

A Note on Japanese N'-Deletion*

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1. Introduction

It is well-known that English has an ellipsis phenomenon called “N'-deletion”, whose typical example is shown in (1):

- (1) [Andy's knowledge of gardening] is useful, but [Brian's [e]] is not.

Here the head N *knowledge* and its complement *of gardening* are deleted and only the genitive NP surfaces. In Japanese, genitive NPs also appear without an overt “N'” constituent. See below:

- (2) [Andy-no gaadeningu-ni kansuru tisiki]-wa yakunitatu kedo
Andy-Gen gardening-Dat about knowledge-Top useful but
[Brian-no [e]]-wa yakunitatanai
Brian-Gen -Top not-useful
“Andy's knowledge of gardening is useful, but Brian's is not.”

Looking at the surface similarity between (1) and (2), it appears to be natural to suppose that (2) is an example of Japanese “N'-deletion” and whatever the analysis of English “N'-deletion” may be, the phenomenon as seen in (2) can be analyzed in an analogous way. In fact, such an analysis is given by Saito and Murasugi (1990). In the present note, however, I will argue that no deletion is involved in the Japanese “N'-deletion” and that the empty “N'” position in (2) is occupied by an empty pronoun. As supporting evidence, examples from the Toyama dialect of Japanese and Old Japanese will be provided. For the sake of fairness, it should be noted that the proposal that Japanese “N'-deletion” is not a result of deleting

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post-genitive constituents has predecessors (e.g. Murasugi (1991), Kinsui (1995)). If we accept the deletion analysis of English “N’-deletion,” such a proposal amounts to saying that Japanese lacks the deletion phenomenon that English has. The main aim of this note is to suggest that this difference may be derived from the one in more abstract properties of those languages: Japanese lacks some of the functional categories that appear in English.

2. Saito and Murasugi (1990)

Saito and Murasugi (1990) (henceforth, S&M) adopt the DP hypothesis (Abney (1987), among others) and assume that “N’-deletion” is a deletion of NP. Under this analysis, the underlying representation of the relevant nominal phrase in (2) is like the following:

- (3) [DP D⁰ [NP Brian-no [N’ gaadeningu-ni kansuru tisiki]]]
 Brian-Gen gardening-Dat about knowledge
 “Brian’s knowledge of gardening”

In the course of the derivation, the genitive DP *Brian-no* optionally moves out of the NP to the Spec position of the DP. The resulting representation is like (4):

- (4) [DP Brian-no_i D⁰ [NP t_i [N’ gaadeningu-ni kansuru tisiki]]]

If NP-deletion applies to this representation, we obtain the surface form seen in (2). English “N’-deletion” is also reanalyzed as NP-deletion, so that the relevant nominal phrase in (1) has a representation like (5) at some point of the derivation prior to the application of NP-deletion.¹

- (5) [DP Brian_i [D’ s [NP t_i [N’ knowledge of gardening]]]

S&M provide two pieces of supporting evidence to their analysis. First, the contrast between (6a) and (6b) can be explained under their analysis:

- (6) a. *[Sono toki-no Yamada sensei-e-no izon]-wa [Taroo-no [e]] datta.
 that time-Gen Yamada Prof.-on-Gen reliance-Top Taroo-Gen was
 “The reliance on Prof. Yamada at that time was Taroo’s”

¹ It is assumed that the movement of genitive phrases into DP is obligatory in English, while it is optional in Japanese. This is because in English, but not in Japanese, this movement is Case-driven.

- b. [Gakubusei-no sensei-e-no izon]-wa yuruseru ga,
 undergraduate-Gen teacher-on-Gen reliance-Top can-tolerate though
 [insei-no [e]]-wa yurusenai.
 grad. student-Gen -Top cannot-tolerate
 "I can tolerate the undergraduates' reliance on the faculty, but not the graduate students'."
 (S&M: 293)

Before NP-deletion applies, the nominal phrases in these sentences are assumed to have the following structures:

- (7) a. [DP Sono toki-no [NP Yamada sensei-e-no izon]] (antecedent NP in (6a))
 [DP Taroo-no_i [NP t_i Yamada sensei-e-no izon]] (deleted NP in (6a))
 b. [DP Gakubusei-no [NP t_i sensei-e-no izon]] (antecedent NP in (6b))
 [DP insei-no [NP t_i sensei-e-no izon]] (deleted NP in (6b))

