

FURTHER NOTES ON NP-ELLIPSIS IN SOME DIALECTS OF JAPANESE*

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1. Introduction

It has been debated in Japanese syntax whether the language has NP-ellipsis. The issue has broad implications for research into the structure of nominal phrases and the mechanism for licensing of ellipsis, among others. Generally speaking, there have been two alternative analyses for cases like the following:

- (1) a. Haruna-no kenkyuu-nitaisuru taido-wa ii ga,
Haruna-GEN research-toward attitude-TOP good though

‘Though Haruna’s attitude toward research is good,’

- b. Mariko-no-wa yoku-nai.
Mariko-GEN-TOP good-not

‘Mariko’s is not good.’

The clause in (1a) is intended to serve as the antecedent for the clause in (1b), where the subject is a reduced nominal phrase. In this context, (1b) means that Mariko’s attitude toward research is not good, indicating that somehow the part corresponding to *kenkyuu-nitaisuru taido* ‘attitude toward research’ in (1a) is missing in (1b). One analysis, due to Saito and Murasugi (1990), assumes that (1b) involves NP-ellipsis as illustrated below:

- (2) [_{DP} Mariko-no [_{D'} [_{NP} ~~kenkyuu-nitaisuru-taido~~] [_D e]]]-wa yoku-nai
Mariko-GEN research-toward attitude -TOP good-not

Assuming that the nominal phrase in question is a DP, Saito and Murasugi (1990) argue that it originally has a full-fledged DP structure as shown above and subsequently is reduced by elision of the NP complement of the D head, which happens to be empty in Japanese. If elided constituents need to be licensed by some kinds of functional head as argued by Saito and Murasugi (1990) and Lobeck (1995), the existence of NP-ellipsis in Japanese implies that

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there ought to be a functional head in the nominal phrase in the language.

The other approach to the phenomenon in question is what we may call the “pro-form plus haplology” analysis, which is proposed by Okutsu (1974) and has recently been revived by Li (2011), Bae (2012) and Hiraiwa (2016). These researchers note that in Japanese, the pro-form corresponding to the pronoun *one* in English is expressed as *no*, which happens to have the same phonetic form as the genitive marker (see also Kitagawa and Ross (1982)). Consider the following example:

- (3) Ano akai sukaato-wa kono aoi **no** yorimo kawaii.
 that red skirt-TOP this blue one than pretty

‘That red skirt is prettier than this blue one.’

The pro-form plus haplology analysis assumes that the reduced nominal in (1b) has the underlying form indicated in (4).

- (4) [_{NP} Mariko-no ~~no~~]
 Mariko-GEN one

‘Mariko’s ~~one~~’

In (4), the whole expression is headed by the pronoun *no*, which is subject to deletion by haplology to avoid a sequence of two phonetically identical expressions, namely the genitive marker *no* and the pro-form *no*. One of the consequences we have if this line of analysis is correct is that the phenomenon in question does not provide an argument for the postulation of the abstract D head in Japanese.

Li (2011) and Bae (2012) point out that in the dialects of Japanese where the genitive marker and the pro-form are realized differently, the pronoun does surface in their counterparts of (1b). Let us first consider the following examples from the Nagasaki dialect of Japanese (henceforth Nagasaki Japanese or just NJ):

- (5) a. Takuya-**n** keitai
 Takuya-GEN cell.phone
 ‘Takuya’s cell phone’
 b. Ano akaka sukaato-wa kon aoka **to** yorimo kawaika.
 that red skirt-TOP this blue one than pretty

‘That red skirt is prettier than this blue one.’

We can tell from (5a) that the genitive marker is *n* in NJ, and from (5b), which directly corresponds to (3), that the relevant pro-form is realized as *to* in NJ. Bearing these in mind, let us consider the following example in NJ, cited from Maeda and Takahashi (2016):

- (6) Haruna-n taido-wa Mariko-n to yorimo rippayatta.
 Haruna-GEN attitude-TOP Mariko-GEN one than good

‘lit. Haruna’s attitude was better than Mariko’s one.’

This example contains two nominal phrases, one corresponding to Haruna’s attitude and the other corresponding to Mariko’s one.¹ In the latter, the pro-form *to* is overtly expressed although it immediately follows the genitive marker. This fact is directly predicted by the pro-form plus haplology analysis, which just says that haplology is not operative so that the pronoun comes to the surface. On the other hand, the NP-ellipsis analysis would have difficulty accommodating (6) since it would not assume that the pro-form is involved in NP-ellipsis.

