

ON THE STRUCTURE OF NEGATION IN JAPANESE
AND ITS RELATED PROBLEMS

by

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ABSTRACT

Negation, a rather complex area of grammar, has so far been given little attention in the study of Japanese Linguistics. This thesis attempts to examine the structure of negation in Japanese and its related problems, and to demonstrate what happens to sentences under negation employing the conceptual framework of a recent theory of generative grammar. It is hoped that the findings in this thesis will provide more insights into the problems of negation, and will help clarify some of the semantic and syntactic problems associated with various aspects of negation in Japanese. Recent studies in the area of negation in English have provided various insightful explications and analyses, and the findings from these studies will serve as a basis for this research.

The analysis in this thesis is based on the assumption that every well-formed grammatical sentence consists of a deep structure and a surface structure which are related by a system of transformations; and that the deep structure is the relevant level for determining the meaning of the sentence.

This thesis is organised in the following way. Chapter One is concerned with where the constituent NEG should be introduced in the deep structure, and whether all types of negative expressions can be ascribed to a single underlying

form. Related to this, various negative expressions in Japanese will be examined in order to determine what their underlying structures are. The problems of meaning in negation will also be investigated, especially where they concern the "scope of the negative", that is, what is exactly being negated in the sentence.

Chapter Two deals mainly with a rule that has been proposed for English which is called negative transportation. This rule has been assumed to exist in many other natural languages. The chapter examines this negative transportation rule in an attempt to determine whether or not it exists in Japanese. The arguments presented in this chapter will follow similar lines of arguments that have been presented for English.

Chapter Three will look into the problems and peculiarities involved with the Japanese negative questions and the yes-no responses that they elicit. The chapter will attempt to give logical explanations for the ambiguity of negative sentences in Japanese and will attempt to explain both the semantic and syntactic characteristics of such questions. The relationship between the negative questions and the responses that they elicit will be explained by incorporating the notion of presupposition.

Chapter Four examines the semantic and syntactic structure of the particles mo, wa and ga. The orientation of this chapter will be one of attempting to examine the

facts of the Japanese language concerning the particle mo. Basically, the discussion in this chapter will be descriptive, attempting to characterize the general nature of the particle mo. The chapter will present a general approach for the interpretation of the particle mo, and at the same time, will also present a variety of syntactic constructions to illustrate the approach. The presuppositional properties associated with mo, which are relevant for the correct surface semantic interpretation will also be examined. The chapter will also investigate the relationship between the negative and mo, especially where it concerns the positive-negative relationship between the assertion and the expectation underlying mo. Having provided a general schema for the interpretation of mo, the latter part of the chapter attempts to examine whether the same line of approach is also applicable to other particles such as wa and ga.

Chapter Five presents a brief summary of that which has been discussed in the thesis.

Finally, I would like to point out that literal translations are necessary in order to preserve the phrase by phrase meaning of the Japanese example sentences. As a result, some translations rendered in this thesis may not always appear to be perfect idiomatic English expressions.

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CHAPTER ONE

SENTENCE NEGATION AND VERB NEGATION

1.1. INTRODUCTION

This chapter is concerned with where the constituent NEG (negative) should be introduced in the deep structure, and whether all types of negative expressions can be ascribed to a single underlying form. With respect to this, I will examine various negative expressions in Japanese, together with their related problems, and will try and determine what the underlying structures for these negative constructions are. The "scope of the negative", that is, what exactly is being negated in the sentence, will also be examined because what is actually negated is crucial for determining the structures of the negative constructions. Related to this, I will also investigate problems of meaning in negation, particularly where they concern the scope of negation.

1.2. VERB PHRASE NEGATION

Chomsky, in his Syntactic Structures (1957), considers

the underlying structure for the negative sentence simply as a positive structure, and the negative is introduced by an optional transformation as a purely surface matter. The following is the formula given by Chomsky for deriving negative sentences from affirmative sentences.¹

T_{not} - optional:

Structural analysis:

- (i) NP - C - V ...
- (ii) NP - C + M ...
- (iii) NP - C + have - ...
- (iv) NP - C + be - ...

Structural change:

$$X_1 - X_2 - X_3 \longrightarrow X_1 - X_2 + n't - X_3$$

By this transformation, T_{not} operates on strings that are analyzed into three segments in one of the above ways of (i) - (iv). Given a string that is analyzed into three segments, the transformation T_{not} introduces the negative not or n't after the second segment of the string. For example, apply this formula to the following terminal strings of (a) - (d), T_{not} will derive the sentences on the right.

- (a) They - ϕ - eat \longrightarrow They - ϕ + do + n't - eat
("They don't eat")

'Cherry blossoms are red.'

b.. Sakura no hana wa akaku nai.

'Cherry blossoms are not red.'

(4) a. Kono heya wa sizuka da.

'This room is quiet.'

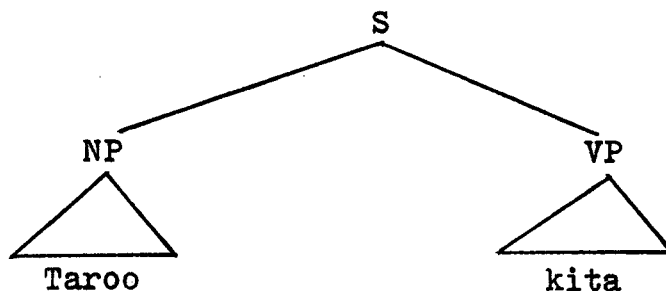
b. Kono heya wa sizuka de wa nai.

'This room is not quiet.'

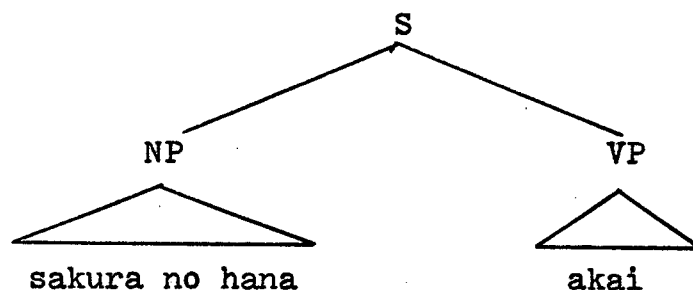
If we subscribe to the above proposal by Chomsky, then the actual underlying structures for the negative sentences of (1b), (2b), (3b) and (4b) would be their positive counterparts, that is, the (a) sentences, and the negative will be introduced into the verb phrase by an optional transformation.

Let us now look at the tree structures for two of the above sentences. Considering sentences (1) and (3), their (a) sentences will have the following underlying structures:²

(5)

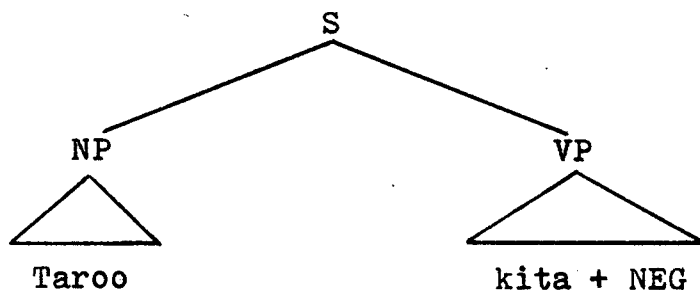


(6)

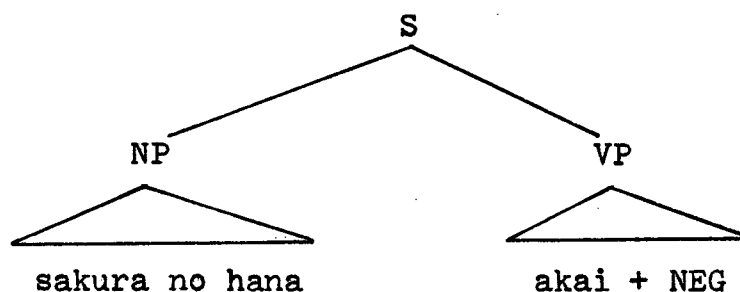


With the exception of lexical items, (2a) and (4a) will also have similar underlying structures as those of (5) and (6). If we assume the above underlying structures for the affirmative (a) sentences, then we will have to assume the following underlying structures for their negative counterparts, that is (1b) and (3b).

(7)

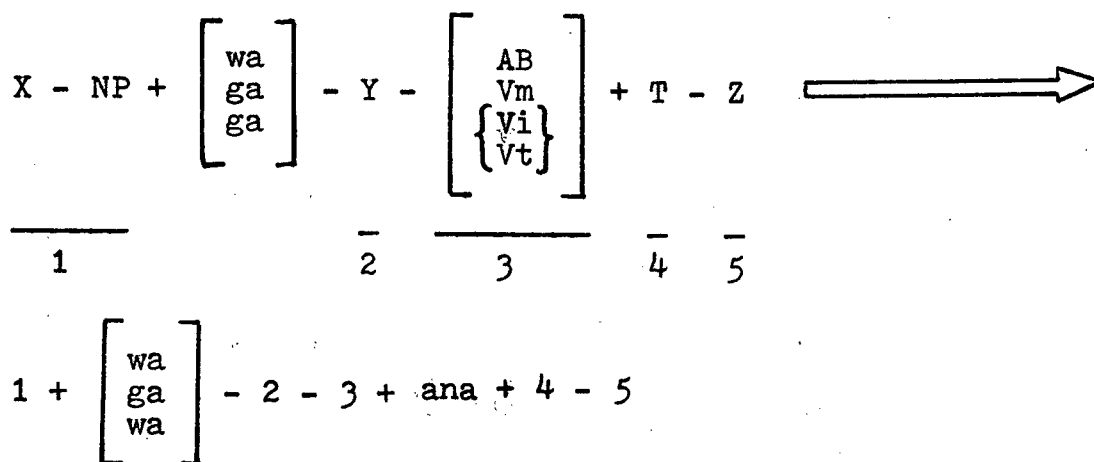


(8)



Notice that the structures of (7) and (8) show that the negative is introduced by transformation as a constituent of the VP, meaning that the scope of the negative commands only the VP. This may appear to mean that the negative is relevant only with verb phrases. In fact, this was basically the way the rule of negation was treated by Inoue (1964). Her treatment was simply the attachment of the negative morpheme to the verb or adjective by a rule of optional transformation of the following kind:³

Negation:

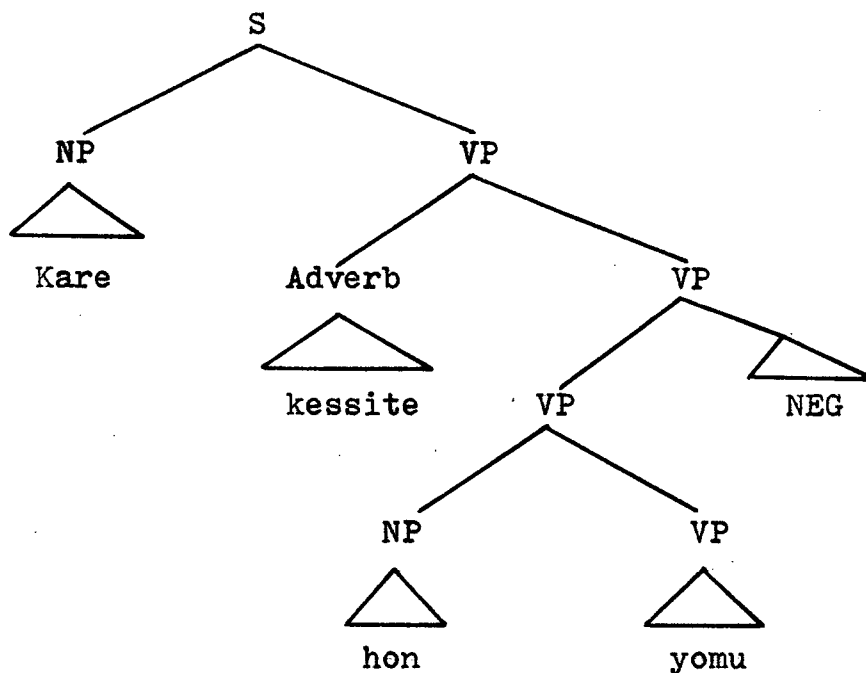


Examples:

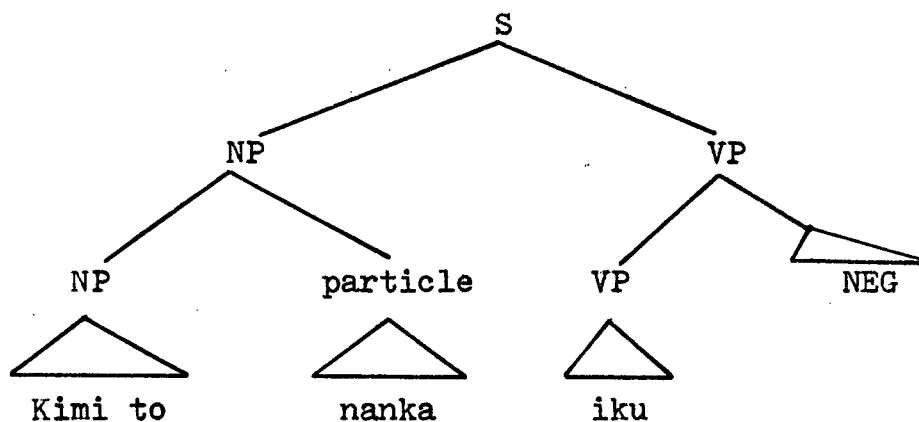
- (a) To ga ak ta. \longrightarrow To ga ak ana katta.
 NP+ga-Vm+ T NP-ga-Vm+ana+ T

'The door opened.' \longrightarrow 'The door did not open.'

(11)



(12)



where the negative is generated as part of the VP, showing that negation is relevant only with the VP.

However, if we subscribe to the hypothesis that transformational rules are meaning-preserving, then we

have to introduce the negative in the deep structure, and not at the surface level. However, exactly where should the constituent NEG be introduced in the deep structure? In the above examples, we have seen that the negative is introduced as a constituent of the verb phrase and appears to be relevant only with the verb phrases. In the next section, I will examine whether all types of negative sentences can be ascribed to this single underlying form, or whether there is a possibility of generating the negative in positions other than as the constituent of the VP in the underlying structure.

1.3. SENTENCE NEGATION

1.3.1. ARGUMENTS FOR SENTENCE NEGATION

To my knowledge of Japanese generative grammar, Soga (1966)⁴ first introduced the negative in the deep structure. However, he did not present a convincing argument for it. He simply treated the negative as a sub-class of adjective which must co-occur with an embedded sentence. Apparently, Soga's treatment is in line with sentence negation rather than verb phrase negation. In the following, I will present a convincing argument for sentence negation.

Now, let us consider the following sentences in order

to see if the underlying structures in the previous pages can be maintained for other negative sentences.

- (13) Yamada-san wa kanemoti de wa nai keredomo, minna wa soo omotte iru.

'Mr. Yamada is not rich, but everyone thinks (he is).'

- (14) Taroo wa kessite gogaku no tensai de wa nai nomi ni, zibun de wa soo omotte iru.

'Taroo is certainly not a genius for languages, but he thinks (he is).'

- (15) Tikyuu wa kessite hirataku wa nai no ni, mukasi no hito-bito wa soo sinzite ita.

'The world is certainly not round, but the people of ancient times believed (that it was).'

- (16) Hanako wa ano gaizin to kekkon sinai keredomo, minna wa soo itte iru.

'Hanako is not marrying that foreigner, but everyone says (she is).'

Notice that in the above examples, there is a negative sentence on the left side and a pronominal soo on the right side, which refers back not to the negative sentence on the left, but to the positive sentence corresponding to the negative sentence. This means that the soo in (13) can be understood as Yamada-san ga kanemoti desu, which is actually

the positive counterpart of the preceding negative sentence. Similarly, the soo in (14) refers to Taroo ga gogaku no tensai da, in (15) tikyuu ga hiratai desu, and in (16) Hanako ga ano gaizin to kekkon suru, which are all positive counterparts of the preceding negative sentences. Notice that in the above examples of (13)-(16), soo refers back to a sentential element. This would appear to mean that soo has to be a sentential-pronominal and not a NP-pronominal.

In order to show that soo is a sentential-pronominal and not a NP-pronominal, let us observe the following sentences:

- (17) a. Taroo wa Tolstoy no 'Sensoo to Heiwa' to iu syoosetu o yonde ita ga, kare wa kinoo, sore o daigaku no tosyookan kara karite kita no datta.
- 'Taroo was reading Tolstoy's novel called 'War and Peace', and he borrowed it from the University library yesterday.'
- b. * Taroo wa Tolstoy no 'Sensoo to Heiwa' to iu syoosetu o yonde ita ga, kare wa kinoo, soo daigaku no tosyookan kara karite kita no datta.

Notice that (17a) with sore o is a perfectly grammatical sentence, while (17b) with soo is ungrammatical. In (17a)

sore o refers back to the NP element Tolstoy no 'Sensoo to Heiwa' to iu syoosetu 'Tolstoy's novel called 'War and Peace''. The ungrammaticality of (17b) points out the fact that soo cannot possibly be a NP-pronominal, but has to be a sentential-pronominal.

The fact that soo is a sentential-pronominal is also evident in the following examples:

- (18) Sore wa hon desu ka.
 'Is that a book?'
 Hai, soo desu.
 'Yes, it is.'
- (19) Sensei wa nihonzin desu ka.
 'Is the teacher a Japanese?'
 Hai, soo desu.
 'Yes, he is.'
- (20) Sore wa sakura no hana desu ka.
 'Are those cherry blossoms?'
 Hai, soo desu.
 'Yes, they are.'
- (21) Kono zibiki wa takai desu ka.
 'Is this dictionary expensive?'
 Hai, soo desu.
 'Yes, it is.'
- (22) Anata no kasa wa akai desu ka.
 'Is your umbrella red?'

Hai, soo desu.

'Yes, it is.'

(23) Asita Tanaka-san ga ikimasu ka.

'Is Mr. Tanaka going tomorrow?'

* Hai, soo desu.

'Yes, he is.'

(24) Sensei wa moo kaerimasita ka.

'Has the teacher gone home already?'

* Hai, soo desu.

'Yes, he has.'

(25) Kono densya wa Ginza o toorimasu ka.

'Does this train go through Ginza?'

* Hai, soo desu.

'Yes, it does.'

Soo desu in the above examples is used as an answer to the questions asked. Notice that soo in the examples above refer back to the sentential element of the question. The soo in (18) for example, refers back to the sentence Sore wa hon desu 'That is a book'. Similarly, in (19) and (20). soo refers back to the sentences Sensei wa nihonjin desu 'The teacher is a Japanese', and Sore wa sakura no hana desu 'Those are cherry blossoms', and so on. Actually, a direct answer to those questions above, for example questions (18), (19) and (20) would be:

(18) a. Hai, kore wa hon desu.

'Yes, this is a book.'

(19) a. Hai, sensei wa nihonjin desu.

'Yes, the teacher is Japanese.'

(20) a. Hai, sore wa sakura no hana desu.

'Yes, those are cherry blossoms.'

Thus, instead of imitating the question for the answer, soo desu is used instead. From the above examples, it is evident that soo has to be a sentential-pronominal, and the use of soo in the above examples is the same as that of sentences (13)-(16). However, note the ungrammaticality of Hai, soo desu as answers to questions (23), (24) and (25). It appears that when a verb is used, it is normally not permissible to use soo desu as an answer. At this stage, I do not know why this is so nor do I have any concrete explanation for it. Nevertheless, it should be noted that this peculiarity exists. Since this paper is not a study on pronominalization, I will leave this problem open for future research.

Several generalizations can be made from the above observation:

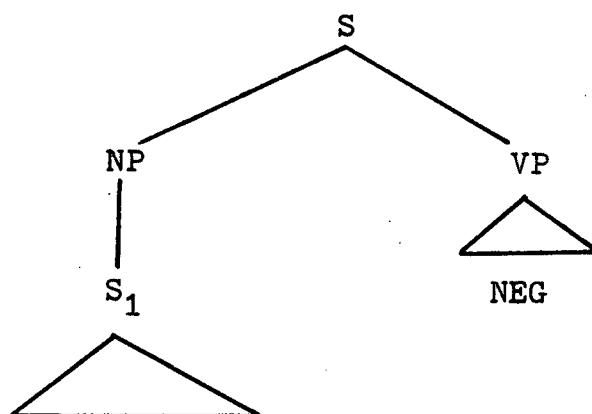
- (i) It seems that whatever soo refers to has to be a sentential element, for example in sentence (13), soo refers to the sentence Yamada-san ga kanemoti da 'Mr. Yamada is rich.' Therefore, this points out that soo

has to be a sentential-pronominal.

(ii) If soo is a sentential-pronominal, and soo in sentences (13)-(16) refers to the positive counterparts of the preceding negative sentences, then the negative formatives in those preceding sentences will have to negate the entire sentence, and not just the VP. This would mean that the negative has to take a sentential subject.⁵ This clearly shows that we will have to acknowledge the possibility of generating the negative in positions other than as the constituent of the VP in the underlying structure.

(iii) One structural possibility would be to derive the negative nai from an underlying predicate NEG, introduced optionally in the base structure component as a verb of the higher sentence, instead of deriving the NEG in the lower constituent, for example the VP, as we have done before. We will then have to assume the following to be the underlying structure for sentence negation:

(26)



where the negative nai will negate the S which it immediately commands; in this case it is S_1 .

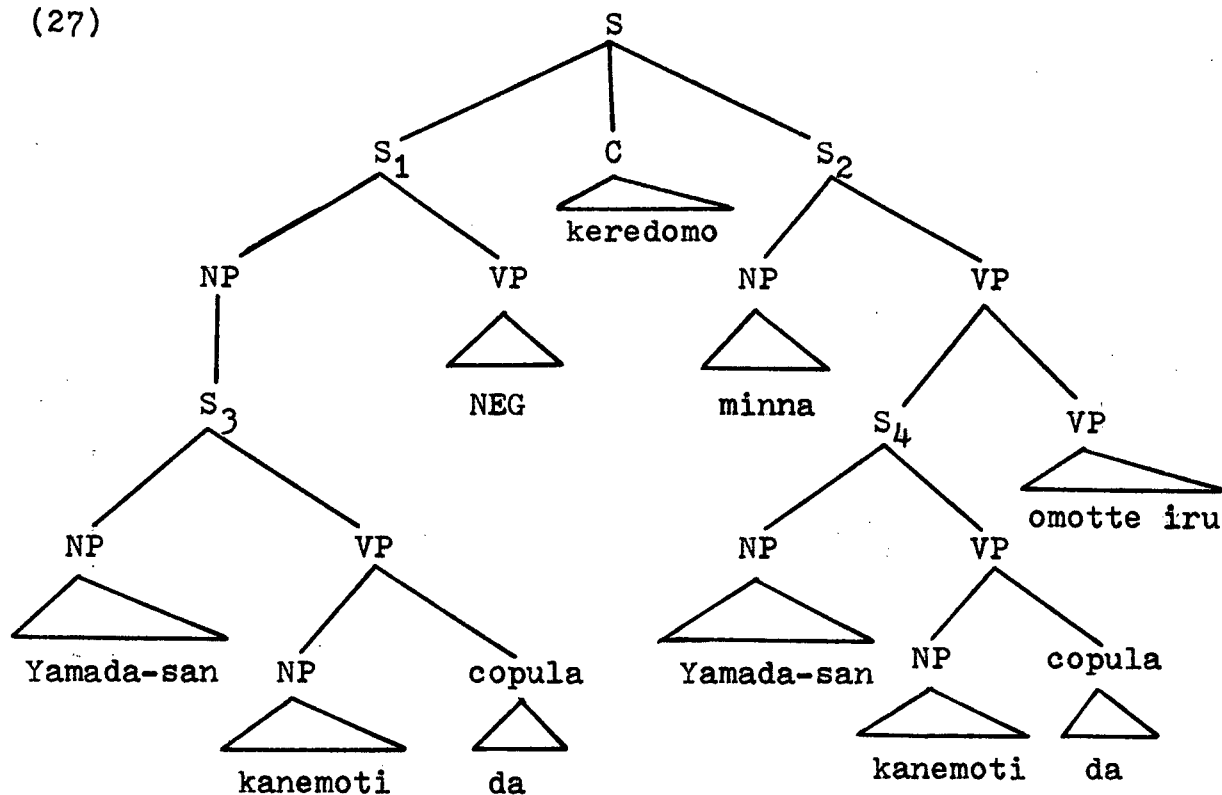
In assuming the above abstract structure of (26) as the deep structure for negative sentences, we can account for several things:

(a) In the structure (26), notice that the proposition S_1 is separated from the element NEG which negates it, and so it becomes possible for the pronominal soo to refer back to the proposition without the negative.

(b) In analyses like (7) and (8), where the negative element NEG is in the VP and is part of the sentence that it negates, it is not possible for the pronominal soo to refer back to the proposition without the negative.

(c) If we adopt structure (26), sentence (13) would have the following deep structure:

(27)

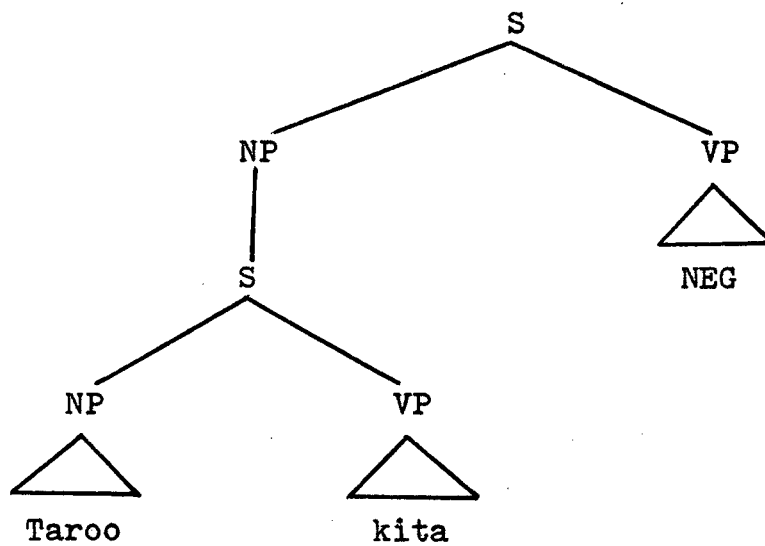


where C = Conjunction

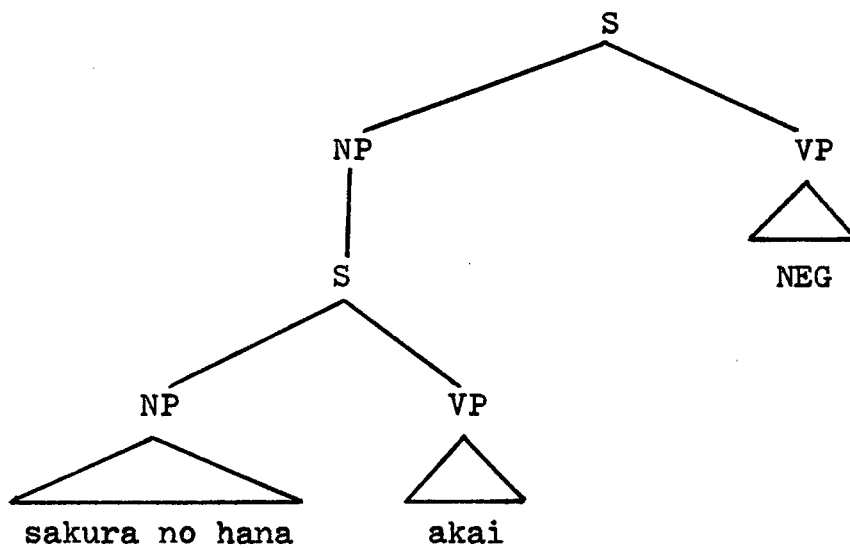
Notice that S_4 is identical to S_3 . In the process of soo pronominalization transformation, S_4 will consequently be replaced with soo. The pronominal soo then will be coreferential with S_3 .

If we consider (26) to be correct for representing the negative structures, we will have the following underlying structures for sentences (1b) and (3b):

(28)



(29)



where the negative negates the whole sentences Taroo ga kita and sakura no hana wa akai, respectively.

1.3.2. ON SOME STRUCTURES FOR NEGATIVE CONSTRUCTIONS

1.3.2.1. LOCATIVE AND INSTRUMENTAL ADVERBIALS

Let us look into more examples of negative sentences, and try to determine whether all types of negative expressions can be ascribed to a single underlying form. Now, consider the following sentences:

(30) Hanako wa tomodati to eki de awanakatta.

'Hanako didn't meet her friend at the railway station.'

