Argument Ellipsis?

As shown in the previous subsection, Argument Ellipsis plays a crucial role in explaining the pattern in (7). Argument Ellipsis is proposed by Oku (1998) and Kim (1999) to account for the observation that null arguments in languages like Japanese and Korean allow a sloppy reading (Sag 1976, Williams 1977), which is made by Otani and Whitman (1991) (see Huang 1987 for original observations in Chinese). Let us consider the examples in (10).<sup>7</sup>

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    (10)Taroo-wa [zibun-no hahaoya]-o sonkeisiteiru
    Taroo-TOP self-GEN mother-ACC respect
    'Taroo respects his mother'
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- a. Demo, Hanako-wa Δ sonkeisitei-nai
  but Hanako-TOP respect-NEG
  '(lit.) But, Hanako doesn't respect Δ (= Taroo's/Hanako's mother)'
- b. Demo, Hanako-wa kanozyo-o sonkeisitei-nai
   but Hanako-TOP her-ACC respect-NEG
   '(lit.) But, Hanako doesn't respect her (= Taroo's/\*Hanako's mother)

The reading where Hanako respects her own mother is available for (10a), where the object is missing, while it is not possible for (10b), which has an overt pronominal argument in the object position. This suggests that the missing object in (10a) cannot be simply *pro*.

Since the availability of a sloppy reading is a hallmark of ellipsis, it has been claimed that the null argument in (10b) also results from ellipsis. One such implementation is the Argument Ellipsis analysis.<sup>8</sup> Under this analysis, (10a) is analyzed to have a structure like (11), where the argument is directly elided (English words are used for ease of exposition).

# (11)... [TP Hanako [VP [self's mother] respect] Neg T]

The availability of the sloppy reading naturally follows, since the elided part contains an anaphor.

Recall that the proposed analysis of JRD crucially presupposes that Argument Ellipsis can target *-sika* NPIs and quantifiers. First, let us consider

<sup>&</sup>lt;sup>7</sup>Following Saito 2007a, I put negation in (10a-b), to avoid the possibility of null indefinite nouns (cf. Hoji 1998).

<sup>&</sup>lt;sup>8</sup>Otani and Whitman (1991) argue that the null object in question results from VP-ellipsis preceded by V-to-I raising. See Oku 1998, Kim 1999, and Takita 2008b for arguments in favor of the Argument Ellipsis analysis over the VP-ellipsis analysis.

the following example discussed in Takita 2008b.

(12)a. Taroo-wa [zibun-no riron]-sika sinzitei-nai si, Hanako-mo Taroo-TOP self-GEN theory-SIKA believe-NEG and Hanako-also  $\{\sqrt[]{zibun-no} riron-sika /*sore-o/\sqrt[]{\Delta}\}$  sinzitei-nai self-GEN theory-SIKA it-ACC believe-NEG '(intended) Taroo believes only his own theory, and Hanako also believes only her own theory'

## b. ... [TP Hanako-also [VP [self's theory] SIKA believe] Neg T]

(12a) indicates that the intended reading is allowed only when it has a full-fledged *-sika* NPI or a missing argument. Since an overt pronoun does not support the intended reading, the missing object cannot be *pro*. However, the availability of the intended reading follows, if Argument Ellipsis can target *-sika* NPIs. This is because what is elided under this analysis is nothing but a *-sika* NPI, as illustrated in (12b).

As for quantifiers, Takahashi (2008) discusses examples like (13).

- (13)a. Taroo-wa [sannin-no sensei]-o sonkeisiteiru Taroo-TOP three-GEN teacher-ACC respect 'Taroo respects three teachers'
  - b. Hanako-mo { $\sqrt[]{sannin-no}$  sensei-o / $\sqrt[]{karera-o/\sqrt[]{\Delta}}$  sonkeisiteiru Hanako-also three-GEN teacher-ACC them-ACC respect '(intended) Hanako also respects three teachers (although they are different from those respected by Taroo)'
  - c. ... [TP Hanako-also [VP [three teachers] respect] T]

Crucially, only (13b) with an overt quantified phrase or a missing argument allows the intended reading. This suggests that quantifiers are also subject to Argument Ellipsis, as schematically shown in (13c).

To sum up, I argued that the pattern in (7), which is problematic for all the previous approaches, can be explained by claiming that the gaps in JRD can be derived by ellipsis. Then, I provided independent motivations for Argument Ellipsis, which plays a crucial role in the proposed analysis.

#### 4. Evidence for the Proposed Analysis

This section provides a piece of evidence for the proposed analysis of JRD, which has to do with the behavior of *wh*-phrases.

Saito (2007b) points out that Argument Ellipsis cannot target just *wh*-phrases.<sup>9</sup> Let us consider the examples in (14).

<sup>&</sup>lt;sup>9</sup>Saito (2007b) attributes this observation to Koji Sugisaki (p.c.).

