#### A SYNTACTIC ANALYSIS OF COPULAR SENTENCES\*

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#### 1. Introduction

Copular is a verb whose main function is to link subjects with predicate complements. In a limited sense, the copular refers to a verb that does not have any semantic content, but links subjects and predicate complements. In a broad sense, the copular contains a verb that has its own meaning and bears the syntactic function of "the copular."

Higgins (1979) analyses English copular sentences and classifies them into three types.

- (1) a. predicational sentence
  - b. specificational sentence
  - c. identificational sentence

Examples are as follows:

- (2) a. John is a philosopher.
  - b. The bank robber is John Smith.
  - c. That man is Mary's brother.

(2a) is an example of predicational sentence. This type takes a reference as subject, and states its property in predicate. In (2a), the reference is *John*, and its property is *a philosopher*. (2b) is an example of specificational sentence, which expresses what meets a kind of condition. In (2b), what meets the condition of *the bank robber* is *John Smith*. (2c) is an example of identificational sentence, which identifies two references. This sentence identifies *that man* and *Mary's brother*.

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Higgins' (1979) analysis is to classify English copular sentences. In this paper, we ask whether or not this classification peculiar to English, and discuss that Higgins' (1979) classification is in fact applicable to Japanese and Chinese as well. We will also show that the English copular, the Japanese copular, and the Chinese copular share some common syntactic properties.

In many languages, copular can be omitted; or the copular omission takes place. The phenomenon emerges in different ways among languages. For example, the following is from Russian.

(3) a. eto by-l dom this COP-3SG.MSC.PST house

'This was a house.'

b. eto dom. this house

'This is a house.'

(Pustet 2003)

- (3a) is a past tense sentence, and (3b) is present tense one. In Russian, the copular *by-l* is obligatorily deleted in the present tense.
  - (4) is an example of Turkish copular omission.
- (4) bu fare(-dir) this mouse-COP.3SG

'this is a mouse.'

(Pustet 2003)

In Turkish, the copular -dir is optional in all contexts.

How could we capture these differences? This study compares English and with respect to the conditions where the copular is omitted, and analyses the differences that we observe. Observing the circumstances of copular omission in English and Japanese, there are similarities and differences. Examples are shown below.

- (5) a. The winner \*(is) a good runner.
  - b. The winner \*(is) Mary.

(Rothstein 1995)

(6) a. John wa tetugakusya (da). John TOP philosopher COP

'John is a philosopher.'

b. Ginkou-goutou wa John ?(da).Bank-robber TOP John COP

'The bank robber is John.'

The sentences in (5) are examples of English main clause copular omission, and the sentences in (6) are examples of the Japanese counterpart. In English main clauses, the copular cannot be omitted, but in Japanese main clauses, it can be omitted. In (6), though the versions with copulars sound more natural.

- (7) and (8) are examples of embedded sentences from English and Japanese, respectively.
- (7) a. I consider the winner (to be) a good runner.
  - b. I consider the winner \*(to be) Mary.

(Rothstein 1995)

- (8) a. Boku wa John o tetugakusya (da) to omot-teiru. I TOP John ACC philosopher COP COMP think-PROG
  - 'I consider John to be a philosopher.'
  - b. Boku wa ginkou-goutou o John ??(da) to omot-teiru.

    I TOP bank-robber ACC John COP COMP think-PROG

Even in the same English examples, the copular can be deleted in (7a), but not in (7b). In Japanese example (8) is just the same as English. The copular can be omitted in (8a), but not in (8b).

The main difference between Japanese and English lies in possibility of copular omission in main clauses. In Japanese, copular omission is possible in main clauses, on the one hand. In English, copular omission is impossible in main clauses, on the other. We attribute the difference to the property nature of predicates, and show that the copular plays the same role among languages.

The structure of this paper is as follows. I begin with Higgins' (1979) classification of copular sentences in section 2. After looking at the characteristics of three copular sentences, we will show that these characteristics are applicable to Japanese and Chinese. This supports the idea that Higgins' (1979) classification is universal.

In section 3, we will make generalizations as to where copular omission occurs in English and Japanese. We attempt to determine the conditions where copular omission occurs in main clauses and embedded clauses, and describe the difference and the similarity between the two languages.

<sup>&#</sup>x27;I consider the bank robber to be John.'

In section 4, we attempt to provide theoretical explanation for the facts we observe in section 3. We will show that the central properties of copular omission in Japanese embedded clauses are explained by appealing to Rothstein's (1995) predication relation.

In section 5, we will focus on main clauses. In main clauses, there is a major difference between English and Japanese. The difference is attributed to a certain difference arising between English and Japanese predicates. We suggest that the copular plays the same role in English and Japanese.

Section 6 summarizes the paper.

## 2. Three Types of Copular Sentences by Higgins (1979)

Before analyzing copular omission, we look at the analysis of copular sentences by Higgins (1979). Higgins classifies copular sentences into the following three types.

- (9) a. predicational sentence
  - b. specificational sentence
  - c. identificationa sentence

'Predicational sentence' is a type of sentence whose subject refers to some individual and the predicate states that individual's property. 'Specificational sentence' refers to the type of sentence in which the referent of the post-copular noun phrase is the entity that meets a condition denoted by the pre-copular noun phrase. The function of 'identificational sentence' is to equate the references of the two noun phrases, both of which are fully referential. We will review the properties of these three sentence types and show that this classification holds for Japanese and Chinese.

#### 2.1. The Classification of English Copular Sentences by Higgins (1979)

Examples of three types by Higgins (1979) are follows.

- (10) Predicational sentence
  - a. John is tall.
  - b. John is a teacher.
- (11) Specificational sentence
  - a. The bank robber is John Smith.
  - b. The winner is my brother.

#### (12) Identificational sentence

- a. That man is Mary's brother.
- b. The man over there is the Mayer of Cambridge.

The sentences in (10) are predicational sentences, the sentences in (11) are specificational sentences, and the sentences in (12) are identificational sentences.

In predicational sentences given in (10), the subject noun phrases refer to something; hence they are referential. On the other hand, the complement noun phrases do not have reference, and work just like adjectives. Therefore, they are not *referential*.

In the case of specificational sentences like (11), the complements are referential. Subject noun phrases refer to something, but we cannot decide the exact one. Therefore, the complements are weakly referential.

In identificational sentences like (12), subjects and complements are both referential. These facts are summarized in (13).

(13) Analysis of three copular sentences from the point of referentiality.

subject, complement	subject	complement
type of sentences		
Predicational sentence	referential	nonreferential
Specificational sentence	weakly referential	referential
Identificational sentence	referential	referential

Now, look at the syntactic features of these three types. In predicational sentences, the reversed order of subjects and complements is not possible.

#### (14) a. John is a teacher.

\*A teacher is John.

(14a) is grammatical, but (14b), in which the order of subjects and complements is reversed, is ungrammatical. On the other hand, in specificational sentences and identificational sentences, the order of subjects and complements can be reversed

- (15) a. The bank robber is John Smith.
  - John Smith is the bank robber. b.

<sup>&</sup>lt;sup>1</sup> The names of each features [referential], [nonreferential], and [weakly referential] are by Okuno (1989).

- (16) a. That man is Mary's brother.
  - b. Mary's brother is that man.
- (15) is specificational, and (16) is identificational. (15b) is the 'reversed' version of (15a). Likewise, (16b) is the 'reversed' version of (16a). In each sentence, the order of subjects and complements can be reversed.

