

# NEGATIVE PREDICATES IN JAPANESE\*

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## 1. Introduction

The agglutinative character of Japanese allows the production of huge complex predicates. However, there is a classic combination of features that is never expressed in an agglutinative form: an agglutinative form cannot be used in the combination of the feature specifications ‘Past,’ ‘Negative’ and ‘Polite’ co-occur. The affirmative and negative forms of the verb *yom-* ‘read,’ for example, are shown in (1). Notice that Japanese verbs are obligatorily marked either as plain or polite in main clauses. As in (1), the marked features can be expressed agglutinatively on the verb stem, on their own or in the combination with one other of the morphemes. However, a periphrastic construction must be used when all these morphemes co-occur.

(1)

	The plain form	The polite form
a. Non-past affirmative	yom-u read-Nonpast	yom-imas-u read-Pol-Nonpast
b. Past affirmative	yon-da read-Past	yom-imas-ita read-Pol-Past
c. Non-past negative	yom-anai read-Neg-Nonpast	yom-imas-en read-Pol-Neg
d. Past negative	yom-anakat-ta read-Neg-Past	yom-imas-en des-ita read-Pol-Neg DES-Past

In this paper, I demonstrate that the periphrastic construction is derived by the fact that a non-inflectional category cannot move into an inflectional category and then back into a non-inflectional category. The organization of this paper is as follows: Section 2 gives several pieces of morphological evidence to show that the plain and polite forms of negative predicates have different syntactic structures. In section 3, I consider two possible accounts. First, I show that a periphrasis can be captured by Li’s (1990) generalization. Second, I propose an alternative analysis. The last section is a brief summary.

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## 2. The Syntactic Structures for Negative Predicates

### 2.1 The Plain Form of a Negative Predicate

In this subsection, I give several pieces of morphological evidence to show that the plain form of a negative predicate belongs to the category adjective. I also give the syntactic structure for the plain form of a negative predicate, based on Nishiyama's (1999) analysis of Japanese adjectives.

First, adjectives and the plain form of a negative predicate exhibit an important contrast with verbs in their conjugational patterns as in (2). Both adjectives and the plain form of a negative predicate lack the hortative and imperative forms, while verbs have these forms. In addition, adjectives and the plain form of a negative predicate have the adverbial form, while verbs do not.

(2)

	Adjective aka- 'red'	Negated verb yom-ana(i) 'not read'	Verb yom- 'read'
a. Hortative	-----	-----	yom-oo read-Hor
b. Imperative	-----	-----	yom-e read-Imp
c. Adverbial	aka-ku red-Adv	yom-ana-ku read-Neg-Adv	-----

Second, the plain form of a negative predicate shows the exactly same inflectional patterns as an adjective.

(3)

	Adjective aka- 'red'	Negated verb yom-ana(i) 'not read'	Verb yom- 'read'
a. Non-past tense	akai red.Nonpast	yom-anai read-Neg.Nonpast	yom-u read-Nonpast
b. Past tense	akak-at-ta red-DumCop-Past	yom-anak-at-ta read-Neg-AR-Past	yon-da read-Past

Another piece of evidence is that both adjectives and the plain form of a negative predicate require the dummy copula *ar-* to realize the past tense morpheme as in (3b). In contrast, the past tense morpheme can attach directly to verbs.

From these observations, I suggest that the plain form of a negative predicate is formally classified as an adjective: the negative morpheme *ana-* functions as an adjectival head.

Nishiyama (1999) proposes that Japanese adjectives show morphological corroboration of a phrase for predication, i.e., Pred(icative) Phrase, in Bowers' (1993) sense: Japanese adjectives must overtly encode the predicative head.

Using his analysis, we have the structure for the past tense form of an adjectival predicate illustrated as in (4b).