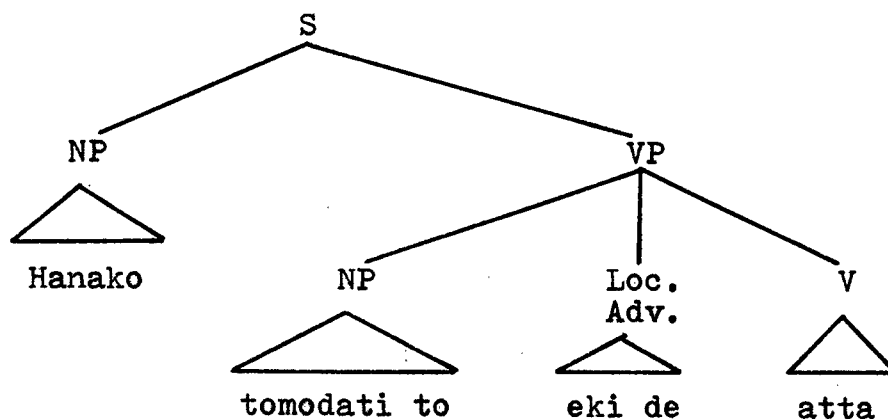
Sentence (30) above would be the negative counterpart to the positive sentence of:

(31) Hanako wa tomodati to eki de atta.

'Hanako met her friend at the railway station.'

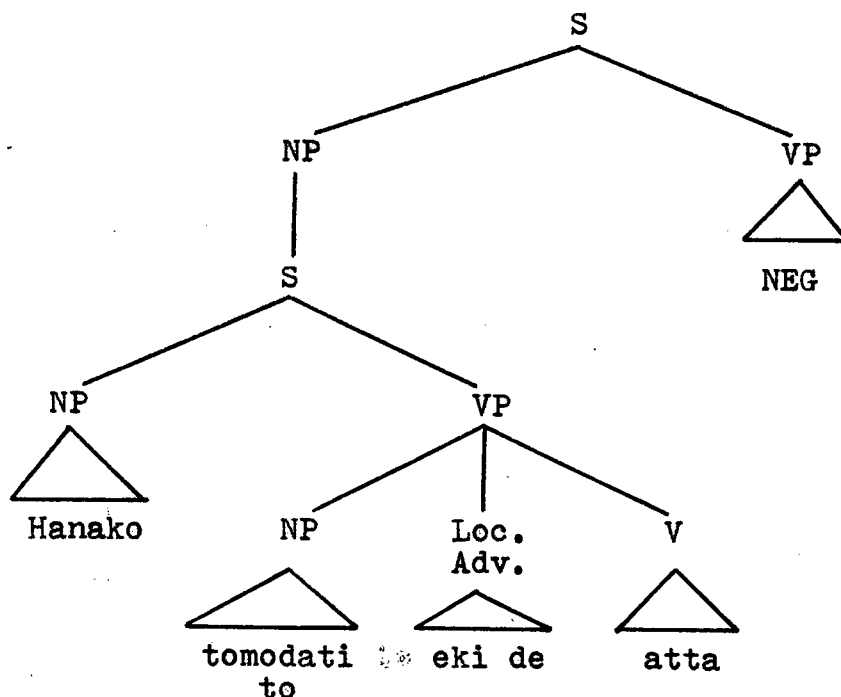
In traditional grammar, the underlying structure for (31) would be analyzed essentially as:

(32)



It is generally assumed that eki de 'at the railway station' is a locative adverb modifying tomodati to atta 'met her friend', and that tomodati to eki de atta 'met her friend at the railway station' forms a single deep structure constituent. If we assume (32) to be the underlying structure for (31), then the underlying structure of its negative counterpart (30) would have to be analyzed as (33).

(33)



However, note that sentence (30) is ambiguous in at least two ways. One reading of sentence (30) does not presuppose that Hanako met her friend, but is simply a denial of the assertion that the meeting took place. This would be synonymous with:

- (34) Hanako ga tomodati to awanakatta no wa eki de da.
 'It is at the railway station that Hanako didn't meet her friend.'

Here, the negation is associated with the main verb of the matrix sentence.

In another reading, it is presupposed that Hanako did meet her friend, but it is denied that the meeting took place at the railway station. Note that this would be synonymous with:

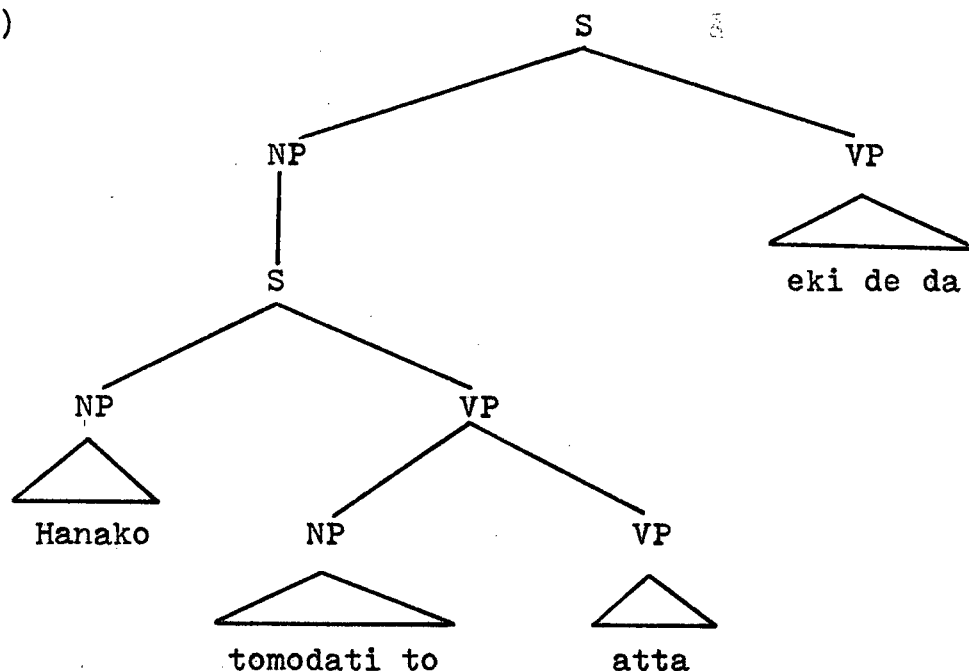
(35) Hanako ga tomodati to atta no wa eki de de wa nai.

'It is not at the railway station that Hanako met her friend.'

In sentence (35), it is clear in the surface structure that the location of the event is being negated, not the assertion that the event occurs. The negative appears to be semantically associated with the adverb of location, and not the main verb of the matrix sentence. Note that it is not possible to account for the way in which we understand (35) if we were to derive it from the underlying structure of (33).

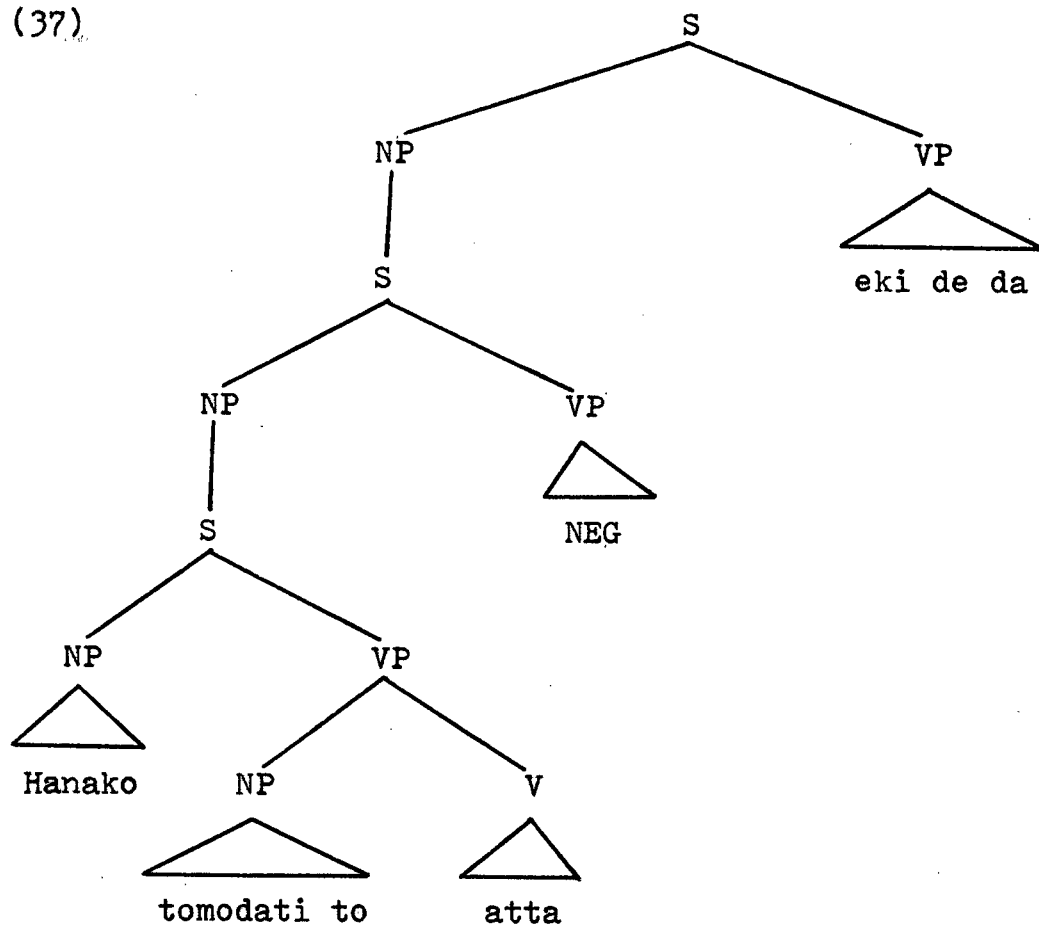
It seems that one way that we could reasonably account for this ambiguity of (30) would be to subscribe to the proposal made by G. Lakoff (1965), that adverbials such as Locative, Time and Instrumental Adverbials, are derived from verb phrases of 'higher' simplex sentences than the ones that appear as the main clauses in the surface structures. Following Lakoff's proposal, we could then derive (35) from the following underlying structures:

(36)



In sentences which have both negatives and adverbials, then the understood order of negatives and adverbials in these sentences are supposed to correspond to the hierarchy of upper sentences containing negatives and adverbials. Thus the difference in meaning between (34) and (35) is reflected in their deep structures of (37) and (38), respectively.

(37)



'I didn't buy this umbrella at Mitukosi Department Store.'

(40) Taroo wa kyoositu de nenakatta.

'Taroo didn't sleep in class.'

(41) Sakana wa kono esa de turenakatta.

'The fish was not caught with this bait.'

(42) Taroo wa genkotu de Hanako o naguranakatta.

'Taroo didn't hit Hanako with his fist.'

The above four sentences are ambiguous in the same way as sentence (30) is. Each of them is ambiguous in at least two readings, depending on what comes within the scope of the negation.

Sentence (39) can be understood in at least two ways. In one reading it does not deny that I bought the umbrella. It assumes that I did, and only denies that I bought it at Mitukosi Department Store. This is synonymous with:

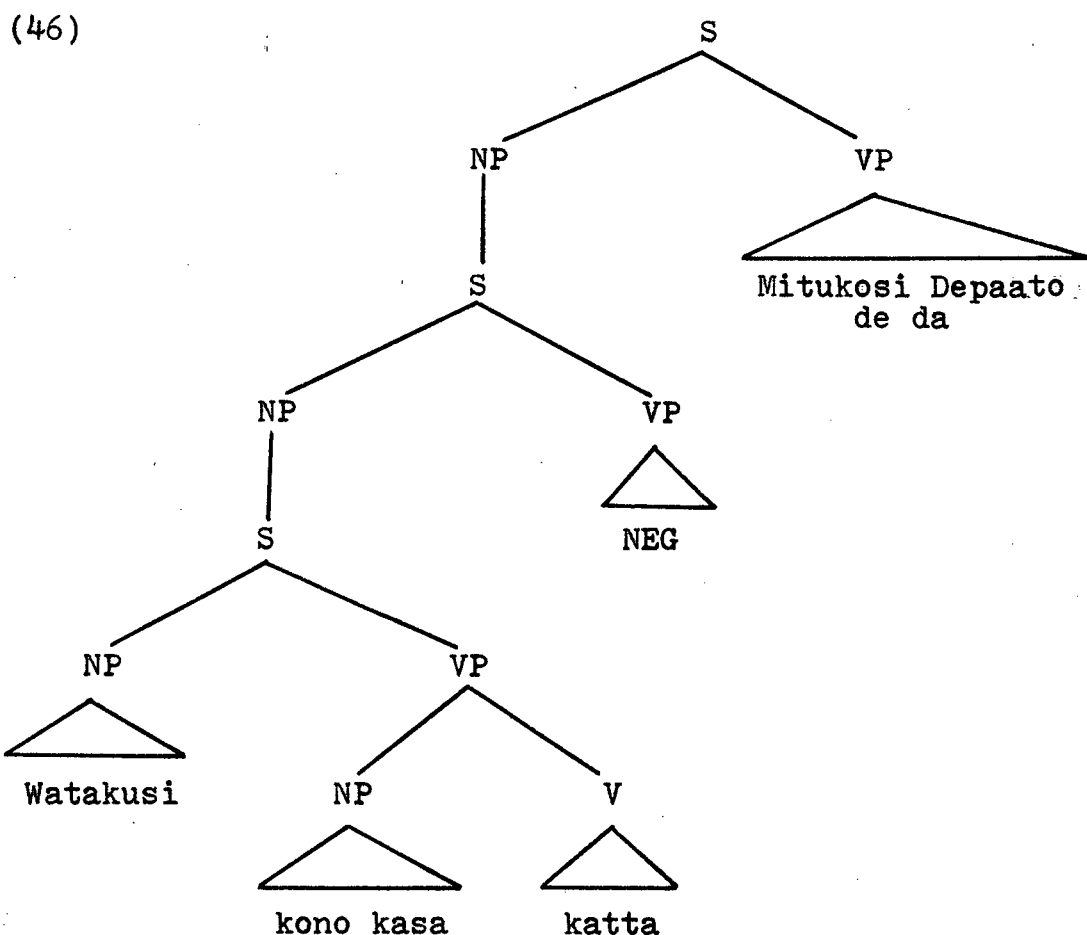
(43) Watakusi wa kono kasa o katta no wa Mitukosi
Depaato de de wa nai.

'It is not at the Mitukosi Department Store that I bought this umbrella.'

Notice that the negative is semantically associated with the locative adverb and not with the main verb. We can account for this reading of (39) if we derive it from the abstract

I didn't buy the umbrella.'

We can account for this reading by deriving it from the structure underlying (45), which would be:



The same is true of sentence (40), where in one reading it assumes that Taroo did sleep. What is denied is that the location of the sleeping is in the classroom. This would be

synonymous with:

(47) Taroo ga neta no wa kyoositu de de wa nai.

'It is not in the classroom that Taroo slept.'

The other reading is simply a denial that Taroo slept, and this would be synonymous with:

(48) Taroo ga nenakatta no wa kyoositu de da.

'It is in the classroom that Taroo didn't sleep.'

We can account for these two different readings of (40) if we were to derive them from the abstract structures underlying (47) and (48) respectively.

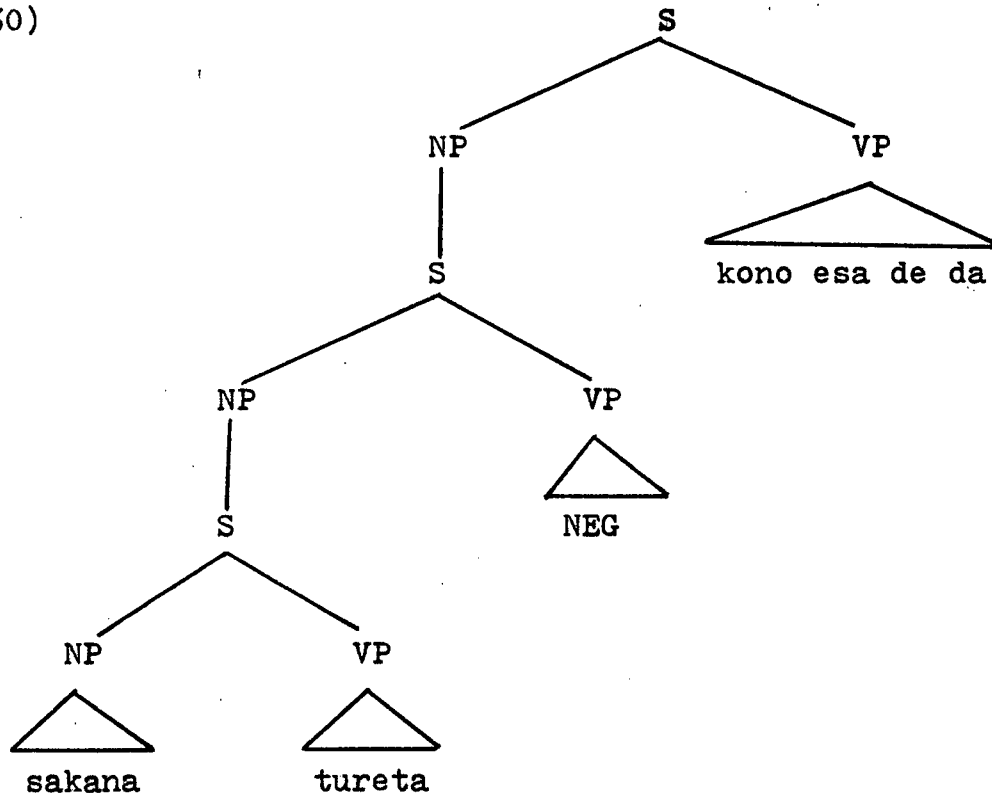
The same arguments that we have given for locative adverbs also apply to negative sentences containing instrumental adverbials, as in examples (41) and (42). In one reading of (41), it denies the fact that the fish was caught and does not assume that the catch took place. This would be synonymous with:

(49) Sakana ga turenakatta no wa kono esa de da.

'It is with this bait that the fish was not caught.'

The underlying structure for this would be:

(50)



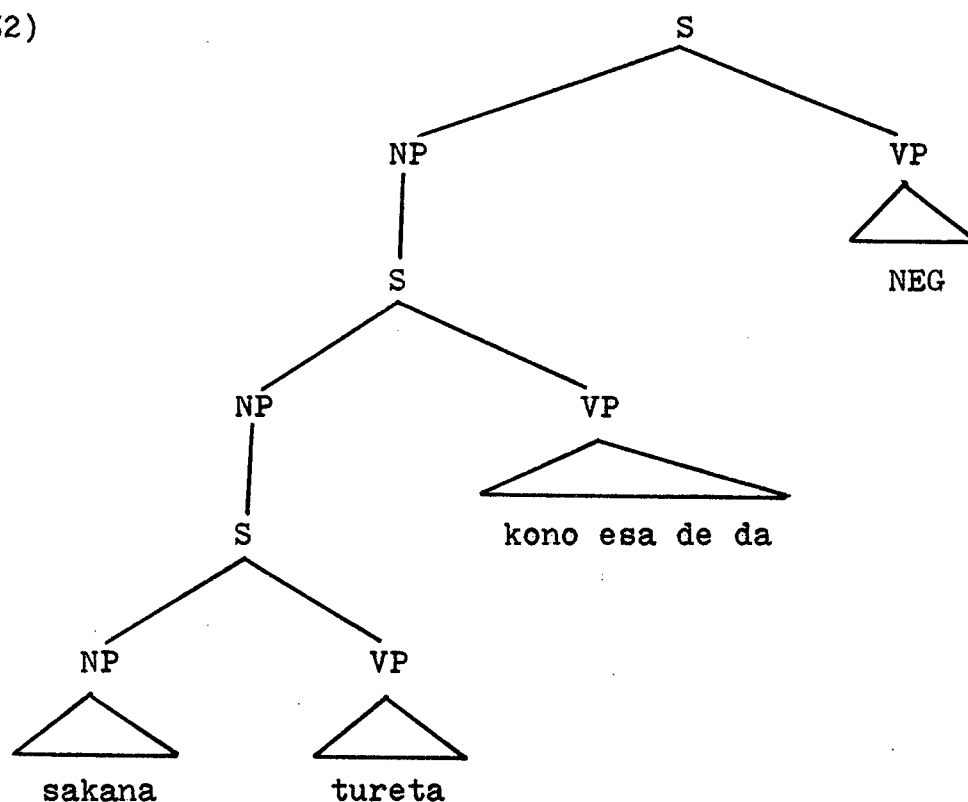
In another reading it is assumed that the fish was caught, but it is denied that it was done so with this bait. This would be synonymous with:

(51) Sakana ga tureta no wa kono esa de de wa nai.

'It is not with this bait that the fish was caught.'

In (51) it is clear that the instrumental adverbial 'with this bait' is being negated. We can account for the way in which we understand this reading by deriving it from the abstract structure underlying (51).

(52)



Sentence (42) is also ambiguous in the same way. In one reading, it is not assumed that the hitting took place, and is simply a denial of the assertion that the event took place. This would be synonymous with:

(53) Taroo ga Hanako o naguranakatta no wa genkotu
de da.

'It is with his fist that Taroo didn't hit
Hanako.'

Note that in this reading the negative commands the main
verb nagutta 'hit'. In another reading, it is assumed that
Taroo did hit Hanako, but it is denied that he did so with
his fist. This reading is synonymous with:

(54) Taroo ga Hanako o nagutta no wa genkotu de de
wa nai.

'It is not with his fist that Taroo hit Hanako.'

Note that in this reading, it is the instrumental adverb
genkotu de 'with his fist', that comes within the scope of
negation. We can account for our understanding of the two
readings of (42) by deriving them from the structures
underlying (53) and (54) respectively.

1.3.2.2. REASON ADVERBIALS

Let us now consider the following sentences and see if
the same ambiguity that exists in sentences containing
locative and instrumental adverbials also exist in sentences

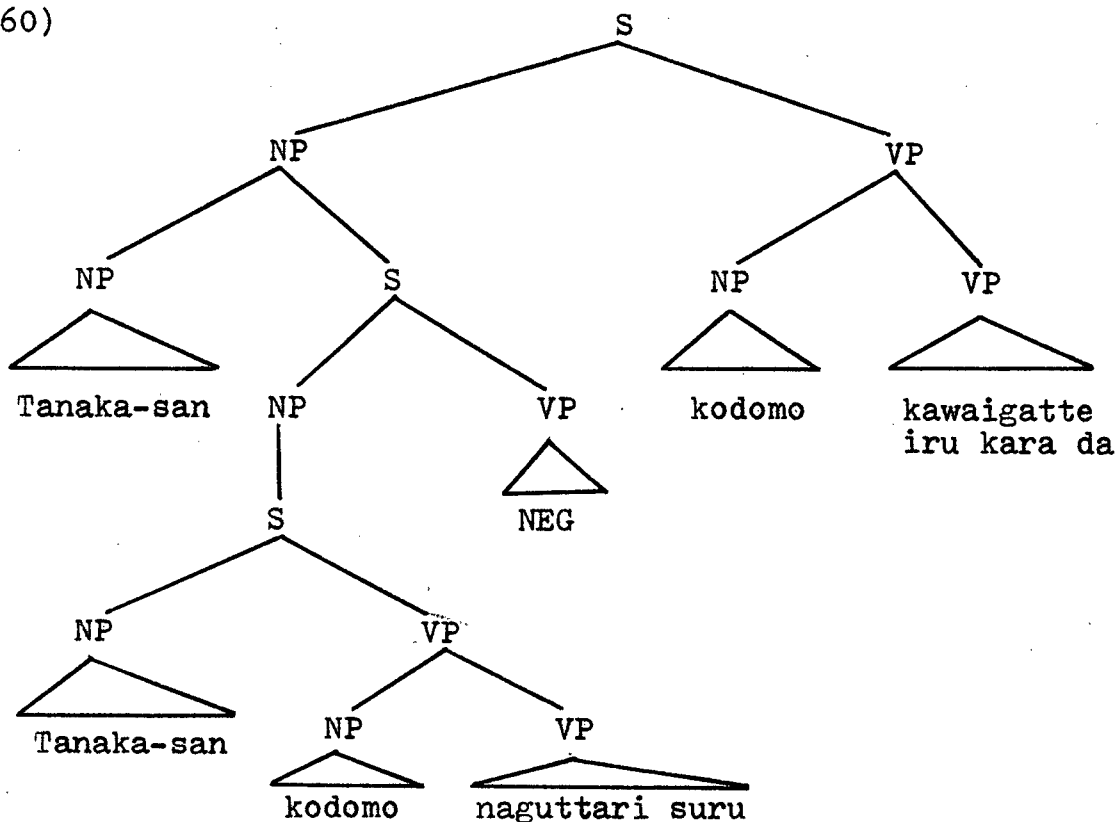
containing reason adverbials. We will also examine some sentences to see whether we can bring forth the same arguments for deriving reason adverbials in the same manner as we derive locative and instrumental adverbials.

- (55) Tanaka-san wa kodomo o kawaigatte iru kara,
naguttari sinai.
'Since Mr. Tanaka loves his child, (he) doesn't
beat (him).'
- (56) Hahaoya ga daite ageta node, kodomo wa nakanakatta.
'Because mother hugged (her), the child didn't
cry.'
- (57) Otoo-san ga kaette kita node, benkyoo sinakatta.
'Because father came home, (I) didn't study.'
- (58) Sono zibiki wa takakatta kara, kawanakatta.
'Since that dictionary was expensive, (I) didn't
buy (it).'
- (59) Atataakai kara seetaa o motte konakatta.
'Since it was warm, (I) didn't bring a sweater.'

We have seen that sentences containing both negatives and adverbials (such as locative or instrumental adverbials) are ambiguous, and can be understood in at least two different ways, depending on what falls within the scope of negation. However, the above sentences (55)-(59), which have both a negative and a reason adverbial, do not seem to be ambiguous

at all. For example, sentence (55) can only mean that since Mr. Tanaka loves his child, he doesn't beat him. The negative commands only V_2 , that is, the predicate phrase contained in S_2 . (From now on, V_1 and V_2 will be referred to as those predicate phrases that are contained in S_1 and S_2 respectively). Similarly, in sentences (56)-(59), the negative can have as its domain, only the verb to which it is attached, for example, nakanakatta 'didn't cry', benkyoo sinakatta 'didn't study', kawanakatta 'didn't buy', and motte konakatta 'didn't bring'. Sentence (55), for example, will have the following underlying structure:

(60)



Except for lexical items, sentences (56)-(59) will have similar underlying structures to that of (60).

In order to confirm our initial observation that the reason adverbials do not cause any structural ambiguity, let us examine a few more examples of sentences with the reason adverbials.

- (61) Amari tonari no heya ga urusai node, yoku nemurenai.
'Because the next room is too noisy, (I) can't sleep well.'
- (62) Kono miti ga semai node, torakku ga toorenai.
'Because this road is narrow, trucks can't pass through.'
- (63) Hako wa omokatta kara, motenakatta.
'Since the box was heavy, (I) couldn't carry (it).'
- (64) Takusan benkyoo ga aru node, eiga o mi ni ikenai.
'Because (I) have a lot of studying to do, (I) can't go and see a movie.'
- (65) Asita o-susi o tukuru kara, kyoo wa tukuranai.
'Since (I) am making susi tomorrow, (I) won't make (any) today.'
- (66) Kaze o hiite iru kara, gakkoo e ikanai.
'Since (I) have a cold, (I) won't go to school.'

Notice that examples (61)-(66) are not ambiguous just as sentences (55)-(59) are not. Similarly, in (61)-(66), the sentence-final negative can only command V_2 , and cannot extend its command power over (V_1 kara/node V_2), for example, ...urusai node, ...nemurenai 'because...noisy,...can't sleep well' or ...omokatta kara, motenakatta 'since...was heavy, (I) couldn't carry (it)!!'. From the above observation, it seems that the reason adverbials like kara and node prevent the command power of the negative from extending over to the left of them. One can speculate the reason for this phenomenon, and I will consider it in the following pages.

Now, observe the following sentences in order to see what happens if the negative occurs outside of the main sentence.

- (67) Tanaka-san wa kodomo o kawaigatte iru kara,
naguttari suru no de wa nai.
'It is not the case that since Mr. Tanaka loves
his child, (he) beats (him).'
- (68) Hahaoya ga daite ageta node, kodomo wa naita
no de wa nai.
'It is not the case that because mother hugged
(her), the child cried.'
- (69) Otoo-san ga kaette kita node, benkyoo sita no
de wa nai.
'It is not the case that because father came home,

(I) studied.'

- (70) Sono zibiki wa takakatta kara, katta no de wa nai.

'It is not the case that since that dictionary was expensive (I) bought (it).'