According to Higgins (1979), complements in predicational sentences can follow the verb *become*.

- (17) a. John became tall.
  - b. John became a teacher.

The examples in (10) can be changed by using *become*, as in (17), so these are predicational. Specificational sentences and identificational sentences does not allow *become* to follow their pre-copular phrases.

- \*The bank robber became John Smith.
- \*That man becomes Mary's brother.
- (18) is based on (11a, and (19) on (12a). (18) and (19) are ungrammatical, which suggests that the copular in (11a) and (12a) cannot be replaced with *become*.

Only specificational sentences can be paraphrased with *following* as shown below.

- (20) a. The bank robber is John Smith.
  - b. The following person is the bank robber: John Smith.

These syntactic features are summarized in (21)

(21) Syntactic features of English copular sentences

Type of sentences test	reversed order	become replacement	paraphrase with <i>following</i>
Predicational sentence	*	OK	*
Specificational sentence	OK	*	OK
Identificational sentence	OK	*	*

To sum up this subsection, we have reviewed Higgins' (1979) classification, and the features of the three types that he observed. In English, there are three types of copular sentences. Then, is this classification is universal? The next subsection, we will show Higgins' (1979) diagnostics apply to Japanese copular sentences as well.

#### 2.2. The Classification of Japanese Copular Sentences

Before applying Higgins' (1979) classification to Japanese, one clarification of the Japanese copular is needed. Nishiyama (1999) argues that Japanese adjectives and nominal adjectives share the same structure. In this study, he claims that the Japanese copular *da* is derived from *de aru*. Nishiyama's (1999) arguments are summarized below.

#### 2.2.1. Nishiyama's (1999) analysis of Japanese copular(s)

Japanese *da* is the contracted form of *de aru*. (See Nishiyama (1999), Nakayama (1988), Urushibara (1993) among others.)

- (22) a. Yoru ga sizuka da. night NOM quiet da 'The night is quiet.'
  - b. Yoru ga sizuka de-aru. night NOM quiet de-aru

Nishiyama (1999) analyses Japanese *da* as derived from *de aru*, based on some pieces of evidence shown below.

First, there are some contexts where contraction cannot apply.

- (23) a. Yoru ga sizuka de mo aru. night NOM quiet de even aru 'The night is even quiet.'
  - b. \*Yoru ga sizuka da mo.night NOM quiet da even'The night is even quiet.'

In (23), the particle *mo* is inserted. The only possible form is the one with *de*, as in (23a), not the form *da*, as in (23b). If *da* is the basic form of the copular, it is not clear why it cannot be used in the context shown in (23b). There is an adjacency requirement in the contraction of *de aru* into *da*. When a particle like *mo* intervenes between *de* and *aru*, the contraction is blocked.

Another context where the contraction is blocked is before *should*.

Yoru wa sizuka \*da/\*no/\*na/de aru beki da. night TOP quiet COP should da 'The night should be quiet.'

In (24), even though there is no element between de and aru, we cannot use da. If da is the basic form of copular, it is not clear why it cannot be used in the context found in (24). (23) and (24) show that the basic form is not da but de aru.

Before analyzing /de/ and /ar/, Nishiyama (1999) introduces the two views on the copular. According to Bach (1967), the copular is a dummy element whose function is merely to support tense.

- (25) a. I consider [Xeli a nut].
  - b. Xeli \*(is) a nut.

In a small clause structure like the one seen in (25a), the copular is not necessary, even though there seems to be a predication relation between *Xeli* and *a nut*. In a matrix sentence like (25b), however, the copular is necessary. Based on the fact that the copular is not necessary in examples like (25a), Rapoport (1987) claims that it is inserted to support the feature of INFL. Bach and Rapoport share the following view on the copular.

## (26) Semantically vacuous copular

The copular appears when there is a formal (syntactic or morphological) requirement.

(26) assumes that the copular has no meaning.

A different view was proposed by Bloch (1946). His view is as follows.

#### (27) Semantically contentful copular

The copular is an essential ingredient for (non-verbal) predication.

Nishiyama (1999) claims that Block's (1946) view seems to be correct in the case of Japanese.

(28) a. John ga sakana o hadaka de tabeta.

John NOM fish ACC naked de ate

'John ate the fish naked.'

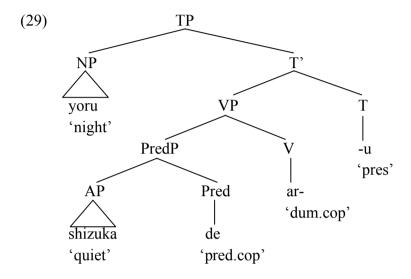
b. John ga sakana o nama de tabeta.John NOM fish ACC raw de ate

'John ate the fish raw.'

Examples in (28a-b) are secondary predicate constructions. Whereas English copular requires no copular in this context, Japanese requires *de*. In other words, even when there seems to be no tense feature to support, Japanese requires the copular. This makes sense if we adopt (27) because there is predication in (28). /de/ is the copular which is not a dummy element but is the essential part of predication.

What about /ar/, then? Nakayama (1988) and Urushibara (1993) analyze /ar/ as the copular as well. However, they adopt (26). That is, they assume that /ar/ has no semantic content and that its function is to support tense.

Nishiyama (1999) adopts Bloch's (1946) view and Bach's (and Rapoport's) view, and he refers to /de/ as the *predicative copular* and /ar/ as the *dummy copular*. Nishiyama proposes that the predicative copular projects Predicate Phrase in the sense of Bowers (1993).



Bowers' main claim is that whenever there is predication, there is a projection PredP. However, since Pred is usually null, it is hard to support this proposal empirically. The dummy copular projects VP, which is selected by T, and then supports the tense marker.<sup>2</sup>

These are the main points of Nishiyama's (1999) analysis. The Japanese copular *da* is derived from *de aru*. In the next subsection, Japanese sentences with *da* are analyzed in the framework of Higgins' (1979) classification.

'The

b.

Yoru-ga sizuka-de-mo ar-u. night-NOM quiet-de-even be-PRES

'The night is even quiet.'

If we assume that (ib) is analyzed in the same way as (29), and that ku and de have the same status, /k/ in (ia) is also a copular. In this paper, we deal with only da.

<sup>&</sup>lt;sup>2</sup> Nishiyama (1999) analyzes the /k/ in Japanese adjectives as the copular based on examples like those shown below.

<sup>(</sup>i) a. Yama-ga taka-ku-mo ar-u. mountain-NOM high-ku-even be-PRES

<sup>&#</sup>x27;The mountain is even high.'

# 2.2.2. Three types of copular sentences in Japanese

Japanese copular sentences also have the properties Higgins' (1979) three types of sentences has discussed. Observe (30-32).

#### (30) Predicational sentence

- a. John wa tetugakusya da. John TOP philosopher COP
  - 'John is a philosopher.'
- b. John wa sinsetu da.John TOP kind COP'John is kind.'

#### (31) Specificational sentence

a. Ginkou goutou wa John da.bank robber TOP John COP

'The bank robber is John.'

b. Sono syousya wa watasi no ani da.
 this winner TOP I GEN brother COP
 'The winner is my brother.'