The point is that *sono toki* (that time) in (7a), which does not receive a theta-role from the head N *izon* (reliance), is base-generated in DP, whereas the other genitive DPs surfacing in Spec,DP in (7) are assigned a theta-role by the head N, and as such originate in NP. Comparing the two NPs in (7a), they are not identical in a strict sense, because the deleted NP, unlike the antecedent NP, contains the trace left by the DP movement. In contrast, the two NPs in (7b) are identical in this respect. This is the reason the deletion of NP is possible in (7b), but not in (7a).²

The second piece of supporting evidence is that the proposed analysis can deal with the deviance of sentences as in (8):

- (8) a. *Saikin-wa [hare-no hi]-ga [ame-no [e]] yorimo ooi.
 recently-Top clear-Gen day-Nom rain-Gen than plentiful
 "Recently, there have been more clear days than rainy days."
 b. *[Hutakire-no hamu]-wa yuushoku-ni naru ga, [hitokire-no [e]]-wa
 two-slices-Gen ham-Top supper-to make-up though one-slice-Gen -Top
 naranai.
 not-make-up
 "Two slices of ham make up a supper, but one slice of ham does not." (S&M: 295)

² The contrast as seen in (6) is also found in English and it can be analyzed in an analogous way:

- (i) a. *That reliance on friends is Mary's
 b. John's reliance on the faculty is more problematic than Mary's. (S&M: 291)

- (9) a. ame-no hi
rain-Gen day (cf. *rain's day)
- b. hutakire-no hamu
two-slices-Gen ham (cf. *two-slice ham)

Unlike English, where adjunct nominal modifiers fail to be marked genitive, Japanese allows genitive marker *no* to attach to adjunct modifiers, as seen in (9). Those adjunct genitive phrases, however, do not license NP-deletion as seen in (8). S&M assume that non-expletives without a theta-role like adjunct phrases do not undergo DP-movement, so that the adjunct genitive phrases in (8) do not raise to Spec,DP and remain within NP. Therefore, if NP-deletion applies, they necessarily disappear, not surfacing.

There are several problems with S&M's analysis reviewed so far. First, the observations they give are questionable. The acceptability of the examples in (6) and (8) seems to be not so low as they judge. Below I show the judgments on those examples that I elicit from my informants. What is important here is that they vary from informant to informant and none of those examples is judged completely unacceptable:

- (6') ok/ok/??
- (8') a. ??/??/??
- b. ok/ok/??

I can provide other examples in (10) and (11), which correspond in the relevant respects to (6) and (8) respectively; nevertheless they are almost completely acceptable:

- (10) [Sono toki-no Huransu-ni taisuru koogeki]-wa [Amerikagun-no [e]] datta.
that time-Gen France-Dat on attack-Top American-army-Gen was
"The attack on France at that time was the American army's."
- (11) a. (?) [45°C-no taion]-wa mondaida kedo, [36°C-no [e]]-wa mondainai.
45°C-Gen temperature-Top problematic but 36°C-Gen -Top not-problematic
"A temperature of 45°C is a problem, but that of 36°C is not."
(cf. *45°C's temperature)
- b. [50°C-no mizu]-wa nomeru kedo, [100°C-no [e]]-wa nomenai.
50°C-Gen water-Top can-drink but 100°C-Gen -Top cannot-drink
"I can drink 50°C water, but not 100°C water."
(cf. *50°C's water)

- c. [Kankoku-no onnanoko]-wa kawaii kedo, [Nihon-no [e]]-wa kawaikunai.
 Korea-Gen girls-Top pretty but Japan-Gen -Top not-pretty
 “Korean girls are pretty, but Japanese ones are not.”
 (cf. *Korea’s girls)

If it is assumed that *sono toki* in (6) is base-generated in DP, the same should be true of one in (10). On the other hand, *Amerikagun*, which is assigned a theta-role by the head N, is base-generated in NP and raises to DP, leaving its trace in NP. Therefore, the antecedent and deleted NPs should differ in whether or not they contain a trace of DP movement, and, according to S&M, the NP-deletion should be blocked. This is contrary to fact. In (11) *45°C*, *36°C*, *50°C*, *100°C*, *Kankoku*, and *Nihon* should be all considered to be adjunct phrases, on a par with *ame* and *hutakire* in (8), and fail to undergo DP-movement, so that S&M’s analysis wrongly predicts that the NP-deletion that leaves them is impossible.