- (71) Atataakai kara seetaa o motte kita no de wa nai.

'It is not the case that since it was warm, (I) brought a sweater.'

Unlike (55)-(59), sentences (67)-(71) are all ambiguous and can be understood in at least two ways. For example, (67) is ambiguous between (72) and (73).

- (72) Naguttari suru no wa, Tanaka-san ga kodomo o kawaigatte iru kara de wa nai.'

'It is not because Mr. Tanaka loves his child that (he) beats (him).'

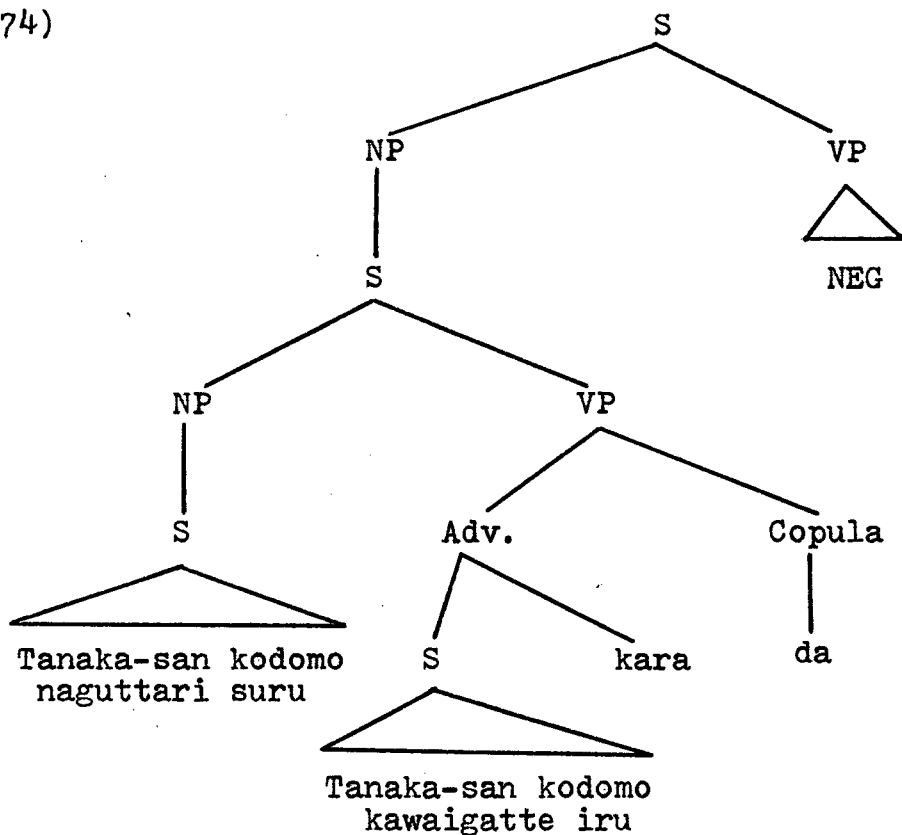
- (73) Naguttari sinai no wa Tanaka-san ga kodomo o kawaigatte iru kara da.

'It is because Mr. Tanaka loves his child, that (he) doesn't beat (him).'

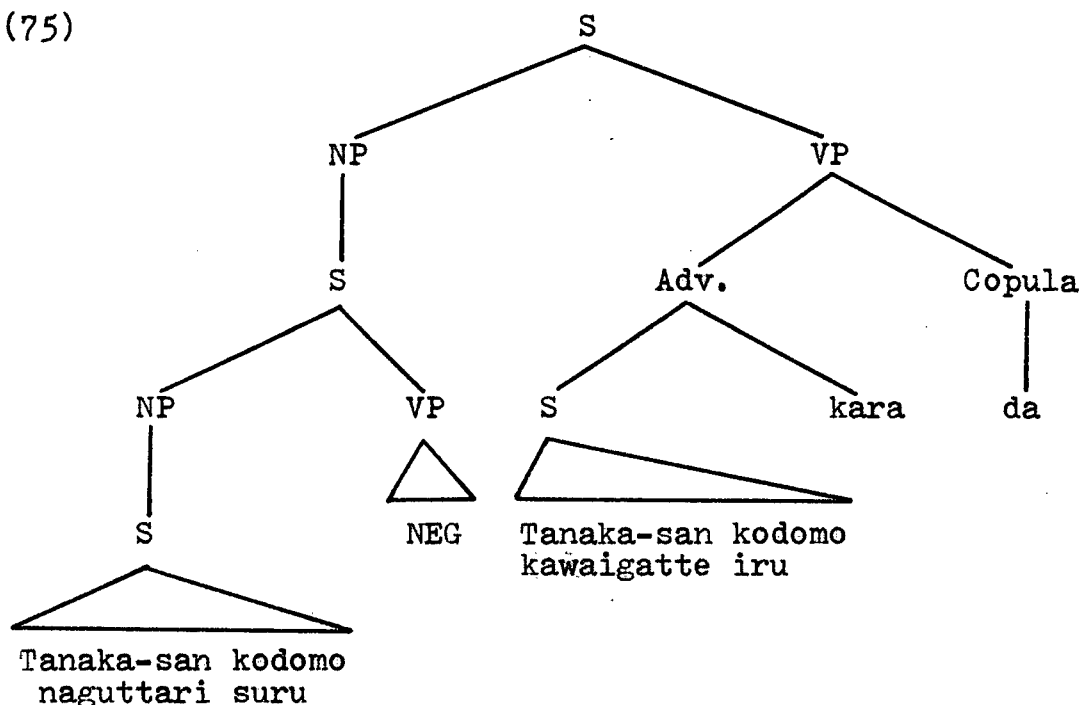
In (72), it is presupposed that Mr. Tanaka beats his child, and the reason for beating the child is not because he loves him. In this sense of (72), the command power of the negative extends to the left of node and it commands the whole

(V_1 node V_2). In (73), it is not presupposed that Mr. Tanaka beats his child. In this sense, the negative commands only V_1 . Sentences (68)-(71) are all ambiguous in the same way as (67) is. The above (72) and (73) will have the underlying structures of (74) and (75) respectively.

(74)



(75)



From the above observation, we can conclude that for some reason the sentence-final negative cannot command the reason adverbials. The reason adverbials somehow seem to block the command power of the negative from extending over them. So far as I can see, it seems that this peculiarity exists only in the case of reason adverbials co-occurring with the negative in a sentence. As we have observed earlier, with other adverbials such as locative and instrumental adverbials, this peculiarity does not exist. McGloin, in her thesis Some Aspects of Negation in Japanese (1972), suggests that perhaps the command power of the negative might be blocked by the factive reason adverbial clauses.

Compare the following sentences:⁶

- (a) Why did Max hit anybody?
- (b) When did Max hit anybody?

J. Lawler (1971) argues that why is factive. According to Lawler's argument, he claims that the above (a) sentence presupposes that Max hit somebody, but the (b) sentence does not. Related to this, McGloin states that if Lawler's claim is true, then perhaps this might be the explanation as to why the sentence-final negative cannot command the reason adverbials. The reason adverbials like node and kara are factive, and presupposes the factivity of the complement sentences. Consequently, the negative cannot extend over to the left of the reason adverbials because the command power of the negative is blocked by the factive clauses. However, it seems to me that such a claim may be subject to further investigation.

On the other hand, sentences which have the nominalizer no are ambiguous, and in one reading, the command power of the negative can be extended to the left of the reason adverbial, making it a negation of the whole sentence. S. Kuno, in his paper Degrees of Subordination,⁷ explains that in order to enable the negative to extend its command or influence to the left of node or kara, it is necessary, first to make the node or kara clause, for example, Hahaoya

ga daite ageta node, a noun clause by nominalizing it with the nominalizer no, and then let the negative command the "(Noun-clause) no da".

The above hypothesis must be considered extremely tentative, and still requires further studies and firmer verification. Nevertheless, a further study into this problem, though interesting and challenging, is beyond the scope of this paper, and will therefore, be left open for future research.

1.3.2.3. TIME ADVERBIALS

Just as we brought forth arguments to show that locative and instrumental adverbials are derived from verb phrases of simplex sentences which are higher in the base phrase marker than the ones that appear in the main clauses in the surface structures, so we can bring forth the same argument for deriving time adverbials in this manner.

It can be observed that a negative sentence like:

(76) Yukiko wa yoru no zyuuni-~~zi~~ made utawanakatta.

'Yukiko did not sing until twelve midnight.'

is ambiguous in at least two ways. In one reading, it is assumed that the singing did take place. What is denied

here is the time factor, meaning that Yukiko sang, but she stopped singing sometime before midnight. Note that this would be synonymous with:

(77) Yukiko ga utatta no wa yoru no zyuuni-zi made
de wa nai.

'It is not until twelve midnight that Yukiko sang.'

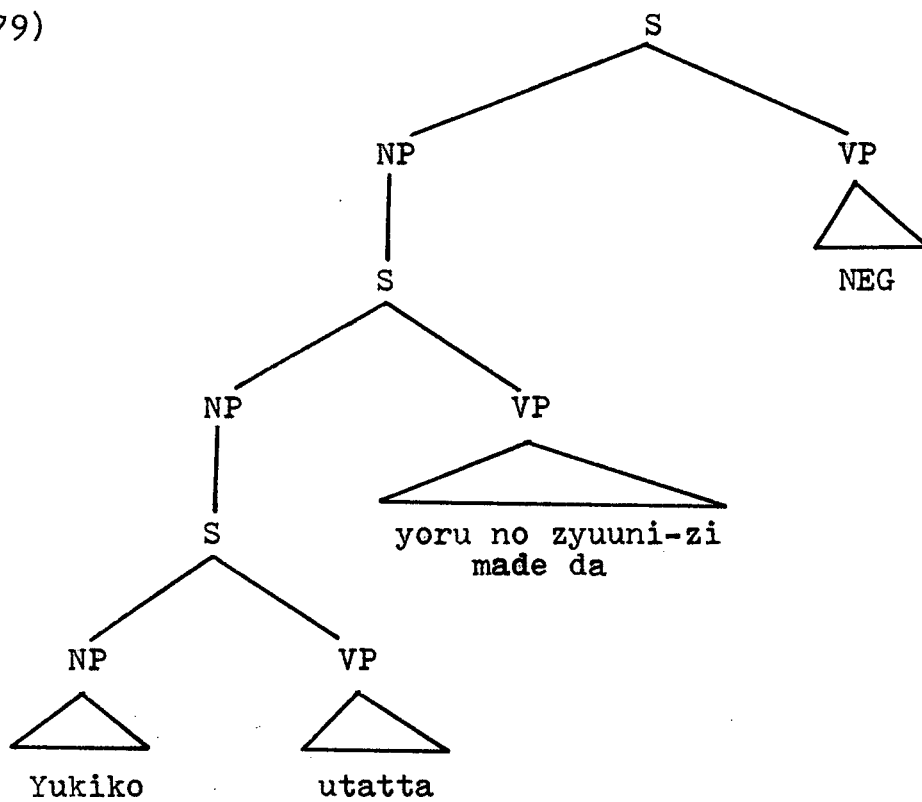
In another reading, it means that Yukiko did not begin singing until midnight, that is to say, her not singing stopped at midnight. This would be synonymous with:

(78) Yukiko ga utawanakatta no wa yoru no zyuuni-zi
made da.

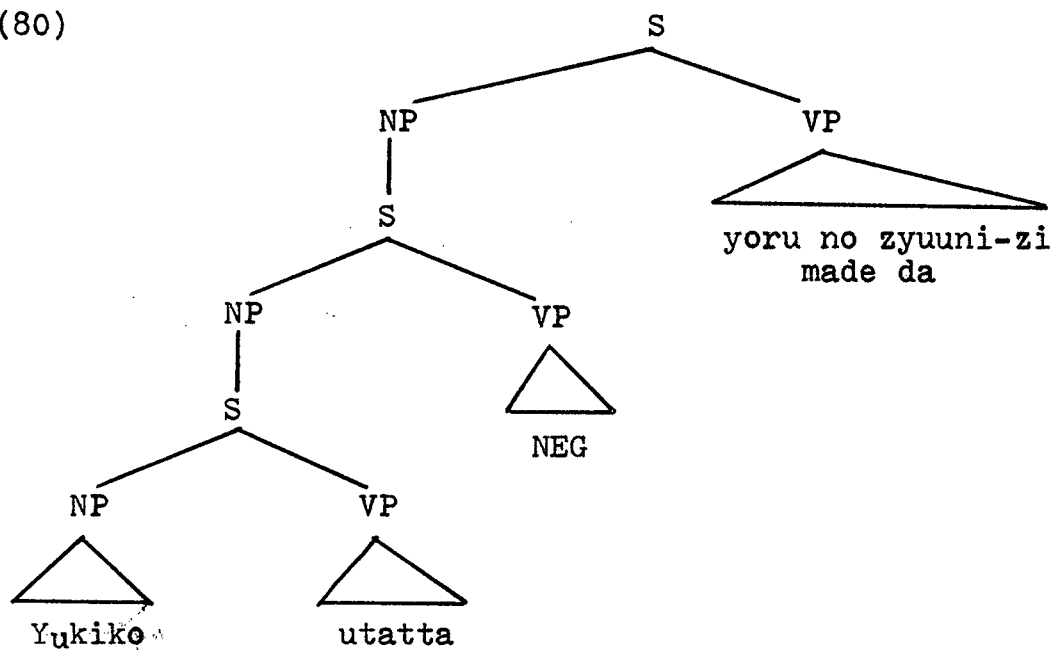
'It is until twelve midnight that Yukiko did
not sing.'

Although on the surface structure, the negative is attached to the main verb of the matrix sentence utawanakatta 'did not sing', the reading of (77) shows that it is the time element that comes within the scope of negation. Therefore, the only way that we could reasonably account for the ambiguity of (76) would be to derive it from the abstract structures underlying (77) and (78). The underlying structure for (77) would be (79), and for (78) would be (80).

(79)



(80)



Note that in (79), the NEG is introduced outside the structure of the embedded sentence, and is above the until phrase, indicating that it is actually the whole sentence that is negated. The command power of the negative extends over the whole of (V_1 made V_2), that is, yoru no zyuuni-zi made utatta 'studied until twelve midnight'. In (80), the NEG dominates only the embedded sentence, showing that 'Yukiko sang' is being negated.

This kind of ambiguity is also true of sentences like (81) with an adverbial of duration.

(81) Taroo wa issyuukan benkyoo sinakatta.

'Taroo didn't study for one week.'

Sentence (81) is ambiguous meaning either that Taroo's not studying lasted for one week, indicating the duration of his not studying:

(82) Taroo ga benkyoo sinakatta no wa issyuukan da.

'It is for one week that Taroo didn't study.'

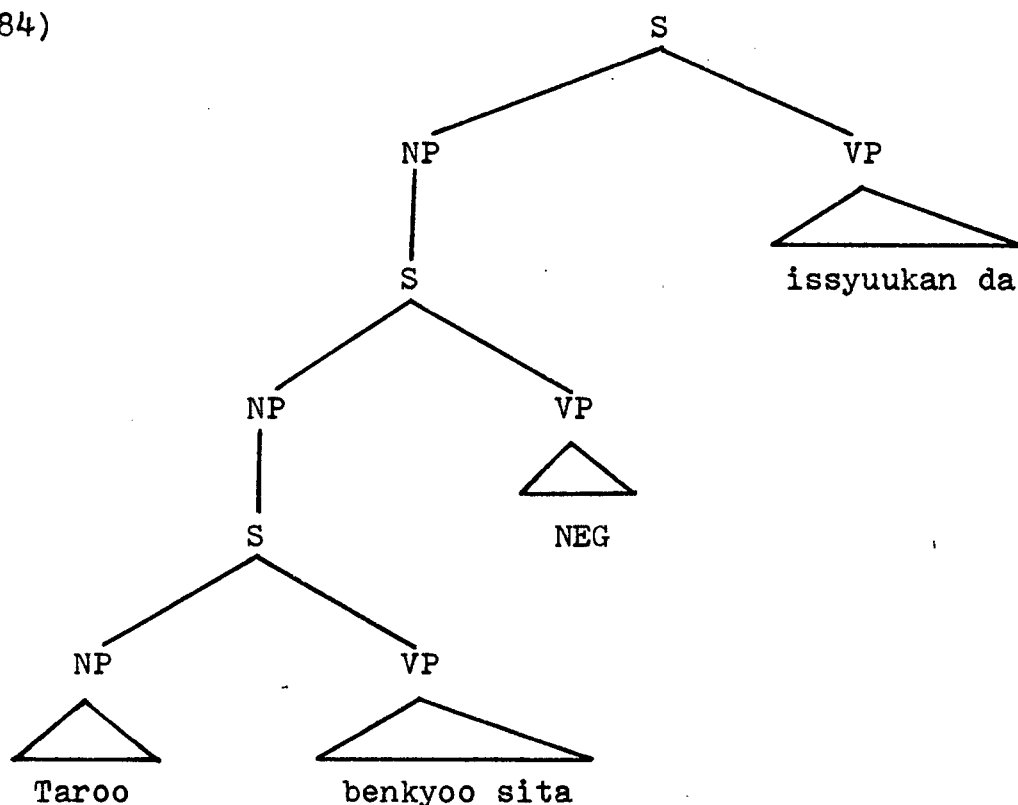
or, that Taroo did study, but he did so for less than one week, where the time element is negated:

(83) Taroo ga benkyoo sita no wa issyuukan de wa nai.

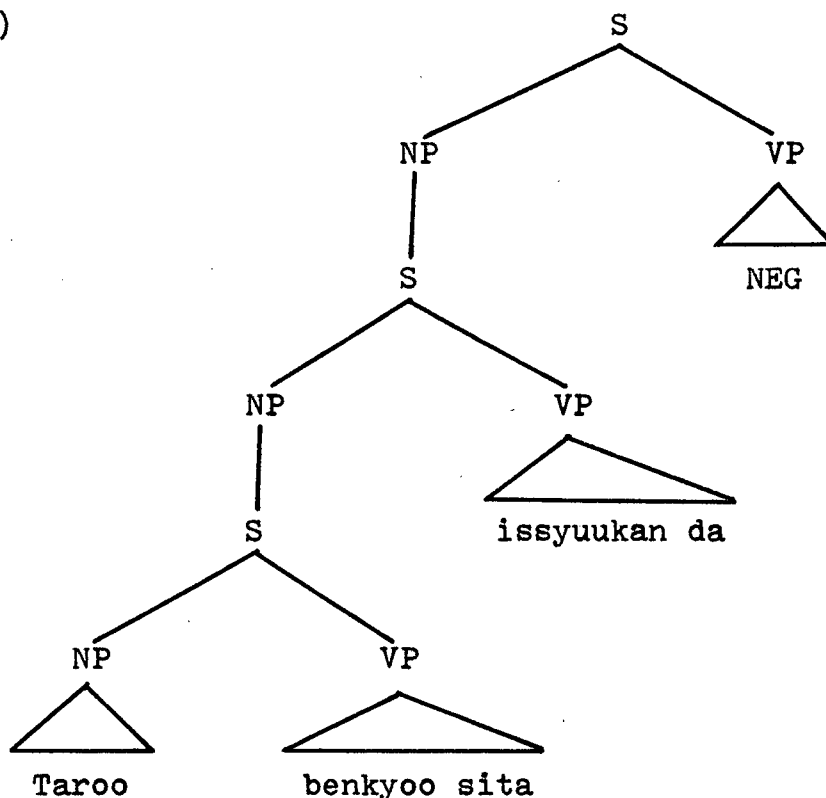
'It is not for one week that Taroo studied.'

Although on the surface structure, the negative is attached to the main verb of the matrix sentence benkyoo sinakatta 'didn't study', the reading of (83) shows that it is the time element that comes within the scope of negation. The difference in meaning between (82) and (83) can again be reflected in their deep structures of (84) and (85).

(84)



(85)



The same goes for the ambiguity of the following sentences, depending on where the negative lies in the deep structure, and what falls within the scope of negation.

(86) Taroo wa hati-zi made gohan o tabenakatta.

'Taroo didn't take (his) meal until eight o'clock.'

(87) Yamada-san wa hiru made hanasanakatta.

'Mr. Yamada didn't talk until noon.'

(88) Kare wa issyuukan hataranakatta.

'He didn't work for a week.'

- (89) Ano roozin wa iti-niti arukanakatta.
'That old man didn't walk the whole day.'
- (90) Akanboo wa hitobanzuu nakanakatta.
'The baby didn't cry throughout the whole night.'

Now observe the following sentences:

- (91) Sibai wa zyuu-zi made owaranakatta.
'The play didn't end until ten o'clock.'
- (92) Karera wa hutukakan hazimenakatta.
'They didn't start for two days.'
- (93) Kega sita kotori wa tugi no hi made sinanakatta.
'The wounded little bird didn't die until the next day.'
- (94) Kisywa wa yoru no ku-zi made tukanakatta.
'The train didn't arrive until nine in the evening.'

The above sentences are all unambiguous and can have only one reading. For example, (91) can be understood only as:

- (95) Sibai ga owaranakatta no wa zyuu-zi made da.
'It is until ten o'clock that the play didn't end.'

Sentence (92) is synonymous with only the reading of:

(96) Karera ga hazimenakatta no wa hutukakan da.

'It is for two days that they didn't start.'

Finally, the only possible reading for (93) and (94) would be (97) and (98) respectively.

(97) Kega sita kotori ga sinanakatta no wa tugi
no hi made da.

'It is until the next day that the wounded little
bird didn't die.'

(98) Kisyā ga tukanakatta no wa yoru no ku-zi made da.

'It is until nine in the evening that the train
didn't arrive.'

In the above examples the negative can have in its domain, only the verbs to which it is attached, for example, owaranakatta 'didn't end', hazimenakatta 'didn't start', sinanakatta 'didn't die', and tukanakatta 'didn't arrive'.

We see that in examples (91)-(94), there can be only one possible reading for them, as opposed to examples (76)-(81) and (86)-(90) which are all ambiguous in at least two readings. The logical reading for this would be that examples (76)-(81) and (86)-(90), contain semantically durative verbs such as utau 'to sing', benkyoo suru 'to study', taberu 'to eat', hanasu 'to talk', hataraku 'to work', aruku 'to walk', and naku 'to cry'. These semantically durative verbs

occurring with either the until phrase or adverbials of duration in a sentence, are ambiguous in at least two ways when negated. This shows that the command power of the sentence-final negative can extend over a wider range. In one reading, the negative commands only the V_2 , such as utau 'to sing' of (76) and benkyoo suru 'to study' of (81). In another reading, the negative commands the whole of (V_1 made/adverbial of duration V_2), such as zyuuni-zi made utau 'to sing until twelve midnight' of (76), and issyuukan benkyoo suru 'to study for one week' of (81). This means that the command power of the negative can extend to the left of either the until clause or the adverbial of duration clause.

On the other hand, sentences having semantically punctual verbs (such as owaru 'to end', hazimeru 'to start', sinu 'to die', and tuku 'to arrive') as in examples (91)-(94), when occurring with either the until phrase or adverbials of duration, do not give rise to any ambiguity at all when negated. They can be understood as having only one reading. In this case, the negative can only command V_2 . However, notice also that sentences containing semantically punctual verbs cannot be used with the until phrase or adverbials of duration unless they are negated, as is evident in the ungrammaticality of the following sentences:

(99) * Sibai wa zyuun-zi made owatta.

'The play ended until ten o'clock.'

(100) * Karera wa hutukakan hazimeta.

'They started for two days.'

(101) * Kega sita kotori wa tugi no hi made sinda.

'The wounded little bird died until the next day.'

(102) * Kisya wa yoru no ku-zi made tuita.

'The train arrived until nine in the evening.'

This is due to the fact that a semantically punctual verb becomes a semantically durative verb when negated, and hence can occur with either the until phrase or adverbials of duration.

1.4. SUMMARY

At this stage, I would like to point out that this paper is based on the assumption that deep structures are the relevant level of grammar for semantic interpretation. The deep structures contain all those elements that contribute to meaning. Together, the deep syntactic structure of a sentence and the meanings of the words used in that structure contribute to the total meaning of the sentence.

We have seen that it is important to determine the position of the NEG in the deep structure, because the

structure of the negative construction and consequently, the semantic interpretation of the sentence is dependent on where the negative lies. A negative sentence may have two or more different meanings depending on where the negative is located in the deep structure and on what falls within the command power of the negative. It is possible to get an ambiguity in a sentence depending on whether the NEG lay within or outside the embedded deep structure sentences. This shows that the syntactical ambiguity of the surface structures of negative sentences, resides in what may be called the "scope of the negative", that is, in what exactly is being negated in the sentence.

To summarize:

- (i) The sentence-final negative formative na in Japanese is derived from a single underlying predicate NEG, which is introduced optionally in the underlying structure as a verb of the "higher" sentence.
- (ii) As we have pointed out before, like the negative, adverbials are also generated in the base as verb phrases of "higher" simplex sentences than the superficial main clause in the surface structure. In sentences containing both adverbials and negatives, the understood order of the adverbials and negatives corresponds to the hierarchy of upper sentences containing these adverbials and negatives. Thus a sentence containing both a negative element and an

adverbial is ambiguous, and can be understood in at least two ways, depending on whether the negative is introduced below or above the adverbial in the underlying structure. This kind of ambiguity is true of sentences containing either the locative, instrumental or time adverbials co-occurring with a negative.

- (iii) It has been noted that unlike other adverbials, the reason adverbials such as node and kara, co-occurring with a negative element in a sentence does not give rise to any ambiguity at all. The sentence-final negative can only command V_2 and cannot command the reason adverbials. Somehow, it seems that the reason adverbials prevent the command power of the negative from extending over to the left of them, unless we first nominalize the S_1 clause, that is, the reason adverbial clause, by the nominalizer no, thus making it a noun clause and then let the negative command the whole "(noun clause) no da". This peculiarity seems to exist only in the case of reason adverbials co-occurring with the negative in a sentence. It has been suggested that perhaps the command power of the negative might be blocked by the factive reason adverbial clause.
- (iv) It has also been observed that semantically durative verbs occurring with either the until phrase or adverbials of duration, are ambiguous when negated.

The extent of the command power of the negative can vary between either the V_2 only or the whole of (V_1 made/adverbial of duration V_2). On the other hand, semantically punctual verbs cannot occur with the until phrase or adverbials of duration unless they are negated. When they occur in negated sentences, the sentences are unambiguous, and the negative can only command V_2 .

FOOTNOTES

1. Chomsky, Noam. 1957. Syntactic Structures. Mouton & Co. 'S-Gravenhage. (pp. 112).
2. The subject marker ga and the object marker o are not specified in the underlying tree structures, since they are predictable and can be introduced by transformation. We are only interested in presenting the outline of the underlying structure.
3. Inoue, Kazuko. 1964. A Study of Japanese Syntax. The University of Michigan, Ph. D. Dissertation. (pp. 116-117).
4. Soga, Matsuo. 1966. Some Syntactic Rules of Modern Colloquial Japanese. The University of Indiana, Ph. D. Dissertation.
5. N. McGloin, in her thesis Some Aspects of Negation in Japanese (1972), has given arguments for the claim that in Japanese, the negative is an underlying intransitive verb which takes a sentential subject.
6. Lawler, John M. 1971. "Any Questions?" Papers from the Seventh Regional Meeting of the Chicago Linguistic Society. University of Chicago, Illinois. (pp. 163).
7. Kuno, Susumu. 1973. "Degrees of Subordination". The Structure of the Japanese Language. The MIT Press. Cambridge, Massachusetts & London, England. (pp. 200-209).

CHAPTER TWO

NEGATIVE TRANSPORTATION

2.1. INTRODUCTION

This chapter will deal mainly on a rule that has been proposed for English called Negative Transportation.¹ Such a rule has been assumed to exist in many other languages as well, and in this chapter, I will investigate whether or not the negative transportation rule exists and is applicable to Japanese. The investigation into the applicability of this rule to Japanese will follow similar lines of arguments that have been presented for English. Before we examine the Japanese examples, I think it would be worthwhile to look into some of the arguments that have been presented for negative transportation rule in English.

2.2. NEGATIVE TRANSPORTATION IN ENGLISH

Charles Fillmore, in his article The Position of Embedding Transformations in a Grammar, first proposed negative transportation as a rule for English. He

proposed the rule in order to account for the relationship between (1a) and (1b), and (2a) and (2b).