#### (32) Identificational sentence

a. Ano otoko wa Mary no ani da. that man TOP Mary GEN brother COP

'That man is Mary's brother.'

b. Asoko ni iru otokonohito wa Cambridge no sityou da. there LOC be man TOP Cambridge GEN mayor COP

'The man over there is the Mayor of Cambridge.'

(30) is predicational, (31) is specificational, and (32) is identificational. Do these sentences have the characteristics of the three sentential types proposed by Higgins (1979)?

In predicational sentences, we cannot reverse the order of subjects and complements, shown in (14). Complements in predicational sentence can follow *become* as in (17). Predicational sentences cannot be paraphrased by using *following*. Do Japanese counterparts have these features?

#### (33) Predicational sentence

- a. John wa tetugakusya da. (=30) John TOP philosopher COP
- b. \*Tetugakusya ga John da. (reversed order) philosopher NOM John COP
- c. John wa tetugakusya ni natta. (complement of *become*)

  John TOP philosopher COP became
- d. \*Kaki no mono ga John dearu : tetugakusya. (following ...) following COP person NOM John COP philosopher

(33a) shows the characteristics of predicational sentences. (33b) is the version of it in which the order of the subject and the complement is reversed. This sentence is ungrammatical.<sup>3</sup> We can replace the copular in (33a) with *become* as in (33c). We cannot paraphrase (33a) to (33d) by using *following*. Thus, Japanese seems to have the equivalent of English predicational sentences.

Now, do Japanese sentences that qualify as specificational in terms of referentiality have the characteristics of English specificational sentences? In specificational sentences, we can reverse the order of subjects and complements as in (15), *become* cannot be used as in (18), and the paraphrase with *following* is possible as in (20).

## (34) Specificational sentence

- a. Ginkou goutou wa John da. (=31a) bank robber TOP John COP
- b. John ga ginkou goutou da. (reversed order)

  John NOM bank robber COP
- c. \*Ginkou goutou wa John ni natta. (complement of *become*) bank robber TOP John COP became
- d. Kaki no mono ga ginkou goutou dearu : John. (following ...) following COP person NOM bank robber COP John

(34a) is a specificational sentence. We can reverse the order of the subject and complement in (34b), but we cannot use *naru*, as shown in (34c). The paraphrase with *following* is possible as in (34d). Thus, Japanese specificational sentences behave in the same way as their English counterparts.

<sup>&</sup>lt;sup>3</sup> When the subject *tetugakusya* is nonreferential, this sentence is ungrammatical.

Finally, let us look at Japanese identificational sentences. The characteristics of identificational sentences include: that the reversed order is possible, that the sentences do not allow *become* as the main verb, and that this type cannot be paraphrased with *following*.

#### (35) Identificational sentence

- a. Ano otoko wa Mary no ani da. (=32a) that man TOP Mary GEN brother COP
- b. Mary no ani ga ano otoko da. (reversed order) Mary GEN brother NOM that man COP
- c. \*Ano otoko wa Mary no ani ni natta. (complement of *become*) that man TOP Mary GEN brother COP became
- d. \*Kaki no mono ga ano otoko dearu: Mary no ani. (*the following* ...) following COP person NOM that man COP Mary GEN brother

(35a) counts as an identificational sentence, based on the referential properties of the subject and the complement. (35b) in which the order of the subject and the complement is reversed is grammatical. The verb *naru* cannot be used in this type as in (35c). The paraphrase using *following* is not possible as shown in (35d).

The summary of (32-35) is shown in (36).

#### (36) Syntactic features of Japanese copular sentences

test	reversed order	complements of <i>become</i>	paraphrase with <i>following</i>
Type of sentences		or become	with jouowing
Predicational sentence	*	OK	*
Specificational sentence	OK	*	OK
Identificational sentence	OK	*	*

This chart parallels to English counterpart.

#### (21) Syntactic features of English copular sentences

test	reversed order	complements	paraphrase
Type of sentences		of become	with following
Predicational sentence	*	OK	*
Specificational sentence	OK	*	OK
Identificational sentence	OK	*	*

Thus, Higgins' (1979) classification is applicable to Japanese.

#### 2.3. The Classification of Chinese Copular Sentences

We showed that the classification proposed by Higgins (1979) applies to Japanese. What about other languages, then? Here, we take Chinese and show that the his classification is applicable to Chinese as well. In Chinese, *shi* is used to link subjects and complements. Following Tang (2000), I regard *shi* as copular. First, the examples which seem to be equivalent to Higgins' three sentential types are presented below.

#### (37) Predicational sentence

Zhangsan shi zhexuejia Zhangsan be philosopher

## (38) Specificational sentence

Neige shengzhe shi Zhangsan That winner be Zhangsan

#### (39) Identificational sentence

Neige ren shi Zhangsan gege That man be Zhangsan brother

(37) is predicational, (38) is specificational, and (39) is identificational. Do these sentences have the characteristics of three sentential types observed by Higgins (1979)?

#### (40) Predicational sentence

- a. Zhangsan shi zhexuejia. (=37) Zhangsan be philosopher
- b. \*Zhexuejia shi Zhangsan. (reversed order) philosopher be Zhangsan
- c. Zhangsan dang zhexuejia. (complement of *become*)
  Zhangsan become philosopher
- d. \*Xialie ren shi Zhangsan: zhexuejia. (following ...) following person be Zhangsan philosopher

(40a) is a predicational sentence. First, (40b), in which the order of the subject and the complement is reversed, is ungrammatical. We can use *dang*, which is equivalent to *become*, in stead of *shi*, as in (40c). We cannot paraphrase (33a) to (33d). Thus, Chinese predicational sentences and English predicational sentences behave alike with respect to Higgins' diagnostics. The same holds for specificational sentences. Consider (41a).

#### (41) Specificational sentence

a. Neige shengzhe shi Zhangsan. (=38) that winner be Zhangsan

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b. Zhangsan shi neige shengzhe. (reversed order)Zhangsan be that winner

c. \*Neige shengzhe dang Zhangsan. (complement of *become*) that winner become Zhangsan

d. Xialie ren shi neige shengzhe: Zhangsan. (following ...) following person be that winner Zhangsan

(41b), where the subject and the complement is reversed, is grammatical. The verb *dang* cannot be used as in (41c). The paraphrase using *following* is possible as in (41d). These facts show that Chinese specificational sentences also parallel their English counterparts. Finally. turn to identificational sentences. (42a) is a Chinese example of the relevant kind.

## (42) Identificational sentence

- a. Neige ren shi Zhangsan gege. (=39) that person be Zhangsan brother
- b. Zhagnsan gege shi neige ren. (reversed order) Zhangsan brother be that person
- c. \* Neige ren dang Zhangsan gege. (complement of *become*) that person become Zhangsan brother
- d. \* Xieli ren shi neige ren: Zhangsan gege. (following ...) following person be that person Zhangsan brother

(42b), where the subject and the complement is reversed, is grammatical. (42b) shows that the verb *dang* cannot be used. The paraphrase using *following* is impossible as in (42d).

The summary of the data discussed in (40-42) is shown in (43).

## (43) Syntactic features of Chinese copular sentences

Type of sentences	reversed order	complements of become	paraphrase with <i>following</i>
Predicational sentence	*	OK	*
specificational sentence	OK	*	OK
identificational sentence	OK	*	*

This chart parallels to the English chart, repeated below. Thus, Higgins' (1979) classification is also applicable to Chinese.

