

Noun Modification in Japanese: An Explanation by Extensibility*

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0. Introduction

Noun modification in Japanese has attracted linguists' interest partly because the structure of Japanese is well reflected on the phenomenon, partly because the contrast with English has revealed the characteristics more clearly.

Observe the below, for example:

- (1) [[*Kimi o mituketa*] *kono nagisa*] *ni hitori tatazumi omoidasu* . . .
you ACC found this beach LOC alone standing remember
'Standing alone on the beach on which (I) found you, (I) remember . . .'
(Lyrics)

- (2) *Arimasita. Goyoomatu ga.*
there is Japanese white pine NOM
[[*Otto to hazimete deatta*], *omoide no matu*] *desu.*
husband with for the first time met memory GEN pine is
'There it is. The Japanese white pine. It is the pine tree full of memory at
which (she) met with (her) husband.' (TV program)

In both of these examples, a clause modifies a noun (phrase), that is, *nagisa* 'beach' and *matu* 'pine tree' respectively; and the relation between the modifying clause and the head noun is that of the situation and the place where it occurs. This is demonstrated by the use of a preposition and a relative pronoun in the English gloss. It should be noted, however, that while only the LOCATIVE reading 'I found you on the beach' exists in (1), the LOCATIVE reading in (2) 'she found her husband at the pine tree' is weaker than that in (1) and there is a slight possibility of a NOMINATIVE reading 'the pine tree found her husband.' What seems right to suppose based on these examples is, therefore, the relation or linkage between the modifying clause and the head noun is stronger or weaker depending on some kinds of factors. What sorts of

factors, then, produce the difference? The previous studies have not discussed this sort of issue very well and would not give us a reasonable answer.

The scope of this study is clausal noun modification in Japanese.¹ Our main concern is the degree of closeness which the clause and the noun have to each other. This study therefore will approach a very fundamental yet intriguing question: what it means to modify something. In order to do so, we will first make a brief survey of the studies which have been carried on Japanese noun modification, confirming its characteristics. The second section will be devoted to the observation of Matsumoto's (1997) frame-semantic approach. This present study will be based upon the framework, since it can include a wider range of examples of Japanese noun modification which could not otherwise be treated. In the third section, we will explore into a somewhat grey area where there is a sort of "gap" or "lag" between the clause and the noun as in example (2), and propose a hypothesis in cooperation with the notion "extensibility." Our proposal will be able to give a unified explanation to the phenomena which have previously been considered to be separate ones. The final section is a conclusion.

1. Noun-Modifying Expressions in Japanese

There are wide varieties of noun-modifying expressions in Japanese. Since it is far beyond the scope of this paper to exhaust these expressions (see Note 1), we are restricting our discussion to the clausal type. However, our target still seems to be too diverse. This section, reviewing the major proposals concerning Japanese noun modification, will discuss what sorts of implications they could have on this present study.

We have seen modifying expressions of relative clause type in the introduction. As Kuno (1973a; 1973b) and others point out, Japanese has the following characteristics which are conspicuous in comparison with a language such as English. Let us see how the essence of the language is reflected in the issues of noun modification:

(3) [[*obaatyan kara kiita*] *hanasi*]

grandma ABL heard story

'the story (which) (I) heard from Grandma'

First, the head comes finally as exemplified by *hanasi* in (3). Second, Japanese has no relative pronoun, while *which* is employed in the English gloss above. The third characteristic is that Japanese is a PRO-drop language. Note that *I* is used in the gloss, which means that the hearer has to recover the missing argument checking the context. A comparison with English will make clear what seems like the other major type which is the noun complement type. Observe:

- (4) [[*utyuusen de tabiosuru*] (*toiu*) *hanasi*]²
 spaceship LOC travel COMP story
 ‘the story that () travel in a spaceship’

In (3), which is a relative clause type, we can find a gap in the argument of which is relativized. In the complement clause type (4), on the other hand, there is no such gap and the noun, in Matsumoto’s (1997) term, ‘encapsulates’ the content of the clause. The point whether there is a gap or not has inspired linguists to postulate the dichotomy.