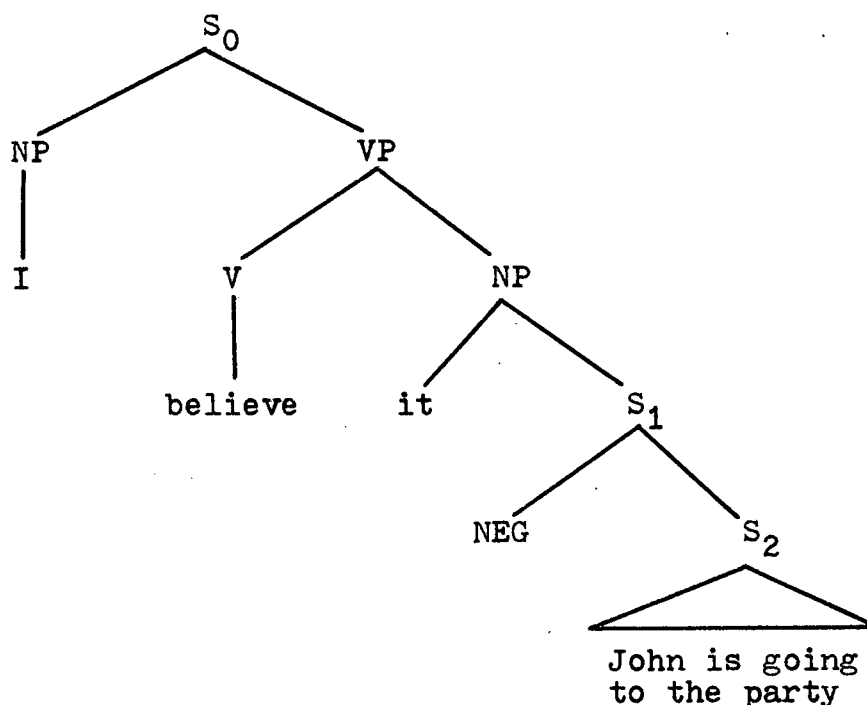
- (1) a. I believe John isn't going to the party.
b. I don't believe John is going to the party.
- (2) a. I thought John didn't like Mary.
b. I didn't think John liked Mary.

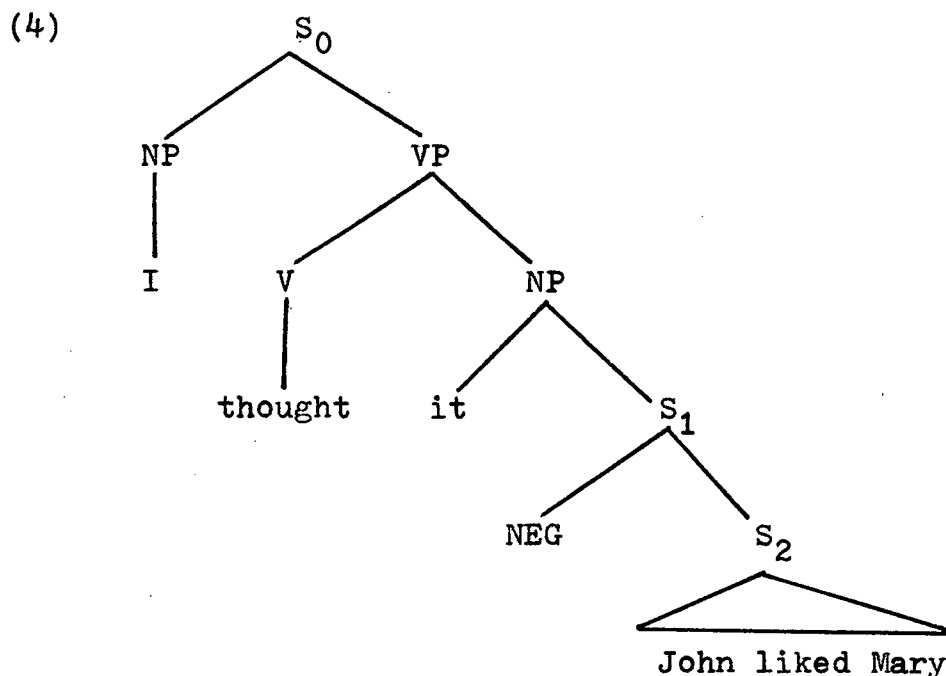
Fillmore has pointed out that for at least one interpretation of the above (b) sentences, its meaning is synonymous to the respective (a) sentences. Take sentences (1a) and (1b) for example. Notice that (1b) is ambiguous. One reading for it can be understood as an ordinary negative, meaning 'It is not so that I believe John is going to the party'. This is simply a denial of the sentence 'I believe John is going to the party', and does not commit the speaker to any belief at all. Another reading of (1b) is synonymous to that of (1a) where the speaker was not denying that he was believing, but rather saying that he believed that it was not true that John is going to the party. In this latter reading, the negative not actually negates the verb of the embedded sentence, although the negative appears overtly in the matrix sentence. The same is also true of (2b), where one reading of which is synonymous to that of (2a). Therefore, in the above examples, the (a) and (b) sentences are semantically equivalent to each other. In other words, for a given

situation, if (a) is true, then (b) is also true and vice versa.

Fillmore claimed that the (b) sentences are derived from the same structures that underlie the respective (a) sentences, and that the negative transportation rule moves the negative out of the embedded sentence to the main sentence. The following (3) and (4) are the underlying structures for (1a) and (2a) respectively.

(3)





Notice that the negative originates in the embedded sentence S_1 . To derive the (b) sentences, the NEG is moved up the tree to the matrix sentence S_0 .

There have been several arguments proposed which seem to provide fairly conclusive evidence that the negative transportation rule exists. One of the arguments cited in defense for the existence of this rule is the simplex sentence condition of the negative polarity adverbial until which appears in the following sentences of (5) and (6).

(5) a. I thought you wouldn't leave until tomorrow.

b. I didn't think you would leave until tomorrow.

(6) a. I believe the plane will not arrive until ten

o'clock.

- b. I don't believe the plane will arrive until
ten o'clock.

The simplex sentence condition states that the until adverbials can only occur with a semantically durative verb, and not with a semantically punctual verb. However, the until adverbials can occur with these semantically punctual verbs such as leave and arrive only if these verbs are negated. Hence the grammaticality of (7a) and the ungrammaticality of (7b).

- (7) a. The plane will not arrive until ten o'clock.
b. * The plane will arrive until ten o'clock.

It has been claimed that (5b) and (6b) are derived from the same structures that underlie (5a) and (6a) respectively. The syntactic argument that has been considered to give crucial support to the semantic grounds for claiming that the (a) and (b) sentences are derived from the same underlying structure is as follows: Notice that sentences (5b) and (6b) are not ambiguous at all and can have only the meaning of their (a) counterparts. This shows that the negative of (5b) and (6b) must have originated in the embedded sentence, and then moved up to the matrix sentence by application of the negative transportation rule. Also,

the negative element that appears in the matrix sentence on the surface of sentences (5b) and (6b) cannot be regularly assigned to the matrix sentence in the deep structure because, if that happens, then the deep structure complements of (5b) and (6b) would then have to be (8) and (9), which are ungrammatical.

(8) * You would leave until tomorrow.

(9) * The plane will arrive until ten o'clock.

The above syntactic argument seems to give a fairly strong support for the existence of the negative transportation rule.

Let us now consider the following sentences where the verbs think and believe of (5b) and (6b) are substituted with say and claim.

(10) * I didn't say that you would leave until tomorrow.

(11) * I didn't claim that the plane would arrive until ten o'clock.

Notice that sentences (10) and (11) are ungrammatical if we substitute verbs such as say and claim for think and believe. Sentence (10) contains the ungrammatical sentence You would leave until tomorrow embedded as the subject of

say, and sentence (11) contains the ungrammatical sentence the plane will arrive until ten o'clock as the object of claim. The negative element required to make leave modified by until tomorrow and arrive modified by until ten o'clock grammatical must be in the same embedded sentence, and not in a higher sentence, as they are in the (10) and (11) examples. The ungrammaticality of (10) and (11) which results from substituting verbs such as say and claim for think and believe reveals that negative transportation is a rule which applies to a relatively small class of verbs non-factive verbs of mental state, and one or two intransitives. Verbs like think, believe, suppose, guess, expect, want, seem, and likely are some of the verbs that undergo negative transportation, while say, claim, feel, realize, hope and many others do not.²

The grammaticality and acceptability of such sentences as (12):

- (12) I don't believe Mary wanted John to leave until tomorrow.

shows that negative transportation is a cyclic rule. The negative in (12) originates in the sentence containing leave of I believe Mary wanted John not to leave until tomorrow, and is then raised in successive cycles first over want to give I believe Mary didn't want John to leave until tomorrow,

and then over believe to derive (12).

Robin Lakoff (1969), gives a strong syntactic argument in defense of the existence of the negative transportation rule. Her argument revolves around the formation of the tag questions. Let us consider some of the crucial points which she examines. In general, with a positive sentence, one gets a negative tag question and vice versa. For example:

(13) a. Mary has arrived, hasn't she?

b. Mary hasn't arrived, has she?

Now, consider the following sentences:

(14) I don't suppose the yankees will win, will they?

(15) John doesn't think the yankees will win, does he?

which are both grammatical.

Tag formation usually applies on the topmost S on the surface structure, and this accounts for the sentence (15), but not sentence (14). It has been claimed that when the topmost S contains a performative verb³ like suppose, then the tag goes with the verb in the next S down. However, this still does not account for sentence (14), since the tag is still in the positive even though the verb win has no overt negative, and hence an apparent violation of the tag formation rule,

which states that a positive statement requires a negative tag and vice versa. The grammaticality of (14) suggests that the negative must have been in the embedded S at the time that the rule of tag formation applied, and then the negative must have been moved up to suppose by a subsequent application of the negative transportation rule. Lakoff argues that this paradox can be accounted for by making the following assumptions:

- (i) A performative abstract verb suppose exists, and that one underlies (15) but not (14).
- (ii) Negative transportation and tag formation rule apply cyclically.

Sentence (16) is considered to be the underlying structure for (14).

(16) ((I suppose) (NEG The yankees will win))

Tag formation first applies on the embedded sentence to give the intermediate string I suppose the yankees won't win, will they? Then negative transportation applies and the negative is raised to suppose, deriving (14). For sentence (15), the situation is different. Lakoff assumes an abstract performative verb suppose underlying (15), and the tag is formed without moving the negative out of the embedded sentence

which is commanded by suppose. (15) is assumed to have the underlying structure of (17).

(17) (I suppose) ((John thinks) (NEG The Yankees will win))

Tag question formation does not apply because there is no performative verb suppose commanding the negative. Instead, negative transportation first applies because the verb think is sensitive to the rule, to give the intermediate string (18).

(18) (I suppose) ((NEG John thinks) (The Yankees will win))

At this stage the negative is commanded by the abstract performative verb suppose, and so tag question formation must apply. Since the verb is negative, a positive tag is attached to the sentence to derive (15). Since the verb suppose is abstract, a further negative transportation rule does not apply.

The two syntactic arguments cited above, that is, the simplex sentence condition of the until adverbial and the tag question formation arguments, seem to provide fairly conclusive evidence for the existence of the negative transportation rule. I have also described briefly the conditions necessary for the negative transportation rule

to apply. One such condition is that the rule is a syntactic rule which can apply cyclically. Another is that the rule applies to a relatively small class of verbs, that is, non-factive verbs of mental state, and one or two intransitives, which are considered to be sensitive to the rule.

2.3. ARGUMENTS FOR NEGATIVE TRANSPORTATION IN JAPANESE

In the previous section, I have briefly explained what negative transportation is, the conditions necessary for the rule to apply, and I have also cited two syntactic arguments which have been considered to give crucial support for the existence of the negative transportation rule. In this section, I will examine some examples in Japanese to see if such a rule does exist in Japanese. It has been assumed that the negative transportation rule is applicable to many natural languages, and if this is the case, I think it would be worthwhile to examine some Japanese examples along similar lines of arguments that have been presented for English, to see if the rule is also applicable to Japanese.

2.3.1. SIMPLEX SENTENCE CONDITION FOR NEGATIVE POLARITY ADVERBIALS AND PARTICLES

One of the arguments that I will examine will be the simplex sentence condition argument which is based on the evidence that the negative has to occur in a simplex sentence, but not necessarily in a sentence embedded in a negative matrix sentence containing a verb or an adjective assumed to be sensitive to the negative transportation rule. In Japanese, there are several adverbials and particles such as kessite, tittomo, sika, tootei, mettani, zenzen, made,⁴ and many more, which require the presence of the negative morpheme in the same simplex sentence at some level of the derivation. This means that such adverbials and particles can occur only with the negative, or with semantically negative verbs and adjectives. Consider the following sentences:

- (19) a. Sekiyu no nedan wa kessite agaranai to omou.
'(I) think the price of oil will never go up.'
- b. Sekiyu no nedan wa kessite agaru to wa omowanai.
'(I) don't think the price of oil will ever go up.'
- c. * Sekiyu no nedan wa kessite agaru.
- (20) a. Nyuugaku siken wa tittomo muzukasikunai to omou.
"(I) think the entrance examination is not difficult at all.'

- b. Nyuugaku siken wa tittomo muzukasii to wa omowanai.
'(I) don't think the entrance examination is difficult at all.'
- c. * Nyuugaku siken wa tittomo muzukasii.
- (21) a. Sonna hanasi wa okaa-san ni sika iwanai de moraitai.
'(I) want (you) not to tell that kind of story to anyone but only to my mother,'
- b. Sonna hanasi wa okaa-san ni sika itte moraitaku nai.
'(I) don't want (you) to tell that kind of story to anyone but only to my mother.'
- c. * Sonna hanasi wa okaa-san ni sika iu.
- (22) a. Boozu wa yasai sika tabenai to kangaerareru.
'It is thought that monks eat nothing but vegetables.'
- b. Boozu wa yasai sika taberu to kangaerarenai.
'It is not thought that monks eat anything but vegetables.'
- c. * Boozu wa yasai sika taberu.
- (23) a. Kotosi Yamada-san wa Amerika e tootei ikenai to omou.
'(I) think Mr. Yamada can't possibly go to America this year.'
- b. Kotosi Yamada-san wa Amerika e tootei ikeru

to wa omowanai.

'(I) don't think Mr. Yamada can possibly go to America this year.'

c. * Kotosi Yamada-san wa Amerika e tootei ikeru.

(24) a. Sensei ni mô kono kanzi ga zenzen yomenai to watakusi wa kangaeru.

'I think even the teacher can't read this Chinese character at all.'

b. Sensei ni mo kono kanzi ga zenzen yomeru to watakusi wa kangaenai.

'I don't think even the teacher can read this Chinese character at all.'

c. * Sensei ni mo kono kanzi ga zenzen yomeru.

(25) a. Kozutumi wa asita made Oosaka ni tukanai to omou.

'(I) think the parcel will not arrive in Osaka until tomorrow.'

b. Kozutumi wa asita made Oosaka ni tuku to wa omowanai.

'(I) don't think the parcel will arrive in Osaka until tomorrow.'

c. * Kozutumi wa asita made Oosaka ni tuku.

The (a) and (b) sentence pairs above are all grammatical and are semantically equivalent. Notice that the (b) sentences are related to the (a) sentences in exactly the

same way as (5b) is related to (5a). The above phenomenon can be explained if we make the following assumptions:

- (i) Just as the English until adverbial co-occurring with a semantically punctual verb requires a negative in the same simplex sentence, certain particles and adverbials in Japanese, such as sika, kessite, tittomo, tootei, zenzen, and made, also require the presence of an overt negative within the same simplex sentence. Hence the ungrammaticality of the (c) sentences which is a direct result of the violation of this simplex sentence condition.
- (ii) However, the (b) examples show that the particles and adverbials can occur without the negative in the embedded sentence, if they are commanded by a certain class of negated verbs or adjectives, such as omowanai 'don't think', kangaenai 'don't think' or don't consider', -te moraitaku nai 'don't want to have someone do', which are considered to be sensitive to the negative transportation rule. Semantically and syntactically, these verbs are considered to be similar to the class of verbs in English within which the negative transportation rule is applicable.
- (iii) The fact that there is no overt negative in the

embedded sentences of the (b) examples, seems to suggest that the negative must have originated in the embedded sentences in the underlying structures, and is then transported to the higher sentences. At this stage, it seems reasonable to assume that the (b) sentences are derived from the same underlying structures of their corresponding (a) sentences, and that there is no way to account for the derivation of the (b) sentences without resorting to the negative transportation rule.

The above argument seems to suggest that the negative transportation rule is relevant and that we do need such a rule in Japanese. If this is so, then we have to assume that the rule is applicable to Japanese too.

At this stage, let us examine more examples to see what class of verbs are sensitive to the negative transportation rule, and whether this class of verbs are the same as those for English.

- (26) a. Hikooki wa asita no asa made tuku to wa
omowanakatta.

'(I) didn't think the plane would arrive
until tomorrow morning.'

- b. Hikooki wa asita no asa made tuku to wa

kangaerarenakatta.

'It was not considered that the plane would arrive until tomorrow morning.'

- c. * Hikooki wa asita no asa made tuku to wa iwanakatta.

'(I) didn't say that the plane will arrive until tomorrow morning.'

- d. * Hikooki wa asita no asa made tuku to wa kiite inakatta.

'(I) didn't hear that the plane would arrive until tomorrow morning.'

- e. ? Hikooki wa asita no asa made tuku to wa sinzinakatta.

'(I) didn't believe that the plane would arrive until tomorrow morning.'

- f. * Hikooki wa asita no asa made tuku to wa kitai sinakatta.

'(I) didn't expect that the plane would arrive until tomorrow morning.'

- g. * Hikooki wa asita no asa made tuku to wa kanzinakatta.

'(I) didn't feel that the plane would arrive until tomorrow morning.'

From the above examples, it seems that omou 'to think' and kangaeru 'to think or to consider' are sensitive to the

negative transportation rule, while iu 'to say', kiku 'to hear', kitai suru 'to expect', and kanziru 'to feel' are not. We have seen earlier, that a verb such as expect is considered to be a negative transport verb for English. However, this fact does not seem to hold for Japanese. The corresponding Japanese verb kitai suru does not seem to be sensitive to the negative transportation rule, and does not allow the negative to be moved out of the embedded sentence to the higher sentence. I have checked with several native speakers of Japanese and they all seem to agree on that. Concerning (e) with the verb sinziru 'to believe', native speakers of Japanese do not seem to agree. Some consider (e) as grammatical, while others do not. From this observation, it appears that the semantic class of verbs within which the negative transportation rule is applicable is the same for both Japanese and English (that is, the class of verbs belonging to the mental state), but the set of verbs within this class that is subject to the rule varies from language to language. While for example, expect in English is subject to the rule, the corresponding Japanese verb is not.

2.3.2. "CONFIRMATORY" QUESTION ARGUMENT

Another argument which can be cited for Japanese and which is rather similar to Robin Lakoff's Tag Question

argument, is perhaps the Japanese "Confirmatory" Question Argument, as suggested by Soga (1972). The Japanese "confirmatory" question formation is one in which the speaker thinks that something is true, and he seeks assurance or confirmation for what he thinks. The following are some examples of the confirmatory questions in Japanese.

- (27) Sonna syuukan wa Amerika ni mo aru to omoimasu
ga, arimasen ka.

Lit. '(I) think that kind of custom exists in America
too, but does (it) not exist (there)?'

'(I) think that kind of custom exists in America
too, doesn't it?'

- (28) John wa o-susi o taberu to omoimasu ga, tabemasen
ka.

Lit. '(I) think John eats susi, but does (he) not eat
(it)?'

'(I) think John eats susi, doesn't he?'

- (29) Raigetaru Taroo wa Amerika e ikanai to omou keredo
ikimasu ka.

Lit. '(I) think Taroo isn't going to America next
month, but is (he) going?'

'(I) think Taroo isn't going to America next
month, is he?'

- (30) Taroo wa Hanako to kekkon sinai to omou keredo
kekkon simasu ka.

Lit. '(I) think Taroo is not marrying Hanako, but is
(he) marrying (her)?'

'(I) think Taroo is not marrying Hanako, is he?'

The underlined portion in the above sentences are the "confirmatory" questions. Notice that these confirmatory questions behave similarly to the English tag questions. Just like the English tag questions, if a statement is positive, the confirmatory question is formed by affixing to it the corresponding negative sentence, and vice versa. Therefore, with respect to their negative-affirmative forms, the behaviour of these confirmatory questions is similar to that of the English tag questions. As the tag question formation provides a strong argument in defense of the negative transportation rule for English, it seems appropriate that we look into some examples of the confirmatory questions in order to evaluate the applicability of the negative transportation rule in Japanese.

Let us consider the following examples:

- (31) a. Taroo wa Amerika e ikanai to watakusi wa omou
keredo ikimasu ka.

Lit. 'I think Taroo isn't going to America, but is
(he) going?'

'I think Taroo isn't going to America, is he?'

- b. Taroo wa Amerika e iku to watakusi wa omowanai
keredo ikimasu ka.

Lit. 'I don't think Taroo is going to America, but is (he) going?'

'I don't think Taroo is going to America, is he?'

c. * Taroo wa Amerika e iku to watakusi wa omowanai keredo ikimasen ka.

Lit. 'I don't think Taroo is going to America, but isn't (he) going?'

'I don't think Taroo is going to America, isn't he?'

d. * Taroo wa Amerika e iku to watakusi wa omowanai keredo soo omoimasu ka.

Lit. 'I don't think Taroo is going to America, but do (I) think so?'

'I don't think Taroo is going to America, do I?'

(32) a. Taroo wa Amerika e iku to Hanako ga omotte inai to omou keredo Hanako wa soo omotte imasu ka.

Lit. '(I) think Hanako doesn't think that Taroo is going to America, but does Hanako think so?'

'(I) think Hanako doesn't think that Taroo is going to America, does she?'

b. ? Taroo wa Amerika e iku to Hanako ga omotte inai keredo Hanako wa soo omotte imasu ka.

Lit. 'Hanako doesn't think that Taroo is going to America, but does (she) think so?'

'Hanako doesn't think that Taroo is going to

America, does she?'

- c. Taroo wa Amerika e iku to Hanako ga omotte
iru to omowanai keredo Hanako wa soo omotte
imasu ka.

Lit. '(I) don't think Hanako thinks that Taroo is
going to America, but does Hanako think so?'
'(I) don't think Hanako thinks that Taroo is
going to America, does she?'

In sentence (31a), the confirmatory question is affirmative and the sentence it is formed on is in the negative. (31c) is ungrammatical as well as (31d). The ungrammaticality of (31d) can easily be accounted for. Omou 'to think' is a verb of mental state and therefore, it is impossible for the subject to question whether what he thinks is true of him. Also omou is used as a performative verb describing an action that is carried out in the act of description, and hence it would be illogical to question it. (31b) is a perfectly grammatical sentence, and yet the confirmatory question is positive, as is the sentence it is formed on. The grammaticality and acceptability of a sentence like (31b) rather than (31c) seems strange at first glance. However, the grammaticality of (31b) can be accounted for in exactly the same way as the grammaticality of sentence (14) was accounted for. Notice also that (31b) is similar to (14). (31b) is derived by first applying confirmatory question formation

on the string Taroo wa Amerika e ikanai to watakusi wa omou 'I think Taroo is not going to America', to give the intermediate string Taroo wa Amerika e ikanai to watakusi wa omou, keredo ikimasu ka 'I think Taroo is not going to America, is he?' Then negative transportation applies moving the negative out of the embedded sentence commanded by omou, which is similar to the English performative verb suppose, and the superficial form of (31b) is produced.

The ungrammaticality of (31c) can now be accounted for. The embedded sentence to which the tag question is affixed originally contains the overt negative nai at the time when confirmatory question formation applies. Hence affixing a negative confirmatory question to a negative statement violates the confirmatory question condition, resulting in an ungrammatical sentence.

Sentence (32a) is similar in structure to (15). (32a) is derived by first applying the negative transportation to the string Taroo wa Amerika e ikanai to Hanako ga omotte iru to omou 'I think Hanako thinks that Taroo is not going to America', to give the intermediate string Taroo wa Amerika e iku to Hanako ga omotte inai to omou 'I think Hanako doesn't think that Taroo is going to America'. Then confirmatory question applies to produce sentence (32a). Notice also that it is possible to apply a further negative transportation rule to (32a) with respect to the performative verb omou 'to think' of another higher sentence in order to derive sentence

(32c). The grammaticality of (32b) is questionable, although as far as its structure is concerned, it should correspond to (15). As pointed out by Soga (1972), this seems to suggest that assuming the existence of an underlying abstract performative verb like omou for Japanese is probably unlikely.

The above examples seem to show that the order of application of negative transportation rule and the confirmatory question formation in Japanese is exactly the same as that for negative transportation rule and tag question formation in English. It also shows that the behaviour and structure of the Japanese confirmatory question is similar to the English tag question. Just as the tag question formation provides fairly conclusive evidence for the existence of the negative transportation rule in English, the above argument and examples given so far seem to give support to the applicability of the negative transportation rule in Japanese.

2.3.3. COUNTEREXAMPLES TO ABOVE TWO ARGUMENTS

The two arguments cited above, that is, the simplex sentence condition for the negative polarity adverbials and particles, and the confirmatory question arguments, seem to provide fairly relevant evidence for the existence of the negative transportation rule in Japanese. It is

true that the examples given so far appear to uphold the assumption that this rule is also applicable to Japanese, just as it is to English. However, there are counterexamples --- some of which can be fairly easily explained but some very challenging --- which does weaken and perhaps discredit our assumption that the negative transportation rule is applicable to Japanese.

Firstly, the simplex sentence condition for the negative polarity adverbials and particles, as cited in section 2.3.1. needs further investigation. We have shown that these negative polarity words are constrained in such a way that they and the negative must command each other at some level of the derivation. In fact, it is only when this mutual command relationship does not hold that sentences like the (c) sentences of (19)-(25) are ungrammatical. Nevertheless, there are some examples in which these negative polarity words can occur in an embedded sentence without an overt negative, and yet the embedded sentence is commanded by a negated verb which does not belong to the omou class of verbs considered to be sensitive to the negative transportation rule. Thus consider the following sentences:

- (33) a. Fuzi-san (ni) sika noboranakatta koto ga aru.
 '(I) have the experience of climbing up only
 Mt. Fuji.'
- b. Fuzi-san (ni) sika nobotta koto ga nai.

'(I) have no other experience but that of climbing up Mt. Fuji.'

c. * Fuzi-san (ni) sika nobotta.

(34) a. Okane ga nakute, pan sika tabenakatta keiken ga aru.

'(I) have an experience that I ate nothing but bread only, because (I) had no money.'

b. Okane ga nakute, pan sika tabeta keiken ga nai.

'(I) don't have (any other) experience but that of eating bread only, because (I) had no money.'

c. * Okane ga nakute, pan sika tabeta.

(35) a. Yamada-san wa o-sake o kessite nomanai koto ga aru.

'There are times when Mr. Yamada never drinks sake.'

b. Yamada-san wa o-sake o kessite nomu koto ga nai.

'There are never times when Mr. Yamada drinks sake.'

c. * Yamada-san wa o-sake o kessite nomu.

d. Yamada-san wa o-sake o nomu koto ga kessite nai.

'There are never times when Mr. Yamada drinks sake.'

- (36) a. Taroo wa tiisai toki kara ima made zenzen
byooki o sinakatta koto ga aru.
'Since (he) was small until now, there are
times when Taroo was never ill.'
- b. Taroo wa tiisai toki kara ima made zenzen
byooki o sita koto ga nai.
'Since (he) was small until now, there are
never times when Taroo was ill.'
- c. * Taroo wa tiisai toki kara ima made zenzen
byooki o sita.
- d. Taroo wa tiisai toki kara ima made byooki o
sita koto ga zenzen nai.
'Since (he) was small until now, there are
never times when Taroo was ill.'
- (37) a. ? Tanaka-san ga tootei kekkon-dekinai to yume
ni mo omou.
'(I) even dream that Mr. Tanaka will not
possibly marry.'
- b. Tanaka-san ga tootei kekkon-dekiru to wa yume
ni mo omowanai.
'(I) don't even dream that Mr. Tanaka will
possibly marry.'
- c. * Tanaka-san ga tootei kekkon-dekiru.
- d. Tanaka-san ga kekkon-dekiru to wa tootei yume
ni mo omowanai.
'(I) don't even possibly dream that Mr. Tanaka

will marry.'

- (38) a. ? Byooki sita ozii-san ga zenzen naoranai
daroo to kitai-site ita.

'(I) was expecting that my sick grandfather
would not get well at all.'

- b. Byooki sita ozii-san ga zenzen naoru daroo to
wa kitai-site inakatta.

'(I) was not expecting that my sick grandfather
would get well at all.'

- c. * Byooki sita ozii-san ga zenzen naoru daroo.

- d. Byooki sita ozii-san ga naoru daroo to wa
zenzen kitai-site inakatta.

'(I) was not expecting at all that my sick
grandfather would get well.'

