

On the Word Order of Copular Sentences*

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When the copula involves two NPs, the order of the two NPs is not immediately obvious, since either one seems able to precede the other. This short essay deals with the problem of determining the base order of the two NPs of copular sentences, taking up examples from English and Japanese. I will essentially follow Heggie's (1988a, 1988b) analysis, where one order is derived from the other by fronting the predicative NP to the CP-Spec position. The evidence for this inversion analysis is much more clearly seen in Japanese, where fronting is marked with the topic marker *wa*. However, Japanese exhibits its own complication which makes it difficult to determine the base order on purely syntactic grounds. It will be shown that some kind of D-structure condition must be incorporated in grammar, which refers to the referential property of NPs involved in copular sentences.

***predicational, *specificational, *topicalization, *reference hierarchy**

0. Introduction

One of the characteristics of copular sentences in English is that the two NPs that appear as 'arguments' of the copula can take either pre-copular or post-copular position. Hence, we observe (1) in English.

- (1) a. Mary is my teacher.
b. My teacher is Mary.

Japanese exhibits a similar but more complex paradigm. Japanese is an SOV language and the copula *da*, just like any other verbs, appears at the end of the sentence and, so far as the two NPs precede the copula, their order does not seem to affect grammaticality. Corresponding to (1), Japanese shows the following four variations, which differ in word order and particles on the first NP.

言語科学研究第2号(1996年)

- (2) a. Mary-wa watasi-no sensei da.
 -Top my teacher Cop
 'Mary is my teacher.'
- b. Watasi-no sensei-ga Mary da.
 -Nom
 'My teacher is Mary.'
- c. Watasi-no sensei-wa Mary da.
 'My teacher is Mary.'
- d. Mary-ga watasi-no sensei da.
 'Mary is my teacher.'

In this short essay, I would like to explore how copular sentences are syntactically derived and what determines the order of the two NPs of the copula. This will provide an answer to the question that may arise concerning (1) and (2): Why does English have only two versions while Japanese exhibits four variations? First, we will review Higgins' (1979) taxonomy of copular sentences, which clarifies the relation between types of copular sentences and kinds of NPs involved. Then, Heggie's (1988a, 1988b) proposal is introduced as an analysis of English copular sentences. Her analysis crucially utilizes the movement of the predicate NP to the Spec of CP, a kind of Topicalization, which derives (1b) from (1a). I consider her analysis essentially correct and apply it to the Japanese copular construction. In Japanese, the topicalization of the predicate NP is clearly seen from the existence of the topic marker *wa*. Japanese, however, exhibits its own complication with respect to the application of Topicalization, the explication of which accounts for the differences between English and Japanese observed in (1) and (2).

1. The Taxonomy of Copular Sentences

Higgins (1979), discussing the interpretive properties of copular sentences, arrives at the following four types.

On the Word Order of Copular Sentences

- (3) Predicational
 - a. Mary is a math teacher.
 - b. John is intelligent.

- (4) Identificational
 - a. Mary is the tallest girl in the class.
 - b. That is the house I mentioned.

- (5) Identity
 - a. The Morning Star is the Evening Star.
 - b. That man is John.

- (6) Specificational
 - a. The person I like most is John.
 - b. The winner is Mary.

Distinctions among these types are not as clear-cut as these names may suggest and, as will be seen shortly, some sentences exhibit ambiguity. There has been a substantial amount of discussion on how these differ in their meanings, functions, pragmatic contexts, syntactic behavior, etc.¹ In what follows, we will not be much concerned with the taxonomy of copular sentences itself; however, the following guidelines or definitions of the taxonomic classes will be helpful to clarify our discussion.²

- (7) Given “A is B”,
 - a. Predicational: B is an attribute of A.
 - b. Identificational: The referent of A is identified by the referent of B or the characteristics expressed by B.
 - c. Identity: The referent of A is identical with the referent of B.
 - d. Specificational: A involves a variable and its value is determined by B.