Teramura (1975-1978) is the most influential among those linguists. He assumes *Uti no Kankei*, “Inner Relationship,” and *Soto no Kankei*, “Outer Relationship,” regarding the relationship between the clause and the base noun:

- (5) a. [[*sanma o yaku*] *otoko*]
 saury (fish) ACC grill man
 ‘the man who is grilling a saury’
 b. [[*sanma o yaku*] *nioi*]
 saury ACC grill smell
 ‘the smell of grilling a saury’ (Teramura 1975)

The Inner Relationship in (5a) is based upon the gap in the modifying clause: here *otoko* is relativized in a NOMINATIVE case. In (5b), the Outer Relationship example, *nioi* is not traceable to a gap in the clause. His analysis, however, unifies everything other than the gap type modification and therefore is not able to describe in an explicit way the difference such as the one between (4) and (5b): the noun *nioi* is not just encapsulating the content of the clause *sanma o yaku*. Further, it cannot cover examples such as (6) below, where it is hard to find a gap:

- (6) [[*toire ni ikenai*] *komaasyaru*]
bathroom GOAL cannot-go commercial film

'the commercial film by seeing which () cannot go to the bathroom'

(cited by Matsumoto (1997))

Okutsu (1974), following the framework of Transformational Grammar, adopts the dichotomy of *Dooitu meisi Rentai syuusyoku*, "Equi-Noun Modification," and *Huka meisi Rentai syuusyoku*, "Additive Noun Modification." While Teramura's theory is interpretive and semantic, Okutsu takes a syntactic approach: he applies an Equi-NP deletion to the former case. The latter is classified into two major types, that is to say, *Sootai meisi*, "Relative Noun," and *Dookaku rentai meisi*, "Appositive Noun." Relative Noun represents a point relative to the reference point, which is specified by the modifying clause:

- (7) *Titi wa* [[*asa syokuzi suru*] *mae*] *ni sanposuru*.
father NOM morning has-meal before LOC walks

'My father walks before he has breakfast.' (Okutsu 1974)

The Appositive Noun is exemplified by expressions such as (4). The modified noun represents *koto* (thing/fact) schematically and encapsulates the content of the clause. It should be noted that he classifies examples such as (5b) as that of Appositive Noun and defines them as *Bubunteki dookaku rentai meisi*, "Partly (or Quasi-) Appositive Nouns." His analysis, in a similar fashion to Teramura's, classifies noun modification examples such as (5b) and (7) in the same category, that is, appositive noun modification; however, he has taken an important step in that he notices in (5b) some difference from other appositive nouns. I would say this is because there is a sort of "relativeness" in examples such as (5b), which has something in common with relativeness exemplified by (7). We will return to this point in the following sections, especially in Section 3.

Although they have profound implications, both attempts fail to explain examples such as (6), which are highly relevant to pragmatics.

2. A Frame-Semantic Approach

Having observed major studies on Japanese noun-modifying expressions,

we are now in a position to introduce a frame-semantic approach by Matsumoto (1997).

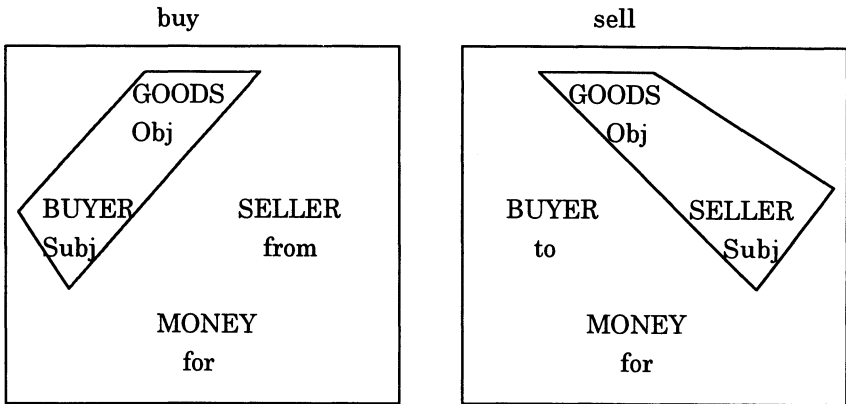
The most serious difficulty that the previously mentioned attempts would be that they cannot deal with noun modification which apparently is a non-gap type as in (6). Matsumoto's series of studies on Japanese adnominal clauses (1997 etc.) is epoch-making in the sense that it has succeeded in taking those seemingly exceptional instances into a single framework and reducing the abundant varieties of noun modification types to the "world-view" of the speaker by defining Japanese as a pragmatics-oriented language. Let us now examine Frame Semantics, which enables her theory to do these things.

