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Gapless Relative Clauses in Japanese

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Abstract

In Japanese, there is a unique type of relative clauses, a so-called 'gapless relative clause'. The relation between the predicate in the relative clause and its head is not syntactic in the sense that the head noun does not have a co-indexed NP gap internal in the clause. The modification is established on semantic and pragmatic bases, since there is a semantic and/or pragmatic connection between the clause and its head in this type. Consequently, it is semantic and pragmatic approach, but not syntactic one, that can make an appropriate comprehension of gapless relative clauses in Japanese. This thesis offers detailed semantic and pragmatic approaches to gapless relative clauses, focusing on the predicate in the clause, but not on a gap in the clause, so as to get gapless relative clauses in Japanese into perspective.

Keywords: gapless, relative clauses, noun-modifying clauses, semantic, pragmatic

Abbreviations

ABL	ablative
ACC	accusative
ADV	adverb (ializer)
ALL	allative
COND	conditional
COP	copula
DAT	dative
GEN	genitive
INS	instrumental
LOC	locative
NEG	negative
NOM	nominative
NPAST	non-past
OBL	oblique
OCOMP	object of comparison
PAST	past
PROG	progressive
QUOT	quotative
SPEC	speculative
TOP	topic

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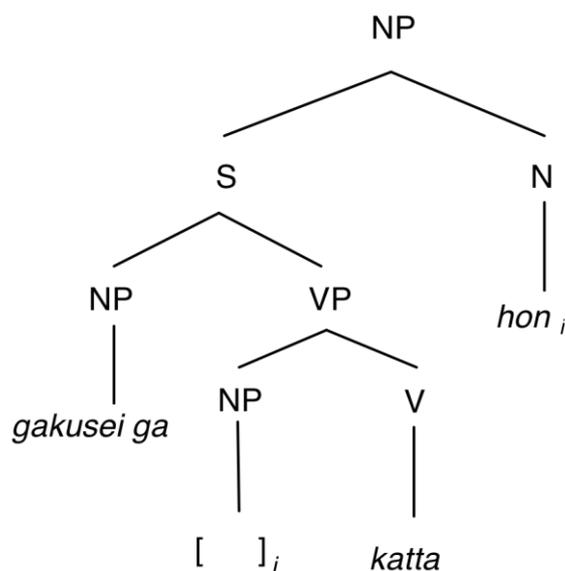
Chapter 1 Introduction

1.1 Theme

This thesis is a study on gapless relative clauses in Japanese with a descriptive analysis based on a semantic and pragmatic approach.

Generally, in relative clause constructions, the head noun and the modifying clause have clear case relation, which is represented by an internal gap as in the example below.

- (1) [*gakusei ga kat-ta*] *hon*
student NOM buy-PAST book
'the book which the student bought'



Since the verb *katta* 'bought' is transitive, one might recognize that the modifying clause in (1) contains a 'missing argument position', which is normally filled by a direct object of the verb. The head noun, therefore, functions as accusative in a paraphrased sentence as (2).

- (2) *gakusei ga hon o kat-ta.*
student NOM book ACC buy-PAST
'A student bought a book.'

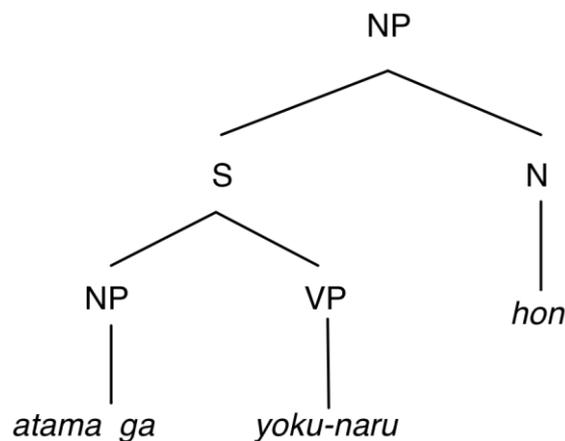
Most of the relative clauses, not only in Japanese, but also cross-linguistically, include such a gap that corresponds to the head noun as shown in (1). In Japanese, however, there is another type of relative clauses, in which a gap is not observed at all.

(3) [*atama ga yoku-naru*] *hon*¹

head NOM good-become-NPAST book

'the book (by reading which) ()'s head gets better (i.e., ()² becomes smarter)'

(Mikami 1963)



Example (3) is a gapless relative clause. The verb in the modifying clause is intransitive and its subject is the noun *atama* 'head' as marked by the case particle. In the prenominal clause, therefore, there is no apparent gap, which is co-referential with the head noun *hon* 'book'.

Although there exists a kind of relation between the head noun and the predicate in the gapless relative clause, there is no missing verb argument to link up with the head noun. And that makes it hard or even impossible to analyze gapless relative clauses from the syntactic point of view.

¹ The example was originally '*atama no yoku-naru hon*', in which the genitive case particle *no* is used instead of the regular nominative case marker *ga*. Replacement of the nominative *ga* with the genitive case marker *no*, which is called '*ga/no* conversion', is possible in noun modification constructions, especially in relative clauses. (See 3.1.3 for details.)

² Since Japanese is a pro-drop language, certain classes of pronouns can be omitted when pragmatically inferable.

1.2 Organization, Conventions and Data

The thesis starts with a theoretical overview of noun modification in Japanese. In the next chapter, this is followed by general descriptions of noun-modifying clauses, categorizing them into four groups, based on the relation between the head noun and the modifying clause. Chapter 4, the main one of this thesis, is focused on relative clauses and gapless relative clauses, offering a detailed semantic approach. It also includes a summary of the previous studies on them.

In this thesis, the modified Hepburn system is used to transcribe Japanese words. Long vowels are indicated as doubled instead of macrons.

Unless otherwise noted, the examples in the thesis are my own. In some cases, I have also consulted another native speaker.

Chapter 2 Noun Modification in Japanese

A noun-modifying clause is a subordinate clause. It describes the referent of the head noun.