言語科学研究第2号(1996年)

As mentioned above, the order of the two NPs of the copula can be altered. That is, the sentence “A is B” can be restated as “B is A” when both A and B are nominal. Compare the following with (3)-(6).

- (8) a. *A math teacher is Mary. (cf. (3a))
 b. The tallest girl in the class is Mary. (cf. (4a))
 c. The house I mentioned is that. (cf. (4b))
 d. The Evening Star is the Morning Star. (cf. (5a))
 e. John is that man. (cf. (5b))
 f. John is the person I like most. (cf. (6a))
 g. Mary is the winner. (cf. (6b))

Except the predicational construction (3a), the two NPs of the copula can take either pre- or post-copular position. The difference between ungrammatical (8a) and grammatical (8b)-(8g) is rather obvious; i.e., the pre-copular NP in (8a) is non-referential but that in the other examples is definitely identifiable (and often referential). Thus, it seems that if two definite expressions are involved, either one can be a ‘subject’. Then, a question arises: How do the ‘inverted’ versions in (8) differ from the ‘non-inverted’ ones in (4)-(6)? Though I would like to avoid getting into the issue of the meaning of copular sentences, it seems clear that the definitions of the taxonomic labels given in (7) hold in both ‘non-inverted’ and ‘inverted’ sentences, as long as what A and B stand for in the ‘non-inverted’ versions (i.e., (4)-(6)) is kept unchanged when interpreting the ‘inverted’ versions (i.e., (8)). For example, (6b) and (8g) express the same relation between the two NPs, *Mary* and *the winner*, to the extent that *Mary* serves as a variable filler for *the winner* (=who the winner is). Note that (7d) cannot directly apply to (8g), if it is to be taken as the same specificational sentence as (6b). For *Mary*, the term A according to (7d), cannot by definition be the NP that involves a variable. This suggests that if (7) provides meaningful generalizations concerning copular sentences, the ‘non-inverted’ (4)-(6) be more ‘basic’ than those in (8). But, this does not principally decide which version is more basic, since the definitions in (7) can equally easily be restated in terms of B, if the ‘inverted’ order, ‘B is A’, rather than the ‘non-inverted’,

On the Word Order of Copular Sentences

'A is B', turns out to be more basic. Thus, the taxonomy of the kind (7), though it may tell us that (4)-(6) and (8b-g) are related, is not good enough to determine how they are related.

In what follows, we will discuss the syntax of copular sentences and account for the apparent relation observed between (4)-(6) and (8b-g). I will first introduce Heggie's (1988a, 1988b) analysis and then support it by showing that the advantage of her analysis is clearly seen in Japanese.

2. Heggie's Analysis of Copular Sentences

Heggie considers that the basic function of the copula is to form a predicate from a phrasal category, such as AP and NP, which constitutes a small clause. (Cf. Stowell (1978)) This is most clearly seen in predicational sentences such as those in (3). According to Heggie, (3) is analyzed as (9).

- (9) a. $Mary_i$ is [_{NP} t_i [_{NP} a math teacher]]
 b. $John_i$ is [_{AP} t_i [_{AP} intelligent]]

In (9a), the two NPs constitute a small clause and the definite one serves as a subject and raises to the IP-Spec position for Case and the non-referential one, being the head of the small clause, is a predicate. In her analysis, this is the structure and derivation of copular sentences that involve two NPs, regardless of their referentiality or definiteness. Thus, when two referential NPs are involved, one must structurally be a 'predicate', the head constituent of a small clause, and the other, its 'subject'. With respect to the sentences of the types in (4)-(6) and (8), what has to be decided is which NP serves as a predicate and which NP as a subject. Obviously, we do not want to say that either can be a predicate or a subject, since this does not explain how (4)-(6) and (8) are related. To solve this problem, Heggie's (1988b) D-structure reference hierarchy is felicitous.³

(10) deixis → names → definite descriptors → indefinites

(Heggie 1998b:106)

言語科学研究第2号(1996年)

reproduce only one here. Observe the following cleft sentences that correspond to (12e) and (12g), with the original word order, and (13a) and (14a), with the derived word order.

