

On the Scope of Negation in Japanese*

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The purpose of this paper is to demonstrate that the characterization of the negation scope that Kuno gives in terms of linear precedence is inadequate and that it needs to be replaced by the one defined in terms of the syntactic domain proposed in Reinhart (1976). It will be shown that this analysis is superior to Kuno's both descriptively and explanatorily; it can account for the phenomena that Kuno's rule cannot and it can give a crosslinguistic characterization of the negation scope.

1. Introduction

In a series of papers Kuno(1980, 1982, 1983) has observed that the scope of the Japanese negation morpheme *nai* is very limited and does not extend beyond the verbal that immediately precedes it. For illustration look at the following:

- (1) *Watasi-wa 1920-nen-ni umare-na-katta.
I-TOP(ic) in-1920 be-born-NEG-Past
'I was not born in 1920.'
- (2) a. Kimi-wa Pari-de kono tokei-o kat-ta no ka.
you-TOP in-Paris this watch bought Comp Q
'Did you buy this watch in Paris?'
- b. *Iya, Pari-de kawa-na-katta.
no buy-NEG-Past
'No, I didn't buy it in Paris.'

Sentences in (1) and (2b) are unacceptable, while the structurally parallel English translations are perfect.¹ In *I was not born in 1920*, the focus of the negation morpheme *not* is *in 1920*, so that its interpretation is like (3):

- (3) It was not in 1920 that I was born.

If the focus is on the verb, the interpretation is odd, as can be seen in (4):

- (4) ??In 1920, I was not born.

The oddness of *watasi -wa 1920-nen-ni umare-nakatta* is to be attributed to the fact that it cannot allow the interpretation given in (3) (i.e. the one with the negation focus on *1920-nen-ni*), whereas the English equivalent in (1) can. This fact can be explained if we assume that the scope of the Japanese negation morpheme *nai* does not extend over the immediately preceding verbals. In order to negate *1920-nen-ni*, we must place it within the verbal immediately before *nai* as in (5) and (6):

- (6) [Watasi-ga umareta no] wa 1920-nen-(ni) dewa nai.
 I-NOM was-born Comp TOP in 1920 Copula NEG
 'It is not in 1920 that I was born.'
- (5) Watasi -wa [1920-nen-ni umareta no] dewa nai.
 I-TOP in 1920 was-born Comp Copula NEG
 'It is not the case that I was born in 1920.'

In (5) and (6) *1920-nen-ni* is within the copula phrase immediately preceding *nai*, so that they both allow the interpretation that includes *1920-nen-ni* within the negation scope.

Now contrast (1) and (2) with (7) and (8) below, which are fully acceptable:

- (7) Watasi -wa 1920-nen-ni -wa umare-te-i-na-katta.
 I- TOP in-1920 -TOP had-not-been-born
 'In the year 1920, I had not yet been born.'
- (8) Watasi -wa Pari-de tokei-o kawa-na-katta
 I-TOP in-Paris watches did not buy
 'I did not buy watches in Paris.'

This is to be expected because (7,8) both allow pragmatically sound interpretations even with the negation focus on the verbals immediately preceding *nai*. It is not unnatural to say that you had not yet been born with respect to a particular year. Thus the unacceptability of (1) and (2b) is to be attributed to the unavailability of negative focus on the verbals not immediately preceding *nai*. Kuno has expressed the generalization as follows:^{2,3}

- (9) The Scope of Negation:
 The scope of the negation morpheme *nai* does not extend over the verbal that immediately precedes it.

Although (9) is quite illuminating and captures basic scopific facts of *nai*, it has its drawbacks. Firstly, it is observationally inadequate, i.e. there are examples which (9) cannot cover, as exemplified in (10):

- (10) Watasi -wa [kare-ga 1920-nen-ni umareta to] (wa) omowa-nai.
 I -TOP he-NOM in-1920 was-born Comp think-NEG
 'I don't think he was born in 1920.'

(10) has an interpretation in which the embedded sentence rather than the main verb is in the scope of *nai*, in which case the constituent in the focus of negation is *kare* or *1920* (because the negation of *umareta* is not available for pragmatic reasons as discussed above). We cannot save (9) by saying that *nai* originates from the complement S and that it is raised to the matrix S by the rule of "negative travel", as is sometimes done for English. This is so, because unlike English the structure posited as underlying (i.e. *kare-ga 1920-nen-ni umare-na-katta*) is unacceptable and can never have the desired reading, as we have seen above. Thus (10) constitutes a counterexample to Kuno's rule (9). Note that in this particular example the scope possibility of negation is exactly the same as the English translation given in (10). The *not* in *I don't think* can negate the complement sentence. This brings us to the second point that Kuno's generalization does not explain. (9) does not say why *nai* has the property, neither does it explain why English and Japanese differ in the scope property of the negation morphemes. Also, the similarity of *not* and *nai* in (10) is not explained by Kuno's rule (9).