In English and many European literary languages, noun-modifying clause, which is a so-called relative clause (or also adjectival clause), is formed by a relative pronoun, meeting the following three requirements:

First, it has a subject and predicate in it. Second, it is introduced by a relative pronoun. A relative adverb can be also used instead of a relative pronoun plus preposition so as to make the sentence easier to understand. And third, it functions as an adjective, either to give detailed information, defining a general term of expression (restrictive relative clause) or to supply additional information about the head noun, of which identity or reference is already established (non-restrictive relative clause).

2.1 Noun Modifiers

In Japanese, a noun modifier can be an adjective, an adjectival noun, a noun/pronoun (which precedes the genitive case particle *no*) or a clause.

(4) [*furui*] *hon* (adjective)
old book
'an old book'

(5) [*ookina*] *hon* (adjectival noun)
big book
'a big book'

(6) [*ane no*] *hon* (noun)
sister GEN book
'(my) sister's book'

(7) [*watashi no*] *hon* (pronoun)
I GEN book
'my book'

(8) [*watashi ga katt-ta*] *hon* (clause)
 I NOM buy-PAST book
 ‘the book which I bought’

Clausal noun modification is used quite more in Japanese than in English (Tamaru, Yoshioka and Kimura 1993: 50). The construction of clausal noun modification in Japanese includes various types of noun modification in English, such as modification by a full infinitive (to-infinitive) as (9) and one by a preposition phrase as (10). In Japanese, all these are in a single form of construction, a head noun modified by a clause.³

(9) [*kyoo suru*] *koto*
 today do-NPAST thing
 ‘things to do today’

(10) [*kuruma ni not-te iru*] *hito*
 car LOC ride-PROG person
 ‘the person in the car’

2.2 Prenominal Modification

Japanese is an OV language and left-branching, having a tendency to place dependents before the heads; a noun modifier is always placed before the head noun as a pre-modifier, no matter how long it is and the head noun in the final position.

[Noun Modifier] Head Noun⁴

³ In English, a verb in a prenominal clause can be attributive in the form of participles and infinitives: a crying baby; a broken arm; things to do. In Japanese, in contrast, only the finite forms are allowed in a noun-modifying clause.

⁴ The modifying clause is shown in brackets and the head noun underlined in all the examples in this thesis.

- (11) [*atarashii*] *hon* (adjective)
 new book
 ‘a new book’
- (12) [*ookina atarashii*] *hon* (adjectival noun + adjective)
 big new book
 ‘a big new book’

In Japanese, predicative verbs come at the end of the clause, after the nouns, while attributive verbs precede the noun.

- (13) [*Taroo ga kat-ta*] *hon* (clausal modification)
 Taro NOM buy-PAST book
 ‘the book which Taro bought’
- (14) [*Taroo ga kat-ta ookina atarashii*] *hon*
 Taro NOM buy-PAST big new book
 ‘the big new book which Taro bought’
- (15) [*Taroo ga kinoo kat-ta ookina atarashii*] *hon*
 Taro NOM yesterday buy-PAST big new book
 ‘the big new book which Taro bought yesterday’

2.3 Grammatical Tense

The predicate in the prenominal clauses can be a verb, an adjective or an adjectival noun as shown in 2.1.1. Such a predicate must be in its plain form⁵, either in past or non-past tense. The polite form is not used in a noun-modifying clause, since the indication of politeness is given in the predicate of the main clause.⁶

⁵ According to Keenan (1985), using a verb in the modifying clause in finite form is an exceptional case among the languages with prenominal relatives.

⁶ Since Japanese is a head-final language, the indication of politeness appears at the end of a sentence.

- (16) [*tabako o suu*] *hito* (present positive)
 cigarette ACC smoke-NPAST person
 'the person who smokes'
- (17) * [*tabako o sui-masu*] *hito*
 cigarette ACC smoke-POLITE-NPAST person
- (18) [*tabako o suwa-nai*] *hito* (present negative)
 cigarette ACC smoke-NEG person
 'the person who doesn't smoke'
- (19) [*terebi o mi-ta*] *hito* (past positive)
 television ACC watch-PAST person
 'the person who watched television'
- (20) [*terebi o mi-na-katta*] *hito* (past negative)
 television ACC watch-NEG-PAST person
 'the person who didn't watch television'
- (21) [*terebi o mi-te iru*] *hito* (present progressive)
 television ACC watch-PROG person
 'the person who is watching television'

Chapter 3 Clausal Noun Modification

Based on the relation between the head noun and the modifying clause, there are four types⁷ of clausal noun modification introduced by Iwasaki (2002: 179).

- (a) Cased Head Type — the head noun has case relation to the predicate in the modifying clause.
- (b) Adverbial Head Type — the head noun has an adverbial function to the modifying clause
- (c) Relational Head Type — the head noun and the modifier form some sort of interdependent relationship
- (d) Content Label Head Type — the head noun serves as a label for the content expressed in the modifier

3.1 Cased Head Type (Relative Clause)

Noun modification with a cased head noun is generally known as the relative clause construction.

The case of the head noun, related to the predicate in the relative clause, can be nominative (22), accusative (23), dative (24) or oblique.

(22) [*kinoo, koko ni ki-ta*] *kodomo*
yesterday here LOC come-PAST child
'the child who came here yesterday'

(23) [*Taroo ga/no⁸ kat-te iru*] *inu*
Taro NOM/GEN keep-PROG dog
'the dog that Taro keeps'

⁷ Teramura (1976) applies a dichotomy to clausal noun modification (see 4.1). Okutsu (1974) also classifies clausal noun modification into two major types. Masuoka (1992)'s classification is in three types. However, neither Okutsu nor Masuoka deals with gapless relative clauses in their studies.

⁸ See 3.1.3 The *Ga/No* Conversion.

(24) [*Taroo ga inu o age-ta*] *kodomo*

Taro NOM dog ACC give-PAST child

'the child whom Taro gave a dog'

3.1.1 The Absence of the Relative Pronoun

As Comrie (1996: 1077) notes, there is a clear distinction between the expression of 'relative clause meaning' in English and in Japanese.