Another problem that S&M’s analysis gives rise to is illustrated by the following example.³

- (12) [[Amerika-ga okonatta] sinryaku]-wa yuruseru kedo, [Nihon-no [e]]-wa
 America-Nom did invasion-Top can-tolerate but Japan-Gen -Top
 yurusenai.
 cannot-tolerate
 “I can tolerate the American invasion, but not the Japanese one.”

Here the head N *sinryaku* is modified by the relative clause *Amerika-ga okonatta* in the antecedent DP. It is assumed by S&M that genitive marker *no* is attached to any DP or PP immediately dominated by a projection of N or D.⁴ From this assumption it follows that *Amerika-ga*, which is marked not genitive, but nominative, does not move out of the relative clause into the NP or DP. Hence, we have the following representation for the antecedent DP:

- (13) [_{DP} D⁰ [_{NP} [_{R.C.} Amerika-ga okonatta] sinryaku]]

In contrast, *Nihon-no* in the DP that NP-deletion targets should be located in Spec,DP because it is marked genitive and not affected by NP-deletion. There seem to be two possibilities of the representation for this DP as shown in (14a-b):

³ This problem is also pointed out in Kinsui (1995).

⁴ This assumption is to deal with the multiple genitive construction in Japanese.

- (14) a. [DP Nihon-no_i [NP [R.C. *t_i* okonatta] sinryaku]]
 b. [DP Nihon-no_i [NP *t_i* sinryaku]]

In (14a), *Nihon-no* originates as the subject of the relative clause and moves into DP; in (14b), which includes no relative clause, it is base-generated in Spec,NP and raises to Spec,DP. It is obvious that neither of the two NPs in (14) is not identical with that in (13), so that under S&M's analysis it is predicted that the NP deletion in (12) is blocked, but this is not the case.

As seen so far, it cannot be said that S&M's analysis of Japanese "N'-deletion" as NP-deletion is successful. It should be noted that English "N'-deletion" phenomena as shown in (5) and fn. 2 can be dealt with under the NP-deletion analysis.⁵ If this analysis itself is on the right track, it is not unnatural to suspect that Japanese "N'-deletion" is not the phenomenon of the same nature as its English counterpart and should be analyzed in a distinct way. In the next section, I provide an alternative way of viewing that phenomenon.

3. A Non-Deletion Analysis

In what follows, I propose that what has been taken as Japanese "N'-deletion" has nothing to do with deletion and should be reanalyzed as genitive phrases followed by an empty pronoun. So the relevant part of the representation for (2), repeated here as (15a), that I argue for is like (15b).⁶

- (15) a. [Andy-no gaadeningu-ni kansuru tisiki]-wa yakunitatu kedo [Brian-no [e]]-wa
 Andy-Gen gardening-Dat about knowledge-Top useful but Brian-Gen -Top
 yakunitatanai
 not-useful
 "Andy's knowledge of gardening is useful, but Brian's is not."
 b. [NP Brian-no *pro*]

For now I leave the question open just what position in NP the empty pronoun *pro* occupies. The point is, however, that such a pronoun is present in NP and picks out a referent in its own right; in (15) the referent of the pronoun is *gaadeningu-ni kansuru tisiki*.⁷

⁵ The NP-deletion analysis of the English "N'-deletion" is also proposed by, for example, Lobeck (1990).

⁶ For the reason mentioned in the last section, I assume that Japanese nominal phrases contain no DP.

⁷ The empty pronoun being involved in "N'-deletion" can pick out an extralinguistic referent:

- (i) Situation: Candon and Diane are selling bananas.
 [Candon-no *pro*]-wa sinsenda kedo, [Diane-no *pro*]-wa sinsenzyanai.
 Candon-Gen -Top fresh but Diane-Gen -Top not-fresh
 "Candon's are fresh, but Diane's are not."