2.1. Frame Semantics

Frame (Schema in Cognitive Linguistics by Langacker (1987) etc.) is a notion which describes the conceptualization of the real world.³ Frame Semantics, developed by Fillmore (1977) and his succeeding studies, aims to clarify the relationship of such conceptualization to the structure of language.

In Frame Semantics, a linguistic element such as a verb or a noun "evokes" a larger context: in other words, it specifies participants in the situation. Consider, for example, a well-known Commercial Event Frame in Fillmore (1977):⁴

(8)



The verbs *buy* and *sell* evoke a frame in which the roles BUYER, SELLER, GOODS, and MONEY participate. The roles which are chosen and realized and their grammatical relations are different from each other. In BUY frame, the BUYER role is realized as a subject and the GOODS role as an object: these roles are “core roles” of the frame. The other two, the SELLER and the MONEY, do not necessarily appear but are implied in the context. Matsumoto (1997) introduces a notion “world-view” of the speaker in order to explain the examples such as above-mentioned (6), since in Japanese, the speaker lets the roles participate in the frame which would be impossible in other languages such as English. A syntax-oriented analysis would not be able to deal with such deviate participants.

2.2. The Three Types of Noun Modification

Setting Frame Semantics as a main idea in her framework, Matsumoto (1997) proposes a trichotomy for clausal noun modification in Japanese, depending upon which major element evokes a frame.

The first and most recognizable type is the Clause Host Type. The verb (predicate) in the modifying clause evokes a predicate frame: in other words, the modifying clause “hosts” the head noun. In the following, the verb *katta* (“bought”) evokes a BUY(BOUGHT) frame:

(9) [[*hon o katta*] *gakusei*]

book ACC bought student

‘the student who bought a book’

‘the student from whom () bought a book’

‘the student for whom () bought a book’ (Matsumoto 1997)

The nouns *gakusei* (“student”) and *hon* (“book”) participate in the frame as members. As we have seen in the last section, Japanese arguments are often missing, so the sentence above is ambiguous in three ways. In such a case, it is the context which decides the reading.

As a test to know if a certain element is a member of the frame or not, she proposes to make a question which includes that element.

(10) A: *Kaimasita*.

‘() bought ().’

B1: *Sono sinamono wa doo desita ka.*

that goods TOP how were QP

‘How were the goods?’

B2: *Sono mise wa doko desu ka.*

that shop TOP where is QP

‘Where is the shop?’

B3: ??*Sono mooke wa ikura desita ka.*

that profit TOP how much was QP

‘How much was the profit?’

(ibid.)

She concludes that if the question is possible, the element is considered to be a member of the frame. Therefore the noun modification concerning B1 (GOODS) and B2 (PLACE i.e. shop) is possible:

(11) a. [[*Tomotyan ga katta*] *mise*] *wa doko.*

little Tomo NOM bought shop TOP where

‘Where is the shop (in which) little Tomo bought?’

b. [[*Donarudo Toranpu ga katta*] *mise*] *wa doko.*

Donald Trump NOM bought shop TOP where

‘Where is the shop (which) Donald Trump bought?’

(ibid.)

What decides which role (PLACE or GOODS) the noun has is the speaker’s “world-view.” Here our world-view tells us that a rich person can buy a shop, while a small child cannot afford it.

The next one is the Noun Host Type: the head noun “evokes” a nominal frame, and as we have seen in the last section, it “encapsulates” the content of the modifying clause. See the following and also (4) and compare it with the Clause Host Type:

(12) [[*toonyoo ga akka-site gan ni natta*] *hanasi*]

diabetes NOM become aggravated cancer DAT became story

‘a story (in which) diabetes become aggravated to become a cancer’

(cited by Matsumoto (1997))

Another characteristic of this type is that what is denoted by the head noun does not participate in the frame. In (12) above the noun *hanasi* encapsulates what is denoted by the clause but does not attend it.