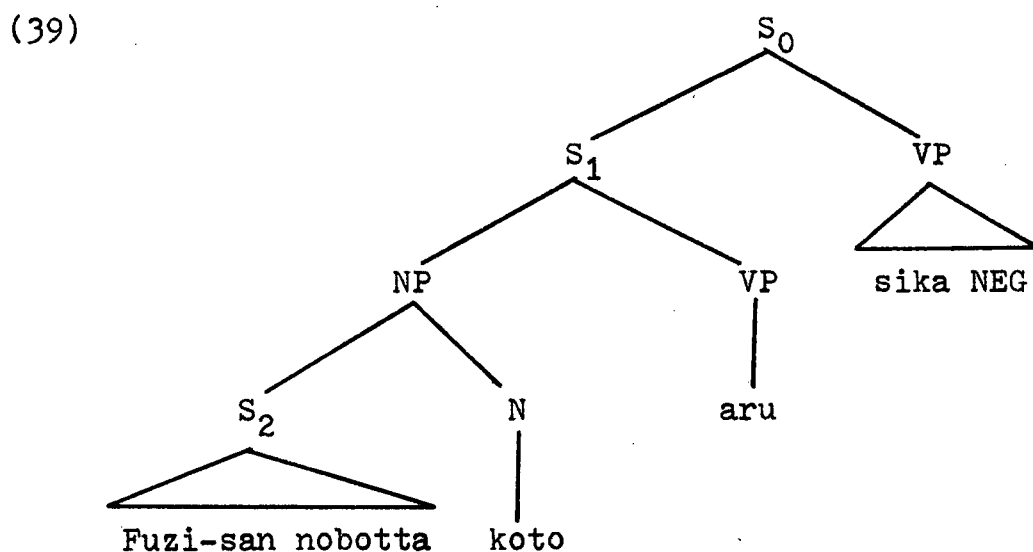
Notice that in the (b) examples above, the particle sika and the adverbials such as kessite, zenzen, and tootei occur in the embedded sentences without any overt negative, and the verbs commanding them, although having the negative, do not belong to the class of verbs considered to be sensitive to the negative transportation rule. The (b) sentences violate the simplex sentence condition, and yet they are perfectly grammatical sentences. It cannot be considered that the negative transportation applies here optionally, for the verb aru 'to exist' is not a negative transport verb. Another piece of evidence which renders the optional

application of the rule unlikely is the fact that the (a) and (b) sentences have different meanings. The semantic difference between them is quite different from that between the (a) and (b) sentences of (19)-(25). Also, as Soga (1972) has pointed out, the acceptability of a sentence like (38a) is questionable. This is probably due to the nature of the verb kitai-suru 'to expect'. It seems that this verb has a feature indicating that what the speaker expects has to be something good. Therefore, (38a) can be semantically acceptable only if the speaker hates his grandfather and wishes him to die. On the other hand, (b) and (d) of (38) do not require such an interpretation. Therefore, based on this observation, it seems quite clear that we couldn't possibly derive (b) and (d) from (a) by simply applying the negative transportation rule.

Notice too that the adverbials kessite of (35d), zenzen of (36d), tootei of (37d), and zenzen of (38d), actually modify the verb of the matrix sentence. In (35)-(38), the adverbials in the (b) sentences, although they are considered to exist within the embedded sentence on the surface, actually modify the verb of the main sentence, just like the adverbials in the (d) sentences do. To most native speakers of Japanese, the (d) sentences seem to be more natural than the (b) sentences, although the (b) sentences are also acceptable.

The above counterexamples show quite clearly that we cannot resort to the negative transportation rule to explain

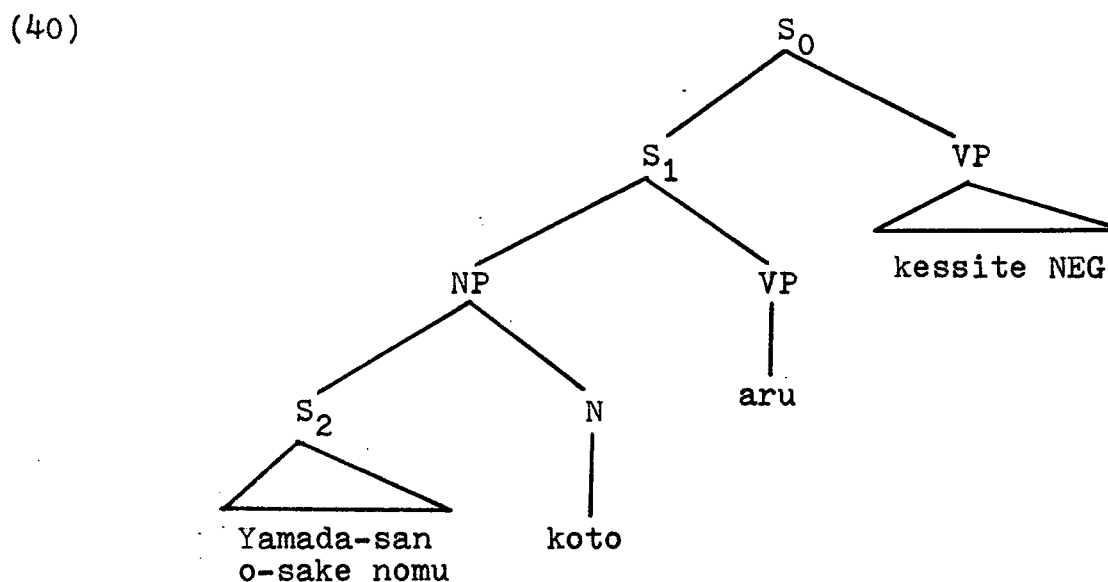
the grammaticality of the (b) sentences. If this is the case, how then can we justify the grammaticality of the (b) sentences? A solution to this problem would be to consider these adverbials and particles (such as kessite, tittomo, zenzen, and sika) and the negative as forming a unit predicate introduced as verb phrases of the "higher" sentences in the underlying structure, a treatment suggested by Soga (1972).⁵ A similar treatment is also employed in McGloin (1972). Sentence (33b) would then be considered to have an underlying structure similar to:



In (39), sika is introduced together with the negative as a VP in the higher sentence. By a transformational rule,⁶ sika is lowered into S_1 and attached to the lower NP koto to produce the intermediate string: Fuzi-san ni nobotta koto

sika nai '(I) have only the experience of climbing up Mt. Fuji'. Then sika is further lowered into S_2 and attached to the NP Fuzi-san to produce sentence (33b).

Sentence (35b), with the adverbial kessite, can also be accounted for in the same manner by introducing kessite together with the negative in the "higher" sentence and then attaching kessite to appropriate verbs or adjectives in the lower sentence. For instance, (35b) would have the logical structure of:



Kessite in (40) will be attached to the verb it immediately commands, that is aru, to derive the intermediate string: Yamada-san wa o-sake o nomu koto ga kessite nai 'There are never times when Mr. Yamada drinks sake'. Notice that this

is similar to (35d). To derive (35b), kessite is further lowered and attached to the verb nomu.

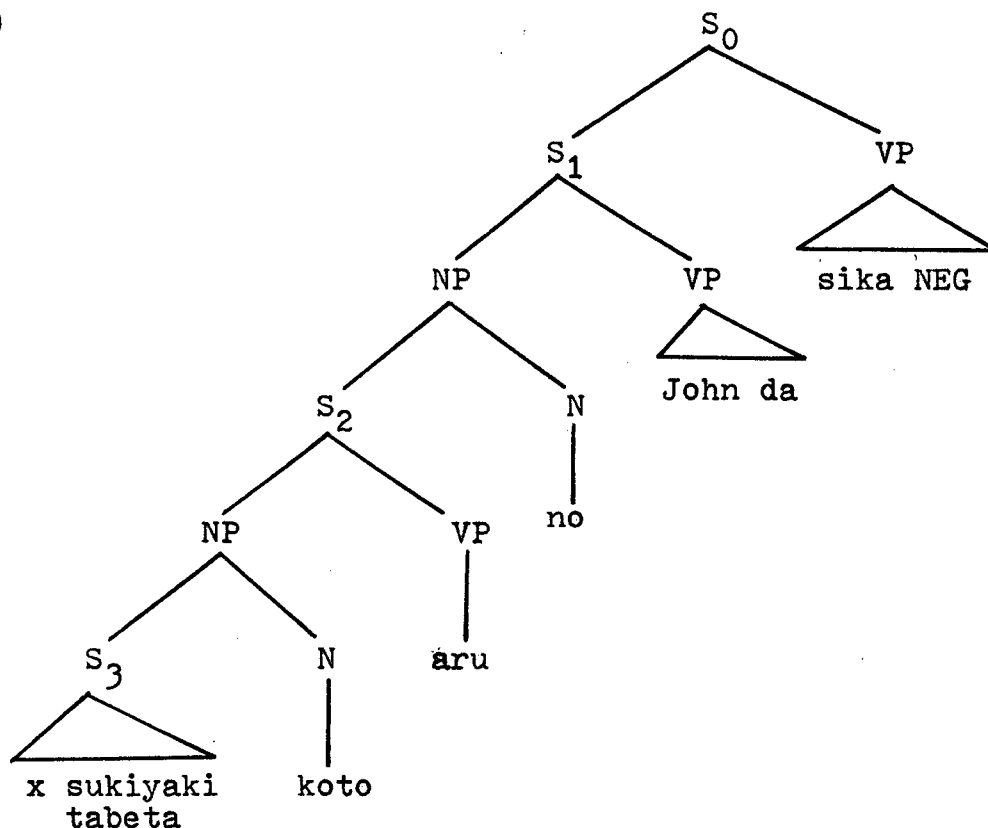
Sentences (34b), (36b), (37b) and (38b) can all be accounted for in a similar manner. The above treatment enables us, to a certain extent, to account for the grammaticality of the (b) sentences without resorting to the negative transportation rule.

Now, let us look at a different example where the sika is attached to the subject of the sentence instead of the direct object.⁷ Consider the following sentences:

- (41) a. John sika sukiyaki o tabenakatta koto ga aru.
 'John is the only one who has the experience
 of eating sukiyaki.'
- b. John sika sukiyaki o tabeta koto ga nai.
 'John is the only one who has no other
 experience but that of eating sukiyaki.'

Just like (33)-(38), (41b) could not have been derived from (41a), by applying the negative transportation rule which moves the negative out of the embedded sentence to the matrix sentence. (41b) is considered to have the following underlying structure:

(42)



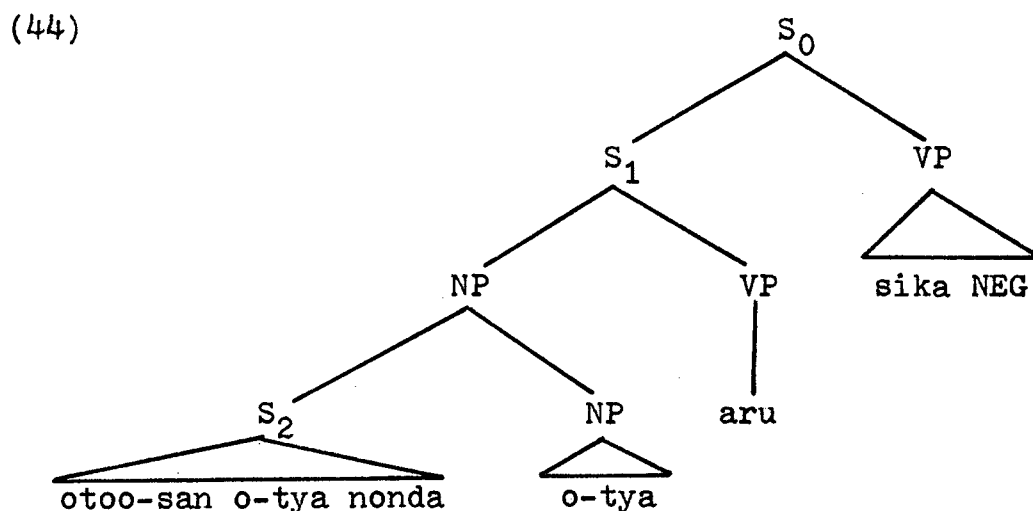
To derive (41b), sika is first lowered into S_1 and attached to the NP John to produce the intermediate string: Sukiyaki o tabeta koto ga aru no wa John sika de nai 'The one who has the experience of eating sukiyaki is John only.' The next step is to apply a transformation rule⁸ which preposes John sika to derive (41b).

So far, Soga's treatment seems almost successful in accounting for the grammaticality of sentences such as the (b) sentences of (33)-(38) and (41). However, it should be pointed out that Soga's treatment also leaves a serious

problem. His treatment seems to fail when it comes to explaining sentences co-occurring with phrases other than koto ga nai or keiken ga nai. Observe the following sentences:

- (43) a. Otoo-san ga nonda o-tya sika nai.
 'There is no other (kind of) tea except that which father drinks.'
- b. * Otoo-san sika nonda o-tya ga nai.
 'The tea that was drunk, is none other than father.'
- c. Otoo-san sika nomanakatta o-tya ga aru.
 'There is the tea that nobody other than father drinks.'

(43a) would have the logical structure of (44).



Following Soga's treatment, sika can be lowered into S_1 and attached to the NP o-tya to produce sentence (43a). Up to this stage the treatment seems to work. Accordingly, sika can be lowered further and attached to the NP of S_2 , as in (39) and (40). However, notice that if sika in (44) is lowered further and attached to the NP of S_2 , it will produce the ungrammatical sentence (43b). Thus, Soga's treatment has this defect, and ends up deriving an ungrammatical sentence.

The above observation seems to suggest that perhaps sika lowering can be applicable only to the highest NP. If there is a second lowering of sika, then the meaning of the sentence will be totally different, as can be noticed in the semantic gap between (43a) and (43b). On the basis of the above observation, we may perhaps posit the following:

- (i) The attachment of sika to noun phrases of lower sentences is perhaps restricted.
- (ii) Soga's examples with koto ga nai and keiken ga nai should be treated as exceptional cases. The second sika lowering should perhaps be restricted to only koto ga nai and keiken ga nai.
- (iii) Soga's generalization is perhaps over-simplified and cannot apply with respect to the above (42).

At this stage I do believe the solution lies in restricting the sika lowering to the highest NP. However, why that is so is unclear at present. For the other adverbs such as kessite, tootei and zenzen, the same may perhaps be the case; the attachment may perhaps be applied only to the highest NP. However, at present it is still unclear. This problem will, therefore, be left open for future research.

The counterexamples cited above show that sika, kessite, tootei and zenzen, which must co-occur with the negative in a simplex sentence, can still occur in an affirmative embedded sentence, so long as the verb of the main sentence contains a negative, even though the negated verb may not be a negative transport verb. This evidence renders the application of the negative transportation rule to Japanese unlikely and greatly weakens the evidence cited in support for the possible existence of the negative transportation rule in Japanese.

It has been pointed out by Soga (1972) that a sentence like:

- (45) a. I didn't believe she was not stupid but I
 didn't believe she was stupid either, was
 she?
- b. * I didn't believe she was not stupid but I
 believed she was not stupid either, was she?

presents a strong counterexample to Lakoff's proposal for

the tag question argument. Notice that the tag question that is formed on the second half of sentence (45a) is positive, as is the embedded sentence it is formed on. The ungrammaticality of (45b) leads us to believe that the negative of didn't believe in the second half of the sentence could not possibly have originated in the embedded sentence, and this renders the application of the negative transportation rule unlikely.

Similar examples also exist in Japanese. Consider the following sentences:

- (46) a. Tanaka-san wa bimboo da to kessite omowanakatta keredo kanemoti da to mo yume ni mo omowanakatta.
'(I) never thought that Mr. Tanaka was poor, but (I) didn't even dream that (he) was rich either.'
- b. ? Tanaka-san wa bimboo da to kessite omowanakatta keredo kanemoti de wa nai to yume ni mo omotta.
'(I) never thought that Mr. Tanaka was poor, but (I) even dreamt that (he) was not rich either.'
- c. Tanaka-san wa bimboo da to kessite omowanakatta keredo kanemoti da to yume ni mo omowanakatta ga, Tanaka-san wa kanemoti desita ka.
'(I) never thought that Mr. Tanaka was poor,

but (I) didn't even dream that he was rich,
but was Mr. Tanaka rich?'

The negative in the second half of (46a) cannot be considered to have derived from the embedded sentence by the application of the negative transportation rule. The evidence that renders the application of the negative transportation rule unlikely is the fact that (46a) and (46b) have different meanings, where in (46b) the negative has been moved into the embedded sentence. The acceptability of (46b) is even doubtful. However, notice that in (46c), the confirmatory question is positive in spite of the fact that the sentence it is formed on could not have contained the negative. How do we account for this strange phenomenon?

Soga (1972) states that for such examples, the negative must be considered to be derived from the higher sentence, and proposed that their grammaticality be explained on the basis of inferential co-occurrence. Consider the following:⁹

(47) $S \longrightarrow (-S) / -V$
where V commands S

According to Soga, there exists a group of omou-like or suppose-like verbs which inferentially works with a first person subject according to rule (47) above. A sentence commanded by one of these negated verbs (the verb may be in

the affirmative if it is semantically negative, such as doubt) receives a mild negative interpretation by inference.

On the basis of (47), we can then account for the grammaticality of (45a) and (46c). The embedded sentences of the second half of (45a) and (46c) are interpreted as mild negative statements by inference, and hence allow a positive tag question and a positive confirmatory question to be formed on them.

Sentences such as:

- (48) Otoo-san ga asita made kaette kuru no wa
utagawasii keredo kaette kimasu ka.

'It is doubtful that father will come home until tomorrow, but will (he)?'

- (49) I doubt if they will even lift a finger to help,
will they?

can be easily explained in a similar way. Sentences (48) and (49) contain the verbs utagawasii and doubt, which, although are in the affirmative, are semantically negative. Therefore, the embedded sentences commanded by these verbs inferentially receive a negative interpretation, which in turn co-occur with the made adverbial and the lift a finger phrase, which normally would require that a negative be present in the same sentence in deep structure. Notice that this also accounts for the formation of the positive

confirmatory question and the positive tag question.

The above observation seems to be crucial. On the basis of such counterexamples, it seems doubtful that we can depend on the confirmatory question as evidence for the existence and the applicability of the negative transportation rule in Japanese.

McGloin in (1972), states that the optional rule of negative transportation is required for nominalizers like hazu 'expect' and tumori 'intend'. Observe the following sentences:

- (50) a. Tanaka-san wa asita made tukanai hazu da.
'It is the expectation that Mr. Tanaka will not arrive until tomorrow.'
- b. Tanaka-san wa asita made tuku hazu de wa nai.
'It is not the expectation that Mr. Tanaka will arrive until tomorrow.'
- c. Tanaka-san wa asita made tuku hazu ga nai.
'It is not the expectation that Mr. Tanaka will arrive until tomorrow.'
- d. * Tanaka-san wa asita made tukanai hazu ga aru.
- (51) a. Yamada-san wa nitiyoobi made konai tumori da.
'It is the intention that Mr. Yamada will not come until Sunday.'
- b. Yamada-san wa nitiyoobi made kuru tumori de wa

nai.

'It is not the intention that Mr. Yamada will come until Sunday.'

- c. Yamada-san wa nitiiyooobi made kuru tumori ga nai.

'It is not the intention that Mr. Yamada will come until Sunday.'

- d. * Yamada-san wa asita made konai tumori ga aru.

According to McGloin, the sentences like (a) and (b) above should be synonymous, and that the (b) sentences are derived from the (a) sentences by the optional application of the negative transportation rule. However, if we were to examine the sentences more closely, we will notice that the (a) and (b) sentences of (50) and (51) are not synonymous in the least. In (50a), the speaker expects Mr. Tanaka not to arrive, and the expectation of Mr. Tanaka's not arriving is being affirmed, while in (50b) the speaker does not expect Mr. Tanaka to arrive, and here the expectation of Mr. Tanaka's arrival is being denied. The same is true of (51a) where the intention of Mr. Yamada's not coming is being affirmed, while in (51b) the intention of his coming is being denied. On the basis of this semantic difference, it cannot be said that negative transportation applies here optionally.

Another piece of evidence which renders the optional

application of the negative transportation rule to hazu and tumori unlikely is the fact that ungrammatical sentences like (d) would have to underlie the (c) sentences. If this rule does apply optionally to hazu and tumori, as McGloin has stated, then the (c) sentences should actually be derived from the underlying structures of (d) which are ungrammatical sentences themselves. Notice that the negative that is attached to the verb of the matrix sentence in (50c) hazu ga nai 'It is not the expectation', should actually be derived from the embedded sentence of (50d) Tanaka-san ga asita made tukanai 'Mr. Tanaka will not arrive until tomorrow', by the application of the negative transportation rule. The same would be true of (51c), where the negative that is attached to the verb of the matrix sentence tumori ga nai 'it is not the intention', would be considered to have been derived from the embedded sentence of (51d) Yamada-san ga nitiyoobi made konai 'Mr. Yamada will not come until Sunday', by the application of the negative transportation rule. However, notice also that (50d) and (51d) are ungrammatical and therefore, could not possibly form the underlying structures for (50c) and (51c). On the basis of the above observations, I must conclude that positing an optional application of the negative transportation rule for nominalizers like hazu and tumori, as McGloin has done, is an insufficient generalization.

It seems that the only possible way to account for the grammaticality of (50b), (51b), (50c) and (51c), would be

on the basis of inferential co-occurrence. Following (47), it seems possible to interpret inferentially the embedded sentence of (50b) Tanaka-san ga toku hazude wa nai 'It is not expected that Mr. Tanaka will arrive' as something like Tanaka-san ga tukanai 'Mr. Tanaka won't arrive' which will then co-exist with the asita made 'until tomorrow' phrase. (51b) can be accounted for in the same way. The embedded sentence there inferentially receives a negative interpretation, which in turn co-occurs with the nitiyoobi made 'until Sunday' phrase. The same explanation can also be used to account for sentences (50c) and (51c).

2.4. CONCLUSION

The simplex sentence condition for the negative polarity adverbials and particles such as kessite, tootei, zenzen, sika and made, and the confirmatory question formation have been presented as arguments for the support of the negative transportation rule in Japanese. However, I have also cited several counterexamples which call the whole argument into question. The condition which stated that kessite, tootei, zenzen, sika and made must co-occur with the negative within a simplex sentence cannot always be maintained with regards to the embedded sentence. It seems that they can still occur in affirmative sentences, so long as the main verbs are

negated, even though the main verbs may not be negative transport verbs. With regards to the confirmatory question formation, the condition which states that if the statement is positive, a negative confirmatory question should be affixed to it and vice versa, is not always maintained either. The counterexamples presented seem to violate this condition and yet they are grammatical sentences. On the basis of these counterexamples, it seems that we cannot rely on these two arguments for the support of the negative transportation rule in Japanese. The counterexamples cited greatly weaken the justifications for the existence of the negative transportation rule in Japanese.

A possible solution proposed for sentences with sika, kessite, tootei, zenzen and made, which cannot be explained by the application of the negative transportation rule, would be to consider them and the negative as forming a unit predicate introduced in the "higher" sentence, and then lowered appropriately. However, it also has been pointed out that this proposal has its defects. For the solution, it is proposed that a further restriction is necessary for the lowering of sika. For the others such as kessite, tootei, and zenzen, it is not clear at this point. With regards to the sentences with confirmatory questions and made adverbials where we cannot resort to the negative transportation rule, it is proposed that their respective grammatical forms be explained on the basis of inferential co-occurrence.

FOOTNOTES

1. This rule of negative transportation has been discussed under a variety of terms. For example, it is termed negative transportation in Fillmore (1963), R. Lakoff (1969) and M. Soga (1972), as negative absorption in Klima (1964), as not-transportation in G. Lakoff (1970a), and as negative raising in J. Lindholm (1969) and L. Horn (1971).

2. Notice that the negative transport verbs belong to several semantic classes. However, we might expect these verbs to share certain properties so that generalizations would be possible, which would apply to all such verbs. One such generalization, as observed by Paul and Carol Kiparsky (from Lakoff 1970a), is that negative transportation never occurs with factive verbs. Lakoff (1970a) has related this to D. Bolinger's observation. According to Bolinger, negative transported sentences like (1b) and (2b), seem to convey greater uncertainty in the speaker's mind than their non-transported counterparts of (1a) and (2a). Lakoff points out that since it is presupposed that the subject of a factive verb knows that the complement of the verb is true, he cannot be uncertain about it. If negative transportation conveys uncertainty, then for strictly semantic reasons, the rule cannot apply with factive verbs.

3. The performative verbs are those verbs which must be used with the first person subject and usually have second person direct or indirect objects in the deep structure. They must be affirmative and non-negative, they must be used in the present tense and non-repetitively. These performative verbs belong to a large class of true verbs which includes those such as ask, beg, command, order, propose, demand, request, say, require, inform, instruct, beseech, advise, claim, offer, enquire, sentence, warn, grant, enquire, and many more.

The main verb of the following examples (a)-(c) are all [+ performative].

- (a) I order you to leave.
- (b) I promise you that I will return.
- (c) I advise you to see a doctor.

For a detailed discussion on performative verbs and their properties, see J.L. Austin (1962). See also J.R. Ross on "On Declarative Sentences" from Jacobs and Rosenbaum (1970).

4. As it has been pointed out in section 1.3.2.3., with made adverbials, the verb occurring in the sentence must be

negated if it is a semantically punctual verb.

5. This treatment would be somewhat similar to that proposed earlier in section 1.3.2.1., where adverbials such as the locative, time and instrumental adverbials are considered to be derived from verb phrases of "higher" simplex sentences than the ones that appear as the main clauses in the surface structures.

6. The transformational rule which attaches sika to a lower NP is somewhat similar to the wa attachment rule proposed by Shige-Yuki Kuroda.

7. I am indebted to M. Soga for this observation.

8. This noun phrase preposing transformation is an independently motivated rule which is similar to that which preposes the noun phrases of John and Ford in (ia) and (iia) to produce the surface structures of (ib) and (iib).

- (i) a. Wakaru no wa John desu.
'(The one) who understands is John.'
- b. John ga wakaru.
'John understands.'
- (ii) a. Daitooryoo wa Ford desu.
'The President is Ford.'
- b. Ford ga daitooryoo desu.
'Ford is the President.'

9. Soga, Matsuo. 1972. "Negative Transportation and Cross-Linguistic Negative Evidence". Papers in Japanese Linguistics. University of California, Berkeley. (pp. 116).

CHAPTER THREE

JAPANESE NEGATIVE QUESTIONS AND YES-NO RESPONSE

3.1. INTRODUCTION

This chapter will look into the problems and peculiarities involved with the Japanese negative questions and the yes-no responses that they elicit. I will attempt to give logical explanations for the ambiguity of negative sentences in Japanese, and will attempt to explain both the semantic and syntactic characteristics of such questions. Furthermore, I will examine various examples of Japanese negative questions and their answers represented by hai 'yes' and ie 'no', and will attempt to find out a simple and logical way of explaining the syntactic and semantic relationship between the questions and their answers.

In recent years, several analyses have been proposed (Shibatani: 1972, Kuno: 1973, Soga: 1973, Hojo: 1974) dealing with the explication of the Japanese negative questions and the relationship between these negative questions and their responses. Shibatani (1972) proposed that the rules for appropriate answers to Japanese negative questions involve conversational implications. Soga (1973)

attempts to explain the peculiar use of hai and ie as answers to negative questions on the basis of the extralinguistic phenomenon of presupposition. So far, the analyses proposed have all been purely semantically motivated. Hojo (1974), on the other hand, attempts to treat the ambiguity of the Japanese negative questions as a syntactic problem, and proposed that the relationship between the questions and the answers be explained in terms of the logic governing, what he calls, the response elicitation questions.

The analyses proposed have given us various insightful explanations concerning the peculiarities of the Japanese negative questions and their responses. The analysis in this chapter will incorporate the theories and arguments that have been proposed so far.

3.2. NEGATIVE QUESTIONS AND THEIR RESPONSES

3.2.1. SYNTACTIC AMBIGUITY OF NEGATIVE QUESTIONS

Interrogative sentences in Japanese can be phrased positively or negatively, such as tabemasu ka 'Will you eat?' and tabemasen ka 'Won't you eat?'. The negatively phrased questions are the ones that give rise to syntactic ambiguity and often elicit unpredictable yes-no response. Observe the following conversations by speakers A and B:

(1) Speaker A : Kaimono e ikimasen ka.

'It is true that you are not going shopping?'

Speaker B : Hai, ikimasen.

'Yes, I'm not going.'

Iie, ikimasu.

'No, I'm going.'

(2) Speaker A : Kaimono e ikimasen ka.

'Aren't you going shopping?'

Speaker B : Hai, ikimasu.

'Yes, I'm going.'

Iie, ikimasen.

'No, I'm not going.'