In English, the case of the head noun (antecedent) is shown by a relative pronoun, which is used to link a relative clause to the head noun (or, in some cases, to a whole clause); whereas there is no equivalent for relative pronoun in Japanese. Japanese has no distinct set of constructions for relative clauses. Neither lexically nor morphologically, the semantic relation between the head noun and the relative clause is specified. That is, Japanese noun-modifying clause is indicated by word order alone⁹, which Iwasaki (2002: 180) calls 'gapping strategy'.

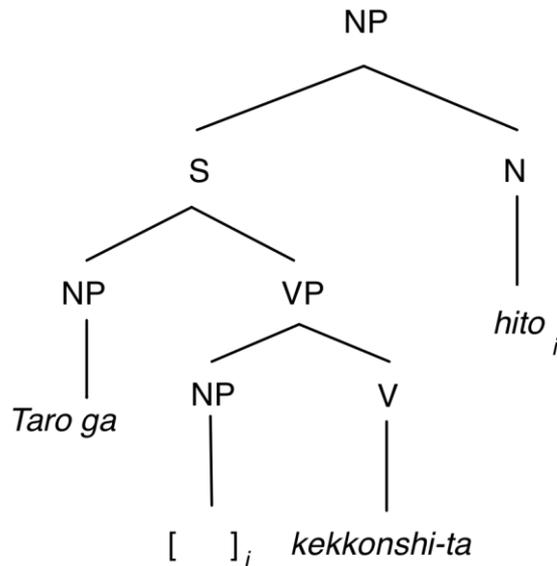
As illustrated in (25), it is quite obvious that there is an internal gap in the modifying clause. From the syntactic point of view, since the verb *kekkonshi-ta* 'got married' is transitive, this gap should be filled by one of the core arguments, the direct object. The head noun *hito* "person", therefore, functions as accusative with respect to the predicate in the relative clause.

(25) [*Taroo ga kekkonshi-ta*] *hito*

Taro NOM marry-PAST person

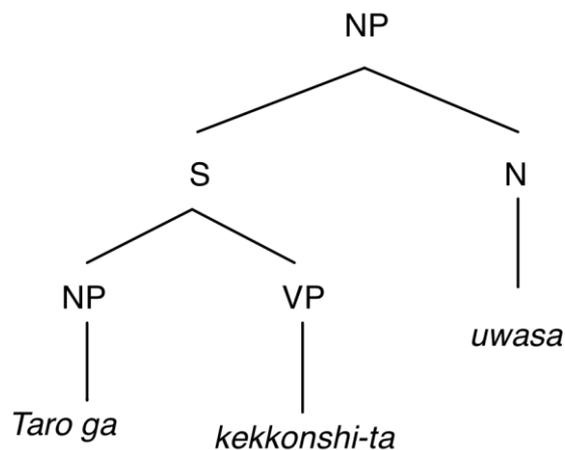
'the person whom Taro got married'

⁹ Case relations are represented by postpositional expressions, mainly particles (case markers), although some particles can be omitted under certain conditions.



Moreover, this construction is also fit to the form so-called fact-S construction (appositive clause construction), in which the head noun takes a sentential complement. In English, the complementizer *that* can be used to form the subordinate clause, and there is no gap as shown in (26).

- (26) [*Taroo ga kekkonshi-ta*] *uwasa*
 Taro NOM marry-PAST rumor
 'the rumor that Taro got married'



In Japanese, the basic structure that is interpreted to English by a relative clause construction consists of a head noun preceded by a subordinate clause (Comrie 1996: 1078). In other words, noun modification in Japanese can include both relative clauses and appositive clauses.

3.1.2 Multiple Ambiguous Case Identification

In Japanese, due to the absence of relative pronouns, which show the case relation between the head noun and the predicate in the relative clause, to analyze relative clauses by following a syntactic gap in the clause creates ambiguous identification of the case of the head noun on certain occasions.

In the English translation shown in (27) and (28), owing to the use of the prepositions, it is not difficult to see the difference of the semantic relation among the constituent of the relative clause. In Japanese, on the other hand, the construer needs to arrange the linguistic and/or non-linguistic context for the appropriate comprehension.

- (27) [*sushi o tsukut-ta*] *hito*
sushi ACC make-PAST person
a. 'the person who made sushi'
b. 'the person whom () made sushi for'

In this case, (27-a) is the context-free interpretation, however, (27-b) is also possible in a proper context. The following example (28), on the other hand, can show that the two different interpretations are equally acceptable in its context-free interpretation.

- (28) [*Taroo ga denwa o kake-ta*] *mise*
Taro NOM telephone ACC call upp-PAST store
a. 'the store to which Taro called'
b. 'the store from which Taro called'

3.1.3 The *Ga/No* Conversion

In a relative clause, it is possible to mark the subject with either the nominative case particle *ga* or the genitive *no* as is shown in (29) and (30) without having any difference in meaning.

- (29) [*hito no kimochi ga waka-ru*] *kodomo*
others GEN feelings NOM understand-NPAST child
'a child who understands others' feelings'

- (30) [*hito no kimochi no waka-ru*] *kodomo*
 others GEN feelings GEN understand-NPAST child

Although Tsujimura (2007: 302) restricts the appliance of the *Ga/No* conversion within the modifying clause that consists of a stative verb and its direct object, in my understanding, it is also possible to apply the *Ga/No* conversion to a noun-modifying clause that is composed of a continuative verb as (31) and (32).

- (31) [*haha¹⁰ ga an-da*] *seetaa*
 mother NOM knit-PAST sweater
 ‘the sweater which my mother knitted’

- (32) [*haha no an-da*] *seetaa*
 mother GEN knit-PAST sweater
 ‘the sweater which my mother knitted’

However, in an appositive clause, the *Ga/No* conversion is not applied. As the literal English translations show in (34) and (35), each appositive clause means a totally different thing.