The Clause Noun Host Type is introduced exclusively for this frame-

semantic approach. As the name suggests, the predicate in the modifying clause and the noun host each other. In this type, what is denoted by the noun participates in the content of the clause and, at the same time, encapsulates the content. Compare the Noun Host Type in (13a) and the Clause Noun Host Type in (13b):

(13) a. *Kinoo tabesugita node* [[*kyoo nanimo taberarenai*]
 yesterday overate because today anything cannot eat
kekka] *ni natta*.
 result DAT became
 ‘Because () overate yesterday, it became the result that () can’t eat anything today.’

b. [[*Kinoo tabesugita*]] *kekka, kyoo nanimo taberarenai*.
 yesterday overate result today anything cannot eat
 ‘As a result of having overeaten yesterday, () can’t eat anything today.’
 (Matsumoto 1997)

She defines the nouns such as *kekka* in (13b) as “relational” which are often used in this type, and therefore the frame evoked is a relational frame. This reminds us of Relative and Partly Appositive Nouns by Okutsu (1974), which is included in Matsumoto’s Clause Noun Host Type. This inclusion will have a significant value for our study in the next section.

To summarize, Matsumoto (1997) has made great progress in the area. Her theory applies Frame Semantics to the explanation and succeeds in incorporating pragmatics, which enables her to deal with a wide variety of noun modification in Japanese. The classification is due not to the characteristics of the noun but to the relationship between the noun and clause, though the former plays an important role in noun modification. In particular, defining the Clause Noun Host Type is seen to be of value to this present study. Drawbacks can be found, however. Her theory lays too much emphasis on the classification and therefore misses the significant point in the same way as the other studies: it is unable to explain examples such as (2) in the introduction. In the next section, we will return to the question asked in relation to the linkage between the modifier and the modified: how close or loose the linkage can be.

3. Extensibility

3.1. Extension in Space

As a beginning, we examine the first pair in view of the Clause Noun Host Type proposed by Matsumoto (1997). To make the contrast easier to see, each of the pair is converted into a simpler form below:⁵

- (14) a. [[*kimi o mituketa*] *nagisa*]
 you ACC found beach
 ‘the beach on which () found you’
 b.? [[*kimi o mituketa*] *matu*]
 you ACC found pine tree
 ‘the pine tree at which () found you’

Although the relationship between the modifying clause and the noun is that of the situation and the place where it happens in both sentences, *matu* in (14b) sounds strange, but not going so far as being unacceptable. In Matsumoto’s framework, these two sentences would be analyzed as a Clause Host Type, which evokes a predicate frame. For what reason does this difference arise?

It may be reasonable to consider that the difference is caused by the head noun. Let us examine another combination, for example:

- (15) * [[*kimi o mituketa*] *densinbasira*]⁶
 you ACC found electric light pole
 ‘the electric light pole at which () found you’

Densinbasira is not considered to be a place where someone finds some other people: it is just a thing standing beside the road. To examine the phenomenon further, consider:

- (16) a. ?? [[*kimi o mituketa*] *doozoo*]
 statue
 b.? [[*kimi o mituketa*] *Hatikoozoo*]
 Statue of Hachiko
 c. [[*kimi o mituketa*] *basutee*]
 bus stop

Though *doozoo* in (16a) still sounds awkward, changing it to *Hatikoozoo* in (16b) makes it better, probably because this is a place rather than a thing in

front of which people arrange to meet. *Basutee* in (16c) is perfectly acceptable, since it is a place in its own right where the bus stops and people wait for the bus. What can be said from this observation is that an “extension” from a certain point will make such noun modification possible and that if the extension is not enough, it is less possible. The extension is possible when the world-view of the speaker helps in those examples.⁷ Here is another case which will demonstrate this point:

- (17) [[*kimi o mituketa*] **zitensya*/??*kuruma*/?*basu/noriaibusu*]
 you ACC found bicycle car bus omnibus
 ‘the bicycle/car/bus/omnibus in which () found you’

All of the examples describe a vehicle. The more space the speaker feels inside the vehicle, the more acceptable the modification becomes. Interestingly enough, as we saw in the introduction, the least acceptable modification in (17) has a wrong implication that the bicycle (NOMINATIVE) found you in the same way as the pine tree case in (2). We will come back to this point later in this section. Even more interestingly, note that if ‘the bicycle’ is extended to ‘the person who was on the bicycle,’ the noun modification will sound more acceptable.