In Maeda and Takahashi (2016), we closely examined the relevant construction in NJ and argued that despite the appearance, reduced nominal phrases in NJ such as the one in (6) actually involve ellipsis. In this article, we buttress Maeda and Takahashi’s (2016) basic conclusion by providing data from two other dialects of Japanese, the Oita dialect (hereafter, Oita Japanese or just OJ) and the Toyama dialect (Toyama Japanese or just TJ). In these dialects, just as in NJ, the genitive marker and the relevant pro-form have different phonetic realizations and significantly they co-occur in reduced nominal phrases. And yet we argue that those reduced nominal phrases are best analyzed as involving NP-ellipsis. In the next section, we briefly summarize the observations we made in Maeda and Takahashi (2016) for NJ. In section 3, we present data from the two dialects mentioned above, observing that the conclusion we drew from NJ holds of them as well. In section 4, we conclude this article with some remarks about the issue concerning the availability of NP-ellipsis in Japanese.

2. Maeda and Takahashi (2016) on Nagasaki Japanese

Maeda and Takahashi (2016) examine reduced nominal phrases in NJ, which is among the dialects spoken in the western part of Kyushu Island, and argue that they involve NP-ellipsis despite the fact that they apparently contain a pro-form. Our first argument has to do with our observation that reduced nominals in NJ allow sloppy interpretation, which is usually associated with ellipsis. Let us first consider the following English examples:

- (7) a. Harry loves his mother, and Ron does [_{VP} *e*], too.
 b. Harry loves his mother, and Ron loves her, too.

These examples differ in whether their second clauses contain ellipsis or a pronoun. Taking the first clause *Harry loves his mother* to mean that Harry loves Harry’s mother, we have ambiguity in the second clause in (7a), which means either that Ron loves Harry’s mother

¹ The expression *Mariko’s one* in English is ungrammatical. It is used in the text just to refer to the relevant nominal phrase in (6).

(the strict reading) or that Ron loves his own mother (the sloppy reading). In (7b), on the other hand, we do not have this sort of ambiguity: the second clause is limited to the strict reading.

Assuming the possibility of sloppy interpretation to be indicative of ellipsis, Maeda and Takahashi (2016) consider the following data in NJ:

- (8) a. Satuma-n soko-n tonosama-e-n tyuusei-wa rikaidekiru batten,
 Satsuma-GEN it-GEN lord-to-GEN loyalty-TOP understandable though
 ‘Though Satsuma’s loyalty to its lord is understandable,’
 b. Simabara-n to-wa rikaidekin.
 Shimabara-GEN one-TOP not.understandable
 ‘lit. Shimabara’s one is not understandable.’
- (9) a. Shimabara’s loyalty to Satsuma’s lord is not understandable.
 b. Shimabara’s loyalty to Shimabara’s lord is not understandable.

In (8a) the pronoun *soko* ‘it/there’ is intended to be bound by the genitive phrase *Satuma*. The sentence serves as the antecedent sentence for (8b), where the subject is a reduced nominal phrase consisting of the genitive phrase and the alleged pronoun *to*. In the context given, (8b) is ambiguous between the strict reading in (9a) and the sloppy reading in (9b). In particular, the possibility of the sloppy reading suggests the involvement of ellipsis.

Maeda and Takahashi’s (2016) second argument concerns the possibility of extracting an element out of an elided constituent. It can be used as a test for discerning ellipsis from pro-forms as it necessitates the existence of full-fledged internal structure prior to reduction. Consider the English examples below:

- (10) a. I know which boy the teacher scolded, and which girl he didn’t [_{VP} *e*].
 b. *I know which boy the teacher scolded, and which girl he didn’t do it.

The contrast here shows that while ellipsis allows movement from the inside (the *wh*-phrase *which girl* moves out of the elided VP in (10a)), pro-forms do not (*wh*-extraction is incompatible with *do it* in (10b)).

With this in mind, let us consider (11).

- (11) a. Haruna-n piano-n toriatukai-wa teineiya kedo,
 Haruna-GEN piano-GEN handling-TOP careful though
 ‘Though Haruna’s handling of the piano is careful,’

- b. Mariko-n to-wa sozatuya ne.
 Mariko-GEN one-TOP rough PART
 ‘lit. Mariko’s one is rough.’