One piece of supporting evidence to this analysis is from the Toyama dialect of Japanese. According to Murasugi (1991), *no* is three-way ambiguous in the standard Japanese: it can be a genitive Case marker (as in (16a)), a pronominal (as in (16b)), or a complementizer (as in (16c)):

- (16) a. Hajime-no kuruma
 Hajime-Gen car
 “Hajime’s car”
- b. atarasii-no
 new-pro
 “the one that is new”
- c. Jim-wa [kinoo ame-ga hutta -no]-o siranai
 Jim-Top yesterday rain-Nom came-down-Comp-Acc not-know
 “Jim does not know that it rained yesterday.”

In contrast, *no* is unambiguously used as a genitive marker in the Toyama dialect; in this dialect, *ga* functions as a pronominal or a complementizer, instead of *no*:

- (17) a. Hajime-no kuruma
 Hajime-Gen car
 “Hajime’s car”
- b. atarasii-ga
 new-pro
 “the one that is new”
- c. Jim-wa [kinoo ame-ga hutta -ga]-o siranai
 Jim-Top yesterday rain-Nom came-down-Comp-Acc not-know
 “Jim does not know that it rained yesterday.”

Now consider the following examples from this dialect which parallel to “N’-deletion” in the standard Japanese:

- (18) a. Kore-wa [ora-no-ga] da.
 This-Top I-Gen-pro is
 “This is mine.”

Here the referent of the *pro*’s is “bananas,” which is contextually prominent.

- b. [Hito-no-ga]-o karita.
 someone-Gen-pro-Acc borrowed.
 "I borrowed someone else's."

In (18), the genitive phrases *ora-no* and *hito-no* are followed by *ga* and it is quite natural to suppose it to be a pronominal, rather than a complementizer. Remember that in the standard Japanese "N'-deletion", genitive phrases are followed by no overt element, so *ora-no-ga* and *hito-no-ga* are expressed in the standard Japanese as *ora-no* and *hito-no* respectively. This difference between the two variants of Japanese can be accounted for with minimal cost if we assume that a phonologically null pronoun, which corresponds to *ga* in the Toyama dialect, follows the genitive phrases in the standard Japanese.⁸

The above discussion suggests that there are two pronominals in the standard Japanese that correspond to *ga* in the Toyama dialect, that is, *no* as in (16b) and the empty pronoun *pro* which occurs in "N'-deletion." As seen above, the former follows adjectives, while the latter follows genitive NPs. At this point, one might be curious about the relationship between the two pronouns; are they (i) two realizations of one and the same pronoun or (ii) two distinct kinds of pronouns? I do not have any explicit answer to this question, but I briefly discuss this issue below.

One might argue for (i) and propose that *pro* is a phonologically null counterpart of *no* and, for instance, (19a) is derived from (19b) by a phonological rule that keeps the pronominal *no* silent to avoid the double *no* string:

- (19) a. Kono manga-wa [Maki-no-[e]] da.
 this comic-Top Maki-Gen-pro is
 "This comic is Maki's."
 b. Kono manga-wa [Maki-no-no] da

This analysis, however, is not tenable, since double *no* strings are allowed in Japanese as

⁸ In some other variants of Japanese, the counterpart of the standard Japanese "N'-deletion" takes the following form (Kinsui 1995):

- (i) ore-ga-no
 I

This is not surprising if we consider that *no* is used as a pronoun in the standard Japanese as seen in (16b) and *ga* is used as a genitive marker in some variants of Japanese including Old Japanese.

Furthermore, there are some dialects where two *no*'s may occur successively (Yuzawa 1953):

- (ii) Kore-wa watasi-no-no dewaarimasen.
 this-Top I is-not
 "This is not mine."

As argued by Murasugi (1991), the most natural analysis of the two *no*'s is that the first one is a genitive marker and the second one is a pronoun.

shown in the following example:

(20) akai no-no motinusi

red pro-Gen owner

“the owner of the one that is red”

(Murasugi 1991: 64)

Therefore, if (i) is correct, the realizations of the pronoun should be regulated in the lexicon, not by the phonological rule, unless it is permitted to access the syntactic status of *no*.