#### (21) Syntactic features of English copular sentences

Type of sentences	reversed order	complements of become	paraphrase with <i>following</i>
Predicational sentence	*	OK	*
Specificational sentence	OK	*	OK
Identificational sentence	OK	*	*

So far, we have looked at the classification of copular sentences proposed by Higgins (1979) are applicable to Japanese and Chinese. These facts show that this classification is universal.

In the next section, we turn to the phenomenon of copular omission. Is there any similarity between Japanese and English as to copular omission? If there are some differences, why is it so? Before making a comparative study, we will see a generalization about where copular can be omitted in English. Then, we will examine the case where Japanese copular is omitted, and based on the arguments there, we will draw a generalization on Japanese copular omission.

#### 3. The Generalization about Copular Omission

In this section, the contexts where the copular is dropped are described. We examine the data concerning copular omission in matrix clauses and embedded clauses in English and Japanese. First, the copular omission in English is discussed in 3.1. Japanese copular omission is discussed in 3.2. Second, Japanese embedded clauses are different from English ones with respect to Case marking. Relevant examples closely examined in 3.2. In order to capture the difference between the two languages, we will look at Tanaka's (2002) analysis of Japanese embedded clauses.

#### 3.1. The Contexts of Copular Omission in English

First, let us consider the contexts of copular omission in English. (44) and (45) are from Rothstein (1995).

(44) a. The winner \*(is) a good runner. (predicational sentence) b. The winner \*(is) Mary. (specificational sentence) That woman \*(is) Mary. (identificational sentence) c (45) a. I consider the winner (to be) a good runner. (predicational sentence) I consider the winner \*(to be) Mary. (specificational sentence) b. I consider that woman \*(to be) Mary. (identificational sentence) c.

(44a) and (45a) are predicational, (44b) and (45b) are specificational, and (44c) and (45c) are identificational. (44) shows that copular omission is not possible in matrix clauses in any sentential type. However, in embedded clause, as can be seen in (45), the copular can be deleted only in predicational sentences. The reason is discussed in the next section based on the theory of predication proposed by Rothstein (1999). The generalization concerning copular omission in English is shown in (46).

- (46) a. In matrix clauses, copular omission is impossible.
  - b. In embedded clauses, copular omission is possible only in predicational sentences.

Copular omission in matrix clauses is discussed in section 5. In the next subsection, the contexts of copular omission in Japanese are examined.

## 3.2. The Contexts of Copular Omission in Japanese

In this subsection, we propose a generalization concerning the contexts where copular omission is possible in Japanese. First, the contexts of copular omission in matrix clauses are described in 3.2.1. Then, the contexts of copular omission in embedded clauses are described in 3.2.2. In the case of embedded clauses, we find a difference between Japanese and English. One example is shown below.

- (47) a. I believe that he is smart.
  - Taroo wa [Hanako no goukaku ga/ o totemo uresii to]
     Taroo TOP Hanako GEN pass NOM/ACC very glad COMP

omot-teiru (rasii). think-PROG seem

'Taroo is glad for Hanako's success in the examination.'

In English example (47a), only nominative Case is assigned to the subject in the embedded tensed clause. On the other hand, in Japanese example (47b), accusative Case as well as nominative Case can be assigned to the subject in the embedded tensed clauses. The difference between Japanese and English with respect to Case marking will be taken up by examining Tanaka's (2002) analysis of raising to object out of CP.

#### 3.2.1. The contexts of copular omission in Japanese matrix clauses

How is the copular omission in matrix clauses in Japanese? The contexts are described in the following manner, based on Higgins' (1979) classification.

- (48) The copular omission in matrix clauses
  - a. John wa tetugakusya (da). John TOP philosopher COP

(Predicational sentence)

- b. Ginkou goutou wa John ?(da). (Specificational sentence) bank robber TOP John COP
- c. Ano otoko wa Mary no ani ?(da). (Identificational sentence) that man TOP Mary GEN brother COP

(48a) is predicational, (48b) is specificational, and (48c) is identificational. The copular can be omitted in any sentential type.

#### 3.2.2. The contexts of copular omission in Japanese embedded clauses

Before looking at the data concerning Japanese embedded clause copular omission, we have to clarify the difference between Japanese embedded clauses and English embedded clauses. The problem is whether Japanese has the structure equivalent to the one that the English Exceptional Case Marking (ECM) construction has.<sup>4</sup> Traditionally, the Japanese counterparts of the English sentences given in (49) have been thought to be sentences like (50) or (51).

- (49) a. I believe / consider that he is smart.
  - b. I believe / consider him to be smart.
- (50) a. Taroo wa [Hanako no goukaku ga/ o totemo uresii to]
  Taroo TOP Hanako GEN pass NOM/ACC very glad COMP
  omot-teiru.

think-PROG

'Taroo is glad for Hanako's success in the examination.'

b. Taroo wa [Hanako no goukaku \*ga/ o totemo uresiku] Taroo TOP Hanako GEN pass NOM/ACC very glad

omot-teiru.

think-PRG

(i) John believes [IP her to be happy].

subject in IP.

Since to does not assign Case, the verb believe in the main clause assigns accusative Case to the

<sup>&</sup>lt;sup>4</sup> Exceptional Case marking construction refers to sentences like (i).

(51) a. Hanako wa [Taroo no narenaresii taido ga/ o meiwaku da to]
Hanako TOP Taroo GEN familiar manner NOM/ACC annoyance COP COMP

omot-teiru.
think-PROG

'Hanako finds Taroo's old pals act annoying.'

b. Hanako wa [Taroo no narenaresii taido \*ga/ o meiwkau ni] Hanako TOP Taroo GEN familiar manner NOM/ACC annoyance COP omot-teiru. think-PROG

Comparing the English examples in (49) and the Japanese examples in (50) and (51), we find a difference in embedded clauses. In Japanese, accusative Case can be assigned not only to the subject in non-tensed clauses, but also to the subject in tensed clauses. Accusative Case is assigned to the subject of the embedded clause in (50a). Nominative Case is also assigned. In the case of non-tensed clauses like the one in (50b), only accusative Case is assigned, similarly to what happens in English. Kuno (1976) proposes and Tanaka (2002) defends the 'Rasing to Object (RTO)' analysis for the construction exemplified by (51).

## 3.2.2.1. Tanaka's (2002) analysis of Japanese embedded clauses

The Japanese sentences in (52) are equivalent. The difference between them lies in the case of the complement subject: nominative Case in (52a) and accusative Case in (52b).

- (52) a. John ga Bill ga baka da to omot-teiru.

  John NOM Bill NOM fool COP COMP think-PROG

  'John thinks that Bill is a fool.'
  - b. John ga Bill o baka da to omot-teiru.

    John NOM Bill ACC fool COP COMP think-PROG

Kuno (1976) argues that the complement subject in (52b) is raised to the matrix clause. His arguments are shown below.

- (53) a. \*John ga [Bill ga orokanimo tensai da to] omot-teiru.

  John NOM Bill NOM stupidly genius COP COMP think-PROG

  'Stupidly, John thinks that Bill is a genius.'
  - b. John ga  $Bill\ o_i$  orokanimo [ $t_i$  tensai da to] omot-teiru. John NOM  $Bill\ ACC$  stupidly genius COP COMP think-PROG

First, the matrix adverb can be placed after the accusative complement subject (53b), but not after the nominative complement subject (53a). Since the matrix adverb in (53b) follows the

complement subject, the complement subject in this example must be a matrix constituent.