Anteceded by (11a), (11b) means that Mariko’s handling of the piano is rough. Thus, the pro-form *to* in (11b) corresponds to the part consisting of the head noun *toriatukai* ‘handling’ and its internal argument *piano-n* ‘of the piano’ in (11a). (11) should be compared with (12).

- (12) a. Haruna-n piano-n toriatukai-wa teineiya kedo,
 Haruna-GEN piano-GEN handling-TOP careful though

‘Though Haruna’s handling of the piano is careful,’

- b. Mariko-n **huruuto-n** to-wa sozatuya ne.
 Mariko-GEN flute-GEN one-TOP rough PART

‘lit. Mariko’s one of the flute is rough.’

The only difference between (11) and (12) is that the internal argument is overtly expressed in the second clause in the latter. Namely, in (12b), the internal argument of the understood noun *toriatukai* ‘handling’ survives reduction, so that the whole clause means that Mariko’s handling of the flute is rough. (12b) can be analyzed as below if the reduced nominal phrase is assumed to involve NP-ellipsis:

- (13) [DP Mariko-GEN [DP flute-GEN [D' [[NP ~~flute-handling~~] to] D]]]

Here the internal argument *flute-GEN* is dislocated by movement. Moreover, to θ -mark it, the head noun must be present underlyingly; then ellipsis applies to elide the phrase containing the noun and the trace (or copy) of the internal argument. Thus, (12b) is an indication that the internal structure of NP exists in the underlying form, which is nothing but what the NP-ellipsis analysis postulates.

The third argument Maeda and Takahashi (2016) provide for the existence of ellipsis in NJ comes from covert extraction. Let us first consider the following data in Standard Japanese (SJ), taken from Takahashi (2008b):

- (14) a. Taitei-no sosiki-kara-no azia-no ikka-koku-no dattai-wa
 most-GEN organization-from-GEN Asia-GEN one-country-GEN withdrawal-TOP
 mitomerareta kedo,
 was.approved though

‘lit. Though from most organizations one Asian country’s withdrawal was approved,’

- b. yooroppa-no ikka-koku-no-wa mitomerarenakatta.
 Europe-GEN one-country-GEN-TOP was.not.approved
 ‘lit. one European country’s was not approved.’

In (14a), scrambling takes place inside the subject nominal phrase so that the internal argument *taitei-no sosiki-kara-no* ‘from most organizations’ precedes the external argument *azia-no ikka-koku-no* ‘one Asian country’s.’ This makes it possible for the quantified phrase (QP) headed by *taitei-no* ‘most’ to take wide scope over the QP *ikka-koku* ‘one country.’ (14a) is intended to antecede (14b), where the subject nominal phrase is reduced and only contains *yooroppa-no ikka-koku-no* ‘one European country’s.’ What is noteworthy is that (14b) also allows the reading where the understood QP *most organizations* takes wide scope over the QP *one European country*.

Takahashi (2008b) analyzes (14) as below, where English words are used for convenience:

- (15) a. [_{DP} from most organizations [_{DP} one Asian country’s [_{NP} *t*_{PP} withdrawal]]] ...
 b. [_{DP} ~~from most organizations~~ [_{DP} one European country’s [_{NP} ~~*t*_{PP} withdrawal~~]]] ...

In (15a), which is the structure of the subject nominal phrase in (14a), the internal argument PP is adjoined to DP by scrambling. In (15b), which is the representation of the subject DP in (14b), the PP is moved from inside NP by scrambling, followed by ellipsis of NP (NP-ellipsis) and of the preposed PP (argument ellipsis).² Scrambling of the PP in (15b) is posited to account for the reading where *most organizations* scopes out *one European country*. This analysis, if correct, shows that extraction out of elided NP is possible, though its effect is made invisible by argument ellipsis.

Let us then consider the NJ counterpart of (14), pointed out by Maeda and Takahashi (2016).

- (16) a. Taitei-no sosiki-kara-n azia-n ikka-koku-n dattai-wa
 most-GEN organization-from-GEN Asia-GEN one-country-GEN withdrawal-TOP
 mitomerareta kedo,
 was.approved though
 ‘lit. Though from most organizations one Asian country’s withdrawal was approved,’

² Argument ellipsis is assumed in the literature to be available in Japanese grammar. Because of space limitation, we do not go into argument ellipsis here and just assume that it is available in Japanese. Interested readers are referred to Takahashi (2008a) and the references therein.