One counterargument to (i) is provided by S&M.⁹ It proceeds as follows. Kamio (1983) observes that *no* can refer to concrete nouns, but not abstract nouns, so that we cannot say *katai-no* to mean *katai sinnen* “firm conviction.” If *no* and *pro* are two different realizations of one and the same pronoun, we expect that *pro* also exhibits the same property. Yet, as seen from, for example, (6b), where *pro* refers to *sensei-e-no izon* “reliance on the faculty,” this expectation is not met, so that *no* and *pro* are different pronouns. This argument may not be sufficient, however. First, as pointed out by Kinsui (1995), Kamio’s observation, on which this argument is based, cannot always be reproduced. For example, *no* refers to the abstract nouns without problem in (21):

- (21) a. (Oya-e-no) karui izon-wa yuruseru kedo, itijirusii-no-wa yurusenai.
(parents-on-Gen) light reliance-Top can-tolerate but heavy-pro-Top cannot-tolerate
“I can tolerate light reliance (on parents), but not heavy.”
- b. Hutekisetuna taido-wa minaraubekidenai kedo, nozomasii-no-wa minaraubekida
inappropriate attitude-Top should-imitate-not but desirable-pro-Top should-imitate
“You shouldn’t imitate inappropriate attitudes, but you should imitate desirable ones.”

Second, if in fact adjective+*no* cannot refer to abstract nouns whereas genitive phrase+*pro* can, there is no a priori necessity to assume that this contrast stems from the difference between *no* and *pro*; there remains a possibility that the difference between the modifiers, that is, adjectives and genitive phrases, is responsible for that contrast.

Returning to our main concern, another piece of evidence that shows the availability of empty pronoun *pro* in Japanese is from an earlier variant of this language. Although adjectives are followed by overt pronoun *no* in Modern Japanese as seen in (16b), in Old Japanese (henceforth, OJ), the pronoun that follows adjectives, as well as the one that follows genitive phrases, is phonologically null, that is, *pro*. See below:

⁹ On the basis of this argument, S&M reject a “pronominal” analysis of Japanese “N’-deletion.” Note, however, that even if the possibility that *no* and *pro* are pronouns of the same type is rejected, it does not necessarily lead to the rejection of the existence of *pro*, because we still have the possibility (ii).

- (22) Ki-no hana-wa [koki [e]]-mo [usuki [e]]-mo koobai.
 trees-Gen blossoms-Top deep-colored-*mo* light-colored-*mo* Japanese-apricot
 “Whether it is deep-colored or light-colored, a Japanese apricot is the best of all the tree blossoms.”
 (cited from *Makurano soosi*)

The gaps after the adjectives cannot be considered to be a consequence of deletion, because if we assume so, no natural explanation could be given to the historical development from OJ to Modern Japanese. If *pro* is available in post-adjective position in OJ, it is not implausible to assume that it is also available in post-genitive position;¹⁰ and if this assumption is plausible, it can be concluded that the empty pronoun is also available in the post-genitive position in Modern Japanese.

One might ask why *pro* fails to occur in post-adjective position in Modern Japanese, while it does in post-genitive position; to put it differently, why *pro* quitted occurring in post-adjective position in the course of the development of Japanese? I suppose that this is due to a change in the Japanese inflectional system, which began in the early post-OJ period and completed by the fifteenth or sixteenth century (Funaki (1987), Ohno (1993), and Yasuda (1977), among others). In this period, the difference between the two inflectional forms, adnominal forms and conclusive forms, collapsed, and the latter were assimilated into the former.¹¹ The important fact here is that in examples like (22), form of the adjectives preceding *pro* must be adnominal. The loss of the difference between adnominal and conclusive forms is considered to have caused the situation in which adjectives of the adnominal form followed by *pro* could not be distinguished from adjectives of the conclusitive form followed by nothing, producing an ambiguity. In order to avoid this ambiguity, *pro* had to be replaced by a phonologically non-null pronoun in the post-adjective position, and thus *no* came to be used.^{12,13} In contrast, since genitive phrases were not affected by the change in the inflectional system, *pro* continued to be used in the post-genitive position.