- (15) a. That man is John. (= (12e))
b. It's that man that is John.
c. *It's John that that man is.
- (16) a. John is that man. (= (13a))
b. *It's John that is that man.
c. *It's that man that John is.
- (17) a. Mary is the winner. (= (12g))
b. It's Mary that is the winner.
c. *It's the winner that Mary is.
- (18) a. The winner is Mary. (= (14a))
b. *It's the winner that is Mary.
c. *It's Mary that the winner is.

Given the analysis shown in (13) and (14), what is observed here can be stated in the following way: In copular sentences, only the subject of the copula can be clefted, provided that the predicate, the head NP of the small clause, stays in the original position. If the sentences (13) and (14) were of the basic order, this simple generalization would not be possible for the fact that (15b) and (17b) are grammatical while (16b) and (18b) are ungrammatical.⁵

The contrast observed in (15)-(18) shows that the copular structures that appear identical except for the order of two NPs are in fact structurally quite distinct. In one structure, the pre-copular NP is a subject, which represents the base order, while in the other, it is a predicate, which results from the movement of the predicate NP to the Spec of COMP. This similarity in surface appearances is due to the application of Subject-Auxiliary Inversion along with the raising of a predicate. If

On the Word Order of Copular Sentences

a language simply raises a predicate NP to produce inverted copular sentences without altering the linear position of the copula, a clearer difference must obtain. Japanese seems to be such a language.

3. Copular Sentences in Japanese

As shown in (2), Japanese also freely alters the order of the two NPs of the copula. However, word order differences induce differences in particles, if the meaning of the copular construction, in the sense of Higgins' taxonomy, is to be maintained. It has been noted that, except for the predicational construction, copular sentences are represented in two forms, one with *wa* 'topic' and the other with *ga* 'nominative', and the two forms differ in the order of the two NPs. (Cf. Kanbayashi (1988), Kumamoto (1992, 1995) and Nishiyama (1995))

(19) Predicational

a. Hanako-wa suugaku-no kyoosi da.
 -Top math -Gen teacher Cop
 'Hanako is a math teacher.'

b. *Suugaku-no kyoosi -ga Hanako da.
 -Nom

(20) Identificational

a. Watasi-ga sakki hanasita ie -wa are da.
 I -Nom a while ago talked-about house-Top that Cop
 'The house I mentioned a while ago is that.'

b. Are-ga watasi-ga sakki hanasita ie da.
 -Nom

(21) Identity

a. Ake-no myoozyoo-wa yoi-no myoozyoo da.
 the Morning Star -Top the Evening Star Cop
 'The Morning Star is the Evening Star.'

On the Word Order of Copular Sentences

- (23) a. [[_{Topic} Watasi-ga sakki hanasita ie-wa_i] [_S are t_i da]
 b. [[_{Topic} Yuusyoosya-wa_i] [_S Hanako t_i da]]

This analysis, well-motivated in the syntax of Japanese, where Topicalization involving *wa* freely takes place, is exactly what is proposed by Heggie for English ‘inverted’ copular sentences. The application of Topicalization is not obvious in English and Heggie has to painstakingly go through various facts to defend her analysis. In Japanese, on the other hand, the topicalization part of her analysis can be accepted without much reservation.

4. Some Complications

As just discussed, Japanese allows Topicalization and it accounts for the existence of the two versions of copular sentences much more clearly than the English case. However, the same Topicalization rule makes Japanese copular sentences rather complex and hard to analyze. That is, along with (20) and (22), reproduced here as (24) and (26), respectively, we have (25) and (27).

- (24) a. Watasi-ga sakki hanasita ie -wa are da.
 I -Nom a while ago talked-about house-Top that Cop
 ‘The house I mentioned a while ago is that.’