Notice that Japanese negative questions like (1) and (2) above, although they appear to be structurally similar on the surface, are syntactically ambiguous, and can elicit responses like those of Speaker B in (1) as well as ones like those of Speaker B in (2). The hai and iie responses by Speaker B in (1) introduce both affirmative and negative elements in the same single response, while those by Speaker B in (2) are strictly affirmative or negative.

The same is also true of the following examples:

(3) Speaker A : Kono hen ni wa restoran ga arimasen

ka.

'Is it true that there isn't any
restaurant around here?'

Speaker B : Hai, arimasen.

'Yes, there isn't.'

Iie, arimasu.

'No, there is.'

(4) Speaker A : Kono hen ni wa restoran ga arimasen
ka.

'Isn't there a restaurant around
here?'

Speaker B : Hai, arimasu.

'Yes, there is.'

Iie, arimasen.

'No, there isn't.'

(5) Speaker A : Asa-gohan o tabemasen ka.

'Is it true that you won't eat
breakfast?'

Speaker B : Hai, tabemasen.

'Yes, I won't.'

Iie, tabemasu.

'No, I will.'

(6) Speaker A : Asa-gohan o tabemasen ka.

'Won't you eat breakfast?'

Speaker B : Hai, tabemasu.

'Yes, I will.'

Iie, tabemasen.

'No, I won't.'

(7) Speaker A : Kono hen wa sizuka de wa arimasen ka.

'Is it true that it is not quiet
around here?'

Speaker B : Hai, sizuka de wa arimasen.

'Yes, it isn't quiet.'

Iie, sizuka desu.

'No, it is quiet.'

(8) Speaker A : Kono hen wa sizuka de wa arimasen ka.

'Isn't it quiet around here?'

Speaker B : Hai, sizuka desu.

'Yes, it is quiet.'

Iie, sizuka de wa arimasen.

'No, it isn't quiet.'

The (3) and (4), (5) and (6), and (7) and (8) question pairs above are syntactically and therefore semantically ambiguous in exactly the same way as (1) and (2) are, and they elicit two different kinds of responses, depending on how the questions are being interpreted by the hearer. It

seems that in the course of normal conversations, the hearer must identify certain rules and interpret the negative questions in such a way as to be able to disambiguate them and to give the appropriate responses. The problem at issue is how do we relate the responses to the questions, and what are the rules governing the appropriate responses to the negative questions. It is clear from the above examples, that the responses cannot be predicted from the question utterances alone due to their syntactic ambiguity. I will come back to this question of syntactic ambiguity in section 3.2.3.

3.2.2. PRESUPPOSITIONAL INFORMATION AND CONVERSATIONAL IMPLICATIONS

According to the analysis proposed by Soga (1973), the peculiar use of hai and iie as responses to negative questions can be explained by the incorporation of presuppositional information. This extra-linguistic phenomenon of presupposition, that is, the conception in the mind of the speaker which he believes or tends to believe to be true, may be implied or present only in the context. Hence in the normal course of conversation, the listener must identify and interpret them in such a way as to be able to give the appropriate response. For example, in (1) the listener

interprets the question as containing a negative presupposition, that is, speaker A presupposes that speaker B is not going shopping, and therefore seeks affirmation or information on the truth value of his presupposition. (1) should actually have the structure of (9):

(9) Speaker A : (Anata wa kaimono e ikanai to kiita
ga, hontoo ni) kaimono e ikimasen ka.
(Osiete kudasai).

'(I heard that you aren't going
shopping, but is it true that) you are
not going shopping? (Please tell me).

In the course of conversation, only the underlined part is actually spoken by speaker A, while the part in parentheses may either be implied or present only in the context. The appropriate answers to this should be Hai, ikimasen 'Yes, I'm not going' where speaker A's negative presupposition is being affirmed, and Iie, ikimasu 'No, I'm going' where the negative presupposition is being denied.

In example (2), the question is interpreted by the listener as containing a positive presupposition seeking affirmation or information. The presupposition here is that speaker A wants to go shopping, and knows that speaker B wants to go shopping too, and so he seeks affirmation on the truth value of his presupposition. (2) would have the

structure of (10), where only the underlined part is spoken in the conversation while the rest is implied in the context.

- (10) Speaker A : (Watakusi wa kaimono e ikitai. Anata mo ikitai to omoimasu ga,) kaimono e ikimasen ka. (Osiete kudasai.)
'(I want to go shopping. I think that you want to go too, but) aren't you going shopping? (Please tell me.)

In this case Hai, ikimasu 'Yes, I'm going' would be given as a positive answer in order to confirm speaker A's positive presupposition, and Iie, ikimasen 'No, I'm not going' as a negative answer in denial of the positive presupposition.

Shibatani (1972), on the other hand, proposed that the rules for appropriate answers to Japanese questions involve conversational implications. It seems that in the course of the conversation, the person to whom the question is directed, must pay attention not only to the syntactic negative marker in the question, but also to the conversational context. Consider sentences (5) and (6) for example. In (6), the conversational context indicates that the negative question should be interpreted as a suggestion, or as conveying a request for speaker B to have breakfast. In this case hai and iie would be given as a positive answer and a negative answer respectively. On the other hand, in (5), the negative

question implies that the questioner holds a negative assumption about the propositional content, that is, speaker A assumes that speaker B won't have breakfast. Here, the negative answer with Hai, tabemasen 'Yes, I won't eat' is used to confirm or agree with the questioner's negative assumption, while the positive answer with Iie, tabemasu 'No, I will eat' is used to negate the questioner's negative assumption.

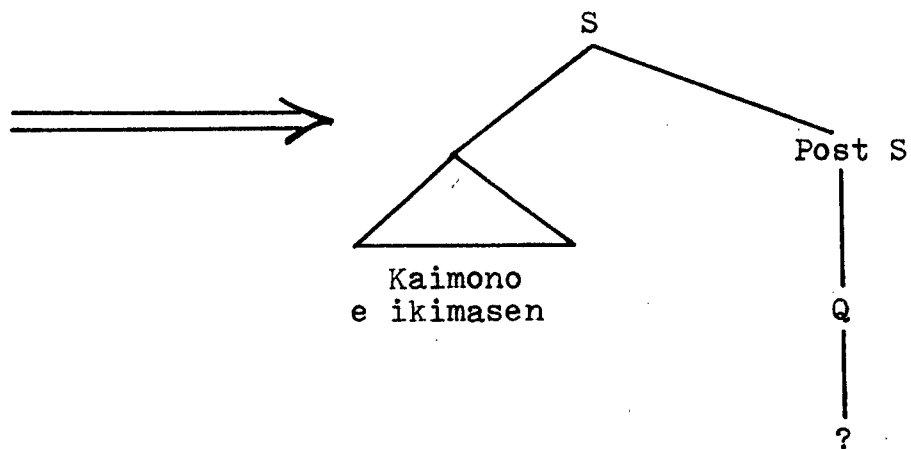
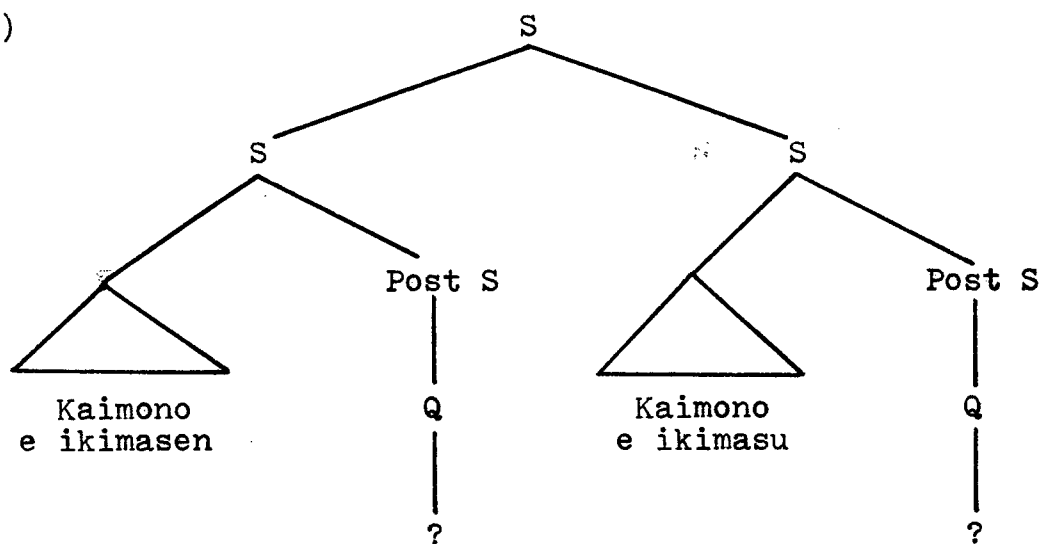
3.2.3. UNDERLYING STRUCTURES OF THE NEGATIVE QUESTIONS

It seems to me that both of the above two analyses, one incorporating presuppositional information and the other conversational implications, satisfactorily capture the semantic relationship between the negative questions and their responses expressed by hai and iie. However, both the analyses are primarily semantically motivated and do not provide any strong syntactic evidence towards the argument. Hojo (1974) proposed that the semantic ambiguity that is associated with the negative questions, for example that of (1) and (2), could be accounted for syntactically by positing two different deep structures for them.

According to Hojo, the hai-iie question type like (1), which he calls a true negative question, is considered to be derived from the alternative question type as shown below

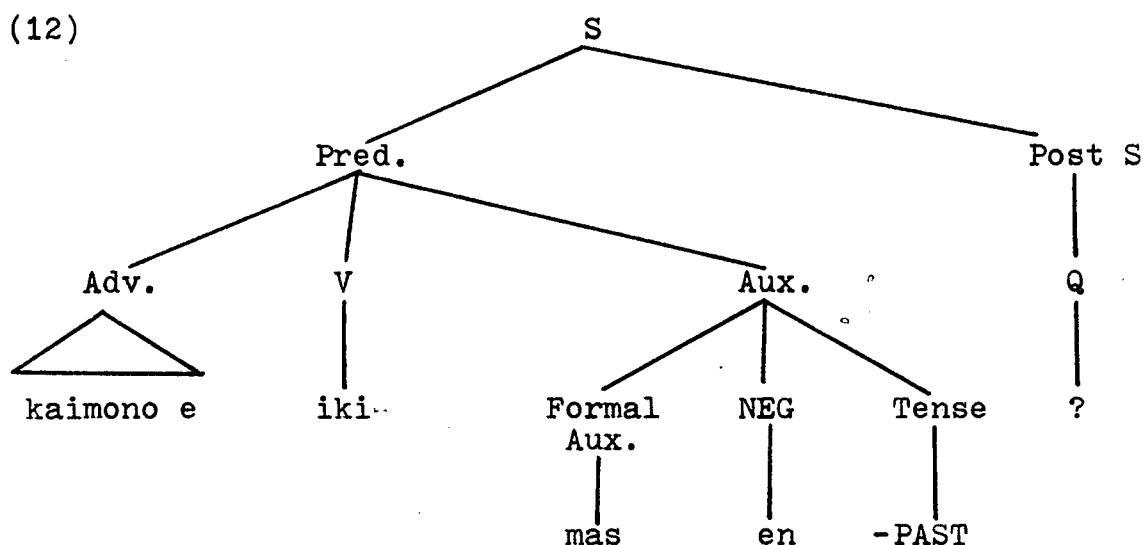
in (11).

(11)



Similarly, examples (3), (5) and (7), are also considered to be derived from alternative question types.

Example (1), which actually contain a negative presupposition, would have the underlying structure equivalent to (12). With the exception of lexical items, (3), (5) and (6) would also have underlying structures similar to that of (12).

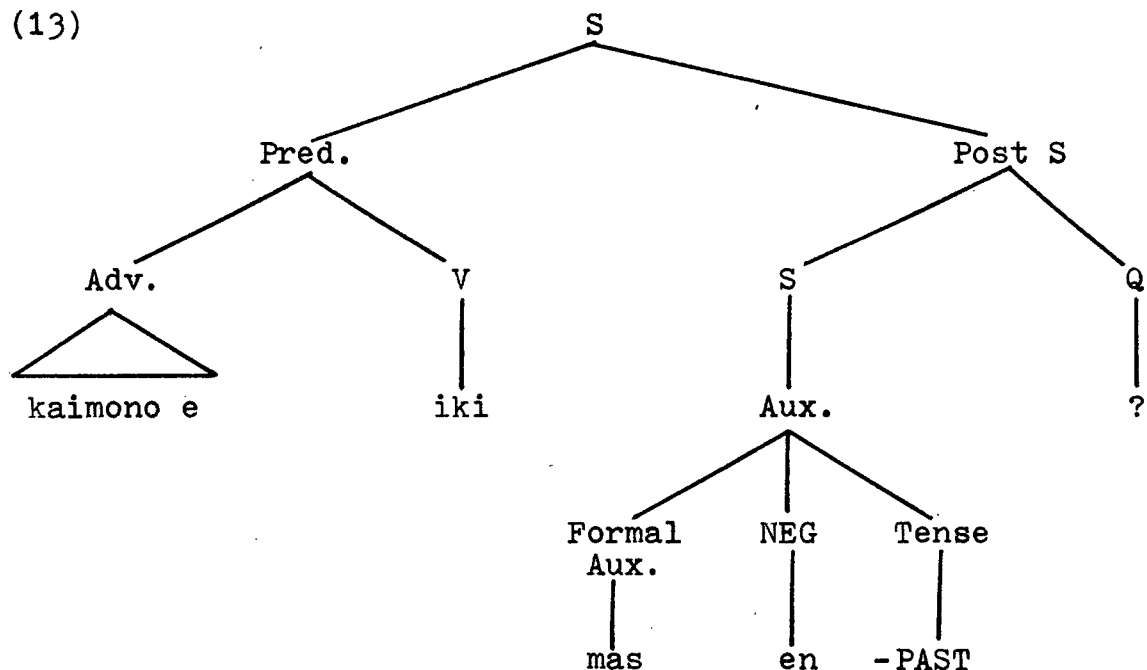


In (12) above, the question (Q) is dominated by the post sentence (Post S),¹ and the negative is introduced optionally in the deep structure. The negative na or en in the lexicon would be assigned the feature notation [- affirmative] which will take care of the negative presupposition. As is clear from (11), the question is applied to a negative statement, and hence the only appropriate responses would be those of speaker B in (1).

With respect to example (2), we have noticed earlier

that (2) implies that it has a positive presupposition underlying the question. This observation suggests that (2) could not possibly contain a negative in the course of its derivation, and that the question has to be applied to a positive statement. Notice also that although there is the presence of the syntactic negative in the surface structure of (2), as manifested by masen, it does not imply semantic negativity. Hojo states that because (2) contains a positive presupposition, it could not be considered to have derived directly from the alternative question type as (1) did. Instead, he proposed that the negative in (2) be treated as a sentence-final particle, functioning in the same way as those sentence-final particles of the assertive yo and ne, and the neutral no and ka. (2) would be considered to have the underlying structure equivalent to (13). Examples (4), (6) and (8) would also have similar underlying structures as that of (13). Examples such as (2), (4), (6) and (8) above, according to Hojo, are false negative questions as opposed to those of (1), (3), (5) and (7) which are true negative questions.

(13)



In (13), both the negative and the question are dominated by the post sentence. The negative in the lexicon would be assigned the feature notation $[+ \text{ assertive}]$, which will account for the positive presupposition. Notice that the question is formed on a positive statement, and thus the only appropriate responses would have to be those of speaker B in (2).

Hojo's analysis to a certain extent, gives us a rather convincing argument for the semantic and syntactic ambiguity that exist in Japanese negative questions. However, I would like to point out that Hojo's analysis also has certain weaknesses. Firstly, his treatment using two separate entries for the negative morpheme na and en in the lexicon,

one with [- affirmative] for the true negative, and another with [+ assertive] and [+ sentence particle] for the false negative, needs further examination. It seems to me that assigning two different semantic features to the negative does not actually solve the problem of syntactic ambiguity that exists in the negative questions. The assignment of two different feature notations to the negative is basically with respect to semantic interpretation. [- affirmative] feature notation is assigned to the true negative in order to account for the negative presupposition that underlies the question, and [+ assertive] is assigned to the false negative in order to account for the positive presupposition. This is, after all, primarily a semantic solution and not a syntactic solution at all.

Furthermore, the assignment of the feature notation [+ assertive] to the false negative is questionable. Notice that in Japanese, a suggestion or a request that is phrased as a negative question as that of (2), can also be phrased positively as (14), with the assertive masyoo 'Lit. Let us'.

(2) Kaimono e ikimasen ka.

[+ assertive]

'Aren't you going shopping?'

(14) Kaimono e ikimasyoo ka.

[+ assertive]

'Shall we go shopping?'

In assigning [+ assertive] feature to the false negative in (2), it leads us to believe that (2) and (14), which contain the assertive masyoo, are similar. However, if we were to examine (2) and (14) further, we will notice that they are basically different. (14) is less polite than (2), and it implies the speaker's positive assumption about the suggestion. The effect of such an assumption obligates the listener to follow the suggestion. However, (2) does not necessarily imply such an obligation, and the listener is left with a choice of whether to follow or reject the suggestion.

Secondly, positing two different deep structures for the negative questions as suggested by Hojo does not actually accomplish anything that neither Shibatani (1972) nor Soga (1973) failed to accomplish. Hojo's underlying structures for the true negative question and the false negative question are primarily based on semantic interpretation of the question. This would basically be similar to Shibatani's and Soga's analyses based on conversational implications and presuppositions. Notice that Shibatani's and Soga's treatment would also require two different deep structures for the true and false negative questions because of the difference in presuppositions or conversational implications which underlie the questions. Perhaps the difference would be that Hojo's underlying structures can be considered to be closer to the surface structures.

Finally, Hojo's treatment of the false negative as a

sentence-final particle functioning in the same way as the sentence-final particles of the assertive yo and ne, and the neutral no and ka, is questionable.² Observe the following sentences:

- (2) Kaimono e ikimasen ka.
 'Aren't you going shopping?'
 (15) Kaimono e iku no.
 'Are you going shopping?'
 (16) Kaimono e iku yo.
 'Let's go shopping.'
 (17) Kaimono e iku ne.
 'Let's go shopping.'

The underlined parts in the above examples, are the sentence-final particles. Notice that the verb iku 'to go' of (15), (16) and (17) is in the root or citation form, that is 'iku'. However, that of (2) is not and is in the form of 'iki-'. This observation shows that the sentence-final particles of no, yo and ne all follow the root form of the verb, while the sentence-final particle masen does not. Therefore, if we follow Hojo's claim, masen will have to be considered an exception from all other sentence-final particles. This seems to suggest that Hojo's treatment of the false negative as a sentence-final particle is perhaps an over-generalization, and perhaps gives rise to more questions rather than offering

a solution to the existing problem.

3.2.4. THE LOGIC UNDERLYING THE RELATIONSHIP BETWEEN THE NEGATIVE QUESTIONS AND THEIR RESPONSES

Hojo (1974) proposed that a rule of logic governs the relationship between the negative questions and their responses. According to this logic, the responses represented by Hai and Iie affirm or negate the statement in the question. Let us examine examples (1) and (2).

(1) Speaker A : Kaimono e ikimasen ka.

'Is it true you are not going shopping?'
A

Speaker B : Hai, ikimasen.

'True, I am not going.'
T A

Iie, ikimasu.

'False, I am going.'
F ~ A

(2) Speaker A : Kaimono e ikimasen ka.

'Aren't you going shopping?'
A

Speaker B : Hai, ikimasu

'True, I am going.'
T A

Iie, ikimasen.

'False, I am not going.'
 $\frac{F}{\sim A}$

In the above examples, the symbols A , $\sim A$, T , and F represents logical terms. In asking the question, the interrogator seeks from the listener the assignment of a truth value to the statement A in the question. The assignment of the truth value may be either true (T) or false (F). If A meets the truth condition, the listener assigns the truth value T to the statement A in the form of Hai as the response (' A is true'). On the other hand, if A does not meet the truth condition, the listener assigns the truth value F to A in the form of Iie (' A is false'). The truth condition can be either A or $\sim A$ (the negative form), and this usually follows the truth value in the response. In this manner, the syntactic and semantic relationships between the negative questions and their peculiar responses can be explained in a logical way.

However, this logic underlying the relationship between the negative questions and their responses as proposed by Hojo also has its shortcomings. The problem to be solved is on what basis or with respect to what does the listener evaluate the truth value of the statement A ? How does the listener decide whether the truth value is T or F ? On what is the listener's designation of the truth value T or F based?

How does the listener decide whether the truth condition is A or $\sim A$?


It seems to me that the assignment of the truth value T or F, as well as the decision on whether the truth condition is A or $\sim A$, can only be explained with respect to the extra-linguistic factors of presuppositions and conversational implications that underlie the questions. This suggests that the relationship between the negative questions and their responses involve larger semantic entities that include presuppositions and conversational implications. All this seems to give greater support to the semantically motivated analyses proposed by Soga (1973) and Shibatani (1972).

3.2.5. INTONATION

It has been noted that there exists a certain overt phonological feature at the surface level that distinguishes the (1) and (2), (3) and (4), (5) and (6), and (7) and (8) question pairs. This seems to be the intonations that are associated mainly with the negative morphemes na and en, as pointed out by Hojo (1974) and Kuno (1973). Examples (1) and (2) would have different intonation patterns as follows:

- 
- (1) Kaimono e ikimasen ka.

'Is it true that you aren't going shopping?'

- 
- (2) Kaimono e ikimasen ka.

'Aren't you going shopping?'

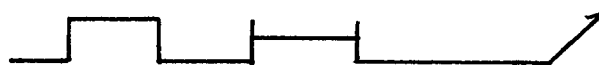
Notice that in (1), there is a certain degree of prominence in the intonation retained by the negative morpheme. Hojo points out that this can be either primary or secondary depending on its relative place of occurrence. On the other hand, in (2), this prominence associated with the intonation of the negative morpheme is lost altogether. However, at this stage, it is not clear as to whether this phonological distinction occurs regularly or not. It seems to me at present that the intonations used with such negative questions are difficult to define in order to distinguish syntactic and semantic difference. In fact, I have consulted a number of Japanese native speakers about this, and it seems that to some of them the intonations do not mark any syntactic and semantic distinction between (1) and (2). Furthermore, to many of them the same intonation pattern seems to be applicable to both (1) and (2) with no difference whatsoever!

Next observe the following sentences:



- (18) Speaker A : Kaimono e ikimasen desita ka.
'Is it true that you didn't go shopping?'

Speaker B : Hai, ikimasen desita.
'Yes, I didn't go.'
Iie, ikimasita.
'No, I went.'



- (19) Speaker A : Kaimono e ikimasen desita ka.
'Didn't you go shopping?'

Speaker B : * Hai, ikimasita.
'Yes, I went.'
* Iie, ikimasen desita.
'No, I didn't go.'



- (20) Speaker A : Sensei ni aimasen desita ka.
'Is it true that you didn't meet the teacher?'

Speaker B : Hai, aimasen desita.
'Yes, I didn't meet (him).'
Iie, aimasita.
'No, I met (him).'



(21) Speaker A : Sensei ni aimasen desita ka.

'Didn't you meet the teacher?'

Speaker B : Hai, aimasita.

'Yes, I met (him).'

Iie, aimasen desita.

'No, I didn't meet (him).'

Notice the intonation difference among (18), (19), (20) and (21). Interrogative questions in Japanese have the delayed rise type terminal intonations. (19) and (21) have the neutral interrogative intonations, that is, of the delayed rise type on ka, while (18) and (20) have terminal rising intonations earlier than those in (19) and (21). It seems that the past tense form of (1) and (2) question pairs can only elicit one type of response, those of (18); those of (19) are ungrammatical. All of the native speakers with whom I have consulted agreed on this point. However, many of them did not agree with the intonation pattern as those of the above examples (18) and (19), and some of them commented that (18) can even have the intonation pattern of (19) and yet the responses elicited would still be those of (18). With respect to (20) and (21), it is possible to elicit two different types of responses depending on intonation. However, it seems that the intonation pattern is irregular. There seems to be no agreement on the intonations among the native speakers of Japanese with whom

I have consulted. Some argued that the intonation pattern of (20) should actually be that of (21) and vice versa, while others argued that the intonations do not mark any syntactic distinction between (20) and (21).

From the above observations, I can only conclude the following:

- (i) The phonological distinction based on intonation does not seem to be reliable, because it is difficult to define strictly. This may perhaps be a result of dialectal difference, but at the moment, it is not clear.
- (ii) The fact that we cannot rely on intonations to disambiguate the negative questions seems to suggest that other factors are involved. It appears to me that the negative questions in Japanese involve larger semantic entities that include not only presuppositions and conversational contexts, but perhaps also facial and body expressions, past conversation, circumstances and location of the conversation, and all other forms of extra-linguistic factors. This observation to a certain extent, strengthens the analysis based on presuppositional information proposed by Soga (1973).

3.3. CONCLUSION

Negative questions in Japanese are syntactically ambiguous and can elicit peculiar responses represented by hai 'yes' and iie 'no'. As we have noticed, the hai and iie in one type of response introduce both affirmative and negative elements in the same single response, while in the other, the hai response is strictly affirmative and the iie response is strictly negative. In this chapter, I have attempted to explain how we can relate the questions and the answers correctly. We have seen that the responses cannot be predicted from the question utterances alone due to their syntactic and semantic ambiguity, and have resorted to the extra-linguistic information such as presuppositions and conversational implications as explanations. I have shown that there exists a correlative relationship between the semantic information of the negative questions and the responses that they elicit. However, this is purely semantically motivated and does not provide any syntactic evidence.

This semantic ambiguity that is associated with the negative questions, on the other hand, is accounted for syntactically by positing two different deep structures for them, and assigning two different types of feature notation to the negative morpheme na and en in the lexicon. In one, the negative is introduced optionally in the deep

structure, and the feature notation [- affirmative] is assigned to the negative morpheme na or en. In the other, the negative is treated as a sentence-final particle and is originally not present in the deep structure, and the negative morpheme is assigned the feature notation [+ assertive] which takes care of the positive presupposition underlying the question. However, I have also shown that this has its defects.

With respect to the relationship between the negative questions and their responses, it seems that this can be explained in terms of the logic that underlies the questions. According to this logic, hai uttered as an answer to the question affirms the statement in the question, while ie negates the statement in the question. However, we have also seen that this has its weaknesses, and that the hai and ie as answers to the negative questions can only be explained in terms of extra-linguistic factors underlying the questions.

We have also noticed that intonations, to a certain extent, mark the distinction in the syntactic ambiguity of the negative questions. However, I have pointed out that the intonation patterns are difficult to define syntactically, and that they do not seem to occur regularly. Whether this is a result of dialectal differences or not, is not clear at this stage, and requires further research.

FOOTNOTES

1. I think the term Post Sentence (Post S) as used in Hojo (1974), probably refers to the sentence-final particles such as those of the assertive yo and ne and the neutral ka and no.

2. This observation was brought to my notice by M. Soga in my discussion with him.

CHAPTER FOUR

ON THE SEMANTIC AND SYNTACTIC STRUCTURE OF THE PARTICLES MO, WA AND GA

4.1. INTRODUCTION

In recent years there have been several articles published, dealing with the analysis and the interpretation of the adverbial even in English. Among some of these publications are Bruce Fraser (1969 and 1971), L. Horn (1969 and 1971), S. Anderson (1972) and R. Jackendoff (1972). These publications have given us various insightful explanations concerning the nature and interpretation of even. The corresponding word for even in Japanese is generally believed to be mo, which has been variously translated into English as even, also, too and as many (much) as.

The orientation of this chapter will be one of attempting to examine the facts of the Japanese language concerning the particle mo, and to characterize the general nature of that particle. On the basis of the studies made by Kageyama (1973) and Soga (1975), I will try to present a general approach for the interpretation of the particle mo, and at the same time, will also present a variety of Japanese constructions

using mo to illustrate the approach. Also, I will examine the relationship between the negative and mo, especially where it concerns the positive-negative relationship between the assertion and the expectation underlying mo. Furthermore, I will examine the presuppositional properties of mo, the presence of which is responsible for the unexpectedness or surprise that usually accompanies the use of the particle, and which also is relevant for the correct surface semantic interpretation. Then, in the latter half of the chapter, having provided a general schema for the interpretation of mo, I will try to examine whether the same line of approach can also be applied to other particles such as wa and ga.

4.2. INTERPRETATION OF THE PARTICLE MO

4.2.1. PRESUPPOSITIONAL PROPERTIES OF MO

This section is concerned with the presuppositional properties that are associated with the particle mo, the presence of which is relevant for the semantic interpretation of the sentence. Let us begin by observing the occurrence of mo in the following sentences:

- (1) John mo nihongo no gakusei desu.

'John is also a student of Japanese.'