As mentioned in section 1, the proposal that Japanese “N’-deletion” is not a result of deleting post-genitive constituents is not new. Before closing this section, some short

¹⁰ In terms of language acquisition, this assumption seems to be plausible. It is quite hard to imagine that on the basis of the input data children acquiring OJ distinguish between the gaps after adjectives and those after genitive phrases, assuming that the former result from deletion and the latter are occupied by an empty pronoun.

¹¹ In most cases, predicates in matrix clauses are inflected for the conclusive form and ones in subordinate clauses are inflected for the adnominal forms in OJ.

¹² As seen in (17c), *no* can be used as a complementizer in Modern Japanese. In OJ, this *no* is also phonologically empty. This historical change can also be attributed to the change in the inflectional system.

¹³ A similar view on the emergence of *no* is found in Kinsui (1995). According to him, the periods of the emergence of *no* and the collapse of the distinction between the two inflectional forms coincide.

remarks on the differences between the analysis being proposed here and its predecessors are in order. First, Murasugi (1991) argues, following Okutsu (1974), that at the underlying representation of the Japanese “N’-deletion,” genitive phrases are followed by the pronominal *no*, as shown in (23a), and that in the course of the derivation, the genitive markers are deleted by the operation called “*no*-reduction,” as shown in (23b):

- (23) a. [DP [DP Brian-*no*]-*no*]
 -Gen-*pro*
 b. [DP [DP Brian- \emptyset]-*no*]

The difference between this analysis and the one being proposed here is that in the former the *no* which surfaces is supposed to be a pronominal while in the latter it is a genitive marker. Although it seems quite difficult to distinguish them in empirical terms, it may be said that my analysis is more desirable in conceptual terms in that it stipulates no ad hoc operation like Murasugi’s *no*-reduction. Remember that not every *no-no* string undergoes the *no*-reduction (see (20)). At this point, one might object that my analysis is as ad hoc as Murasugi’s since it assumes that pronouns appearing in post-genitive position are phonologically null, but ones appearing in post-adjective position are *no*. As discussed above, however, this assumption is well-grounded in terms of the historical development of Japanese.

Next, like the analysis being proposed here, Kinsui (1995) argues for empty pronouns in Japanese “N’-deletion.” Unlike the former, however, he suggests that *no* in Japanese is unified into a single category, complementizer, and that not only “genitive” *no* as in (15), but also “pronominal” *no* as in (16b) is followed by *pro*. His analysis would involve some ad hoc stipulations in dealing with the facts of the Toyama dialect. For example, it would have to be stipulated that the complementizer has two different realizations in post-nominal positions (*no*) and elsewhere (*ga*). Moreover, in face of the example as in (18), where two complementizers occur in succession, we would have to admit, as Kinsui actually does, that the complementizer also has a status of a pronominal in some cases.

4. Summary

In this note, examining the synchronic and diachronic variations of Japanese, I have argued that what has been taken to be Japanese “N’-deletion” has nothing to do with deletion and should be reanalyzed as containing empty pronouns. Suppose that this analysis is on the right track, it has to be said that Japanese lacks the deletion phenomenon that English (and other languages) are considered to have. It is quite reasonable to ask why this is the case. My suggestion is that this difference between those languages is reduced to their difference in the inventory or nature of functional categories.

In literature, it is proposed that deletion must be licensed by a certain set of functional categories (Lobeck 1990). For example, according to Lobeck (1990), the NPs deleted through the “N’-deletion” operation in English must be properly governed by D⁰ with the feature [+poss] or [+plural].¹⁴ Independently, it is proposed that Japanese lacks some of the functional categories that English has, or that these functional categories are “defective” in Japanese (Fukui (1986, 1995), Fukui and Takano (1999), among others). If these two hypotheses, which are advanced independently, are correct, the above question about the difference between English and Japanese can be answered in the following way: the reason that Japanese lacks “N’-deletion” is that D⁰ is absent from or “defective” in this language, so that the deleted NPs cannot be licensed; in contrast, since English has the functional category D⁰, which properly governs its complement NP, it is possible to delete this NP.¹⁵ To put it differently, if the above licensing condition on deletion is correct, to the extent that the non-deletion analysis of Japanese “N’-deletion” presented here succeeds, it gives some support to the “anti-DP hypothesis” on Japanese.