- (34) [*haha ga seetaa o an-da*] *hanashi*
 mother NOM sweater ACC knit-PAST story
 ‘the story that my mother knitted the sweater’

- (35) [*haha no seetaa o an-da*] *hanashi*
 mother GEN sweater ACC knit-PAST story
 ‘the story that () knitted my mother’s sweater’

¹⁰ *haha* is the basic word for mother which does not combine with honorifics, to talk about one’s own or spouse’s mother to a person outside of one’s family.

3.2 Adverbial Head Type (Gapless relative clause)

In the relative clause construction, the head noun and the modifying clause has clear case relation, which has no difficulty to be translated into English by using a relative pronoun. In some cases, however, the case relation is less obvious, and the connection between them must be construed pragmatically for an appropriate interpretation.

In the example below, the head noun can be still considered as a case head; the head noun *kakegoto* 'gambling' can be interpreted as the instrumental.

- (35) [*zaisan o nakushi-ta*] *kakegoto*
property ACC lose-PAST gambling
'the gambling (because of which) () lost one's property'
(cf. *kakegoto de zaisan o nakushi-ta.*)
property INS property ACC lose-PAST

(Iwasaki 2002: 186)

However, the following examples show no clear case relation between the head noun and the predicate in the modifying clause. A literal translation into English makes no sense. As Iwasaki (2002: 186) points out, the head nouns function as adverbials in relation to the modifying clauses.

- (36) [*hada ga kirei-ni naru*] *sekken*
skin NOM beautiful-COP-ADV become-NPAST soap
'the soap (which by using) the skin becomes beautiful'

(Iwasaki 2002: 186)

To comprehend the example (36), a pragmatic approach is required. The relationship between the head noun and the modifier is a kind of "cause-effect/entailment" relationship (Iwasaki 2002: 187) or "condition and consequence" (Matsumoto 1997: 103). This type of clausal noun modification is called a 'gapless relative clause' and analyzed in detail in Chapter 4.

3.3 Relational Head Type

In clausal noun modification, some head nouns are relational and they are completely dependent for its comprehension on the other words in the same sentence or the context itself.

Temporal nouns and noun phrases – *yokujitsu/tsugi no hi* ‘the next day’, *X jikan go* ‘after X hours’, *X kagetsu mae* ‘X months before’, and so on, are relational nouns, as they require a fixed time description from which temporal nouns can be defined. In (37), it is the modifying clause that defines the relational head noun *yokunen* ‘next year’.

According to Iwasaki (2002: 187), spatial nouns and noun phrases – *mae* ‘front’, *ushiro* ‘back’, *ue* ‘up’, *shita* ‘down’, *migi* ‘right’, *hidari* ‘left’, for example, are also relational nouns which need to have a fixed location to identify its own location as shown in (38).

(37) [*Taroo ga umare-ta*] *yokunen*
Taro NOM be born-PAST next year
‘the year after Taro was born’

(38) [*Taroo ga suwat-ta*] *yoko*
Taro NOM sit-PAST side
‘the side where Taro sat’

3.4 Content Label Head Type

The last type of clausal noun modification is usually known as the “appositive construction” and distinctively characterized by its ‘content label’ head noun, serving as a label of the information expressed by the noun-modifier (Iwasaki 2002: 188).

The following is a table of types of content nouns (Iwasaki 2002: 189).

a) “linguistic communication”	<i>kotoba</i> ‘words’, <i>uwasa</i> ‘rumor’, <i>nyuusu</i> ‘news’, <i>shirase</i> ‘report’, <i>tegami</i> ‘letter’, ...
b) “facts”	<i>koto</i> ‘fact’, <i>jijitsu</i> ‘fact’, <i>jiken</i> ‘incident’, <i>jootai</i> ‘situation’, <i>kekka</i> ‘result’, <i>gen’in</i> ‘cause’
c) “thoughts and feelings”	<i>kangae</i> ‘thought’, <i>yume</i> ‘dream’, <i>tsumori</i> ‘intention’, <i>yakusoku</i> ‘promise’, <i>kanji</i> ‘feeling’, <i>yokan</i> ‘premonition’, <i>utagai</i> ‘doubt’, ...
d) “stimulus source”(visual)	<i>kakkou/sugata</i> ‘appearance’, <i>metsuki</i> ‘a look (in eye)’, <i>kao</i> ‘facial expression’, <i>e</i> ‘painting’, <i>shashin</i> ‘photograph’, <i>kuse</i> ‘habit’, <i>ato</i> ‘trace’
e) “stimulus source”(non-visual)	<i>nioi</i> ‘smell’, <i>oto</i> ‘sound’, <i>koe</i> ‘voice’, <i>kansyoku</i> ‘a touch/feel’

Types of Content Nouns

The hearsay expression *to-iu* (quotative marker + ‘say’) is usually required, when the information in a modifying clause is transmitted by means of ‘language’ (in the table above “linguistic communication”)(Iwasaki 2002: 188).

On the other hand, the content head nouns for “facts” and “stimulus source” need not adding the hearsay expression, and it is optional for “thoughts and feelings” content nouns as (40) and (41).

(39) [*kyoo wa ika-nai to-iu*] *denwa*
today TOP go-NPAST-NEG QUOT -say-NPAST phone-call
'the phone call saying that (someone) will not go today'

(40) [*kyoo wa ika-nai to-iu*] *yakusoku*
today TOP go-NPAST-NEG QUOT -say-NPAST promise
'the promise that (we/I) will not go today'

(41) [*kyoo wa ika-nai*] *yakusoku*
today TOP go-NPAST-NEG promise
'the promise that (we/I) will not go today'

Chapter 4 Relative Clauses and Gapless Relative Clauses

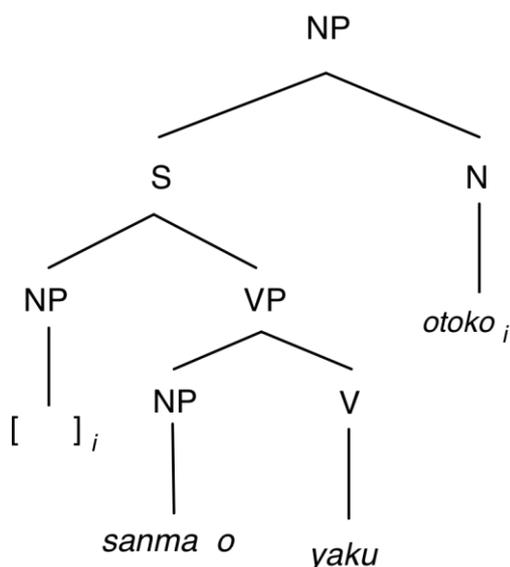
In the studies of clausal noun modification in Japanese, there are two major groups: one is called the syntactic theories, which are based on syntactic studies, especially on generative grammar. The other group is descriptive studies and their concern is to classify noun-modifying constructions into certain types and sub-types.