Consider this time the example below, where the head noun is modified to mean a more special thing for the subject:

- (18) [[*kimi o mituketa*] *omoide no matu*]
 you ACC found memory GEN pine
 ‘the pine tree full of memory at which () found you’

This operation makes the expression more acceptable: adding *omoide no* to the noun extends the pine tree, a mere thing, into a place where the subject met ‘you.’ Though this present study does not rely on the assumption that the sentence is transformed into a noun-modifying construction, the sentences below will give us helpful insights to the phenomenon:

- (19) a. ??*Kimi o matu de mituketa.*
 you ACC pine LOC found
 ‘() found you at the pine tree.’
 b. ? *Kimi o omoide no matu de mituketa.*
 you ACC memory GEN pine LOC found

‘() found you at the pine tree full of memory’

- c. *Kimi o (omoide no) matu no mae/ soba de mituketa.*
 you ACC memory GEN pine GEN front near LOC found

‘() found you in front of/by the pine tree (full of memory).’

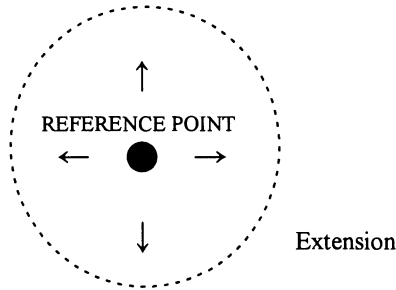
As (18) suggests, adding *omoide no* makes the sentence more tenable in (19b). What is more, when we change the sentence to the one in (19c) employing a Relative Noun (Okutsu (1974)) (or in Matsumoto’s (1997) term, Relational Noun) such as *mae* or *soba*, it becomes acceptable.⁸ These expressions which are relevant to relations remind us of the Clause Noun Host Type, in which the clause and the noun host reciprocally and the frame is relational.

We can now propose an answer to the question that we posed in the introduction. In modification, there has to be some connection between the modifier and the modified. Normally in the Clause Host Type noun modification, there is a relationship between the predicate and one of its arguments (“gap” type, or Inner Relationship in Teramura’s (1975) term); if we include some other cases where it is hard to find such a gap, the whole Clause Host Type instances are supposed to be captured by introducing a predicate frame in Matsumoto’s framework. However, the fact does not seem to be so clear-cut. What we have found in previous discussions is that where a certain combination is apparently the Clause Noun Host Type and a connection between the clause and the noun is hard to find, it is possible to extend what is denoted by the noun onto the point where the relational frame is evoked. As for this point, it is gradable as we have seen in this section. Therefore our hypothesis is:

- (20) Hypothesis: the linkage between the modifying clause and the modified noun is a gradable extension from impossible to possible closeness.

When the modification becomes possible, the noun functions as a reference point which is extended to some degree. The degree of extensibility is decided by the combination of the clause and the noun and by the world-view of the speaker. This is illustrated by the diagram below, where the reference point is in the middle and the area around it signifies a degree of extension:

(21)



As for the reason why the NOMINATIVE case reading appears in marginal examples such as in (2) and (17), we may say that this is because the Noun-Host-ness becomes stronger in this extension into a Clause Noun Host type. In this process, the arguments in the clause become less affected by the noun, which this time becomes more encapsulating. The situation therefore can complete inside the clause more easily. Since in a simplex clause, the NOMINATIVE case is the most likely accessible (Keenan & Comrie 1977), the NOMINATIVE reading is provoked. It is the world-view which suppresses this reading, since bicycles and pine trees are nonagentive objects.

To test our hypothesis, the analysis in next section will extend this observation from space to time, and more metaphorically, to cause and effect relation.

4. Extension into Other Dimensions

4.1. Space and Time

It is often argued in Cognitive Linguistics that what is the case concerning space can be extended into time (Yamanashi 1995 and others). For example, *mae* is a word which signifies ‘before’ or ‘front’ in space as in:

(22) *Hatikoozoo no mae de kimi o mituketa.*

Statue of Hachiko GEN front LOC you ACC found

‘() found you in front of the Statue of Hachiko.’

As we have seen in the last section, the extension is possible where ‘front’ is implied:

(23) (=16b) ?[[*kimi o mituketa*] *Hatikoozoo*]
 you ACC found Statue of Hachiko
 ‘the Statue of Hachiko in front of which () found you’

(24) [[*kimi o mituketa*] *Hatikoozoo no mae*]
 you ACC found Statue of Hachiko GEN front
 ‘the front of the Statue of Hachiko where () found you’

This is proved by (24), where *mae* is realized as a head noun. The sentence below shows that it evokes a relational frame:

(25) [[*Hatikoo ga syuzin o matu*] *mae*] *o hitobito ga toorisugita*.
 Hachiko NOM master ACC waiting front LOC people NOM passed-by
 ‘In front of Hachiko who is waiting for his master, people passed by.’