Second, Japanese does not allow long distance scrambling of a subject noun phrase.<sup>5</sup>

(54) Bill ga<sub>i</sub> John ga [t<sub>i</sub> baka da to] omot-teiru Bill NOM John NOM fool COP COMP think-PROG 'Bill<sub>i</sub>, John thinks that t<sub>i</sub> is a fool.'

However, the raised object in (52b) can undergo scrambling.

(55) Bill o<sub>i</sub> John ga [t<sub>i</sub> baka da to] omot-teiru.
Bill ACC John MON fool COP COMP think-PROG
'Bill<sub>i</sub>, John thinks of t<sub>i</sub> as a fool.'

This shows that the complement subject is a matrix constituent.

Third, (56) shows that pronouns in Japanese are subject to Condition B.

- (56) a. \*John ga<sub>i</sub> kare o<sub>i</sub> hihansita.

  John NOM he ACC criticized

  'John<sub>i</sub> criticized him<sub>i</sub>.'
  - b. ?John ga<sub>i</sub> [kare ga<sub>i</sub> baka da to] omot-teiru.

    John NOM he NOM fool COP COMP think-PROG

    'John<sub>i</sub> thinks that he<sub>i</sub> is a fool.'

Binding Theory is shown in (57).

<sup>5</sup> Long distance scrambling is like (i).

Scrambling found in (i) is different from short distance scrambling in some respects. First, a break is not obligatory in short distance scrambling, but a break is obligatory in (ia, b). Second, long distance scrambling needs contrastive meanings.

<sup>(</sup>i) a. Syukudai-o<sub>i</sub> [sensei-wa [Yoshio-ga e<sub>i</sub> mou teisyutusita-to] omot-teita] homework-ACC teacher-TOP Yoshio-NOM already submitted-COMP think-Prog-Past

<sup>&#</sup>x27;The teacher though that Yoshio had already submitted the homework.'

b. Sono mati-ni<sub>i</sub>, [Yano-wa [Akemi-ga e<sub>i</sub> ima-demo sundeiru-to] sinzi-takat-ta]. that town-LOC Yano-TOP Akemi-NOM now-even live-COMP believe-want-Past 'Yano wanted to believe that Akemi was living in the town.'

- (57) A. An anaphor must be bound in its binding domain.
  - B. A pronominal must be free in its binding domain.
  - C. An R-expression must be free.

Since pronouns must be free in their binding domain, (56b) is ungrammatical. In (56b), however, *kare* in CP can take *John* as its antecedent.

(58) \*John ga<sub>i</sub> kare o<sub>i</sub> [t<sub>i</sub> baka da to] omot-teiru.

John NOM he ACC fool COP COMP think-PROG

'John<sub>i</sub> thinks of him<sub>i</sub> as a fool.'

Pronominal RTO complement subject, in contrast, cannot be coreferential with the matrix subject, as shown in (58).

Based on these facts, Kuno (1976) concludes that RTO is applied in sentences like (52b). (52a) and (52b) are analyzed as in (59a) amd (59b), respectively.

- (59) a. John ga [Bill ga baka da to] omot-teiru.
  John NOM Bill NOM fool COP COMP think-PROG

  'John thinks that Bill is a fool.'
  - b. John ga Bill o<sub>i</sub> [t<sub>i</sub> baka da<sub>i</sub> to] omot-teiru. John NOM Bill ACC fool COP COMP think-PROG

Tanaka (2002) presents additional data supporting RTO. His additional argument for RTO is based on the Proper Binding Condition (PBC) in (60).

- (60) Proper Binding Condition (PBC)
  Traces must be bound.
- (61) a. John-ga [Bill-ga sono hon-o katta-to] itta.

  John-NOM Bill-NOM the book-ACC bought-COMP said

  'John said that Bill bought the book.'
  - b. Sono hon-o<sub>i</sub> John-ga [Bill-ga t<sub>i</sub> katta-to] itta.
     the book-ACC John-NOM Bill-NOM bought-COMP said
     'The book<sub>i</sub>, John said that Bill bought t<sub>i</sub>.'
  - c. [Bill-ga sono hon-o katta-to]<sub>i</sub> John-ga  $t_i$  itta. Bill-NOM the book-ACC bought-COMP John-NOM said '[That Bill bought the book]<sub>i</sub>, John said  $t_i$ .'

- d.  $*[[Bill-ga \ t_i \ katta-to]_j \ [sono \ hon-o_i \ [John-ga \ t_j \ itta]]].$  Bill-NOM bought-COMP the book-ACC John-NOM said '[That Bill bought  $t_i]_j$ , the book<sub>i</sub>, John said  $t_i$ .'
- (61a) has a complement clause. In (61b) the complement object is scrambled. In (61c) the complement clause is scrambled. The grammaticality of these sentences shows that (61d) is ungrammatical due to the illicitness of scrambling of the embedded CP. Its ungrammaticality follows from the PBC. If scrambling involves adjunction to IP/TP,  $t_i$  in (61d) fails to be c-commanded by the scrambled object. With this in mind, consider (62).
- (62) \* $[t_i \text{ baka-da-to}]_j$  John-ga Bill-o $_i$   $t_j$  omot-teiru. fool-COP-COMP John-NOM Bill-ACC think-PROG ' $[t_i \text{ as a fool}]_i$ , John thinks of Bill $_i$   $t_i$ .'
- In (62), the complement clause is scrambled to sentence-initial position. The ungrammaticality of (62), like that of (61d), follows from the PBC.

These facts all support the RTO analysis. In Japanese embedded tensed clauses, accusative Case can be assigned to the subjects. This is explained by the RTO analysis. In the next subsection, we will look at the data of copular omission in embedded clauses in Japanese.

#### 3.2.2.2. Copular omission in Japanese embedded clauses

In Japanese embedded sentences, it is possible to assign nominative Case and accusative Case to the subject. We have to consider two patterns.

- (63) Embedded clause (verb: think) nominative Case assignment
  - a. Boku-wa [John-ga tetugakusya-\*(da)-to] omot-teiru.
     I-TOP John-NOM philosopher-COP-COMP think-PROG
     'I think that John is a philosopher.'
  - b. Boku-wa [ginkou-goutou-ga John-\*(da)-to] omot-teiru.
     I-TOP bank-robber-NOM John-COP-COMP think-PROG
     'I think that the bank robber is John.'
  - c. Boku-wa [ano okoto-ga Mary-no ani-\*(da)-to] omot-teiru.
     I-TOP that man-NOM Mary-GEN brother-COP-COMP think-PROG
     'I think that the man is Mary's brother.'
- (64) Embedded clause (verb: think) accusative Case assignment
  - a. Boku-wa John-o<sub>i</sub> [t<sub>i</sub> tetugakusya-(da)-to] omot-teiru. I-TOP John-ACC philosopher-COP-COMP think-PROG

- b. Boku-wa ginkou-goutou-o<sub>i</sub> [t<sub>i</sub> John-??(da)-to] omot-teiru. I-TOP bank-robber-ACC John-COP-COMP think-PROG
- c. Boku-wa ano otoko-o<sub>i</sub> [t<sub>i</sub> Mary-no ani-??(da)-to] omot-teiru. I-TOP that man-ACC Mary-GEN brother-COP-COMP think-PROG

(63) and (64) contain embedded sentences under the verb *omou*. In (63), nominative Case is assigned to the complement subject. In (64), accusative Case is assigned to the complement subject. (64) is an RTO construction. When nominative Case is assigned as in (63), the copular cannot be deleted. On the other hand, when accusative Case is assigned like (64), the copular can be deleted in predicational sentence.