- (4) a. Yama-ga                    taka-k-at-ta  
          mountain-Nom        high-PredCop-DumCop-Past  
          ‘The mountain was high.’
- b.
- 
- (Nishiyama 1999: 192: (23))

As in (4b), Nishiyama suggests that the adjectival predicate contains two types of copulas: one is a dummy copula, a verbal element which is required to realize a morphological feature, and the other is a predicative copula which is necessary for predication. He suggests that the verb *ar-* is the dummy copula, since it is only required to realize the past tense morpheme. On the other hand, he assumes that the morpheme *k* is the predicative copula, since it does not function as the grammatical feature bearer but it is the essential part of predication.

I assume that the plain form of a negative predicate also projects PredP, since it is morphologically an adjective. Based on Nishiyama's account, the past tense form of a plain negative predicate has the following structure.<sup>1</sup>

- (5)
- 

I assume that the agglutinative form is derived by movement of a lower V head to the head T, via the intervening heads A, Pred, and higher V.

<sup>1</sup> I assume that the lowest head V is supported by *vP*, whose head assigns a theta-role to the specifier of VP. In this paper, I omit the internal structure of *vP*.

Although the past tense form of a plain negative predicate contains the two copulas, I suggest that the non-past tense form does not require the dummy copula, as in (6). Recall that a dummy copula is only required to realize a morphological feature. I suggest that the non-past tense morpheme is not overtly realized in the plain form of a negative predicate. That is, the plain form of a negative predicate obtains a default non-past interpretation.