The sense can be extended into time. Compare with the corresponding sentences:

(26) *Sensoo no mae ni Hatikoo ga sinda*.
 war GEN before LOC Hachiko NOM died
 ‘Before the war, Hachiko died.’

(27) *[[*Hatikoo ga sinda*] *sensoo*]
 Hachiko NOM died war
 ‘the war *before/during which Hachiko died’

(28) [[*Hatikoo ga sinda*] *sensoo no mae*]
 Hachiko NOM died war GEN before
 ‘the time before the war when Hachiko died’

(29) [[*Hatikoo ga sinu/*sinda*] *mae*] *ni syuzin ga sinda*.
 Hachiko NOM die/ died before LOC master NOM died
 ‘Before Hachiko died, his master died.’

We should have in mind two things in the examples above. First, though in (29) the relational frame is evoked in the same way as the sense of space, the tense/aspect in the clause should be a default form *sinu*.⁹ The issue of tense/aspect in Japanese is beyond the scope of this present discussion. Second, more importantly, the example in (27) cannot go with the reading ‘before’: this expression is possible only when poor Hachiko died during the war (or marginally after the war). Whatever causes this phenomenon? We suggest that it is due to the flow of time and information. In the next subsection, we

will make an analysis of the time lag between the clause and the noun and extend it to an even schematic dimension.

4.2. Time and the Cause and Effect Relationship

Since the hearer interprets the sentence from the beginning step by step, he or she encounters the modifying clause first and then the head noun. Because of this time lag, the situation in the clause precedes in the time axis the one expressed by the noun; with *mae*, ‘before,’ this time order would be reversed. Therefore, unless the head noun states the ‘before’ sense explicitly, this interpretation is impossible.

The time lag, which would be lexicalized as *ato* ‘after’ or *yoku-* ‘the next’ etc., appears in the extension example, i.e. extension in time:

(30) [[*Yonago ni tomatta asa*]

Yonago LOC stayed overnight morning

‘the next morning when () stayed overnight in Yonago’

(cited by Teramura (1977))

As is easily perceived, *asa* ‘morning’ functions as a reference point and extends until it evokes a relational frame. My informants reacted rather negatively to this use, and changed the noun to *yokuasa*, ‘the next morning,’ which makes a perfect Clause Noun Host Type example.

Shirakawa (1986), in his work on noun modification in Japanese, proposes an analysis by Circumstance Presentation. He argues that the noun-modifying clause presents the circumstance in which the hearer can identify the referent of the base (“head” in this paper) noun. In (30), the result of staying in Yonago is identified in the ‘morning’ and no time lag, in his opinion, exists between the two. He proceeds to say that in (31) below there is no such sequence and so the judgment is unacceptable:

(31) *[[*amaimono o tabesugita musiba*]

sweets ACC ate too much rotten teeth

‘the rotten teeth caused by eating too much sweets’

(Shirakawa 1986)

His argument is not strictly true. In (30), there is certainly a time lag; however, the referent of ‘morning’ is extended to cover the lag. And though he

puts an asterisk on the example in (31), I would not feel such a big time lag and therefore the expression is acceptable, not going so far as perfect. The point we should note here is that the relationship in time can be extended to an even more schematic relationship, that is, cause and effect.

Recall the example which Okutsu (1974) classifies as Partly Appositive Noun and Matsumoto (1997) as Clause Noun Host Type. We can see a cause and effect relationship in this example, and in this sense it is relational:

- (32) (= (5b)) [[*sanma o yaku*] *nioi*]
 saury ACC grill smell
 ‘the smell of grilling a saury’

The tense/aspect in the predicate is the default, which goes nicely with the noun *nioi*: in other words, the saury smells nice while someone is grilling it. Therefore, the tense/aspect does not have to be past/perfective even when it is a cause and effect relationship.⁹

Abe (1994) notes the following facts:

- (33) a. *[[*ie o tateru*] *gomi*]
 house ACC build refuse
 ‘the refuse which is produced when we build a house’
 b. [[*ie o tateru tokini deru*] *gomi*]
 house ACC build when produce refuse
 ‘the refuse which is produced when we build a house’

(Abe 1994)

The expression in (33a) is impossible and therefore we have to supplement the verb *deru* as in (33b). He reduces the difference between (32) and (33) to event-ness. He assumes that *nioi* is itself an event and that the example links the two events. Okutsu (1974) observes that *nioi* is often used in a verb construction, which supports Abe’s idea:

- (34) *li nioi ga suru.*
 good smell NOM feel
 ‘I smell something sweet.’ (Okutsu 1974)

On the other hand, *gomi* cannot be used in this construction. This argumentation sounds very reasonable; in our theory, however, it is captured by the difference in the degree of extensibility. In the case of *nioi*, the point can be

extended until the relational frame evokes, because the hostness of the noun is stronger, whereas in the case of *gomi* it cannot be extended so far. In the latter case, therefore, there is a sort of lag between the referent of *gomi* and the situation in the modifying clause and the cause and effect relation does not hold there. As a final point, let me add an interesting observation:

(35) ?[[*ie o tateta*] *gomi*]

house ACC built refuse

‘the refuse which is produced when we build a house’

Changing the tense/aspect to the one which signifies priority (see Note 9), the example sounds better. This is possibly because the cause and effect relationship evokes more easily when the situation in the clause is considered to have happened prior to the production of the refuse, which makes the extension of possible.

In summary, the hypothesis of extensibility has been testified in noun modification concerning space, and it is extended into time and further into cause and effect relationship.

5. Concluding Remarks

In this paper, we have made an attempt to explain noun modification in Japanese, laying emphasis on the example such as (2), where the linkage between the modifying clause and the modified noun sounds somewhat different from the prototypical case.

Following the framework of Matsumoto (1997), who applied Frame Semantics to her theory, we have incorporated a notion “extensibility” to the trichotomy in order to capture the phenomenon more precisely. Our observation and analysis have proved that the linkage is a gradable extension from impossible to possible closeness. The degree of extensibility differs according to the combination or lag between the situation in the clause and the referent of the noun and to the speaker’s world-view. This observation concerning space can be extended into time and more schematic cause and effect relation, which has succeeded in unifying previous analyses.

We have not, however, been able to incorporate the flow of time and information into our theory. For example, in example (2), *omoide no* (‘of

memory') itself can be considered to be relational, since it is encapsulating the content of the clause, i.e. the memory. This reading, however, is not possible in the sentence version (19), where the ordering is different.¹⁰ Further study of such issues will expand our insights in the question: what on earth the modification is.

In concluding, I should note that explanation by extensibility affords a new perspective not solely on noun modification in Japanese but also on every aspect of human language.

Notes

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1. The noun modification in Japanese includes various kinds of constructions, the part of which we will observe in the first section. We will exclude such expressions as “Noun *no* Noun” from the discussion:

(i) [[*Matunaga no*] *juutaku*]

Matsunaga LOC houses

‘houses in Matsunaga’

2. *Toiu* is a complementizer which introduces a modifying clause of complement clause type in some cases. There are several conditions and factors relevant to this phenomenon. For detailed discussion, see Masuoka (1997) and Watanabe & Horie (1998).

3. A similar notion is introduced in Artificial Intelligence and other fields as well as linguistics. Here we will not pursue the issue but restrict our discussion to Fillmore’s framework, which will contribute to our study significantly.

4. Fillmore and Atkins (1992) describe this frame in a more recent version. In this paper, however, Fillmore (1977) is helpful as a better demonstration of the framework.

5. I owe very much to Tokimoto for the discussion and example sentences in

this subsection.

6. This sentence is perfectly acceptable when the subject is playing ‘hide-and-seek’: he or she found ‘you’ at the pole behind which ‘you’ were hiding him- or herself (Utsunomiya, p.c.). This observation also proves that the world-view plays an important role and the explanation without pragmatics is untenable.

7. We can find such examples quite easily. Though the combination below sounds strange, changing the noun to *ipponsugi*, which is a special cedar tree, makes the expression completely acceptable:

- (i) [[*kimi to wakareta*] ?*sugi/ipponsugi*]
 you from parted cedar
 ‘the cedar tree at which () parted from you’

There is a world-view of the speaker that *ipponsugi* is a tall cedar which stands alone in the suburb, functions as a milestone or a signpost, and that a sad story is supposed to happen at the tree.