- b. Are-ga watasi-ga sakki hanasita ie da.
 -Nom

- (25) Are-wa watasi-ga sakki hanasita ie da.
 -Top

- (26) a. Yuusyoosya-wa Hanako da.
 winner -Top Cop
 ‘The winner is Hanako.’

- b. Hanako-ga yuusyoosya da.
 -Nom

言語科学研究第2号(1996年)

- (27) Hanako-wa yuusyooosya da.
-Top

What we observe here is that the subject of the (b) sentences in (24) and (26), which I claim to be of the basic order, can also appear with the particle *wa*. This is presumably due to the application of Topicalization on the subject NP. Thus, from the basic (26b), for example, (26a) is derived by the topicalization of the predicate NP and (27) is derived by the topicalization of the subject NP. Due to this ambiguous application of Topicalization, the base structure of the expression “X-wa Y da” is not immediately obvious. Given (27), one may wonder if *Hanako* is a subject or a predicate.

The clue to solve this question is again the D-structure condition on the order of the two NPs of the copula, i.e., (11), which is repeated here as (28).

(28) *The D-structure Condition on the Word Order of Copular Sentences*

Given two NPs, the copula takes the one that more rigidly designates the individual being referred to as a subject and the one that is less referentially designating as a predicate.

Considering Heggie’s reference hierarchy (10) to be instances of (11), we can now decide what must be the underlying subject. In (26) and (27), *Hanako* is higher in scale than *yuusyooosya* ‘the winner’ and it should be the original subject. It is then predicted that, in conjunction with the above analysis that Topicalization may apply either to the original subject or to the predicate NP, the NP that is lower in hierarchy cannot be the NP marked with *ga*. This prediction seems to be borne out.⁸

- (29) a. *[Watasi-ga sakki hanasita ie]-ga are da. (cf. (24) (25))
b. *Yuusyooosya-ga Hanako da. (cf. (26) (27))

What follows from this analysis is: (i) indefinites, the lowest in the scale, cannot be the *ga*-marked subject and (ii) deixis, the highest in the scale, cannot be the predicate

On the Word Order of Copular Sentences

that immediately precedes the copula. (i) explains the predicational paradigm in (19), repeated here as (30a/b), and (ii) accounts for the ungrammaticality of (29a) and the paradigm in (31).

(30) a. Hanako-wa suugaku-no kyoosi da.
 -Top math -Gen teacher Cop

‘Hanako is a math teacher.’

b. *Suugaku-no kyoosi-ga Hanako da.

c. Hanako-ga suugaku-no kyoosi da.

d. Suugaku-no kyoosi-wa Hanako da.

(31) a. Kono otoko-wa Taro da.
 this man -Top Cop

‘This man is Taro.’

b. Taro-wa kono otoko da.

c. Kono otoko-ga Taro da.

d. *Taro-ga kono otoko da.

Basic structures obtain prior to Topicalization and should not involve *wa*; hence, (30b) and (30c) should be of the basic word order. However, (30b) is ruled out since it violates the condition (28); an indefinite must always be less referentially designating than any other NP. (30d) obtains from (30c) when the subject is topicalized and (30d) results if the predicate is topicalized. Note here that, in terms of the taxonomy of the copula construction, (30a) is predicational and (30c/d) specificational. In terms of syntactic structure, both predicational and specificational sentences are derived from the same source, namely (30c), which represents the relation determined by the condition (28). Thus, taxonomic differences, which certainly affect how copular sentences are interpreted, have little to do with the underlying structure of copular sentences.

The same conclusion seems to obtain at the other end of the reference

言語科学研究第2号(1996年)

hierarchy. In (31), (31c), where a deictic is a subject, must be of the basic structure. (31d) is ruled out by (28). From (31c), (31a) obtains if the subject *kono otoko* 'this man' is topicalized and (31b) results from the topicalization of the predicate. Taxonomically, (31a) is predicational, labeling the subject *Taro*, and (31b/c) identificational. Note here that the syntactic derivations involved are the same in (30) and (31). Thus, what brings about taxonomic differences is what kinds of NPs are involved, whether Topicalization is applied, and how it is applied.