- (6) a. yom-ana- $\emptyset$ -i- $\emptyset$   
 read-Neg-PredCop-Epenthesis-Nonpast
- b.
- 
- ```

graph TD
  TP --> PredP
  TP --> T
  PredP --> AP
  PredP --> Pred
  AP --> vP
  AP --> A
  vP --> yom["yom-  
read"]
  A --> ana["ana-  
Neg"]
  Pred --> ki["ki (→ i)  
PredCop.Epenthesis"]
  T --> empty["∅  
Nonpast"]
  
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As in (6b), the non-past tense morpheme has the phonologically null form, and thus the dummy copula *ar-* is not required since there is no overt tense morpheme to be realized.<sup>2</sup> It should be also noted that the vowel /i/ is inserted after the predicative copula *k*, which is not overtly realized in the non-past tense.

It is often assumed that the vowel /i/ is the non-past tense morpheme for adjectives. However, it is not the non-past tense morpheme, since it can be found in the non-tensed clause as in (7c).

- (7) a. John-wa [tyooshoku-o tabe-te] dekake-ta.  
 John-Top [breakfast-Acc eat-TE] go.out-Past  
 ‘John ate breakfast and went out.’
- b. \*John-wa [tyooshoku-o tabe-ru/ta-te]  
 John-Top [breakfast-ACC eat-Nonpast/Past-TE]  
 dekake-ta.  
 go.out-Past
- c. John-wa [tyooshoku-o tabe-na-i-de] dekake-ta.  
 John-Top [breakfast-Acc eat-Neg-I-TE] go.out-Past  
 ‘John did not eat breakfast and went out.’

I assume that the vowel /i/ is the epenthetic vowel, which is inserted after the predicative copula *k*, in order to avoid violation of the Coda Constraint in (8). This constraint states that a (non-nasal) homorganic consonant cluster cannot be licensed in the coda position.

<sup>2</sup> As in (6b), I assume that there is no VP, which is headed by the dummy copula, between PredP and TP, since the dummy copula is not required in this case. However, Junko Shimoyama (p.c.) points out a possibility of the existence of the VP, since the dummy copula might exist in the phonologically null form. I leave this possibility open in this paper.

- (8) CODA  

$$\begin{array}{c} C ]_{\sigma} \\ | \\ [PLACE] \end{array}$$
 (Itô 1989:224)

However, the predicative copula does not seem to appear in the non-past tense form as in (6a), although it is the essential part of predication. I assume that the consonant /k/ is dropped by the phonological rule, which prohibits the sequence of /k/ and /i/ in Modern Japanese.<sup>3</sup>

By assuming that the non-past tense morpheme is not overtly realized, it is possible to give a correct explanation for the absence of the dummy copula in the non-past tense form: the plain form of a negative predicate does not require the dummy copula, since the non-past tense morpheme is not overtly realized. This claim accords with Baker's (2003) observation. Baker claims that languages can be divided into two types in terms of their inflectional patterns, as in (9).

- (9) Baker's generalization  
 a. In certain languages, tenses may attach to any word-level category.  
 b. In certain languages, tense must attach to a lexical category.  
 (Baker 2003: 50-51: (61) and (63))

I suggest that Japanese can be classified into the type (9b). Since an overt tense morpheme in Japanese is an affix, it attracts a lexical head. Given that PredP is a functional category, it is the adjectival head that an overt tense morpheme could attract in the plain form of a negative predicate. However, it is more deeply embedded: the functional category PredP intervenes between the adjectival head and T. Thus, the plain form of a negative predicate requires a lexical head, i.e., the dummy copula *ar-*, in order to realize the past tense morpheme. On the other hand, the dummy copula is not required in the non-past tense form, since the non-past tense morpheme is not overtly realized and it does not need a host to attach to.

## 2.2 The Polite Form of a Negative Predicate

In this subsection, I show that the polite form of a negative predicate is not adjectival and thus it has a different syntactic structure.

Recall that the plain form of a negative predicate is adjectival, since the morpheme *ana-* functions as the adjectival head. It should be noted that a different morpheme *-en* is used as the negative marker in the polite form.