The generalization concerning the contexts of copular omission in Japanese is in (65).

- (65) a. In matrix clauses, the copular can be omitted.
  - b. In embedded clauses, the copular can be omitted where the sentence undergoes RTO and the sentence is a predicational sentence.

(i) Embedded clause (verb: consider) nominative Case assignment

a. Boku-wa [John-ga tetugakusya-\*(da)-to] minasi-teiru.I-TOP John-NOM philosopher-COP-COMP consider-PROG

'I consider John to be a philosopher.'

Boku-wa [ginkou-goutou-ga John-\*(da)-to] minasi-teiru.
 I-TOP bank-robber-NOM John-COP-COMP consider-PROG

'I consider the bank robber to be John.'

c. Boku-wa [ano okoto-ga Mary-no ani-\*(da)-to] minasi-teiru. I-TOP that man-NOM Mary-GEN brother-COP-COMP consider-PROG

'I consider the man to be Mary's brother.'

(ii) Embedded clause (verb: think) accusative Case assignment

a. Boku-wa John-o $_{i}$  [ $t_{i}$  tetugakusya-(da)-to] minasi-teiru. I-TOP John-ACC philosopher-COP-COMP consider-PROG

b. Boku-wa ginkou-goutou-o<sub>i</sub> [t<sub>i</sub> John-??(da)-to] minasi-teiru. I-TOP bank-robber-ACC John-COP-COMP consider-PROG

c. Boku-wa ano-otoko-o<sub>i</sub> [t<sub>i</sub> Mary-no ani-??(da)-to] minasi-teiru. I-TOP that-man-ACC Mary-GEN brother-COP-COMP consider-PROG

*Minasu* differs from *omou* in that it does not allow nominative Case assignment even with the copular. That is, this does not have the syntax shown in (59a). What is important here is that there is a grammaticality difference among the sentential types.

<sup>&</sup>lt;sup>6</sup> We present another example using the verb *minasu*.

In this section, we proposed a generalization about the contexts where the copular can be omitted. In the next section, we will give an explanation for the generalization about embedded clause copular omission, based on Rothstein's (1995) analysis of predication relation. The copular omission in matrix clause is discussed in section 5.

#### 4. The Analysis of Copular Omission in Embedded Clauses

Comparing Japanese and English, we find a clear difference with respect to matrix clause copular omission. While copular omission is not possible in any sentence type in English matrix clauses, it is possible in any sentence type in the Japanese counterparts.

(66) a. John \*(is) a student. (Predicational sentence) b. The bank robber \*(is) John Smith. (Specificational sentence) c. That man \*(is) Mary's brother. (Identificational sentence) (67) a. John wa tetugakusya (da). (Predicational sentence) John TOP philosopher COP b. Ginkou goutou wa John ?(da). (Specificational sentence) robber TOP John COP

c. Ano otoko wa Mary no ani ?(da). (Identificational sentence) that man TOP Mary GEN brother COP

The sentences in (66) are examples of English. The copular cannot be deleted in any sentences. In the Japanese sentences given in (67), however, the copular can be deleted. The contrast between (66) and (67) clearly shows that Japanese and English differ from each other with respect to main clause copular omission.

Then, What about embedded clauses?

(68) a. I consider the winner (to be) a good runner. (Predicational sentence)
b. I consider the winner \*(to be) Mary. (Specificational sentence)
c. I consider that man \*(to be) John. (Identificational sentence)

In the case of English, only predicational sentences in ECM allow copular omission. In specificational sentences and identificational sentences, omission is not possible. In Japanese, when nominative Case is assigned to the complement subject, omission is impossible, whereas when accusative Case is assigned to the subject, that is when RTO is applied, copular omission becomes possible in a certain environment.

- (69) Embedded clause (verb: think) nominative Case assignment
  - a. Boku-wa [John-ga tetugakusya-\*(da)-to] omot-teiru.
     I-TOP John-NOM philosopher-COP-COMP think-PROG
     'I think that John is a philosopher.'
  - Boku-wa [ginkou-goutou-ga John-\*(da)-to] omot-teiru.
     I-TOP bank-robber-NOM John-COP-COMP think-PROG
     'I think that the bank robber is John.'
  - c. Boku-wa [ano okoto-ga Mary-no ani-\*(da)-to] omot-teiru. I-TOP that man-NOM Mary-GEN brother-COP-COMP think-PROG 'I think that the man is Mary's brother.'
- (70) Embedded clause (verb: think) accusative Case assignment
  - a. Boku-wa John-o<sub>i</sub> [t<sub>i</sub> tetugakusya-(da)-to] omot-teiru. I-TOP John-ACC philosopher-COP-COMP think-PROG
  - b. Boku-wa ginkou-goutou-o<sub>i</sub> [t<sub>i</sub> John-??(da)-to] omot-teiru. I-TOP bank-robber-ACC John-COP-COMP think-PROG
  - c. Boku-wa ano otoko-o<sub>i</sub> [t<sub>i</sub> Mary-no ani-??(da)-to] omot-teiru. I-TOP that man-ACC Mary-GEN brother-COP-COMP think-PROG

When nominative Case is assigned as in (69), copular omission is not possible. When accusative Case is assigned as in (70a), however, copular omission is possible when the embedded clause is a predicational sentence. Note also that omission remains difficult when the embedded clause is identificational or specificational.

In this section, copular omission in the embedded clauses was discussed. Rothstein (1995) analyses copular omission in English and Hebrew. She argues that matrix clauses in Hebrew parallel with embedded clauses in English. Before analyzing Japanese embedded clauses, we introduce Rothstein's (1995) theory of predication relation in the next subsection.

#### 4.1. Rothstein's (1995) Theory of Predication Relation

Rothstein (1995) observes the data concerning copular omission in English.

- (71) a. The winner \*(is) a good runner. (Predicational sentence)
  - b. The winner \*(is) Mary. (Specificational sentence)

(72) a. I consider the winner (to be) a good runner. (Predicational sentence)

b. I consider the winner \*(to be) Mary. (Specificational sentence) (Rothstein 1995)

(71a) and (72a) are predicational sentences, while (71b) and (72b) are specificational sentences. (71) shows that the copular cannot be omitted in matrix clauses. However, in embedded clauses, only predicational sentences allow the copular omission. Rothstein (1995) presents the data from matrix clauses in Hebrew, which are analogous to the data from English embedded clauses.