Another test that confirms that the (c) sentences represent the basic order in (30) and (31) is to do with the small clause (or exceptional case marking) construction. Observe the following.

(32) a. *Watasi-wa [Hanako-o suugaku-no kyoosi (da)] to omotteita.*
 I -Top -Acc math -Gen teacher Cop Comp thought
 'I thought of Hanako as a math teacher.'

b. **Watasi -wa [suugaku-no kyoosi-o Hanako (da)] to omotteita.*
 I -Top math -Gen teacher-Acc Cop Comp thought
 'I thought of a math teacher as Hanako.'

(33) a. *Watasi-wa [kono otoko-o Taro (da)] to kantigai sita.*
 I -Top this man -Acc Cop Comp misunderstood
 'I mistook this man for Taro.'

b. **Watasi -wa [Taro-o kono otoko (da)] to kantigai sita.*
 I -Top -Acc this man Cop Comp misunderstood
 'I mistook Taro for this man.'

In these construction, Topicalization is irrelevant and the order shown must be of the basic. Thus, the accusative marked NP must be the subject of the small clause (or the exceptional Case marking construction). The ungrammaticality of the (b) examples immediately follows from the D-structure condition (28).⁹

On the Word Order of Copular Sentences

5. Summary

Heggie proposes that the inverted order of the copular construction be derived from the underlying order via the application of two movements, the movement of a predicate NP to the Spec of CP and the movement of the copula into the head of CP. In English, these operations are not very apparent, since no obvious differences are observed except that the order of the two NPs is inverted. In Japanese, however, the word order difference is accompanied by the difference in particles, *ga* or *wa*, and it is reasonable to assume that the version with *wa* results from the topicalization of the predicate NP. Thus, Heggie's proposal is well attested in Japanese. If the application of fronting (i.e., Topicalization) was confined to the predicate NP, as in the case of English, Japanese would have been the ideal language that explicitly shows what the base order is and which order designates the derived one. However, Japanese exhibits its own complication and the sentence that involves Topicalization does not necessarily show the derived or inverted word order. The subject NP can independently be topicalized and thus the topic NP can be either a subject or a predicate. Therefore, the topicalized version of a Japanese copular sentence or the one with *wa* may be structurally ambiguous, just as in English. To disambiguate the structure, we need to resort to an independent principle that determines the base order of the constituents of the copular construction. I consider Heggie's generalization concerning the reference hierarchy basically correct. That is, given two NPs, the one that is more referentially designating is to be the D-structure subject and the one less designating is to be a predicate. This view, essentially what (28) expresses, is supported by the fact that deixis, the highest in the hierarchy, cannot be a predicate and indefinites, the lowest, cannot be marked with *ga* in the copular construction.

Thus, Heggie's analysis is well applicable to Japanese copular sentences and the condition (28) sheds light on how the two NPs of the copula are ordered, which cannot otherwise be determined due to the free application of Topicalization onto a predicate and a subject.¹⁰

To close this essay, let us return to the question that was raised at the onset of this paper in relation to (1) and (2): Why does English exhibit only two versions from a single copular sentence, while Japanese shows four variations? This way of

言語科学研究第2号(1996年)

phrasing the question, as will be seen directly below, does not reveal the fact about copular sentences. A more accurate way is: Why does English has two versions, while Japanese has *three*? The answer is that Japanese topicalization applies either to a predicate or to a subject, while the fronting operation involved in English does not apply to a subject.

In English, considering *my teacher* to be a simple definite expression, (1a) expresses the basic word order and (1b) is derived from (1a) by raising the predicate, *my teacher*. In terms of Higgins' taxonomy, (1a) is predicational (and perhaps identificational) and (1b) specificational.

In Japanese, if *watasi-no sensei* 'my teacher' is taken to be a definite expression, (2d) must be of the base order, corresponding to (1a) in English, giving rise to the identificational interpretation. (2c) is derived from (2d) by applying Topicalization on the predicate, which parallels to the specificational (1b) in English. Note that Topicalization in Japanese applies also to a subject NP. Hence, (2a) is derived from (2d), which is equivalent to English (1a) with the predicational reading.