4.1 Previous Studies

In the field of studies on clausal noun modification, *Nibunron* 'A Dichotomy' presented by Teramura (1975) is the most well-known and influential. Teramura categorizes noun-modifying clauses into two groups, depending on whether there exists a clause-internal gap or not, with respect to the relationship between the head noun and the predicate in a clause.

Uchi no Kankei 'Inner Relationship' as shown in (42) is a so-called relative construction, in which the head noun has a case relation to the predicate in the relative clause. The head noun *otoko* 'man' can be inserted as nominative¹⁰ in the clause so as to paraphrase as (43).

- (42) [*sanma* *o* *yaku*] *otoko*
saury (fish) ACC grill-NPAST man
'the man who grills a saury' (Teramura 1975)



¹⁰ In a noun-modifying clause (42), the case marking particle *ga* (nominative) is omitted, while in the full-formed sentence (43), the case of the subject is marked by the case particle.

- (43) *otoko ga sanma o yaku.*
 man NOM saury (fish) ACC grill-NPAST
 ‘A man grills a saury.’

Teramura presents another example, using a different word for its head noun as (44). This is an example of a clausal noun modification with *Soto no Kankei* ‘Outer Relationship’. In this type, there is no relation between the head noun and the predicate in the modifying clause. It is impossible to rephrase the noun-modifying clause as (45).

Since the head noun takes no case relation to the predicate in the clause, there is no appropriate case particle for the head noun to rephrase it to a full-formed sentence. (44) is not a relative clause, but an appositive clause, and the prenominal clause functions as a noun complement.

- (44) [*sanma o yaku*] *nioi*
 saury (fish) ACC grill-NPAST smell
 ‘the smell of grilling a saury’

- (45) **nioi ga sanma o yaku.*
 smell NOM saury (fish) ACC grill-NPAST
 *‘A smell grills a saury.’

Despite the absence of specific markers to show the semantic role between the head noun and the predicate in the modifying clause (discussed in 3.1.1), most of the analyses of Japanese relative clauses are based on the syntactic analyses of English relative clauses. In terms of the syntactic gap in the modifying clause, they try to analyze the construction of the noun-modifying clause, although a great number of noun-modifying constructions in Japanese show no link between the head noun and the predicate in the modifying clause.¹¹

This can be seen in Comrie’s following claim: the study of relative clauses in Japanese, and perhaps a number of other languages, has suffered from trying to assimilate them to the English (or more generally, European) type (1996: 1079).

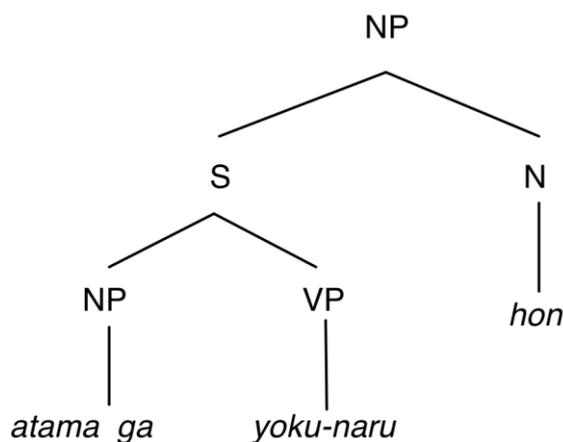
¹¹ As mentioned in 3.1.1, clausal noun modification in Japanese takes either a relative clause construction or appositive clause construction. In an appositive clause construction, the head noun bears no case relation with the predicate in the prenominal clause.

Comrie (1989: 138) criticizes that the study of relative clauses has been biased by solely concentrating on data from English and the construction of abstract analyses to account for the characteristics of relative clauses.

In the previous studies, gapless relative clauses have received little attention and been excluded from a target of study, except by Mikami (1963), Teramura (1976) and Matsumoto (1996).¹²

Mikami (1963: 106) gives some examples of gapless relative clauses in which the relation between the head noun and the modifying clauses is particularly complicated as (46).

- (46) [*atama ga yoku-naru*] *hon*
 head NOM good-become-NPAST book
 'the book (by reading which) ()'s head gets better' (= (3) in Chp.1)



Teramura rephrases the example (46) to (47) with a brief discussion of this and shows some more similar examples (1976: 34-35).

- (47) *kono hon o yome-ba, atama ga yoku-naru.*
 this book ACC read-COND head NOM good-become-NPAST
 'If () read this book, ()'s head will get better.'

Teramura names gapless relative clauses *tanraku* 'truncated', in which some linguistic elements are deleted so as to make a noun 'move out' (tenshutsu-suru) to be the head

¹² Kameshima (1991) analyzes the examples of Teramura little, treating them as restrictive relative clauses.

noun (ibid: 75-78). However, Teramura does not make any structural analysis of gapless relative clauses in his studies, only mentioning the existence of gapless relative clauses as a problematic case.

Matsumoto opposes the idea of the deletion of certain lexical items that Teramura assumes, and suggests that it is not deleted words but more abstract notion that need to be recovered to comprehend such context-dependent types of noun-modifying clauses (1997: 6-7).¹³

Matsumoto criticizes the syntactic dichotomy of clausal noun modification in Japanese, since the conventional analysis of noun-modifying clauses are focused only on a clause-internal gap, even though there is no rigid rule in Japanese requiring all the verb arguments to be present in a sentence (ibid: 2). In other words, there is no apparent absence of sentence elements in Japanese, and even core arguments can be omitted when pragmatically inferable.