(2) Sono hon mo nihongo no hon desu.

'That book is also a Japanese book.'

(3) Taroo wa eigo mo wakarimasu.

'Taroo knows English too.'

The effect of the particle mo in the above sentences expresses the meaning of membership within a set. In (1) for example, John, to which the particle mo is attached, is regarded as a member of a group of students of Japanese; it is implied that there are also other members. Therefore, the use of mo in (1) could imply, for example, that Bill is a student of Japanese, Mary is a student of Japanese, Jane is a student of Japanese, and that John is a student of Japanese. Similarly, in (2), the NP sono hon 'that book' is considered to belong to a set of similar tokens, that is, Japanese books, and implies that there also exist other books of the same kind. In (3), mo implies that Taroo knows other languages such as French, Spanish, German, Russian or Chinese, as well as English. Hence the use of mo in the above examples implies or permits the listener to make the presupposition that the constituent in the scope of mo (in the above cases, John in (1), sono hon in (2), and eigo in (3)) must be viewed as a member of a set of similar tokens. Although in the above examples (1)-(3), only one member of the set is mentioned in the sentence, the effect of mo implies the existence of

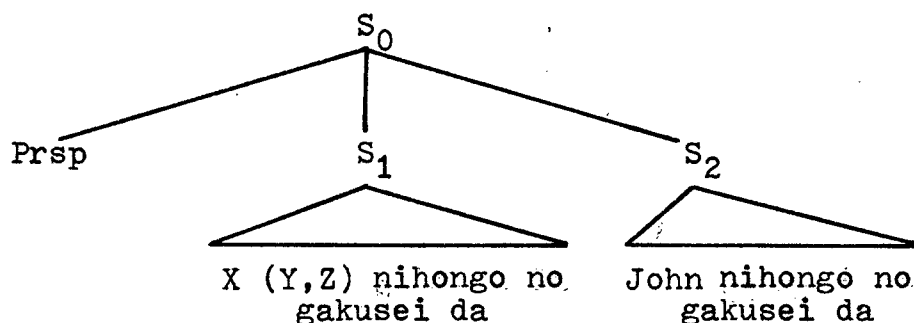
other identical members within that set. Notice that the meaning of mo here would be similar to that of too or also in English.

If the deep structures should correctly predict the interpretations of mo, then they must incorporate in them the presuppositions that are associated with the sentences. Following our observation, the interpretation of example (1) can be analyzed into at least two parts:

- (4) a. X (Y,Z) ga nihongo no gakusei da.
 'X (Y,Z) are students of Japanese'.
 b. John ga nihongo no gakusei da.
 'John is a student of Japanese.'

(4b) is clearly the assertion of the sentence in (1), and notice that it remains unaffected even if mo is not present. (4a) is the implication of (1), that is to say, the presence of the particle mo in (1), implies the information shown in (4a). The two sentences underlie (1) which can be represented by the following tree structure if we subscribe to the abstract verb Prsp.:

(5)



where Prsp = Presupposition

This whole structure of (5) underlies (1). The structure consists of two sentences S_1 and S_2 , existing with the abstract verb Prsp. This Prsp relates the two sentences S_1 and S_2 , meaning that S_1 is presupposed for S_2 . Therefore, S_1 represents the presupposition and S_2 the assertion. Through the process of transformation, Prsp together with S_1 , are consequently deleted and, at the same time, the particle mo is attached to the NP of S_2 to produce the surface structure of (1).

Sentences (2) and (3) can also be derived in a similar way, where the underlying structures are considered to consist of at least two sentences.

(6) a. X (Y,Z) ga nihongo no hon da.

'X (Y,Z) are Japanese books.'

b. Sono hon ga nihongo no hon da.

'That book is a Japanese book.'

(7) a. Taroo ga X (Y,Z) gengo ga wakaru.

'Taroo knows X (Y,Z) languages.'

b. Taroo ga eigo ga wakaru.

'Taroo knows English.'

At this stage, I think it would be worthwhile to examine further the notion of membership in a set or the notion of similarity of tokens. Consider the following sentence:

(8) Nihon e ikitai ga, okane mo hima mo nakute wa dame desu.

'I want to go to Japan, but it is impossible as I have neither the money nor the time for it.'

Normally okane 'money' and hima 'time' would not be considered to have any identical import, that is to say, they would not be considered to belong to the same class. Yet, the noun phrases okane and hima have mo attached to them. This shows that the notion of identity here need not necessarily mean natural identity, but rather semantic identity. If we look at it from the point of view that okane and hima are necessary for going to Japan, then we can consider them to be semantically equivalent and belonging to the same semantic set. Hence the notion of similarity of tokens would mean that the tokens with which the scope of mo is contrasted must share at least the same co-occurrence restriction. This

means that it must be semantically possible for the other members of the set to be substituted for the contrasted constituent in the scope of mo.

In addition, there is also a sense in which the particle mo involves the notion of expectation. If the notion of expectation accompanies the presupposition, then mo comes to assume the meaning of even in English. It seems that it is this notion of expectation accompanying the presupposition that is responsible for the surprise or unexpectedness that appears with mo. Consider the following sentences:

(9) Sensêi mo kono mondai wa tokenai.

'Even the teacher can't solve the problem.'

(10) Kodomo mo hiragana ga yomeru.

'Even a child can read hiragana.'

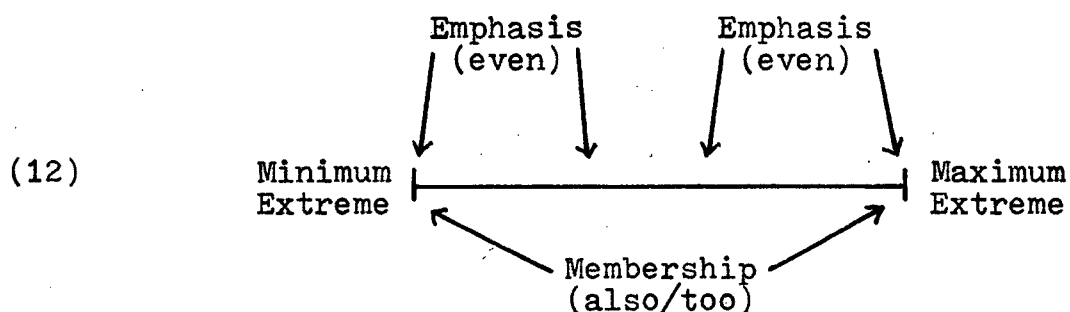
(11) Kono omoi hako wa otoo-san mo ugokenai.

'As for this heavy box, even father can't move it.'

The effect of mo on the above sentences (9)-(11) reflects an attitude on the part of the speaker or hearer that the information contained in the rest of the sentence would not normally be expected to be true of the constituent in the scope of mo. The constituents that fall within the scope of mo in the above sentences are the subject NP's sensei 'teacher' in (9), kodomo 'child' in (10), and otoo-san

'father' in (11). In (9), for example, the speaker or hearer expects that the teacher will be able to solve the problem, although other people (perhaps those with less qualifications or education) are not able to. However, contrary to this expectation, the fact is that the teacher, too, is not able to solve the problem, hence the surprise or unexpectedness. Similarly in (10), the speaker or hearer expects other people, such as adults, to be able to read hiragana and would not normally expect a child to be able to read it. However, contrary to this expectation, a child can also read it, thus the surprise. In (11), the speaker expects the father, who is perhaps considered to be the strongest member in the family, to be able to move the heavy box, but the fact is that the father, too, cannot move it. This gives rise to the surprise.

This peculiar property of unexpectedness or surprise that is associated with mo can perhaps be made clearer by constructing a scale of degree, such as that suggested by Soga (1975), and which is shown below.¹



Applying (12) to sentence (9), we have a scale of degree of intelligence among the members in the set (in this case, probably the educated group) which is scaled in an increasing order of intelligence, ending with the sensei 'teacher' who is considered to be in the maximum intelligence position of the scale. Thus the speaker expects that the teacher, who is best qualified, will be able to solve the problem, while other people cannot. But the fact that he cannot gives rise to the surprise that is associated with mo. In this sense, the particle mo is used to emphasize the unexpected nature that is associated with the constituent in its scope. It seems that the particle may be used in extreme cases of membership in a set, emphasizing either the maximum or the minimum extreme. In the case of (9), it emphasizes the maximum extreme, with the teacher considered to be the most qualified person relative to the compared group.

The same treatment can also be applied to (10) by constructing a scale of degree of ability to read, with the kodomo 'child' falling in the minimum extreme position relative to the compared group. In the case of (11), a scale of degree of strength can be applied, with otoo-san 'father' in the position of maximum extreme relative to the compared group.

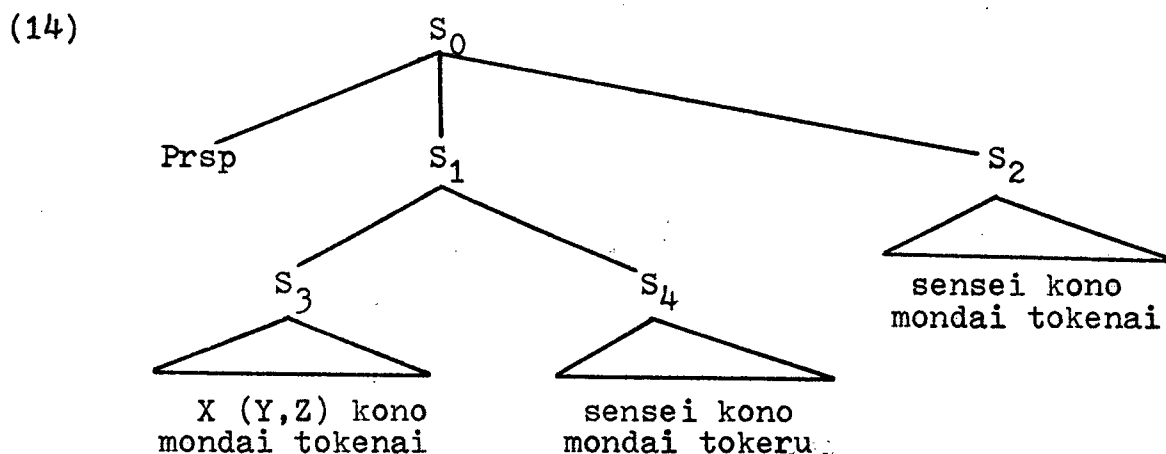
Sentences containing mo, which specifies emphasis such as examples (9), (10) and (11) above, can be considered to have at least three sentences underlying them. Considering

(9), the interpretation can be analyzed into at least three parts:

- (13) a. X (Y,Z) ni kono mondai ga tokenai.
 'X (Y,Z) can't solve the problem.'
 b. Sensei ni kono mondai ga tokeru.
 'The teacher can solve the problem.'
 c. Sensei ni kono mondai ga tokenai.
 'The teacher can't solve the problem.'

Notice that there is an additional piece of information expressed in a sentence like (9), when compared to those of (1)-(3) discussed earlier. This additional piece of information is represented in (13b) which states that the speaker expects the teacher to be able to solve the problem. It is exactly the presence of this notion of expectation that is responsible for the surprise that may appear with the particle mo. Also, notice the positive-negative relationship between the expectation (b) and the assertion (c).

Using the three-part interpretation of (13), the following underlying structure for (9) is possible:



In structure (14), S_2 presupposes S_1 which actually consists of two sentences, S_3 and S_4 . Just as in (5), Prsp, and S_1 are deleted in the process of transformation, and mo is inserted into the NP sensei 'teacher' in S_2 to derive the surface structure (9).

Notice that in all the cases cited above, the occurrence of the particle mo in Japanese does not alter the basic proposition of the sentence. The main assertion of the sentence with respect to who cannot do what, remains unaffected even if mo is not present, as shown in (4b) and (13c). However, the particle mo provides additional information about the proposition, the speaker's or the hearer's viewpoint and about the state of the world. The presence of mo in (9) for example, adds the information shown in (13a) and (13b) to the information explicitly present in the sentence without mo, that is (13c).

4.2.2. THE OCCURRENCE OF MO WITH QUANTIFIERS

In this section, I will present and examine a variety of syntactic constructions to indicate how the interpretation of mo follows the approach set up in the previous section. The particle mo occurring with quantifiers provides rather interesting examples for the interpretation of mo, because they show clearly the semantic and syntactic nature of the particle. Let us examine some examples of mo occurring with time adverbials.

- (15) Taroo wa tooka-kan mo benkyoo sita.
'Taroo even studied for ten days.'
- (16) Okyaku-san wa hyaku-nin mo kita.
'Even a hundred guests came.'
- (17) Tanaka-san wa asa no ni-zi made mo hataraita.
'Mr. Tanaka even worked until two in the morning.'
- (18) Watakusi wa Amerika e san-do mo itta.
'I even went to America three times.'
(i.e. I went to America for as many as three times.)
- (19) Ototoo wa gohan o go-hai mo tabeta.
'My younger brother even ate five bowls of rice.'
(i.e. My younger brother ate as many as five bowls of rice.)

Notice that in the above examples of (15)-(19), the use of mo specifies both emphasis and membership. The interpretation for each of the above sentences follows from the approach given in the previous section, 4.2.1. There are at least three parts to the interpretation of the above sentences, and they are as follows:

- (20) a. Taroo wa nan-nitikan ka benkyoo sita.
 'Taroo studied for a number of days.'
- b. Taroo wa tooka-kan wa benkyoo sinakatta.
 'Taroo didn't study for ten days.'
 (i.e. The number of days that Taroo studied
 didn't amount to ten days.)
- c. Taroo wa tooka-kan benkyoo sita.
 'Taroo studied for ten days.'
- (21) a. Okyaku-san wa nan-nin ka kita.
 'A number of guests came.'
- b. Okyaku-san wa hyaku-nin wa konakatta.
 'Not a hundred guests came.'
 (i.e. The number of guests who came did not
 amount to a hundred.)
- c. Okyaku-san wa hyaku-nin kita.
 'A hundred guests came.'
- (22) a. Tanaka-san wa nan-zi made ka hataraita.
 'Mr. Tanaka worked until a certain time.'

- b. Tanaka-san wa asa no ni-zi made wa hataranakatta.
'Mr. Tanaka didn't work until two in the morning.'
 - c. Tanaka-san wa asa no ni-zi made hataraita.
'Mr. Tanaka worked until two in the morning.'
- (23) a. Watakusi wa Amerika e nan-do ka itta.
'I went to America a number of times.'
- b. Watakusi wa Amerika e san-do wa ikanakatta.
'I didn't go to America three times.'
 - c. Watakusi wa Amerika e san-do itta.
'I went to America three times.'
- (24) a. Ototoo wa gohan o nan-bai ka tabeta.
'My younger brother ate a number of bowls of rice.'
- b. Ototoo wa gohan o go-hai wa tabenakatta.
'My younger brother didn't eat five bowls of rice.'
 - c. Ototoo wa gohan o go-hai tabeta.
'My younger brother ate five bowls of rice.'

Considering (20), the three-part interpretation when taken together simply means that Taroo worked for a number of days, and was not expected to work for as many as ten days, but contrary to this, he worked for ten days. All the (a), (b), and (c) sentences provide the underlying interpretation for the surface sentences of (15)-(19). Comparing the (b) and

(c) sentences, notice that the (b) sentences are all negative while the (c) sentences are positive. This positive-negative relationship is interpreted as reflecting an attitude on the part of the speaker that the information contained in the rest of the sentence would not normally be expected to be true of the constituent in the scope of mo. In the above examples, it is the (b) part of the interpretation that provides the explanation for the negative expectation associated with sentences (15)-(19). Therefore, we see that in positive sentences, the expectation associated with the main clause is negative.

The interpretation of the negative sentence is obtained in exactly the same way as for the positive sentence. It seems that sentence negation has a systematic effect on sentences containing the particle mo. Sentence negation simply negates the three parts of the interpretation, where the negation of a negation seems to result in a positive statement for the (b) parts. The negation of (16) for example, would be (25).

(25) Okyaku-san wa hyaku-nin mo konakatta.

'Not even a hundred guests came.'

The corresponding interpretation for (25) is as follows:

(26) a. Okyaku-san wa nan-nin ka konakatta.

'A number of guests didn't come.'

b. Okyaku-san wa hyaku-nin kita.

'A hundred guests came.'

c. Okyaku-san wa hyaku-nin konakatta.

'Not a hundred guests came.'

Again, observe the positive-negative relationship between the expectation (b) and the assertion (c). Thus, for negative sentences the expectation associated with the main clause is positive.

According to Kageyama (1973), the expectation associated with the particle mo can be formalized as follows:²

$$(27) \text{ Expect } [\alpha, \{-f(x) . (/a/ \leq /x/)\}]$$

In (27), f represents the assertion, a the stated quantity in the assertion, while x represents the quantity expected. According to this formula, the stated quantity a has to be less or at least equal to the expected quantity x. In other words, the expectation has to be greater or at least equal to the stated number. Applying (27) to example (16), the expectation of (21b) will be:

$$(28) \text{ Expect } [\alpha, \{-f(x) . (/100/ \leq /x/)\}]$$

In (28), the speaker or hearer expects that not a hundred

guests or more will come. Contrary to this expectation, the real number of guests who came turned out to be exactly a hundred, an unexpected number, and thus the surprise accompanying it. The expectation expressed as formula (28) can be rewritten as (21b').

(21b') Okyaku-san wa hyaku-nin mata wa sore izyoo
konakatta.

'A hundred guests or more didn't come.'

If we were to compare (21b') and (21c), we will notice that the positive-negative relationship still exists.

Formula (27) simply states that if the assertion is f (a positive statement), then the expectation would be -f. On the other hand, if the assertion is -f (a negative statement), then the expectation would have to be -(-f), which would actually be f. Thus, according to the formula, for a positive sentence the expectation associated with it will be a negative, while for a negative sentence the expectation will be positive. However, it must be pointed out that this rule is insufficient to account for the expectation underlying different kinds of sentences. It seems that this has to be supplemented by syntax. There are some cases where the formula (27) proves inapplicable. Consider the following sentences:

- (29) a. Taroo wa tooka-kan mo kaeranakatta.
 'Taroo didn't even return for ten days.'
 b. * Taroo wa tooka-kan mo kaetta.
 'Taroo even returned for ten days.'
- (30) a. Yuki wa sansyuu-kan mo yamanakatta.
 'It didn't even stop snowing for three weeks.'
 b. * Yuki wa sansyuu-kan mo yanda.
 'It even stopped snowing for three weeks.'
- (31) a. Kaze wa ikkangetu-kan mo naoranakatta.
 '(I) didn't even recover from a cold for a month.'
 b. * Kaze wa ikkangetu-kan mo naotta.
 '(I) even recovered from a cold for a month.'
- (32) a. Sibai wa zyuuni-zi made mo owaranakatta.
 'The play didn't even end until twelve o'clock.'
 b. * Sibai wa zyuuni-zi made mo owatta.
 'The play even ended until twelve o'clock.'
- (33) a. Paatee wa hati-zi made mo hazimaranakatta.
 'The party didn't even start until eight o'clock.'
 b. * Paatee wa hati-zi made mo hazimatta.
 'The party even started until eight o'clock.'

Notice that all the (a) examples above are negative sentences. If we were to follow formula (27), then the expectation -f would have to be the positive (b) sentences.

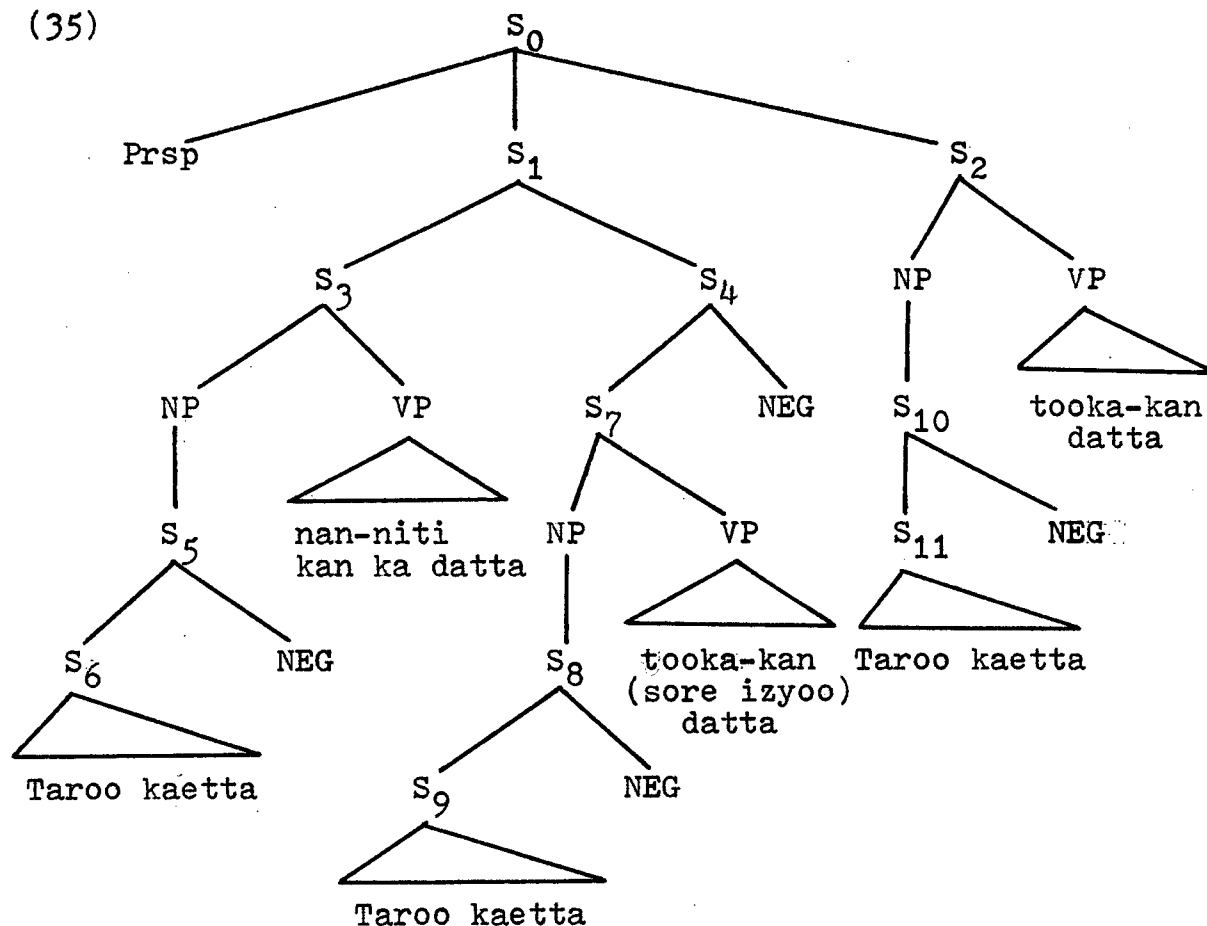
However, it is evident that the expectation -f could not possibly be the positive sentences of (b), as they are all ungrammatical. This ungrammaticality is due to the nature of semantically punctual verbs like kaeru 'to return', yameru 'to stop', and naoru 'to recover from', being such that they have to be negated when co-occurring with time adverbials.³ Hence, for a sentence like (29), the corresponding -f could only be:

- (34) Taroo ga kaeranakatta no wa tooka-kan, mata wa sore izyoo de wa nai.

'It was not for ten days or more that Taroo didn't return.'

(34) shows that what is predicated is the time adverbial, and what is actually being negated is not the verb but the time adverbial.⁴ In other words, the expectation associated with (29) would be the negation of the whole statement Taroo ga kaeranakatta no wa tooka-kan da 'It was for ten days that Taroo didn't return.' This observation shows that we have to define exactly what f, -f or -(-f) represents. This can be accounted for syntactically in the deep structure. (29) can be structurally represented as:

(35)



In (35), S_2 presupposes S_1 , and through the process of transformation, Prsp and S_1 are consequently deleted. Mo is attached to the VP of S_2 which is then lowered into S_{10} . Here, we will have to accept the view that syntactically the morpheme like NEG must be lowered.

Examples (30)-(33) can all be accounted for in a similar way. (35) is the only possible interpretation for mo in negative sentences containing time adverbials co-occurring with semantically punctual verbs. However, for negative

sentences containing semantically durative verbs co-occurring with time adverbials, at least two interpretations are possible for mo. Consider the following examples:

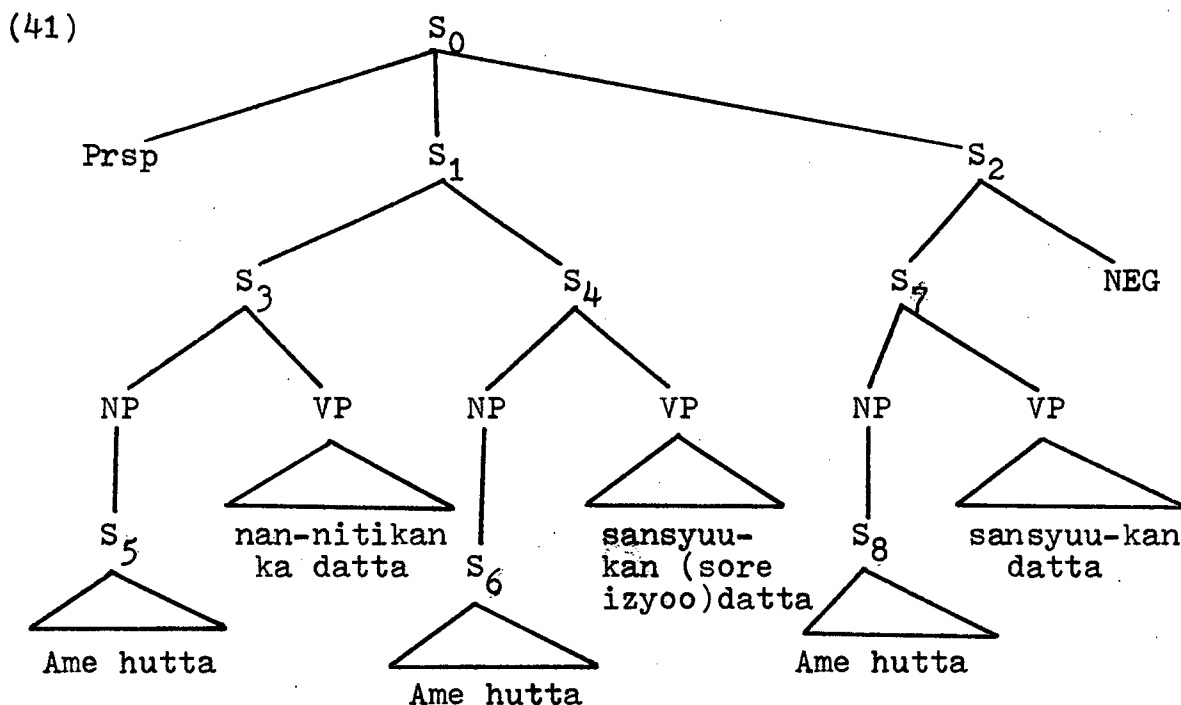
- (36) Ame wa sansyuu-kan mo huranakatta.
'It didn't even rain for three weeks.'
- (37) Hanako wa tooka-kan mo benkyoo sinakatta.
'Hanako didn't even study for ten days.'
- (38) Kare wa zyuunizi-kan mo arukanakatta.
'He didn't even walk for twelve hours.'

The above examples are all ambiguous in at least two readings. For example, in one reading of (36), the presupposition is that it didn't rain until after the lapse of three weeks, while in another reading, the presupposition is that it rained but that it did so for less than three weeks. As for (37), one reading presupposes that Hanako didn't study at all during a period of ten days, while the other presupposes that she studied but for less than ten days. In the case of (38), one presupposition is that for a period of twelve hours he didn't walk at all, while another presupposes that he walked but he didn't do so continuously for twelve hours.

Applying our three-part interpretation to (36), the former reading will have the interpretation of (39) and the latter (40).

- (39) a. Ame ga huranakatta no wa nan-nitikan ka datta.
 'It was for a certain number of days that it
 didn't rain.'
- b. Ame ga huranakatta no wa sansyuu-kan mata sore
 izyoo de wa nakatta.
 'It was not for three weeks or more that it
 didn't rain.'
- c. Ame ga huranakatta no wa sansyuu-kan datta.
 'It was for three weeks that it didn't rain.'
- (40) a. Ame ga hutta no wa nan-nitikan ka datta.
 'It was for a certain number of days that it
 rained.'
- b. Ame ga hutta no wa sansyuu-kan mata wa sore
 izyoo datta.
 'It was for three weeks and more that it rained.'
- c. Ame ga hutta no wa sansyuu-kan de wa nakatta.
 'It was not for three weeks that it rained.'