I suggest that the negative morpheme *-en* is not an adjectival head and thus it is not supported by PredP. There are a few pieces of evidence to show that the polite form of a negative predicate is not adjectival. First, it does not show any parallel inflectional patterns to adjectives and the plain form of a negative predicate.

<sup>3</sup> Nishiyama (1999) observes that the different gerundive form of *k*-final verbs between Pre-modern and Modern Japanese can be captured by this constraint. See Nishiyama (1999) for more details.

(10)

|             |                                             |                                    |                                             |
|-------------|---------------------------------------------|------------------------------------|---------------------------------------------|
|             | Polite negative<br>yom-imas-en 'not read'   | Adjective<br>aka- 'red'            | Plain negative<br>yom-ana- 'not read'       |
| a. Non-past | yom-imas-en<br>read-Pol-Neg                 | aka- $\emptyset$ -i<br>red-Prd-Epn | yom-ana- $\emptyset$ -i<br>read-Neg-Prd-Epn |
| b. Past     | yom-imas-en des-ita<br>read-Pol-Neg Dum-Pst | aka-k-at-ta<br>red-Prd-Dum<br>-Pst | yom-ana-k-at-ta<br>read-Neg-Prd-Dum<br>-Pst |

Second, unlike adjectives and the plain form of a negative predicate, the polite form of a negative predicate lacks the adverbial form.

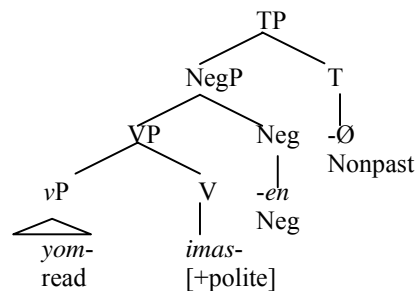
(11)

|           |                                           |                         |                                       |
|-----------|-------------------------------------------|-------------------------|---------------------------------------|
|           | Polite negative<br>yom-imas-en 'not read' | Adjective<br>aka- 'red' | Plain negative<br>yom-ana- 'not read' |
| Adverbial | -----                                     | aka-ku<br>red-Adv       | yom-ana-ku<br>read-Neg-Adv            |

Following Pollock's (1989) analysis of French negation, I assume that the negative morpheme *-en* is the head of the functional projection NegP.

Given that the polite form of a negative predicate projects NegP, it has the following structure in the non-past tense form.<sup>4</sup>

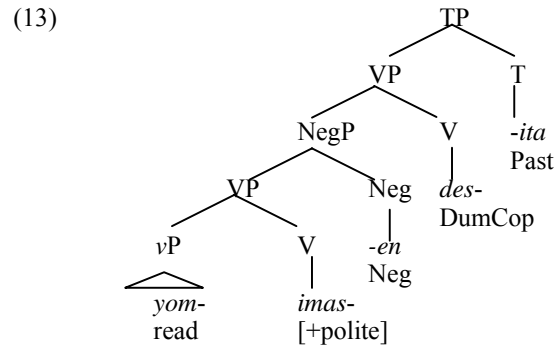
(12)



Note that the non-past tense morpheme is not overtly realized and thus polite form of a negative predicate obtains a default non-past tense interpretation.

On the other hand, the structure for the past tense form of a polite negative predicate is shown in (13). I assume that the morpheme *des-* is the polite form of the dummy copula *ar-*. The polite form of a negative predicate requires *des-* to realize the past tense morpheme. Recall that Japanese does not allow an overt tense morpheme to attach directly to a functional category.

<sup>4</sup> I assume that the polite morpheme *imas-* is a verb with the feature [+polite], since the verbal predicate followed by this morpheme appears in a Verb-Verb compound form.



To summarize, the plain and polite forms of negative predicates have different syntactic structures: the plain form, as an adjective, is supported by PredP, while the polite form projects NegP.

It still remains as a problem that the polite form of a negative predicate uses a periphrastic construction to realize the past tense morpheme, while the plain form has the agglutinative form. In the following section, I consider two possible accounts.

### 3. The Periphrastic Construction

#### 3.1 The Proper Head Movement Generalization

In this subsection, I consider one possible analysis with the Proper Head Movement Generalization (Li 1990, Baker 1996), which is stated as in (14).

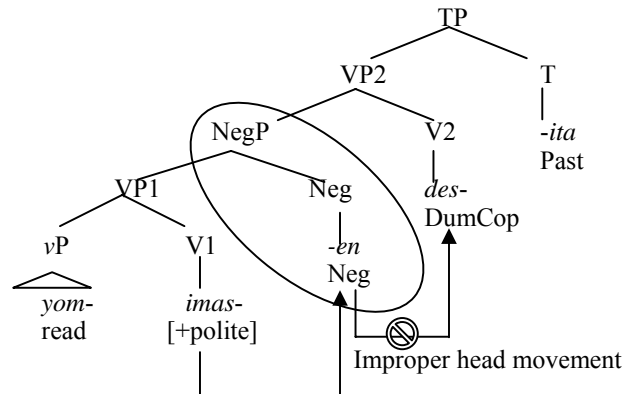
(14) The Proper Head Movement Generalization (PHMG)

A lexical category cannot move into a functional category and then back into a lexical category. (Baker 1996: 284: (8))