However, the analysis that Kameshima (1989) presents is different from Matsumoto's: Kameshima theorizes that a restrictive relative clause must have a gap in it, and that some gaps are, however, hidden and not easily identified. Kameshima states that many of those hidden gaps can be an underlying object of the instrumental case marker *de* (1989: 27).

The following example (48) is the same one as (46) illustrated by Mikami, and Kameshima rephrases Mikami's example as (49).

(48) [*atama ga yoku-naru*] *hon*
 head NOM good-become-NPAST book
 'the book (by reading which) ()'s head gets better' (Mikami 1963)
 (= (3) in Chp.1, (46) in Chp.4)

(49) *sono hon de atama ga yoku-naru.*
 the book INS head NOM good-become-NPAST
 'By means of the book, ()'s head will get better.' (Kameshima 1989)

Kameshima considers (48) as a restrictive relative clause, having its origin in (49). However, Matsumoto states that it is doubtful that the head noun *hon* 'book' functions

¹³ Matsumoto defines gapless relative clauses as neither relative clauses nor appositive clauses (1997: 3).

as an instrument to make somebody clever (1997: 19); the case particle *de* indicates that the noun precedes the particle is an instrument or means by or with which the subject achieves or accomplishes an action. However, *hon* 'book' cannot be an instrument in this occasion. The literal English translation in (48) implies that a book brings about an effect indirectly by reading it.

Matsumoto presents the following example, instead, for an appropriate use of the instrumental case particle *de*.

(50) *sono kusuri de kaze ga yoku-naru.*

the medicine INS cold NOM good-become-NPAST

'By means of the medicine, ()'s cold will get better (i.e., () recovers from a cold)'

(Matsumoto 1997: 19)

Matsumoto changes the noun precedes the instrumental case particle *de* to *kusuri* 'medicine' as shown in (50). Because of the general idea that medicine is a treatment for illness or injury, it is easy to assume that *kusuri* 'medicine' has an effect on physical condition directly. However, (49) does not sound natural, especially as an interpretation of (48), since the act of reading a book does not have a direct effect on making somebody smarter. On every occasion, it may provide knowledge to us, but may not make a brain work better so immediately as medicine effect on our body.

Matsumoto (1994) gives another example as (51) and (52) to claim that some of the internal gaps make no sense if they are rephrased by adding the instrumental case particle *de*.

(51) [*futura-nai*] *okashi*

gain weight-NEG dessert

'the dessert () does not gain weight (even though () eat it)'

(Matsumoto 1994)

(52) **sono okashi de futura-nai.*

the dessert INS gain weight-NEG

'By means of the dessert () does not gain weight.'

(Matsumoto 1994, 1997)

Although the literal English translation of (52) is not ungrammatical, the Japanese sentence, *sono okashi de futura-nai* sounds quite odd. Example (51) refers to a dessert,

which does not give the eater an unwelcome effect by eating it; the head noun *okashi* 'dessert' is neither an instrument nor cause that prevents the eater from gaining weight (Matsumoto 1997: 20).

4.2 Frame-Based Semantics

As Comrie (1996: 1078) points out, Japanese does not have syntactic constraints on the relation between the head noun and the subordinate clause. And Matsumoto is against the traditional way of syntactic or structural analyses. In Matsumoto's wording: "the frame-work of syntax is inadequate to describe the construal mechanism of Japanese noun-modifying constructions" (1997: 54).

Matsumoto therefore applies the theory of Frame Semantics¹⁴ developed by Fillmore (1975) to the analyses of clausal noun modification in order to make a semantic and pragmatic approach.

Matsumoto introduces five frame-based notions to analyze the construction of noun-modification in Japanese: (1) Predicate Frame, (2) Nominal Frame, (3) Composite Frame, (4) Host/Construal Frame and (5) World-View.

4.2.1 Predicate Frame

A predicate frame¹⁵ provides a general image of an event or an action formed by a predicate. According to Matsumoto, the elements in a predicate frame are prototypical constituents of a scene described by the predicate in a noun-modifying clause. They are the key elements to perform the scene, which can be quite similar to so-called core arguments.¹⁶ For example, Eater and Food are the core elements in the predicate frame formed by the verb 'eat' (Matsumoto 1997: 59).

In the similar way as verb arguments are presented from the syntactic point of view in order to complete the meaning of a clause, each element of a predicate frame plays a certain role in a scene evoked by the predicate in a clause (idid: 59).

¹⁴ Minsky (1975: 212) defines the term 'frame' as a data-structure to represent a stereotyped situation. In linguistics, Fillmore (1975: 124) uses the term to refer to "any system of linguistic choice ... that can get associated with prototypical instances of scenes".

¹⁵ The concept of predicate frame seems to be influenced by cognitive linguistics, especially by Langecker (2002), although it is not mentioned in Matsumoto's works.

¹⁶ Matsumoto (1997: 59) says "the concept of predicate frame resembles Fillmore's Case Frame (Fillmore 1968), but is defined in more cognitive terms that the frame models a generalized situation or scene, rather than being strictly linguistic representation".

prenominal clause, there are two constituents besides the verb *yoku-naru*. One is a noun *atama* ‘head’ and the other is a case marking particle *ga*. Since Japanese particles are postpositions, the nominative case particle *ga* in the prenominal clause marks the function of the constituent immediately before it. In other words, the noun *atama* ‘head’, which precedes the nominative case particle *ga* is the subject. And this is one of the two essential elements in the predicate frame, the thing that has been made better in its condition. This is what Iwasaki calls ‘effect’ or in Matsumoto’s way it can be a ‘consequence’.

The other noun *hon* ‘book’, accordingly, fills the other role, describing what Iwasaki calls ‘cause’ or in Matsumoto’s way a ‘condition’. To assume the role, the head noun *hon* ‘book’ should be used in a conditional clause, such as ‘if/when you read the book’, ‘by reading the book’, although this part does not show up in the prenominal clause.