- b. yooroppa-n ikka-koku-n to-wa mitomeraren'yatta.
 Europe-GEN one-country-GEN one-TOP was.not.approved
 'lit. one European country's one was not approved.'

These are word-by-word translations of (14a-b) except that the alleged pronoun *to* occurs in (16b). Significantly, (16) is construed in exactly the same way as (14), indicating that (16b) should involve covert extraction of the PP *from most organizations* out of NP. If the reduced nominal phrase in (16b) contained an unstructured pro-form, the fact would be difficult to explain.

Based on these considerations, Maeda and Takahashi (2016) conclude that NP-ellipsis is indeed available in NJ, where reduced nominal phrases in question are composed of genitive remnants and the alleged pro-form. In an effort to elucidate the structure of truncated nominals in NJ, Maeda and Takahashi make further observations.

First of all, the alleged pro-form *to* never co-occurs with overt nouns, as shown below:

- (17) *Haruna-n taido-wa Mariko-n {taido to / to taido} yorimo
 Haruna-GEN attitude-TOP Mariko-GEN attitude one / one attitude than
 rippayatta.
 good

'lit. Haruna's attitude was better than Mariko's attitude one/one attitude.'

Here the pro-form *to* is never accompanied by the noun *taido* 'attitude.' Next, the following example shows that *to* precedes number (#) and classifier heads:

- (18) a. Haruna-wa [Murakami-n hon san-satu]-ba katta.
 Haruna-TOP Murakami-GEN book three-CL-ACC bought
 'lit. Haruna bought Murakami's three books.'

- b. Mariko-wa [Isaka-n to ni-satu]-ba katta.
 Mariko-TOP Isaka-GEN one two-CL-ACC bought
 'lit. Mariko bought Isaka's two ones.'

In (18a), the object nominal phrase contains the noun *hon*, which is followed by the number/classifier expression *sansatu*. Since Japanese phrase structure is head-final, the noun should be structurally lower than the number/classifier heads. In (18b), the purported pro-form *to* is also followed by the number/classifier expression, which indicates that *to* is lower than the number/classifier heads.

Considering those facts, Maeda and Takahashi postulate the structures below for reduced

nominal phrases in NJ.³

- (19) a. [DP Mariko-n [D' [nP [NP ~~taido~~_{ON}] to_n] D]]
- b. [DP Isaka-n [D' [#P [CLP [nP [NP ~~hon~~_{NN}] to_n] satu_{CL}] ni#] D]]

The representation in (19a) is the structure of the reduced nominal in (6b) *Mariko-n to* ‘Mariko’s one.’ The alleged pronoun *to* is analyzed as a light noun head, taking NP as its complement. The NP in this case consists of the noun *taido* ‘attitude,’ which is ultimately elided. (19b) is the structure of the object nominal phrase in (18b). The *nP* headed by *to* is selected by the classifier head, which is to be combined with the number head presumably by morphological merger. The light noun *to* selects NP headed by the noun *hon* ‘book,’ which is to be elided to derive the actual form in (18b). Because *to* never co-occurs with Ns, Maeda and Takahashi suspect that the *n* head *to* contains what Merchant (2001) calls the E(llipsis)-feature, which instructs PF not to pronounce its complement. The presence of the E-feature ensures that NP-ellipsis is obligatory with *to*.

3. Confirming Data from Oita and Toyama Japanese

In this section we show that reduced nominal phrases in Oita and Toyama Japanese behave in almost the same way as their counterparts in NJ. They involve what appear to be pro-forms, but we show that they pass the tests for ellipsis.

3.1. Oita Japanese

Oita Japanese (OJ) is a dialect spoken in the prefecture of Oita, which is in the eastern part of Kyushu Island.⁴ Its genitive marker and pro-form corresponding to *no* in SJ (or *one* in English) are illustrated below:

³ See Cheng and Sybesma (1999) and Watanabe (2006), among others, for analyses of nominal phrases containing # and classifier heads.

⁴ Another dialect is spoken in the prefecture of Oita. It is the Hita dialect, mainly spoken in the Hita area. Its pro-form corresponding to *one* in English is *tu*, rather than *no*, as shown below:

- (i) Haruna-no taido-wa iinya kedo, Mariko-n (tu)-wa yoku-naittyā ne.
 Haruna-GEN attitude-TOP good though Mariko-GEN one-TOP good-not PART

‘lit. Though Haruna’s attitude is good, Mariko’s (one) is not good.’