The effect of (14) is that head movement of a lexical head into another lexical head is possible in the case where there is no functional category that intervenes between the two lexical categories.

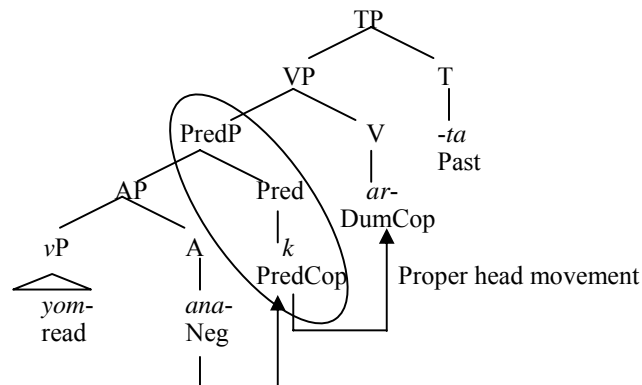
Now let us consider how the periphrastic construction can be captured by the PHMG. The structure for the past tense form of a polite negative predicate is repeated as in (15). As mentioned in the previous section, I assume that the agglutinative form is derived by head movement. As in (15), the lexical head V1 undergoes movement to another lexical head V2, and then the complex lexical head V1-V2 moves to the functional head Neg. However, head movement from the head Neg to the lexical head V3 is prohibited by the PHMG. Thus, the polite form of a negative predicate results in the periphrastic construction.

(15)



On the other hand, the plain form of a negative predicate has the agglutinative form in the past tense. In order to maintain the PHMG, it is necessary to assume that movement from the head Pred position to a higher head is legitimate, as in (16).

(16)



That is, the PHMG account requires the assumption that PredP is a lexical category. In fact, lexical and functional categories are sometimes distinguished in terms of theta-marking: lexical categories assign theta-roles/features associated with them to other phrases, while functional categories cannot. According to Baker (2003), PredP is necessary to assign a theta-role to the “subject” of nouns and adjectives.

It seems that the PHMG can give a correct explanation for the difference between the plain and polite forms of negative predicates in the past tense. However, this account cannot explain the fact that the plain form of a negative predicate requires the dummy copula *ar-* in the past tense. As we have seen in the previous section, Japanese allows an overt tense morpheme to attach to a lexical category, but not to a functional category: a functional category requires a dummy copula to realize the overt tense morpheme. Since the plain form of a negative predicate is assumed to project a functional category, it requires the



dummy copula to realize the past tense morpheme. If PredP is lexical, however, an additional assumption would be required to explain the appearance of the dummy copula in the past tense form of a plain negative predicate.

### 3.2 An Alternative Analysis

In the previous section, we have seen that the account with the PHMG crucially depends on the assumption that PredP is a lexical category. However, this assumption requires another additional assumption to explain the fact that the plain form of a negative predicate requires the dummy copula to realize the past tense morpheme.

As I mentioned, PredP can be considered as lexical by its theta-assigning ability. However, the distinction between lexical and functional categories in terms of theta-making cannot give a correct explanation for the inflectional patterns of Japanese. According to Baker (2003), *v*P assigns a theta-role to the subject of verbs, while PredP assigns to the subject of nouns and adjectives. That is, both PredP and *v*P should be considered as lexical categories by their theta-assigning abilities. However, they exhibit different morphological behaviors: an overt tense morpheme can attach directly to *v*P, while it cannot to PredP. If both PredP and *v*P belong to the same categories, it remains as a problem why they exhibit different morphological behaviors.

In order to explain the appearance of the dummy copula in the past tense form of a plain negative predicate, I assume that PredP is a functional category. However, it still remains a problem why only the polite form of a negative predicate must use the periphrastic construction although both the plain and polite forms project the functional categories.

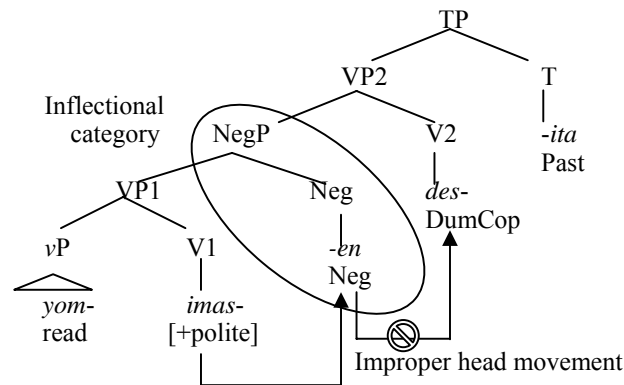
I suggest that it is not the distinction between lexical and functional categories but the distinction between inflectional and non-inflectional categories that can give a correct explanation for the inflectional patterns of Japanese. Instead of the PHMG, I propose a new generalization as follows.