Again, notice the positive-negative relationship between the assertion and the expectation in the interpretation. The underlying structure for the interpretation of (39) would be similar to that of (35). (40) however, would have the following underlying structure:



Notice that in (41), the positive-negative relationship between S_4 and S_2 still holds.

It can be observed that the difference between the underlying structures of (35) and (41) is the difference in the scope of the negative. In the case of (35), the lowest S comes within the scope of the negative, with the adverbial introduced as a VP of an S higher than the negative. On the other hand, in (41) the adverbial is introduced below the negative, and the negative negates the whole S_7 .

It seems that mo, when used in negative sentences containing quantifiers may emphasize the maximum or the minimum value depending on the presuppositions underlying

them. For example, the (39) interpretation of sentence (36) emphasizes the maximum value, that is, it emphasizes the fact that the real number of days that it rained is greater than that expected. The (40) interpretation, on the other hand, emphasizes the minimum value, that is, it connotes that the real number of days that it rained is smaller than expected. In the case of sentences like (29), the use of mo can only emphasize the maximum value and not the minimum value. This observation shows that for negative sentences, whether mo emphasizes the maximum or the minimum value is dependent on the kind of verbs and adverbs involved. If the negative sentence contains a time adverbial co-occurring with a semantically durative verb, mo may emphasize either the maximum or the minimum value. However, if it occurs with a semantically punctual verb, then mo can only emphasize the maximum value. With punctual verbs mo cannot emphasize the minimum value because the S_3 in (41) cannot take an ungrammatical positive sentence. On the other hand, with positive sentences, such as examples (15)-(19), mo can only emphasize the maximum value.

Let us now examine some constructions containing quantifiers other than those denoting time. Consider the following sentences:

(42) Okyaku-san wa zyuu-nin mo konakatta.

'Not even ten guests came.'

(43) Okyaku-san wa zyuu-nin mo kita.

'Even ten guests came.'

(44) Biiru wa rop-pon mo nomanakatta.

'(I) didn't even drink six bottles of beer.'

(45) Biiru wa rop-pon mo nonda.

'(I) even drank six bottles of beer.'

In the above examples, it can be noticed that (42) and (44), which are both negative sentences, can be interpreted in at least two ways. One reading of (42) implies that only nine guests came and not ten, while the other reading implies that all of the ten guests did not come. One reading for (44) implies that I drank only five bottles of beer and not six, while the other reading implies that there are six bottles of beer that I did not drink (i.e. there are six bottles of beer left over). The former interpretation of (42) and (44) emphasizes the minimum value and will have similar underlying structures as (41). The latter interpretation emphasizes the maximum value and their underlying structures will be similar to that of (35).

The positive counterparts of (43) and (45) are not ambiguous and the mo can only be used to emphasize the maximum value. (43) can only imply that as many as ten guests came, and (45) can only imply that I drank as many as six bottles of beer. The underlying structure for both will be similar to (35).

In Japanese, quantifiers which represent minimal amounts very often occur with mo, such as sukosi mo 'not at all', tittomo 'not at all', hitori mo 'not a single person', or hitotu mo 'not a single one'. When co-occurring with mo, these quantifiers always require the presence of the negative. Such quantifiers imply that the quantity does not exceed the minimum amount, in other words, the quantity zero. Consider the following examples:

- (46) Koogi ni wa hitori mo konakatta.
'Not a single person came to the lecture.'
- (47) Benkyoo wa tittomo sinai.
'(I) didn't do (my) studies at all.'
- (48) Sensei no iu koto wa sukosi mo wakarimasen.
'(I) don't understand at all what the teacher says.'
- (49) O-susi wa hitotu mo tabenakatta.
'(I) didn't eat a single susi.'

The use of mo in the above cases, can only emphasize the minimum value. In (46) for example, the sentence expresses that no one came to the lecture. This is an entailment from the presupposition that whatever the situation may be, at least one person would come to the lecture. The underlying structure would be similar to that of (41).

Indefinite pronouns in Japanese can very often occur

with mo, as in the following sentences:

- (50) Tabako wa nan-bon mo nomanakatta.
'(I) didn't smoke many cigarettes.'
- (51) Tabako wa nan-bon mo nonda.
'(I) smoked many cigarettes.'
- (52) Okyaku-san wa nan-nin mo konakatta.
'Many guests didn't come.'
- (53) Okyaku-san wa nan-nin mo kita.
'Many guests came.'

The negative sentences of (50) and (52) are ambiguous. For example, one reading of (50) can imply that the number of cigarettes that I smoked are not many, while another reading implies that I didn't smoke many of the cigarettes (i.e. there are many cigarettes left over). The former interpretation is clearly an emphasis on the maximum value while the latter, the minimum value. However, note that the positive sentences of (51) and (53) can have only one interpretation, that which emphasizes the maximum value.

However, it should be pointed out that there are some exceptions to the above generalization about indefinite pronouns. It seems that indefinite pronouns like ikura 'how many/how much', dare 'who' and doko 'where', when occurring with mo in negative sentences are not at all ambiguous and have only the interpretation of the minimum value emphasis,

as shown in the following examples:

- (54) Okane wa ikura mo nokotte imasen.
'(I) have not much money left.'
- (55) Setumei wa dare mo kikoena-katta.
'Nobody heard the explanation.'
- (56) Nitiyoobi wa doko e mo ikanakatta.
'(I) didn't go anywhere on Sunday.'

If we follow the approach set up in section 4.2.1., then (55), for example, would be interpreted as Setumei wa dare ka ni kikoeta to omou ga, dare ni mo kikoena-katta '(I) thought at least someone heard the explanation, but nobody heard it', where the mo emphasizes only the minimum value.

4.2.3. CONCESSIVE SENTENCES AND MO

In this section, I will deal briefly on how concessive sentences can be interpreted in terms of presupposition, and how the three parts of the interpretation of a sentence with mo will apply to concessive sentences. In addition to specifying the meaning of membership and emphasis, the use of mo can also specify concession. Observe the following sentences:

(57) Benkyoo site mo sotugyoo dekinai.

'Even if (I) study, (I) can't graduate.'

(58) Warukuti o itte mo okoranai.

'Even if (I) call (him) names, (he) doesn't
get angry.'

If we apply our three-part interpretation of mo, following the approach discussed in section 4.2.1., then we would analyze the interpretation of (57) and (58) as (59) and (60).

(59) a. Benkyoo sureba sotugyoo dekiru.

'If (I) study, (I) can graduate.'

b. Onazi yoona koto o sureba sotugyoo dekiru.

'If (I) do similar things, (I) can graduate.'

c. Benkyoo sureba sotugyoo dekiru no de wa nai.

'It is not so that if (I) study, (I) can
graduate.'

(60) a. Warukuti o ieba, okoru.

'If (I) call (him) names, (he) gets angry.'

b. Onazi yoona koto o ieba, okoru.

'If (I) say similar things, (he) gets angry.'

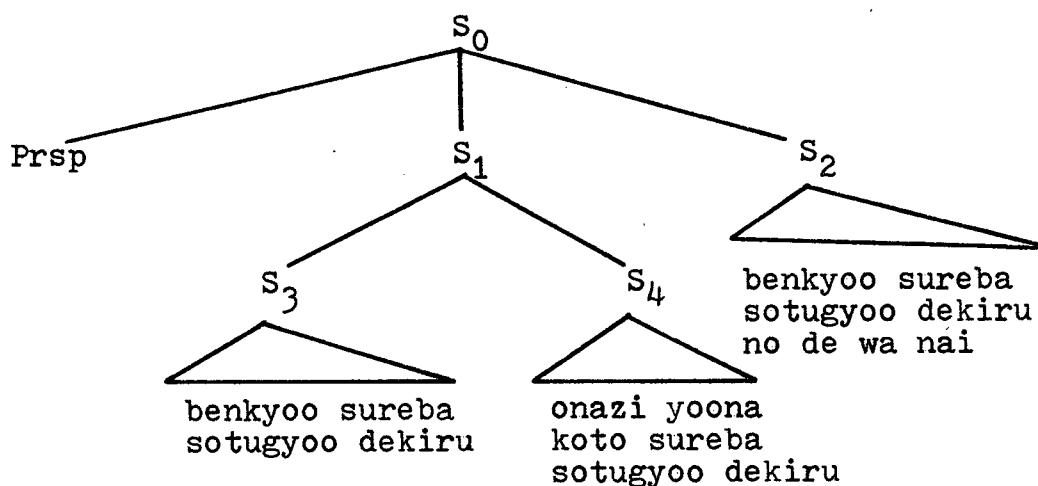
c. Warukuti o ieba, okoru no de wa nai.

'It is not so that if (I) call (him) names,
(he) gets angry.'

Notice that all three parts of (59) and (60) are necessary

for the semantic interpretation of concessive sentences such as (57) and (58). All three parts of (59), when taken together, enables the correct interpretation that I will not be able to graduate no matter how hard I study, or no matter what I do. (60) enables the correct interpretation that no matter what I say, he doesn't get angry. This is exactly the interpretation of such concessive sentences. The underlying structure for (57) will be something like (61). With the exception of lexical items, (58) will also have similar underlying structure.

(61)



4.3. ON THE INTERPRETATION OF WA AND GA

In the previous sections, I have attempted to present a general schema for the interpretation of mo. I have also

examined the presuppositional properties of mo, the presence of which are relevant for the correct semantic interpretation of the surface structure. In this section, I will attempt to determine whether the line of thinking that we have adopted for the interpretation of mo can be applied to other particles such as wa and ga.

Let us begin by examining the following sentence:

(62) Taroo hit Hanako.

It is clear that a sentence like (62) is at least two ways ambiguous, corresponding to two different deep structures.

(62) may be an answer to either (63) or (64).

(63) a. Who hit Hanako?

b. Taroo hit Hanako.

(64) a. Whom did Taroo hit?

b. Taroo hit Hanako.

Notice that in (63), it is presupposed that somebody hit Hanako, while in (64) it is presupposed that Taroo hit somebody. Notice also that the ambiguity associated with (62) can be reflected in two distinct stress patterns, which are shown in (63b) and (64b), and which occur in distinct contexts. It is exactly this kind of presupposition that is important for the difference between the particles mo, wa and

ga in Japanese.

Consider the following sentences:

(65) Hanako mo utatta.

'Hanako sang too/also.'

(66) Hanako wa utatta.

'Hanako sang.'

(67) Hanako ga utatta.

'Hanako sang (i.e. It was Hanako who sang).'

We have observed earlier that for a sentence like (65), we can have the following interpretation:

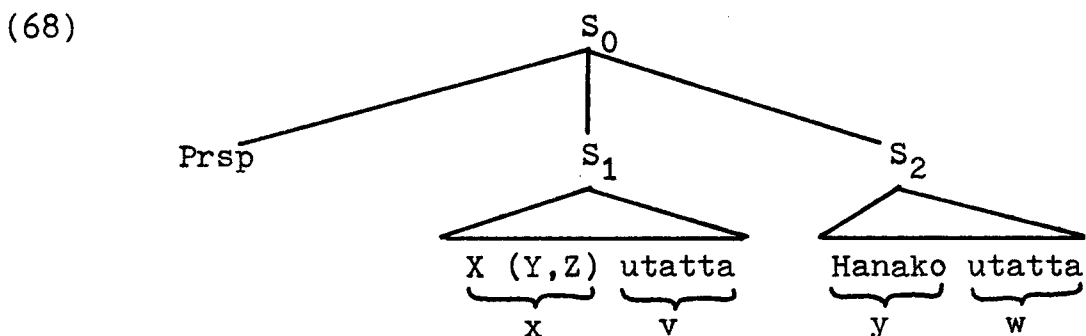
(65') a. X (Y,Z) ga utatta.

'X (Y,Z) sang.'

b. Hanako ga utatta.

'Hanako sang.'

which can be structurally represented as (68):



The information shown in (68) can be represented by the following formula:

$$\begin{array}{ll} & v = w \\ \text{If,} & x \neq y \\ \text{Then,} & y \longrightarrow y + \text{mo} \\ & \text{Prsp, } S_1 \longrightarrow \emptyset \end{array}$$

According to (68), the underlying structure consists of two sentences S_1 and S_2 , where S_2 presupposes S_1 . In the process of transformation, Prsp and S_1 are consequently deleted and the NP Hanako has the particle mo attached to it, to derive sentence (65). Notice that in (65'), it is presupposed that a group of people X,Y and Z sang, and that Hanako is viewed as a member of the group that sang. This presupposition underlies the use of mo in sentence (65), and is responsible for the correct semantic interpretation.

Let us now turn to the question of whether the interpretation adopted for mo can be applied to wa in (66) and ga in (67). First, let us consider sentence (66). It seems that sentence (66) answers the question (69).

(69) a. Hanako ga nani o sita ka.

'What did Hanako do?'

b. Hanako ga utatta.

'Hanako sang.'

This observation shows that for a sentence like (66), it is presupposed that Hanako did something and what she did was that she sang. On the other hand, (67) can be considered to be an answer to question (70).

(70) a. Dare ga utatta ka.

'Who sang?'

b. Hanako ga utatta.

'Hanako sang.'

It is evident from (70) that what is presupposed in (67) is that someone sang, and that someone who sang was Hanako. Notice the different presuppositions underlying (66) and (67).

In terms of the approach that we have adopted for the interpretation of mo, we would analyze the interpretation of sentences (66) and (67) to be those of (66') and (67') respectively.

(66') a. Hanako ga nani ka o sita.

'Hanako did something.'

b. Hanako ga utatta.

'Hanako sang.'

(67') a. Dare ka ga utatta.

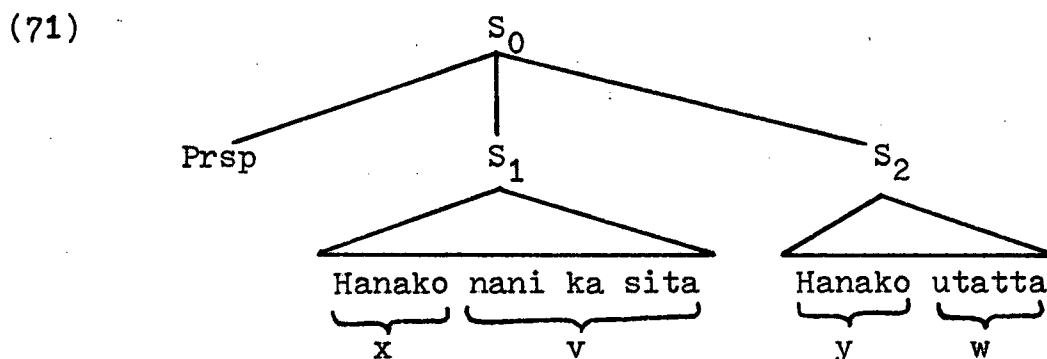
'Someone sang.'

b. Hanako ga utatta.

'Hanako sang.'

Observe that (66') and (67') are exactly the interpretations of such sentences as (66) and (67). The parts of the interpretation in (66'), when taken together, permit the correct inference that Hanako did something and what she did was that she sang. On the other hand, the parts of the interpretation in (67') together, permit the correct inference that someone sang and that someone who sang was Hanako. This clearly shows that the interpretation for wa and ga can be derived in very much the same way as we derive the interpretation of mo.

(66') can be represented by the following underlying structure:



The information contained in (71) can be represented by the following formula:

$$x = y$$

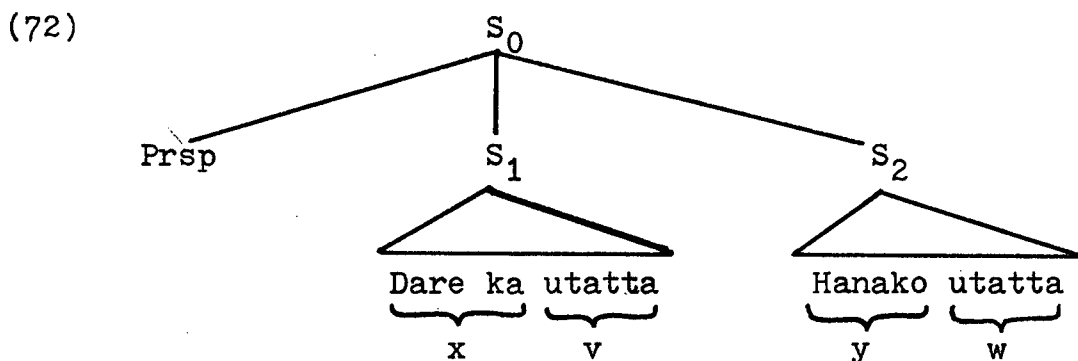
If, v and w = Predicate (and v has the feature of
 $[+ \text{ Indefinite}]$)

Then, $y \longrightarrow y + wa$

Prsp, $S_1 \longrightarrow \emptyset$

Notice that in (71), the NP Hanako is in the deep structure of S_1 . According to (71), S_2 presupposes S_1 , which, in the course of transformation, will be consequently deleted together with Prsp. The particle wa will be inserted after the NP Hanako of S_2 , which will surface to derive sentence (66).

(67') can be structurally represented as (72).



The information shown in (72) can be represented by the following formula:

If, $v = w$
 and $x, y = \underline{\text{NP}}|_S$ (and x has the feature of
 $[+ \text{Indefinite}]$)
 Then, $y \longrightarrow y + ga$
 $\text{Prsp}, S_1 \longrightarrow \emptyset$

The whole structure of (72) is considered to underlie sentence (67). (72) consists of two sentences S_1 and S_2 , where S_2 presupposes S_1 . In the course of its derivation, Prsp and S_1 are consequently deleted, and the particle ga is attached to the NP Hanako of S_2 to produce sentence (67).

The semantic interpretation of sentences containing the contrastive wa can be accounted for in a similar way by incorporating presuppositions in the analysis. Consider the following sentences:

(73) Yamada-san wa ikanakatta.⁵

'Mr. Yamada didn't go.'

(74) Ame wa hutte imasen.

'It is not raining.'

(73) can be considered to be an answer to (75).

(75) a. Yamada-san ga itta ka.

'Did Mr. Yamada go?'

b. Iie, Yamada-san wa ikanakatta.

'No, Mr. Yamada didn't go.'

The answer implies that the speaker is trying to convey the notion that someone else went but, unfortunately Mr. Yamada didn't go. In other words, the interpretation would be something like:

(73') Yamada-san wa ikanakatta ga, Tanaka-san ga itta.

'Mr. Yamada didn't go but Mr. Tanaka went.'

Similarly, (74) could be an answer to question (76).

(76) a. Ima, ame ga hutte imasu ka.

'Is it raining now?'

b. Iie, ame wa hutte imasen.

'No, it is not raining.'

In answering (76b), the speaker is trying to imply that something else is happening, such as 'it is snowing'. The interpretation could be something like:

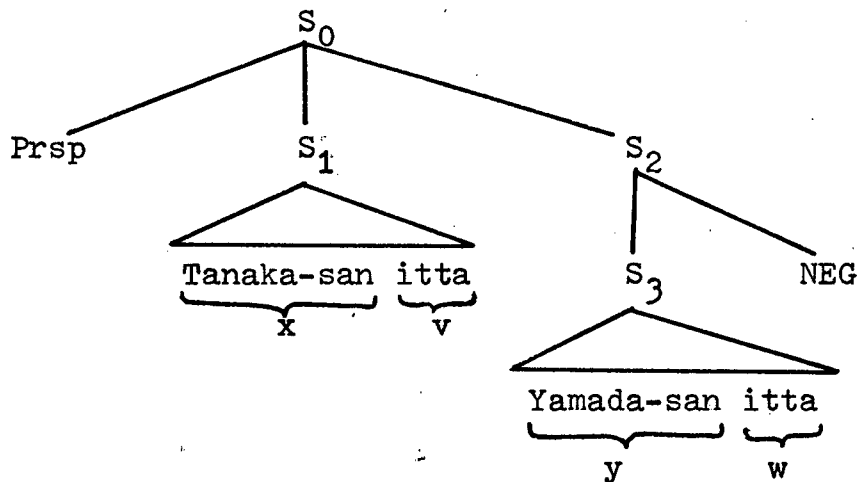
(74') Ame wa hutte imasen ga, yuki ga hutte imasu.

'It is not raining, but it is snowing.'

In terms of the line of approach that we have adopted, sentence (73) for example, is assumed to have the following

underlying structure:

(77)



In (77), S_2 presupposes S_1 . Notice also the positive-negative relationship between the presupposition S_1 and the assertion S_2 in the underlying structure. In the course of its derivation, the contrastive wa will be inserted immediately after the constituent S_3 (in this case, Yamada-san) only if the condition $[\alpha \text{ NEG}]_{S_1}$ and $[-\alpha \text{ NEG}]_{S_2}$ holds. Prsp and S_1 will be consequently deleted.

This can be represented by the following formula:

$$\begin{array}{ll}
 & v = w \\
 \text{If,} & x \neq y \\
 \text{Then,} & y \longrightarrow y + wa [+ \text{contrastive}], \text{ only if} \\
 & [\alpha \text{ NEG}]_{S_1} \text{ and } [-\alpha \text{ NEG}]_{S_2} \text{ holds.} \\
 & \text{Prsp, } S_1 \longrightarrow \emptyset
 \end{array}$$

It seems that the semantic distinctions between the sentences containing mo, wa and ga are basically due to the different presuppositions underlying those sentences. The observations above seem to show that it is possible to apply the same line of approach adopted for the interpretation of mo to other particles such as wa and ga.

4.4. CONCLUSION

This chapter is basically a descriptive one, attempting to characterize the general nature of the particle mo in Japanese, and at the same time, attempting to present a general schema for the interpretation of mo. The presuppositional properties that are associated with mo have been examined, and it has been pointed out that in certain cases mo involves the notion of expectation. It is exactly this notion of expectation that is responsible for the unexpectedness or surprise that usually accompanies mo. It seems that when mo involves the notion of expectation, then mo has the same meaning as that of even in English.

In conclusion, I would like to summarize what I believe to be the main points of my discussion.

- (i) The particle mo in Japanese can be used to specify the meaning of membership within a set, or of emphasis, or of concession.

- (ii) In the case of mo specifying the meaning of membership within a set, the interpretation can be analyzed into at least two parts, while in the case of mo specifying emphasis or concession, the information can be analyzed into at least three parts. This two-part or three-part interpretation underlies the different uses of mo. The parts of the interpretation, when taken together, permit the correct semantic interpretation on the surface structure.
- (iii) It has been observed that with regards to mo specifying emphasis or concession, there clearly exists a positive-negative relationship between the assertion and the expectation in the underlying structure.
- (iv) When occurring with quantifiers, the particle mo can emphasize either the maximum or the minimum value depending on the kind of verb, as well as on the positive or negative form of the verb in relation to the quantifiers. However, there are certain cases where the emphasis on the maximum or the minimum value is dependent on only the presuppositions irrespective of the verb forms.
- (v) With respect to negative sentences, the mo can emphasize only the maximum value when it occurs with time adverbials and semantically punctual

verbs. However, when it occurs with time adverbials and semantically durative verbs, mo can emphasize either the maximum or the minimum value. It has been observed that this peculiarity is related to the scope of the negative in the deep structure.

- (vi) As regards positive sentences, we see that mo can only specify the maximum value or quantity.
- (vii) It has been observed that if we follow the same line of approach that we have adopted for the interpretation of mo, then we will find that the same line of approach can also be applied to other particles such as wa and ga.

FOOTNOTES

1. Soga, Matsuo. 1975. "Kakari Zyosi 'Mo' no Koozoo ni tuite no Iti-Koosatu". (A Study on the Structure of the Particle Mo). To appear in Nihongo Kyooiku (Japanese Language Education).
 2. Kageyama, Taroo. 1973. "On the Generation of Mo". Papers in Japanese Linguistics. Vol. 2, No. 2. University of Southern California.
 3. For a discussion on the nature of punctual and durative verbs, refer back to Chapter One, Section 1.3.2.3.
 4. It has been pointed out in Chapter One, that adverbials are generated in the base as verb phrases of 'higher' simplex sentences than the superficial main clauses in the surface structure. In sentences containing both negatives and adverbials (such as Time, Locative or Instrumental adverbials), the understood order of the adverbials and the negatives in the underlying structures corresponds to the hierarchy of upper sentences containing those adverbials and negatives. For a detailed discussion, refer back to Chapter One, Section 1.3.2.
 5. Yamada-san wa ikanakatta.
 'Mr. Yamada didn't go.'
 The above sentence is actually ambiguous between the two readings of wa:
 (a) Thematic wa : 'Talking about Mr. Yamada, he didn't go.'
 (b) Contrastive wa : 'Mr. Yamada didn't go, (but Mr. Tanaka went).'
- It seems that in the actual conversation, (a) is very often distinguished from (b) by the emphatic stress on the contrastive wa. Thus, in the discussion, the stress marker (/) will be used to mark contrastive wa.

CHAPTER FIVE

CONCLUSION

What has been accomplished in this study is a provision of more insights into the problems of negation, a complex area of grammar which has, until recently, been relatively neglected in the study of Japanese Linguistics. It is hoped that the general observations and evidence to be drawn from this thesis will provide a stepping stone towards future research into the area of negation in Japanese. A large part of the discussion in this thesis has been based on the findings in the area of negation in English. In so doing, it is hoped that the findings and evidence obtained from this study may in turn, throw light to the problems of negation in Japanese, and perhaps serve as cross-linguistic evidences in support of the analyses and explications that have been presented for negation in English.

This study on negation in Chapter One has attempted to determine the structures for negative constructions, and where exactly the constituent NEG should be introduced in the deep structure. Syntactically, negation has been considered as a rather simple process of attaching a negative

morpheme na to the verb stem. For example, Inoue in her paper A Study of Japanese Syntax (1964), derives negative sentences by a rule of optional transformation of the following kind:

$$\begin{array}{ccccccc}
 X - NP + \left[\begin{array}{c} wa \\ ga \\ ga \end{array} \right] - Y - \left[\begin{array}{c} AB \\ Vm \\ \{Vi\} \\ Vt \end{array} \right] + T - Z & \longrightarrow & & & & & \\
 \hline 1 & & 2 & \hline 3 & 4 & 5 & \\
 \\
 1 + \left[\begin{array}{c} wa \\ ga \\ wa \end{array} \right] - 2 - 3 + ana + 4 - 5 & & & & & &
 \end{array}$$

However, it has been pointed out that this transformation fails to account for things like the scope of the negative and what other changes occur when sentences are negated. In our analysis, the sentence-final negative formative na in Japanese is derived from a single underlying predicate NEG, which is introduced optionally in the underlying structure as a verb of the "higher" sentence. The differences in the scope of the negative is accounted for in terms of higher predicates and the relative heights of these predicates. For example, as discussed in section 1.3.2., the syntactical ambiguity of the negative sentences containing adverbials (such as Time, Locative and Instrumental Adverbials) are accounted for by the relative heights of two predicates, the NEG and the Adverbial.

Various other aspects of negation in Japanese were examined in Chapters Two, Three and Four. The applicability of the negative transportation rule to Japanese has been examined in Chapter Two. The evidence drawn from the discussion, show clearly that we cannot rely on the Simplex Sentence Condition and the Confirmatory Question Formation as arguments for the support of the negative transportation rule in Japanese. Furthermore, counterexamples have been cited which greatly weaken the justification for the existence of the negative transportation rule in Japanese.

It has been observed in Chapter Three that negative questions in Japanese are syntactically ambiguous and can elicit peculiar responses represented by hai 'yes' and ie 'no!'. The responses cannot be predicted from the question utterances alone because of their semantic and syntactic ambiguity, and therefore we have resorted to the extra-linguistic information of presuppositions as explanations. Likewise, the interpretation and the generation of particles such as mo, wa and ga, as discussed in Chapter Four, were accounted for by incorporating presuppositions into the analysis.

Several interesting problems have been left open for future research. Some of these are, the peculiarity that is associated with reason adverbials co-occurring with the negative in a sentence, as discussed in 1.3.2.2.; the problems associated with sika lowering and its subsequent attachment to noun phrases of lower sentences, as discussed in 2.3.3.;

and finally, the surface phonological feature of intonation, discussed in 3.2.5., which is considered to mark the distinction in the syntactic ambiguity of the negative questions. So far in this thesis, I have not been able to account for the above mentioned problems satisfactorily. Perhaps future study can deal with these problems in a fuller and more satisfying way.

Furthermore, an investigation of affixal negation in Japanese might be a valuable future study. In Japanese, affixal negation is formed by the use of negative prefixes such as hu-, hi-, mu-, mi-, and bu-. The following sentences are examples of affixal negation.

- (a) Tikara no iru sigoto wa onna no hito ni wa
hutekitoo da.

'Jobs that require strength are unsuitable for women.'

- (b) Sore to kore to wa mukankei da.

'This and that are unrelated.'

Affixal negation, though a very interesting topic by itself, is beyond the scope of this study, and therefore, has been left open for future research.

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