- (14)Taroo-wa [Hanako-ga nani-o katta ka] tazuneta Taroo-TOP Hanako-NOM what-ACC bought Q asked 'Taroo asked what Hanako bought'
  - a. Ziroo-mo [Yooko-ga {<sup>√</sup>nani-o /\*sore-o/\*∆} katta ka] tazuneta Ziroo-also Yooko-NOM what-ACC it-ACC bought Q asked '(intended) Ziroo also asked what Yooko bought'
  - b. Ziroo-mo ∆ tazuneta
     Ziroo-also asked
     '(intended) Ziroo also asked what Yooko bought'

Unlike the cases of *-sika* NPIs and quantifiers, the intended reading is impossible for sentences with a missing argument or with an overt pronoun, as shown in (14a). On the other hand, the intended reading becomes available if the whole embedded interrogative clause is elided, as in (14b).<sup>10</sup>

Then, it is predicated that JRD with just *wh*-phrases is not possible, since there is no way to derive the gap in the preverbal domain, while JRD with an embedded clause which contains a *wh*-phrase is possible. For the former case, Kuno (1978) observes that *wh*-phrases cannot appear in the postverbal position. The relevant examples are given in (15).<sup>11</sup>

- (15)a.\*Taroo-wa [Hanako-ga  $\Delta_i$  katta ka] tazuneta-yo, <u>nani-o\_i</u> Taroo-TOP Hanako-NOM bought Q asked-PRT what-ACC '(lit.) Taroo asked Hanako bought  $\Delta_i$ , what<sub>i</sub>'
  - b.\*Hanako-wa  $\Delta_i$  katta no, <u>nani-o\_i</u>? Hanako-TOP bought Q what-ACC '(lit.) Hanako bought  $\Delta_i$ , what<sub>i</sub>?'

As for the latter case, the grammaticality of the example in (16) indicates that the predication is borne out.

 $<sup>^{10}\</sup>mbox{Saito}$  (2004) shows that sentential arguments are subject to Argument Ellipsis, based on examples like (i).

<sup>(</sup>i) Taroo-wa [zibun-ga kasioi to] sinziteiru si, Hanako-mo  $\Delta$  sinziteiru Taroo-TOP self-NOM smart C believe and Hanako-also believe '(lit) Taroo believes he is smart, and Hanako also believes  $\Delta$  (= Taroo/Hanako is smart)'

<sup>(</sup>iii) Table believes he is small, and manako also believes  $\Delta$  (= Table/Hanako is small) The availability of the sloppy reading ensures that ellipsis is involved.

<sup>&</sup>lt;sup>11</sup>It has been noticed at least since Kuno 1978 that JRD does not obey the Right Roof Constraint, which prohibits rightward movement from crossing a clausal boundary (cf. Ross 1967). If the *wh*-phrase in (15a) is replaced by a non wh-phrase, the sentence becomes grammatical: (i) Taroo-wa [Hanako-ga  $\Delta_i$  katta ka] tazuneta-yo, <u>LGB-o\_i</u>

Taroo-TOP Hanako-NOM bought Q asked-PRT LGB-ACC '(lit.) Taroo asked Hanako bought  $\Delta_i$ , LGB<sub>i</sub>'

Hence, the ungrammaticality of (15a) has nothing to do with the constraint.

(16) Taroo-wa  $\Delta_i$  tazuneta-yo, <u>[Hanako-ga nani-o katta ka]</u> Taroo-TOP asked-PRT Hanako-NOM what-ACC bought Q '(lit.) Taroo asked  $\Delta_i$ , [what Hanako bought]<sub>i</sub>'

The proposed analysis makes a further prediction. If the source of ungrammaticality of the examples in (15) is the illicit application of Argument Ellipsis to *wh*-phrases, the sentences should improve by not applying Argument Ellipsis. This prediction is borne out, as shown in (17).

- (17)a. <sup>?</sup>Taroo-wa [Hanako-ga nani-o<sub>i</sub> katta ka] tazuneta-yo, <u>nani-o<sub>i</sub></u> Taroo-TOP Hanako-NOM what-ACC bought Q asked-PRT what-ACC '(lit.) Taroo asked Hanako bought what<sub>i</sub>, what<sub>i</sub>'
  - b. Hanako-wa nani-o<sub>i</sub> katta no, <u>nani-o<sub>i</sub></u>? Hanako-TOP what-ACC bought Q what-ACC '(lit.) Hanako bought what<sub>i</sub>, what<sub>i</sub>?'

Although I do not have any solid answer for the question why *wh*-phrases resist Argument Ellipsis, it is these correlations between Argument Ellipsis and JRD regarding *wh*-phrases that support the proposed analysis.

## 5. Concluding Remarks

In this paper, I first pointed out that the behavior of the gaps in Japanese Right Dislocation (JRD) with *-sika* NPIs and with quantifiers poses a problem to all the previous approaches to JRD. To solve this problem, I proposed that some instances of the gaps are derived by an independently motivated ellipsis process, Argument Ellipsis. Then, I provided a piece of evidence for the proposed analysis, by showing striking correlations between Argument Ellipsis and JRD with respect to the behavior of *wh*-phrases.

Finally, I briefly discuss some implications. First, the connection between JRD and Argument Ellipsis established by the proposed analysis enables us to contribute the study of Argument Ellipsis through that of JRD. In other words, JRD provides a novel empirical test ground for proposals regarding Argument Ellipsis. This is quite interesting since these two domains have been studied separately, and explored by Takita (in prep.) in detail.

Second, given Sugisaki's (2008) finding that Japanese-speaking children have adult-like knowledge of JRD from the very early stage, it is interesting to check how JRD with *-sika* NPIs and with quantifiers behave in child Japanese. Specifically, together with Sugisaki's (2007) finding that Japanese-speaking children have the knowledge of Argument Ellipsis from the earliest observable stage (but see Otaki 2008 for discussion), our analysis predicts a correlation between Argument Ellipsis and JRD with respect to *-sika* NPIs and quantifiers in child Japanese. I leave these issues for future research.

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