(73) a. Dani (hu) nexmad. AP

Dani MASC.SG nice

'Dani is nice.'

b. Dani (hu) rofe. NP

Dani MASC.SG doctor

'Dani is a doctor.'

c. Dani (hu) al ha-gag. PP

Dani MASC.SG on the-roof

'Dani is on the roof.'

d. Dani \*(hu) mar yosef. NP

Dani MASC.SG Mr. Yosef

'Dani is Mr. Yosef.' (Rothstein 1995)

The sentences in (73a-c), which are predicational sentences, are grammatical without the copulars. In identificational sentences like (73d), however, the copular is obligatory. English is different from Hebrew in some relevant respects. Copular omission is possible in matrix clauses in Hebrew, but not in English. In addition, the English copular is verbal, while the Hebrew copular is realized as pronominal. There are four forms of copular in Hebrew. The copular is inflected for gender and number: masculine vs. feminine, on the one hand, and singular vs. plural, on the other. For this reason, it is traditionally called the pronominal copular (Pron).

Rothstein (1995) argues that the correct way to view the role of Pron is not in terms of  $\theta$ -roles or Case assignment, but in terms of predication relations.

<sup>&</sup>lt;sup>7</sup> Rothstein (1995) does not distinguish specificational sentences and identificational sentences, and labels them identity sentences.

According to the analysis of predication relations, small clauses have the structure [[NP] [XP]], where XP is a predicate and thus the clause is an instance of predication. The predication relation licenses both predicate and subject.

[ 
$$[Dani]_{NP} [nexmad]_{AP} ]_{SC}$$

In contrast, in specificational sentences and identificational sentences, neither of the two lexical constituents is a predicate. A Pron-less structure like (75) is a string of two argument NPs. There is no syntactic relation in (75).

(75) 
$$*[Dani]_{NP} [mar yosef]_{NP}$$

However, when Pron projects an I' constituent, I' is a syntactic predicate node, and therefore the relation between I' and the Spec of IP is a predication relation.

(76) [Dani [hu [mar yosef]<sub>NP</sub>]
$$_{I'}$$
] $_{IP}$ 

The subject NP is licensed as the subject of I', and the post-copular NP is licensed as the syntactic complement of Infl. In this case, there is no  $\theta$ -marking relation between the predicate and the subject.

Rothstein (1995) argues that the matrix clauses in Hebrew parallel to the embedded clauses in English, and that copular omission is related to predication relation. A remaining question is why, in English, Infl in complements of ECM verbs is optional if predication is independently possible, while in main clauses it is obligatory. Rothstein (1995) suggests that in English, tense and theta-marking are both methods for licensing clauses and that non-tensed constituents are possible only in theta-marked positions.

In the next subsection, we apply this analysis put forth by Rothstein (1995) to Japanese.

#### 4.2. The Analysis of Copular Omission in Japanese Embedded Clauses

The embedded clauses in (77a,b) are predicational sentences, and those in (78a,b) are identificational sentences. Nominative Case is assigned to the embedded subjects in (77a) and (78a). Accusative Case is assigned to the embedded subjects in (77b) and (78b). All examples are without the copular.

- (77) a. \*Boku-wa Taroo-ga gakusei-to omot-teiru.

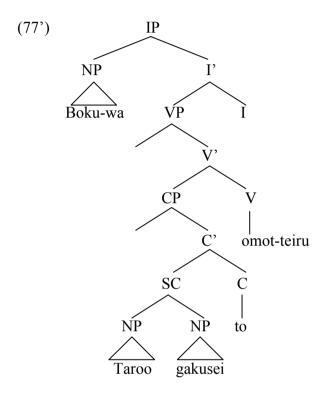
  I-TOP Taroo-NOM student-COMP think-PROG
  - 'I think that Taroo is a student.'
  - Boku-wa Taroo-o gakusei-to omot-teiru.
     I-TOP Taroo-ACC student-COMP think-PROG

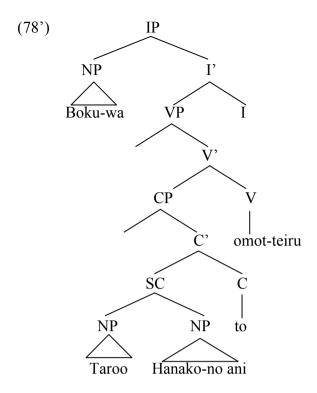
- (78) a. \*Boku-wa Taroo-ga Hanako-no ani-to omot-teiru.

  I-TOP Taroo-NOM Hanako-GEN brother-COMP think-PROG

  'I think that Taroo is Hanako's brother.'
  - b. ?? Boku-wa Taroo-o Hanako-no ani-to omot-teiru.I-TOP Taroo-ACC Hanako-GEN brother-COMP think-PROG

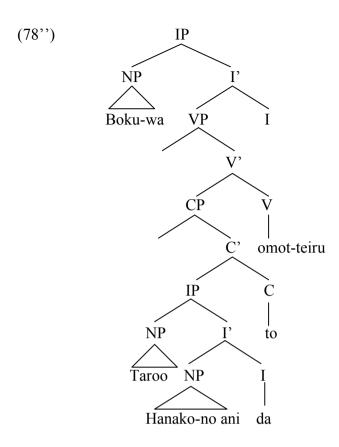
The structure of (77) and the one of (78) are shown in (77') and (78'), respectively.





I assume that the structure of (77) is (77'). Since (77') does not have I, nominative Case is not assigned to the complement subject. Therefore, (77a), in which the nominative Case is assigned, is ungrammatical. In contrast, accusative Case is assigned by the matrix verb, so (77b) is grammatical. What about identificational sentences embedded under ECM verbs? I assume that the structure (78), where an identificational sentence is embeddedd, is (78'). This construction does not have I, and therefore nominative Case is not assigned to the complement subject. (78a) is ungrammatical. In this case as well, accusative Case is assigned by the matrix verb. However, without the copular da, there is no predication relation between the subject and the complement. In this case, copular da is obligatory in order to license the relation in question. The version of (78) with copular da is (78'').

<sup>&</sup>lt;sup>8</sup> The system of Case assignment here is based on Takezawa & Whitman (1998). T assigns the nominative Case, and verbs assign the accusative Case.



The analysis of predication relation by Rothstein (1995) can be extended to Japanese embedded clauses. In embedded clauses in English and Japanese of the kind we are interested in, the predication relation licenses subjects and complements.<sup>9</sup>

<sup>9</sup> Chinese embedded sentences are shown below.

(i) a. Wo dang Zhangsan (shi) xuesheng. (Predicational sentence) consider Zhangsan student Wo dang neige qiangdao (shi) Zhangsan. (Specificational sentence) consider that robber Zhangsan Wo (shi) Zhangsan. (Identificational sentence) dang neige ren c. consider that person Zhangsan

The verb *dang*, which is equivalent to *consider*, is used in (i). The copular can be omitted in any sentences in (i).

(ii) a. Wo juede Zhangsan \*(shi) xuesheng.

I think Zhangsan student
b. Wo juede neige qiangdao \*(shi) Zhangsan.

I think that robber Zhangsan
c. Wo juede neige ren \*(shi) Zhangsan.

I think that person Zhangsan
(Identificational sentence)

So far, we have analyzed copular omission in embedded clauses. The next section is concerned with copular omission in matrix clauses.

## 5. The Analysis of Copular Omission in Main Clauses

There is a striking difference between English and Japanese as to copular omission.

- (79) a. John \*(is) a student. (Predicational sentence)
  - b. The bank robber \*(is) John Smith. (Specificational sentence)
  - c. That man \*(is) Mary's brother. (Identificational sentence)
- (80) a. John wa tetugakusya (da). (Predicational sentence)
  John TOP philosopher COP
  - b. Ginkou goutou wa John ?(da). (Specificational sentence) bank robber TOP John COP
  - c. Ano otoko wa Mary no ani ?(da). (Identificational sentence) that man TOP Mary GEN brother COP

In English main clauses, copular omission is not possible in any type of sentences as shown in (79). In contrast, in Japanese main clauses, omission is possible as shown in (80).