It is optional according to our informants. As its phonetic realization is clearly different from that of the genitive marker, which is *n* in the Hita dialect too, something other than haplology seems to be operative in its omission. We leave investigation of this dialect to our future research.

- (20) Takuya-**no/n** keitai
Takuya-GEN cell.phone

‘Takuya’s cell phone’

- (21) a. Haruna-wa akai wanpiisu-o koota.
Haruna-TOP red one.piece.dress-ACC bought

‘Haruna bought a red one-piece dress.’

- b. Mariko-wa aoi **no-o** koota.
Mariko-TOP blue one-ACC bought

‘Mariko bought a blue one.’

As shown in (20), the genitive marker is realized as either *no* or *n*. In (21b), the pro-form *no* is used and it takes *wanpiisu* ‘one-piece dress’ in (21a) as its antecedent. Thus, OJ is similar to SJ in the relevant respects, except that it optionally allows *n* as the genitive marker.

Let us now consider the OJ counterpart of (1) and (6).

- (22) a. Haruna-**no/n** taido-wa iinya kedo,
Haruna-GEN attitude-TOP good though

‘Though Haruna’s attitude is good,’

- b. Mariko-**n** **no-wa** yoku-nai ne.
Mariko-GEN one-TOP good-not PART

‘lit. Mariko’s one is not good.’

Preceded by (22a), (22b) has a reduced nominal phrase as its subject. In (22b), the genitive marker *n* is followed by the pro-form *no*, which takes the noun *taido* ‘attitude’ in (22a) as its antecedent.⁵ Thus, what appears to be a pro-form occurs in the relevant construction in OJ just as in NJ. We will show below that truncated nominal phrases in OJ do exhibit properties of ellipsis.

First of all, they allow sloppy interpretation. Below is the OJ counterpart of (8):

- (23) a. Satuma-**no** soko-**no** tonosama-e-**n** tyuusei-wa rikaidekirunya kedo,
Satsuma-GEN it-GEN lord-to-GEN loyalty-TOP understandable though

‘Though Satsuma’s loyalty to its lord is understandable,’

⁵ Interestingly, the genitive phrase in the reduced nominal phrase is only realized as *n*. That it cannot be *no* in this case might be an effect of haplology.

- b. Simabara-n no-wa rikaidekin.
 Shimabara-GEN one-TOP not.understandable
 ‘lit. Shimabara’s one is not understandable.’

Just like (8), (23) exhibits ambiguity. Anteceded by (23a), which means that Satsuma’s loyalty to Satsuma’s lord is understandable, (23b) means either that Shimabara’s loyalty to Satsuma’s lord is not understandable (the strict reading) or that Shimabara’s loyalty to Shimabara’s lord is not understandable (the sloppy reading). Especially, the presence of the second reading indicates the involvement of ellipsis.

Secondly, overt extraction is allowed.

- (24) a. Haruna-no hootyoo-no toriatukai-wa teineiya kedo,
 Haruna-GEN kitchen.knife-GEN handling-TOP careful though
 ‘Though Haruna’s handling of the kitchen knife is careful,’
 b. Mariko-no manaita-n no-wa sozatuya ne.
 Mariko-GEN cutting.board-GEN one-TOP rough PART
 ‘lit. Mariko’s one of the cutting board is rough.’

The subject in (24a) contains a noun corresponding to *handling*, which takes two arguments, *Haruna* as the external argument and *hootyoo* ‘kitchen knife’ as the internal argument. (24a) can be followed by (24b), where the internal argument of the missing noun, namely *manaita* ‘the cutting board,’ survives reduction. This is analogous to what we observed in (12) for NJ.

Thirdly, covert extraction is permitted as well. (25) is the OJ counterpart of the SJ data in (14) and the NJ data in (16).

- (25) a. Taitei-no sosiki-kara-no azia-no ikka-koku-no dattai-wa
 most-GEN organization-from-GEN Asia-GEN one-country-GEN withdrawal-TOP
 mitomeraretanya kedo,
 was.approved though
 ‘lit. Though from most organizations one Asian country’s withdrawal was approved,’
 b. yooroppa-no ikka-koku-n no-wa mitomerarenatta.
 Europe-GEN one-country-GEN one-TOP was.not.approved
 ‘lit. one European country’s one was not approved.’