References

- Abney, Steven (1987) *The English Noun Phrase in its Sentential Aspects* (Ph.D. dissertation, MIT).
- Fukui, Naoki (1986) *A Theory of Category Projection and its Applications* (Ph.D. dissertation, MIT).
- Fukui, Naoki (1995) “The Principles-and-Parameters Approach: A Comparative Syntax of English and Japanese,” in Masayoshi Shibatani and Theodora Bynon (eds.) *Approaches to Language Typology*, Clarendon Press, Oxford, 327-371.
- Fukui, Naoki and Yuji Takano (1999) “Issues of Word Order and the Structure of Noun

¹⁴ As shown below, while English possessive NPs and plural demonstratives can license NP-deletion, definite and indefinite articles, singular demonstratives, and pronominal adjectives can not (Lobeck 1990: 350-1):

- (i) a. [John’s [e]] was short, but Mary’s talk was way too long.
 b. Although she might buy [these [e]], Mary said she wouldn’t buy those books on art history.
- (ii) a. *A single protester attended the rally because [the [e]] apparently felt it was important.
 b. *Sue toyed with the idea of buying a windsurfer, then decided she didn’t want [a [e]] after all.
 c. *Although John doesn’t like [this [e]], he likes that brand of frozen pizza.
 d. *Because she might buy [these bestselling [e]], Mary won’t purchase those other paperbacks.

In addition, some quantifiers also license the deletion:

- (iii) Few people attended the rally because [many [e]] decided to watch the event on TV.

Lobeck argues that this type of quantifiers is a functional category, which properly governs its deleted complement. Here I do not go into the question of whether or not Japanese has this functional category.

¹⁵ The lack of VP-ellipsis in Japanese, which is proposed by, for example, Hoji (1998), could be explained in the same way, that is, it could be reduced to the lack of relevant functional categories.

- Phrases," in Osamu Fujimura (ed.) *Proceedings of Linguistics and Phonetics 1998*.
- Funaki, Shuntaroo (1987) "Kakarimusubi," in Akiho Yamaguchi (ed.) *Kokubunpoo Kouza*, vol.3, Meijishoin, Tokyo, 278-306.
- Hoji, Hajime (1998) "Null Object and Sloppy Identity in Japanese," *Linguistic Inquiry* 29, 127-152.
- Kamio, Akio (1983) "Meisiku no Koozoo," in Kazuko Inoue (ed.) *Nihongo no Kihonkoozoo*, Sanseidoo, Tokyo.
- Kinsui, Satoshi (1995) "Nihongo no Iwayuru N' Sakujo ni tuite," in *The Proceedings of 1994 Nanzan Symposium*, 153-176.
- Lobeck, Anne (1990) "Functional Heads as Proper Governors," *NELS* 20, 348-362.
- Murasugi, Keiko (1991) *Noun Phrases in Japanese and English: A Study in Syntax, Learnability and Acquisition* (Ph.D. dissertation, University of Connecticut, Storrs).
- Murasugi, Keiko (2000) "Japanese Complex NPs and Antisymmetry," in Roger Martin, David Michaels, and Juan Uriagereka (eds.) *Step by Step*, MIT Press, Cambridge, Mass., 211-234.
- Ohno, Susumu (1993) *Kakrimusubi no Kenkyuu*, Iwanami, Tokyo.
- Okutsu, Keiichiroo (1974) *Seiseinohonbunpooron: Meisiku no Koozoo*, Taisyuukan, Tokyo.
- Saito, Mamoru and Keiko Murasugi (1990) "N'-Deletion in Japanese: A Preliminary Study," in Hajime Hoji (ed.) *Japanese/Korean Linguistics 1*, CSLI, Stanford University, 285-301.
- Yasuda, Akira (1977) "Josi (2)," in *Iwanami Kouza Nihongo*, vol.7, Iwanami, Tokyo, 291-357.
- Yuzawa, Y. (1944) *Gendaigohoo no Shomondai*, Benseisha, Tokyo.