8. Okutsu (1974) notes that the noun modification with a Relative Noun can be converted into another nominal construction, where the Relative Noun incorporates the whole situation:

- (i) a. *Okaasan no soba de akatyan ga nemutteiru.*
 mother GEN beside LOC baby NOM sleeping
 ‘The baby is sleeping beside the mother.’
 b. [[*akatyan ga nemutteiru*] *okaasan no soba*]
 baby NOM sleeping mother GEN beside
 ‘the mother’s side by which the baby is sleeping’ (Okutsu 1974)

If we leave out *soba* from (ib), the result is unacceptable:

- (ii) *[[*akatyan ga nemutteiru*] *okaasan*]
 baby NOM sleeping mother
 *‘the mother who the baby is sleeping’

The factors which seem to be relevant here are the characteristic of the noun *okaasan*, which cannot be a place, and the relation between the clause and the noun which makes the extension impossible, and the aspect in ‘sleeping’ which imposes a strict simultaneity between the two.

9. Tense and aspect are not differentiated in the temporal system in Japanese.

In subordinate clauses, *-ta* form signifies priority and *-ru* form, which is a default, signifies simultaneity and posteority. See Kindaichi (1976) for detailed discussion.

10. Kushima (p.c.).

References

- Abe, Yasuaki (1994) "Rentai-syuusyokusetu no syomondai (Issues in Noun-modifying Clauses)," *Nihongo no Meisi-syuusyoku-hyoogen* (Japanese Noun-Modifying Expressions), edited by Takubo, Yukinori, Tokyo: Kuroshio Shuppan.
- Fillmore, Charles (1977) "Topics in Lexical Semantics," *Current Issues in Linguistic Theory*, edited by Cole, Peter, Bloomington: Indiana University Press.
- Fillmore, Charles and Beryl Atkins (1992) "Toward a Frame-Based Lexicon: The Semantics of RISK and its Neighbors," *Frames, Fields, and Contrasts*, edited by Lehrer, Adrienne and Eva Feder Kittay, Hillsdale, NJ: Lawrence Erlbaum Associates.
- Keenan, Edward and Bernard Comrie (1977) "Noun Phrase Accessibility and Universal Grammar," *Linguistic Inquiry* 8.1.
- Kindaichi, Haruhiko (ed.) (1976) *Nihongo doosi no Asupekuto* (Aspect in Japanese Verb), Tokyo: Mugi shobo.
- Kuno, Susumu (1973a) *The Structure of Japanese Language*, Cambridge, Mass.: The MIT Press.
- Kuno, Susumu (1973b) *Nihon Bunpoo Kenkyuu* (Study of Japanese Grammar), Tokyo: Taishukan.
- Langacker, Ronald (1987) *Foundations of Cognitive Grammar Vol.1: Theoretical Prerequisites*. Stanford: Stanford University Press.
- Masuoka, Takashi (1997) *Hukubun* (Complex Sentences), Tokyo: Kuroshio Shuppan.
- Matsumoto, Yoshiko (1997) *Noun-Modifying Constructions in Japanese: A Frame-Semantic Approach*, Amsterdam: John Benjamins.
- Okutsu, Keiichiro (1974) *Seisei Nihongo Bunpoo Ron: Meisiku no Koozoo* (On Generative Japanese Grammar: The Structure of Noun Phrases),

Tokyo: Taishukan.

- Shirakawa, Hiroyuki (1986) "Rentai Syuusyoku no Zookyooteizi Kinoo (Noun-Modifying Clauses for Circumstance Presentation)," *Gengogaku Ronsoo* (Discussion on Linguistics) 5, Tsukuba: The University of Tsukuba.
- Teramura, Hideo (1975-1978) "Rentai Syuusyoku no Sintakusu to Imi (The Syntax and Semantics of the Noun Modification in Japanese) Nos. 1-4," *Nihongo Nihonbunka* (The Japanese Language and Culture) 4-7, Osaka: Osaka University of Foreign Studies.
- Yamanashi, Masaaki (1995) *Ninti Bunpoo Ron* (On Cognitive Grammar), Tokyo: Hituzi Shobo.
- Watanabe, Yasukado and Kaoru Horie (1998) "Nihongo Dookakusetu ni Arawareru Hobunkazi no Seikizyookan Saikoo: Hobunkazi 'Toiu' 'Tono' no Daidoosi Bunseki ni yoru Tooituteki Setumei Sian (A Reexamination of Complementizer Choice in Japanese Appositive Clause Constructions: Towards a Unified Account in Terms of Pro-verbs *Iu* and *da*)," *Bulletin of the Edward Sapir Society of Japan* 12.