Importantly, (25) behaves in exactly the same way as (14) and (16). Anteceded by (25a), which is scopally ambiguous, (25b) is ambiguous, too. Especially, under the assumption we made for (14), the reading of (25b) where the understood QP *most organizations* takes wide

scope over the QP *one European country* is obtained by movement of the PP *from most organizations* out of NP, with the PP ultimately elided (recall the discussion for (14)). This necessitates the existence of a full-fledged NP structure in (25b).

We further observe that the alleged pro-form *no* in OJ behaves like its counterpart *to* in NJ in other respects. It never co-occurs with overt nouns, as shown below (cf. (17)):

- (26) a. Haruna-no/n taido-wa iinya kedo,
 Haruna-GEN attitude-TOP good though
 ‘Though Haruna’s attitude is good,’
 b. *Mariko-n {**taido no / no taido**}-wa yoku-nai ne.
 Mariko-GEN attitude one one attitude-TOP good-not PART
 ‘lit. Mariko’s {attitude one/one attitude} is not good.’

In addition, it precedes number (#) and classifier heads (cf. (18)).

- (27) a. Haruna-wa [Murakami-no hon san-satu]-o koota.
 Haruna-TOP Murakami-GEN book three-CL-ACC bought
 ‘lit. Haruna bought Murakami’s three books.’
 b. Mariko-wa [Isaka-n **no ni-satu**]-o koota.
 Mariko-TOP Isaka-GEN one two-CL-ACC bought
 ‘lit. Mariko bought Isaka’s two ones.’

Then we are led to assume that the reduced nominal phrases in OJ in (22b) and (27b) have the following structures:

- (28) a. [DP Mariko-n [D' [NP [NP ~~taido~~] no_n] D]] (for (22b))
 b. [DP Isaka-n [D' [#P [CLP [NP [NP ~~hon~~] no_n] satu_{CL}] ni_#] D]] (for (27b))

The alleged pro-form *no* is reanalyzed as the light noun head *n*, which selects NP. The *n* head *no* comes with an E-feature, causing obligatory NP-ellipsis.

3.2. Toyama Japanese

Toyama Japanese (TJ) is a dialect spoken in the prefecture of Toyama, located in Central Japan. Just like SJ, it uses *no* as the genitive marker, as illustrated below:

- (29) Takuya-**no** keitai
 Takuya-GEN cell.phone
 ‘Takuya’s cell phone’

The pro-form corresponding to *no* in SJ (or *one* in English) is *ga*, as shown below:⁶

- (30) a. Haruna-wa akai wanpiisu-o koota.
 Haruna-TOP red one.piece.dress-ACC bought
 ‘Haruna bought a read one-piece dress.’
- b. Mariko-wa aoi **ga**-o koota.
 Mariko-TOP blue one-ACC bought
 ‘Mariko bought a blue one.’

Nominal reduction is expressed as in (31) in TJ.

- (31) a. Haruna-no taido-wa iigaya kedo,
 Haruna-GEN attitude-TOP good though
 ‘Though Haruna’s attitude is good,’
- b. Mariko-**no** **ga**-wa yoo-nai wa.
 Mariko-GEN one-TOP good-not PART
 ‘lit. Mariko’s one is not good.’

The subject in (31b) is a reduced nominal phrase, where the genitive marker *no* is followed by the pro-form *ga*, which takes the noun *taido* ‘attitude’ in (31a) as its antecedent. Thus, both the genitive marker and the pro-form manifest themselves in the relevant construction in TJ just as in NJ and OJ.

We now examine whether truncated nominals in TJ pass the tests for ellipsis. Let us begin by considering whether they allow sloppy interpretation.

- (32) a. Satuma-no soko-no tonosama-e-no tyuusei-wa rikaidekirugaya kedo,
 Satsuma-GEN it-GEN lord-to-GEN loyalty-TOP understandable hough
 ‘Though Satsuma’s loyalty to its lord is understandable,’
- b. Shimabara-no **ga**-wa rikaidekin nee.
 Shimabara-GEN one-TOP not.understandable PART
 ‘lit. Shimabara’s one is not understandable.’