With respect to copular omission in main clauses, Tang (2000) provides the following Chinese examples.

(81) a. Zhangsan (shi) Zhongguoren. (Predicational sentence)

Zhangsan be Chinese

'Zhangsan is a Chinese.'

b. Wo mai de \*(shi) zhe duo hua. (Specificational sentences)

I buy DE be this Cl flower

'What I bought is this flowers.'

c. Acht \*(shi) ba. (Identificational sentences)

eight be eight

'Eight is acht'

The verb *juede*, which is equivalent to *think*, is used in (ii). In this case, the copular omission is not possible in any sentences.

In Chinese, the copular can be omitted in predicational sentences. How could we capture the difference between English and Japanese on the one hand, and the difference between Chinese and Japanese on the other?

#### 5.1. Tang's (2000) Suggestion

Tang (2000) classifies nominals in natural languages into two types: 'predicative' and 'non-predicative'. His claim is that NPs are predicative; while DPs are not. Consider (82).

(82) \*John a genius.

In (82) *a genius* is a DP whose head is realized as the article *a*. As *a genius* is not predicative, it cannot be predicated of the subject *John* directly. In order to make predication possible in (82), a verbal category is needed.

- (83) is an example from Chinese. *Shagua* in (83) is a bare noun. It can be predicated of the subject *Zhangsan* directly. <sup>10</sup>
- (83) Zhangsan (shi) shagua.Zhangsan be fool'Zhangsan is a fool.'

In English, the following expressions are possible under a certain condition.

(84) a. You idiot!

b. You Martha, me professor.

(Tang 2000)

These examples show that NPs can be predicated directly.

#### 5.2. Japanese Predicate Elements

In the previous subsection, we looked at the possibility that NPs can be predicated without the copular. However, in the case of Japanese, even if the predicate complement is a DP, the copular seems to be omitted.

(i) Zhangsan \*(shi) yi-ge shagua. Zhangsan be one-Cl fool 'Zhangsan is a fool.'

In (i), the copular is obligatory.

<sup>&</sup>lt;sup>10</sup> The copular omission is not possible in Chinese sentences with classifier.

(85) Ano otoko wa Mary no ani ?(da) that man TOP Mary GEN brother COP

'That man is Mary's brother.'

This indicates that copular omission in main clauses is different from that in embedded clauses. While predication relation plays a crucial role in determining the possibility of embedded clause copular omission in English and Japanese, this does not seem to be the case with main clause copular omission in both the languages.

Copular omission in Japanese main clauses may be analyzed as the phenomenon one occurring at the morphophonological level. A similar kind of asymmetry between matrix vs. embedded clauses is observed. The Japanese interrogative marker can be deleted in main clauses, but never in embedded clauses.

(86) a. Taroo-ga doko-ni itta-\*(ka) osiete kudasai. Taroo-NOM where-LOC went-Q tell please 'Please tell me where Taroo went.'

b. Taroo-wa doko-ni itta(ka)?
Taroo-TOP where-LOC went(Q)

'Where did Taro go?'

It is arguable to analyze both as involving deletion in the phonological component.

# 5.3. The Meaning of Sentences without Copular

In this subsection, we consider the meaning of sentences without a copular.

(87) You idiot!

The example in (87) is from Tang (2000). (87) involves a strong value judgment and an opinion. However, (88) may not sound natural.

- (88) \*You student!
- (88) suggests that only nominals that have an evaluating meaning can appear in expressions like (87).

In Chinese, the copular can be omitted in sentences like (89).

Zhangsan shagua.Zhangsan fool'Zhangsan is a fool.'

(89), like (87), involves a strong judgment. What about Japanese case?

(90) (Omae-wa) baka! you-TOP fool

'You are a fool.'

(90) involves a strong judgment, similarly to (87). Copular omission affects the meaning of the sentence in main clauses in Japanese. This is different from the situation observed in embedded clauses. I suggest that the phenomenon of copular omission in main clauses is different from that in embedded clauses<sup>11</sup>.

#### 6. Conclusion

This study showed that the classification of copular sentences originally proposed by Higgins (1979) is also applicable to Japanese copular sentences. We used the tests shown below. English and Japanese copular sentences share these features.

(13)

Type of sentences	reversed order	complements of <i>become</i>	paraphrase with <i>following</i>
Predicational sentence	*	OK	*
Specificational sentence	OK	*	OK
Identificational sentence	OK	*	*

Furthermore, the classification also applies to Chinese copular sentences. This indicates that Higgins' (1979) classification of copular sentences is universal.

As one process that seems to apply in different ways cross-linguistically, we discussed the phenomenon of copular omission. The major examples we discussed are repeated below.

(i) a. Taroo to Hanako wa gakusei (\*tati) da. Taroo and Hanako TOP student tati COP

'Taroo and Hanako are students.'

b. Mickey to Minnie wa Disney land de aisareteiru nezumi tati da. Mickey and Minnie TOP Disney land LOC be-loved mouse tati COP

'Mickey and Minnie are mice who are loved in Disney land.'

(ia) is a predicational sentence. *Tati* cannot attach to the predicate of (ia). In contrast, *tati* can attached to identificational sentences like (ib).

<sup>&</sup>lt;sup>11</sup> Mizushima (2007) analyzes the Japanese plural morpheme *tati*. In her study, she claims that *tati* attaches to DP.

- (5) a. The winner \*(is) a good runner.
  - b. The winner \*(is) Mary.
- (6) a. John wa tetugakusya (da).John TOP philosopher COP'John is a philosopher.'
  - b. Ginkou-goutou wa John ?(da).Bank-robber TOP John COP'The bank robber is John.'
- (7) a. I consider the winner (to be) a good runner.
  - b. I consider the winner \*(to be) Mary. (Rothstein 1995)
- (8) a. Boku wa John o tetugakusya (da) to omot-teiru.

  I TOP John ACC philosopher COP COMP think-PROG

  'I consider John to be a philosopher.'
  - Boku wa ginkou-goutou o John ??(da) to omot-teiru.
     I TOP bank-robber ACC John COP COMP think-PROG
     'I consider the bank robber to be John.'

In embedded clauses like those found in (7) and (8), Japanese and English behave similarly. The difference in grammaticality between (7a) and (7b), or the one between (8a) and (8b), can be explained by Rothstein's (1995) analysis of copular omission, where predication relation plays an important role. Small clauses of the relevant sort have the structure [[NP] [XP]], where XP is a predicate and thus the clause is an instance of predication. The predication relation licenses both predicate and subject. In specificational sentences and identificational sentences, neither of the two lexical constituents can be a predicate, and therefore the copular-less sentence is ungrammatical.

In copular omission in main clauses, there is a difference between Japanese and English. In Japanese, copular omission is possible, but it is not the case in English.

In Japanese main clauses, copular omission affects the meaning of the sentence. This is not the case with embedded clause copular omission. I propose that the copular omission phenomenon in main clauses is different from that in embedded clauses, and that the Japanese copular in main clauses can be viewed as deletion in the morphophonological component.

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