Generally speaking, a ‘book’ is something to read. So, the construer considers that the head noun *hon* ‘book’ fits together with the verb ‘read’ in a conditional clause to fill its own role.²⁰

4.2.2 Nominal Frame

The second type of semantic frames that Matsumoto presents is formed by certain kinds of head nouns, which Matsumoto (1997: 70) calls ‘semantic contents-talking’ types.²¹ The semantic role of a noun which provides a nominal frame in clausal noun modification is either to name what is described in the prenominal clause (for example, *jijitsu* ‘fact’ and *kangae* ‘idea’) or to provide a relational concept which is described in the clause (e.g., *nioi* ‘smell’ and *oto* ‘sound’).

The prenominal clause in (54) refers to the specific content of the head noun *kangae* ‘thought/idea’.

- (54) [*ashita gakkoo o yasumu*] *kangae*
 tomorrow school ACC be absent-NPAST thought/idea
 ‘the idea that () will be absent from school tomorrow’

Similarly, a so-called ‘relational noun’, which can make sense only in relation with an entity or event (Matsumoto 1997: 70), evokes a nominal frame to restrict the reference of the head noun as in (55).

²⁰ In Qualia Theory (Pustejovsky 1993), the relation between a noun and associated actions is examined in detail.

²¹ Iwasaki (2002, 188-189) categorizes this type of noun-modifying clauses as ‘Content Label head type’ as already discussed in 3.4.

(55) [*doa ga aku*] *oto*
 door NOM open-NPAST sound
 ‘the sound of the door opening’

It is important to keep in mind that a prenominal clause which is described in a nominal frame is a fact-S construction, where a head noun takes a sentential complement, and there is no gap in the clause.

4.2.3 Composite Frame

When the predicate in a prenominal clause decides which element can be in the frame to describe a typical scene evoked by the predicate, this frame is named a predicate frame as discussed in 4.2.1.

In the following example, it is hard to say that the head noun *tomodachi* ‘friend’ is an essential element in the predicate frame evoked by the verb *it-ta* ‘went’.

(56) [*watashi ga issyo ni it-ta*] *tomodachi*
 I NOM together go-PAST friend
 ‘the friend with whom I went together’

The core elements of the predicate frame can be Goer (the person who went in this case) and Destination. Obviously, the former is *watashi* ‘I’, since it is immediately followed by the nominative case particle *ga*. In that case, the head noun *tomodachi* ‘friend’ should be a destination in order to fit in the predicate frame. And this makes no sense.

Moreover, the verb *it-ta* ‘went’ does not necessarily take a ‘comitative’ phrase, since the action (*it-ta* ‘went’) can be carried out by the subject (*watashi* ‘I’) alone. Accordingly, if the adverb *issyo ni* ‘together’ is omitted as (57), it is totally ungrammatical.²²

²² Iori (2001: 227) notes the case hierarchy in Japanese:

- cases that can be a head noun
NOM > ACC > DAT > LOC > ALL > INS > COM (=associative accompaniment)
- cases that cannot be a head noun
COM > ABL > OCOMP (object of comparison)

Iwasaki (2002: 183) states that the comitative case particle *to* describes an ‘associate accompaniment’. When used with a reciprocal verb, it can be the head noun in a relative clause. However, it cannot be, when used with other types of verbs unless the adverb *issyo ni* is added

(57) *[*watashi ga it-ta*] *tomodachi*
 I NOM go-PAST friend

Therefore, Matsumoto (1997: 69) proposes an additional step to consider linguistic contexts and combine it with a predicate frame. A predicate frame, thus, can be more specific by integrating it with an implication made by the other element in the prenominal clause. Matsumoto names this integrated frame a ‘composite frame’.

As shown in (56) and (57), the prenominal clause is grammatically correct when it has adverb *issyo ni* ‘together’, and this means that the adverb in the clause plays more important role than the predicate in the clause to construe the clausal modification.

Consequently, (56) can be analyzed in a composite frame instead of a predicate one: the adverb *issyo ni* ‘together’ in the clause implies that the action *it-ta* ‘went’ is taken by an ‘associative accompaniment’, but not by the subject *watashi* ‘I’ alone. Thus, the adverb in the clause evokes a semantic frame, requiring for Companion as an essential element. As shown in the literal English translation of (56), the head noun *tomodachi* ‘friend’ fills this role.

Another example shown below is quite similar to (56). The difference between (56) and (58) is the verbs in the prenominal clauses.

(58) [*watashi ga issyo ni tabeta*] *tomodachi*
 I NOM together eat-PAST friend
 ‘the friend with whom I ate together’

In the predicate frame of Eating, the core elements are Eater and Food. And it is clear that the former is an available role, since *watashi* ‘I’, which is followed by the nominal case particle *ga* can fill this role (ibid: 69). Then, the latter should be the head noun *tomodachi* ‘friend’. Naturally, this does not make sense at all, since a ‘friend’ cannot be something to eat in general knowledge.

Instead, as there is an adverb *issyo ni* ‘together’ in the modifying clause, the composite frame makes the scene (evoked by the predicate) extended. It gives a concrete explanation that the act of eating is performed by an accompanying Eater (Iwasaki 2002: 184, Matsumoto 1997: 98). Thus, this co-Eater is created as an essential role in the composite frame to construe (58) accurately.

- (60) [*atama ga yoku-naru*] *kusuri*
 head NOM good-become-NPAST medicine
 ‘the medicine (by taking which) ()’s head gets better’

In (60) the semantic frame that is formed by the modifying clause *atama ga yoku-naru* ‘to make the head better’ implies a certain change in the condition of the head. However, there is no syntactic or semantic clue to show the relation with the head noun *kusuri* ‘medicine’.

In this case, the construer does not need a help of world-view (common knowledge). It can be comprehended only by a semantic approach: when the construer thinks about the fundamental role of *kusuri* ‘medicine’, which can generally change physical condition by taking it, the construer can see, what Matsumoto (ibid: 105) names ‘the intrinsic connection’ between the clause and the head noun.²⁴

However, the next example needs to be considered with world-view, although the sentence structure of (61) is the same as in (59) and (60), having a different head noun from the others.