Preceded by (32a), which means that Satsuma’s loyalty to Satsuma’s lord is understandable, (32b) can have the sloppy reading that Shimabara’s loyalty to Shimabara’s lord is not

⁶ The pro-form *ga* in TJ is actually pronounced /ŋa/ (Konishi (2016)). Nonetheless, we indicate it as *ga* for convenience.

understandable.⁷

Next, the following example pertains to overt extraction out of NP:

- (33) a. Haruna-no hootyoo-no toriatukai-wa teineiya kedo,
 Haruna-GEN kitchen.knife-GEN handling-TOP careful though
 ‘Though Haruna’s handling of the kitchen knife is careful,’
 b. Mariko-no manaita-no ga-wa sozatuya ne.
 Mariko-GEN cutting.board-GEN one-TOP rough PART
 ‘lit. Mariko’s one of the cutting board is rough.’

In (33b), which is intended to be anteceded by (33a), the alleged pro-form *ga* is accompanied by two genitive phrases. We asked four informants to rate the example on a scale of one (bad) to five (perfectly acceptable). The mean was 3.5: two judged it as perfect or almost perfect, whereas the other two rated it as bad or intermediate. Overt extraction of the internal argument *manaita* ‘the cutting board’ out of NP is acceptable to the former group.

Covert extraction yielded slightly clearer judgment. Consider the following data:

- (34) a. Taitei-no sosiki-kara-no azia-no ikka-koku-no dattai-wa
 most-GEN organization-from-GEN Asia-GEN one-country-GEN withdrawal-TOP
 mitomerareta kedo,
 was.approved though
 ‘lit. Though from most organizations one Asian country’s withdrawal was approved,’
 b. yooroppa-no ikka-koku-no ga-wa mitomerarenkatta.
 Europe-GEN one-country-GEN one-TOP was.not.approved
 ‘lit. one European country’s one was not approved.’

This is the TJ counterpart of (14), (16) and (25). Two of our informants rated (34b) with the relevant scope ambiguity as perfectly possible, one as almost possible, and one as almost impossible. On a scale of 1 to 5, the mean was 4. We may take this to mean that covert extraction is basically allowed in TJ.

The alleged pro-form *ga* in TJ never co-occurs with overt nouns, as shown below:

⁷ We asked four speakers of TJ to judge (33). Two of them judged the sloppy reading of (33b) as perfectly possible and the other two as almost possible. As for the strict reading, two judged it as good as the sloppy reading, but the two remaining informants judged it as slightly harder to obtain. We suspect that some pragmatic factor is responsible for the last judgment: it might have been difficult for the speakers in question to imagine the situation where the people of one territory (that is, Shimabara) are loyal to the lord of another (Satsuma).

- (35) a. Haruna-no taido-wa iigaya kedo,
 Haruna-GEN attitude-TOP good though
 ‘Though Haruna’s attitude is good,’
 b. *Mariko-no {taido ga / ga taido}-wa yoku-nai ne.
 Mariko-GEN attitude one one attitude-TOP good-not PART
 ‘lit. Mariko’s {attitude one/one attitude} is not good.’

(35b) was judged by all the informants as impossible.

The following data is to see the relative position of *ga* with number and classifier heads:

- (36) a. Haruna-wa [Murakami-no hon san-satu]-o koota.
 Haruna-TOP Murakami-GEN book three-CL-ACC bought
 ‘lit. Haruna bought Murakami’s three books.’
 b. Mariko-wa [Isaka-no ga ni-satu]-o koota.
 Mariko-TOP Isaka-GEN one two-CL-ACC bought
 ‘lit. Mariko bought Isaka’s two ones.’

Two informants rated (36b) as perfect, while the other two did not like it very much. An interfering factor is that (36b) can be expressed alternatively as follows:

- (37) Mariko-wa [Isaka-no ga]-o ni-satu koota.
 Mariko-TOP Isaka-GEN one-ACC two-CL bought
 ‘lit. Mariko bought Isaka’s two ones.’

Here the accusative case marker immediately follows *ga*, indicating that the numeral-classifier phrase acts as a floating quantifier, dislocated out of the nominal phrase. This example was judged as perfect by all the informants. We suspect that the two speakers who gave (36b) a low score compared it with (37) and judged it as not so good.

To sum up, we think that TJ behaves in almost the same way as the other dialects considered above, though there are some complications. We leave it to future research to resolve them.