- (17) The Revised Proper Head Movement Generalization (RPHMG)  
 A non-inflectional category cannot move into an inflectional category and then back into a non-inflectional category.

The generalization in (17) states that movement of a non-inflectional head to another non-inflectional head is possible only when there is no inflectional category that intervenes between the two non-inflectional categories.

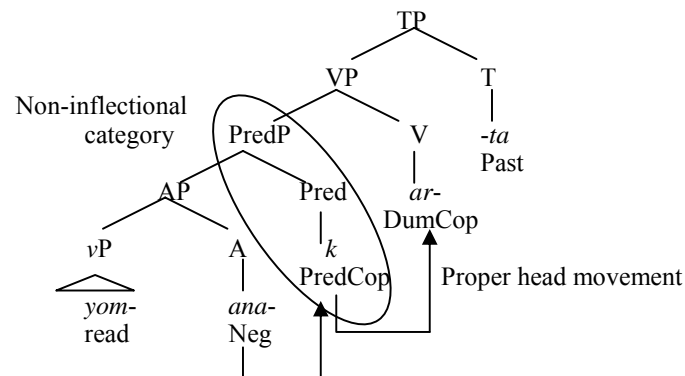
Let us consider the polite form of a negative predicate with the RPHMG. The structure for the past tense form of a polite negative predicate is repeated in (18). It should be noted that NegP is an inflectional category, since polarity is assumed to be the inflectional category of morphosyntactic properties distinguishing affirmative sentences from negative sentences (Stump 1998). As in (18), the inflectional category NegP intervenes between the two inflectional categories, VP1 and VP2. Although the inflectional head V1 can move to the non-inflectional Neg, head movement from Neg to the inflectional head V2 is prohibited by the RPHMG. Thus, the polite form of a negative predicate must use the periphrastic construction.

(18)



In contrast, the plain form of a negative predicate has the following structure in the past tense. I assume that PredP is a non-inflectional category, since it does not exhibit properties of inflectional categories, such as productivity and semantic regularity. Notice that head movement from the non-inflectional head Pred to the higher non-inflectional head V is possible, since there is no inflectional category that intervenes between them.

(19)



To summarize, the difference between the plain and polite negative predicates in the past tense forms can be captured in terms of their categorial distinction between inflectional and non-inflectional. The plain form of a negative predicate has the agglutinative form in the past tense, since it projects the non-inflectional category PredP, which does not prevent movement of a non-inflectional category into another non-inflectional category. The polite form, on the other hand, projects the inflectional category NegP. Since the inflectional category blocks movement of a non-inflectional category into another non-inflectional category, the polite form of a negative predicate must use the periphrastic construction.

#### 4. Summary

In this paper, I suggested that the periphrastic construction in Japanese is derived by the Revised Proper Head Movement Generalization: a non-inflectional category cannot move into an inflectional category and then back into a non-inflectional category.

First, I showed that the plain and polite forms of negative predicates project different categories and thus have different syntactic structures: the plain form projects PredP, while the polite form projects NegP. Second, I showed that the appearance of a dummy copula in the past tense forms of negative predicates can be explained by Baker's generalization: Japanese does not allow an overt tense morpheme to attach directly to a functional category: a dummy copula is required in order to realize the overt tense morpheme. Last, I showed that the distinction between lexical and functional categories cannot give a correct explanation for the periphrastic construction in Japanese. Instead, I proposed that it can be explained by the fact that an inflectional category blocks movement of a non-inflectional category into another non-inflectional category.

There still remain several problems. First, the nature of the RPHMG is not clear: that is, why is movement of a non-inflectional category into another non-inflectional category impossible in the case where there is an inflectional category that intervenes between them? Another question is whether or not this generalization applies to other languages as well as to Japanese. I will leave them for the future research.

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