- (61) [*atama ga yoku-naru*] *chokoreeto*
 head NOM good-become-NPAST chocolate
 ‘the chocolate (by eating which) ()’s head gets better’

In ‘general knowledge’, a chocolate does not carry out any function to make a head work better. So, example (61) can be unacceptable, if the construer has difficulty in imaging a way to make someone smarter.

However, if it is written on a package of chocolate that ‘a chocolate which makes you smart’, then most of the people can/will imagine that the chocolate has some special elements in it. Thus, by eating the chocolate, a brain works better and the eater will get smarter, they think.

In this case, it is world-view (common knowledge) that connects the head noun and the modifying clause to construe the noun modification. Although it is hard for general knowledge to make the construer imagine the connection between the head noun and the clause, it is possible for common knowledge, which is shared mutually between the speaker and the listener (or the writer and the reader) to image a certain relation between them.

²⁴ As discussed in 3.2 and 4.2.1, the relation between the clause and the head noun is ‘cause-effect’ or ‘condition’ and ‘consequence’ (Iwasaki 2002: 187, Matsumoto 1997: 103).

As Comrie (1996: 1078) mentions, the acceptability of different relations between the head noun and the noun-modifying clause in Japanese is determined rather by pragmatic factors. In Comrie's wording: If a native speaker of Japanese can readily establish a plausible relation, then the sentence is judged acceptable; if not, it is judged unacceptable.

Example (62) would be judged acceptable by only those who drives or owns a car, observes Matsumoto (ibid: 105). Because of their own experience, they can imagine how a car cheers someone up. It is, thus, world-view that allows the construer to reach the semantic connection between the clause and the head noun.

(62) [*genki ga deru*] *kuruma*
 energy NOM rise up-NPAST car

'the car (by driving/owing which) ()'s energy rises up'

(Matsumoto 1997: 105)

In my understanding, however, it is also possible to think that an advertisement film on TV, for example, can produce an image that a car gives energy to the driver and the fellow passenger(s) and that a car makes them cheerful.

As a summary of this thesis, a typical example of gapless relative clauses is presented in (63), as the example includes many characteristics of the Japanese language.

When the subject in the clause is omitted and the head noun does not have any case relation with the predicate, (which is called a gapless relative clause) the frame-semantic approach is useful to construe the complicated structure which cannot be comprehended by syntactic analyses.

(63) [*hara o itame-ta*] *ko*²⁵
 belly ACC hurt-PAST child

'the child (for the sake of (whom)) () hurt ()'s womb'

²⁵ The original example made by Teramura (1976) is :

[*jibun ga hara o itame-ta*] *musume*
 self NOM belly ACC hurt-PAST daughter
 'the daughter (for the sake of (whom)) I hurt my womb'

Following the theory of Matsumoto, a native speaker of Japanese may imagine a scene in which someone has hurt one's own belly and have got some influence from it.²⁶ The other word in the modifying clause, *hara* means 'belly' or 'abdomen' (the front part of the body between the chest and the legs), but not the organ 'stomach' when it is a direct object of the verb *itameru* 'hurt'.

Connecting the word *hara* 'belly', which bears the accusative case function, with the verb '*itame-ta*' hurt, a native Japanese speaker construe this pronominal modifier as 'giving a birth to (someone)'. As a common knowledge, the Japanese associate the pain in the front part of the body with the labor pains, using their 'world-view' as Matsumoto's term.

If the head noun in (63) has case relation with the predicate in the clause, the pronominal clause would be changed as in (64).

- (64) [*hara ga itakat-ta*] *ko*
stomach NOM have a pain-PAST child
'the child who had a pain in the stomach'

It is worth noting that the meaning of *hara*, the first word in the clause is not 'belly', but 'stomach' here in (64). Since the verb *itakat-ta* 'have a pain' describes a scene or a situation in which someone has a pain, but not hurt oneself as the verb *itameru* 'hurt' means as (63).

These are examples to see how the verb in the pronominal clause affects the other element(s) in the clause in the process of forming the predicate frame. The pronominal clause in (63) is a gapless relative clause, while the one in (64) is a normal gapfilled relative clause. The difference between the two clauses in syntax is the selection of its verb, either to mean 'hurt oneself' or 'have some pain'.

²⁶ The verb *itame-ta* is translated to English as 'have got hurt', while the verb *itakat-ta* in (64) as 'had pain'. (cf. *-ta* is a form the past tense). Matsumoto (1997: 63) mentions that the past (perfective) form of the predicate implies something 'consequential'.

Chapter 5 Conclusion

Comrie states that the Japanese clausal noun modification has only one construction type that combines a head noun and a preceding subordinate clause. In Comrie's wording: depending on pragmatic factors — which interpretation makes more sense — this construction will be assigned either a relative clause interpretation, or a fact-S interpretation, or some other interpretation (1996: 1079).

Only to translate it into English, a noun-modifying clause in Japanese can be analyzed by particular approaches based on the study of syntax, the syntactic and structural analyses merely to concern with a gap in the clause, which cannot bring an adequate construe of noun-modifying clauses in Japanese; a literal English translation is ungrammatical, although the Japanese sentence is grammatically correct. It is because of the semantic constraints of a predicate in Japanese on the relation between the other constituents in a sentence, Japanese noun-modifying clauses require a more round-about translation into English, instead.

Fundamentally, clausal noun modification in Japanese has thoroughly a different construction from the English ones, since Japanese and English are very unlike in character as a language: a clause may have more than one missing element in it, as Japanese is a pro-drop language. In Japanese, a gap in the clause does not take so important role as in English. Actually, in Japanese, there is no certain term for 'gapless' relative clauses.

The head noun and the modifying clause form a connection semantically in the construal process, not only gapless relative clauses, but also whole noun-modifying clauses in Japanese need to be approached in semantic and pragmatic ways.

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