4. Concluding Remarks

We have argued that NP-ellipsis is involved in reduced nominal phrases with alleged pro-forms in OJ and TJ as well as in NJ. As suggested in Maeda and Takahashi (2016), the pro-forms in question should better be reanalyzed as markers of ellipsis: they may well be the

realization of what Merchant (2001) calls an E(llipsis)-feature. Given that they take NP as their complement and that their position is lower than those of number and classifier heads, it is reasonable to identify them as light noun heads, a nominal analogue of *v*.

This opens up the possibility of analyzing the case of NP-ellipsis in SJ in (1b) as follows:

- (38) [DP Mariko-no [D' [_{nP} [_{NP} [_{NP} ~~taido~~] [_n ~~no~~]] D]]

Just as in the dialects considered above, the whole nominal phrase contains the alleged pro-form, which is realized as *no* in SJ, as the light noun. The *n* head causes its NP complement to be elided (NP-ellipsis). At the same time, haplology is operative in SJ (Okutsu (1974)), deleting the light noun *no* to avoid the sequence of the genitive marker *no* and the light noun *no*. The analysis in (38) is nothing but a combination of the NP-ellipsis analysis in (2) and the pro-form plus haplology analysis in (4).

We end this article by pointing out one of the consequences of our hybrid analysis. The assumption that the alleged pro-form *no* in SJ is actually a light noun head with an E-feature leads us to postulate NP-ellipsis even in (3), repeated below as (39):

- (39) Ano akai sukaato-wa kono aoi **no** yorimo kawaii.
that red skirt-TOP this blue one than pretty

‘That red skirt is prettier than this blue one.’

The reduced nominal phrase can be analyzed as below, where we just assume that the demonstrative *kono* ‘this’ and the adjective *aoi* ‘blue’ are adjoined to *nP*:

- (40) [DP [_{nP} kono [_{nP} aoi [_{nP} [_{NP} [_{NP} ~~sukaato~~] [_n ~~no~~]]]] D]

Underlyingly, the noun *sukaato* ‘skirt’ does occur together with the light noun *no*; then, the light noun causes the NP complement to be elided (see Kitagawa and Ross (1982) for a somewhat similar analysis).

This immediately runs counter to Saito and Murasugi’s (1990) hypothesis that NP-ellipsis necessitates the presence of a genitive argument in the specifier position of DP. While it is beyond the goal of this article to go into details about Saito and Murasugi’s analysis, we would like to point out a fact that corroborates us.

Let us first note that Saito and Murasugi (1990) follow Kamio (1983) in assuming that the alleged pro-form *no* cannot be anteceded by abstract nouns. This is based on the following data:

- (41) a. [katai sin’nen-o motta] hito
firm conviction-ACC have person

‘a person who has a firm conviction’

- b. *[katai no-o motta] hito
 firm one-ACC have person

‘lit. a person who has a firm one’

The noun *sin'nen* ‘conviction’ is an abstract noun. The pro-form *no* cannot be used here to replace it. However, this is challenged by Kinsui (1995), who points out examples like the following:

- (42) Namaikina taido-wa iya dakedo, sugasugasii no-wa ii ne.
 impudent attitude-TOP unpleasant though bracing one-TOP good PRT

‘lit. Though impudent attitude is unpleasant, bracing one is good.’

Here *no* takes *taido* ‘attitude,’ which is an abstract noun, as its antecedent, and yet the sentence is fairly acceptable.⁸ How can we explain the fact that while (41b) is degraded, (42) is good? We suspect that the answer lies in a difference in how the reduced nominals are used in the two examples. While (41b) is intended as an independent utterance with the meaning of (41a), the reduced nominal phrase has its antecedent in the same sentence in (42). It has been assumed since Hankamer and Sag (1976) that ellipsis demands the presence of a linguistically expressed antecedent. If (41b) and (42) involve NP-ellipsis, then we can attribute the contrast between them to Hankamer and Sag’s generalization.

These considerations, if on the right track, require re-examination of Saito and Murasugi’s (1990) idea that NP-ellipsis necessitates the presence of a genitive argument in the specifier position of DP.⁹ In (42), the reduced nominal phrase has the adjective *sugasugasii* ‘bracing’ as a remnant, and yet the sentence is acceptable. Exactly in what configuration NP-ellipsis is licensed in Japanese is a question to be answered next.

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⁸ See also Hiraiwa (2016).

⁹ Lobeck (1995) considers cases of NP-ellipsis in English which have non-genitive remnants.

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