Note that (2b), though similar to the other three, is not derivationally related to them, nor does it involve the same types of NPs as the other three. (2b), with *ga* marking the first NP, is of the base order and the subject *watasi-no sensei* 'my teacher' is to be considered more referentially designating than the predicate *Mary*, which serves as a label rather than a discourse referent. Hence, what is shown in (1) and (2) is that the two sentences in (1) actually correspond to the three sentences in Japanese, (2a, c, d), and (2b) is derivationally independent from them.

Notes

*I would like to thank Chiaki Kumamoto, who kindly sent me her papers, and the participants of my graduate syntax seminar in 1995, where portions of the material presented here were discussed.

1. To just mention a few, see Declerck (1991), Higgins (1979), Kanbayashi (1988), Kumamoto (1992, 1995), Nishiyama (1993).
2. Cf. Higgins (1993) and Nishiyama (1993). (7) is an approximate version of Nishiyama's (11). Nishiyama's definitions mainly refer to Japanese copular constructions, while (7) refers to the English copular structure. We will deal with Japanese copular sentences in Section 4.
3. The reason deixis are higher than names is that names can be just a label while deixis

On the Word Order of Copular Sentences

always point out an individual.

4. If (11) determines the original word order and the taxonomic characteristics given in (7) hold at D-structure, the descriptive definition for specificational copular sentences (7d) must be changed to the following.
 - (i) Specificational: Given "A is B", B involves a variable and its value is determined by A.
5. For an account of the ungrammaticality of these sentences, see Heggie (1988a), where it is claimed that a thematic condition on empty operators plays a crucial role. See Hasegawa (in preparation) for a different account.
6. (11) cannot decide the basic word order of the sentences in (21), where two names are used, just as in the English counterparts (12c) and (12d). As for the predicational case (19), we will come back to it below.
7. In fact, Mikami (1953) considers that the *wa* version of the specificational copular sentence is derived from the *ga* version. See, Kanbayashi (1988) for more discussion.

In (23) and what follows, I gloss over the internal structure of a sentence and how the nominative Case is assigned to the subject. Cf. Hasegawa (in preparation)
8. The sentences in (29) may be acceptable, if the *ga*-marked NP is taken to be a deictic expression, supplying *sono* 'that, the' non-linguistically. Then, (29a) becomes an identity sentence and (29b) is a sentence where *Hanako* functions as a predicate. But, if the *ga*-marked NP is taken to be a simple definite expression, as intended here, I consider these unacceptable. Thus, in Japanese, where definite and indefinite differences are often not morphologically marked, the hierarchy in (10) may not hold as rigidly as in English. However, I consider the spirit of the condition stated in (11) is essentially correct in the sense that the speaker chooses the NP that is more referentially designating to be a D-structure subject and the one less designating a predicate.
9. As mentioned in Note 8, (32b) becomes acceptable if *suugaku-no kyoosi* 'math teacher' is taken as deictic referential. But as an indefinite expression, it is as bad as (30b). Furthermore, if *kono* 'this' in (31d) and (33b) is replaced by *sono* 'that, the', the sentences become more acceptable. This is due to the difference between *sono* and *kono/ano* 'this/that'. *Sono* can be either deictic or an anaphoric (definite) marker, while *kono* 'this' and *ano* 'that' are deictic. Thus, if *sono* is used instead of *kono* in (31d) and (33b), the NP can be taken as a definite expression, which is lower in the hierarchy than the name *Taro*, observing (28).
10. Heggie (1988b) shows that this analysis of the copula directly applies to cleft sentences in English. Hasegawa (in preparation), focusing on syntactic differences between the *wa* cleft and the *ga* cleft, also shows that this analysis accounts for cleft sentences in Japanese, though the two analyses differ in the use of empty operators.

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言語科学研究第2号(1996年)

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