In what follows I will address myself to this problem. I will argue (a) Kuno's characterization of Japanese negation scope in terms of linear precedence is misguided and it should be replaced by the one utilizing a hierarchical notion, viz. *c-command* and (b) by so doing we can give a unified and language independent characterization of negation scope, all the differences following from the function of parametric variations and the language specific characteristics of the negation morphemes.

In the next section, I will discuss the principle governing the negation scope in English and demonstrate that the relevant scope property must be defined by the structural notion of *c-command*. In section 3, I will argue that the scope of *nai* can also be shown to be governed by *c-command*, given the assumption that Japanese is a (partially)nonconfigurational language. It will be shown that our approach is superior to Kuno's both in terms of the descriptive and explanatory adequacy.

2. Negation Scope in English

In this section I will discuss the scope of the English negation morpheme

not, and argue that it will be defined as the syntactic domain of *not*, in the sense of Reinhart(1976, 1983).

2.1 As we saw in section 1, the scope of *not* differs from that of *nai*. Let us examine what the exact nature of the differences is:

(11) I did not buy watches *in Paris*.

(12) I did not marry her *because she was rich*.

(11) and (12) are both ambiguous depending on whether or not the italicized constituents are in the negation focus of *not*. When they are in the negation focus, (11) would be similar in meaning to (13) and (12) to (14):

(13) It was not in Paris that I bought watches.

(14) It was not because she was rich that I married her.

On the other hand, when the constituents in question are not in the negation focus, the interpretation of (11) would be like (15) and that of (12) like (16):

(15) In Paris, I did not buy watches.

(16) Because she was rich, I did not marry her.

Quirk et al (1972) summarize the scope behavior of *not* as follows:

(17) The scope of the negation normally extends from the negation word itself to the end of the clause, or to the beginning of a final adjunct. The subject, and any adjuncts occurring before the predication, normally lie outside it. (The Grammar of Contemporary English p. 381).

According to (17), the scope possibility of *not* in (11) and (12) will be as follows:

(18) a. I did [not buy watches in Paris].
 b. I did [not buy watches] in Paris.

(19) a. I did [not marry her because she was rich].
 b. I did [not marry her] because she was rich.

(17) is simply a descriptive statement of facts and not so revealing. Accord-

ing to (17), the possibility of some final adjuncts being outside the scope of negation and the fact that the subject and prepredicational adjuncts are outside the scope of negation are completely unrelated, thereby failing to give a general description of the negation scope. Another defect of (17) is that since it defines the scope of *not* in terms of the relative order with respect to *not*, it is treating the scope possibility of negation as completely accidental features of English. That is, it does not say why in English the scope of the negation has to be the right of *not* and can extend to the end of the sentence, and why in Japanese it has to be the left of the negation morpheme and cannot extend over the immediately preceding verbal. What we need is a principled way to answer these questions. I will go into this problem below.

2.2 As Huang(1982) and Reinhart(1976, 1983) amply demonstrate, what is really relevant in the scope of *not* is the structural relation of *not* to the constituents in the negation focus. Since there are reasons to believe that final adjuncts not in the negation scope are sentential, and not VP adjuncts, the nodes that can be in the negation focus are in VP to the right of *not*(see Huang(1982), Reinhart(1983) and Takubo(1983) for discussion). Given the right branching tree structures of English, the scope of *not* can be described as the VP in the construction with *not*. The notion that best captures this structural relation is the syntactic domain proposed in Reinhart(1976, 1983). The Syntactic domain is defined as follows:

(20) Syntactic Domain:

The domain of a node A consists of all and only the nodes c-commanded by A.

The definition of c-command in (20) is stated as follows:

(21) C-Command:

Node A c-commands node B iff the branching node α_1 most immediately dominating A either dominates B or is immediately dominated by a node α_2 , which dominates B, and α_2 is of the same category type as α_1 .

Stated in terms of the c-command domain, the negation scope of English can be expressed as follows:

(22) Scope of negation:

The scope of the negation is the syntactic domain of the negative morpheme. The focus of the negation must be in the scope of the negation.

(22) has several advantages over (17). Firstly, (22) can give a neat classification of the class of adjuncts that can and cannot come in the negation focus, even in the post verbal position. Manner adverbials can always be in the negation focus because they are within VP. Sentential adverbs can never be in the negation focus because they are outside VP. Some adverbials can be either verb phrasal or sentential. When verb phrasal, they can be in the negation focus, when sentential, they cannot (see Reinhart (1983) for examples and discussion). Secondly, (22) can explain why sentential adjuncts, preposed phrases and subjects all behave alike; they are all not in the syntactic domain of *not*. Thirdly, (22) can provide a crosslinguistic characterization of the negation scope, deriving the particular properties of negation from the independently motivated structural property of the languages in question. (22) is quite general and we would expect it is true crosslinguistically. In the next section I will show that given the independently motivated structural property of Japanese (i.e. the property of being a nonconfigurational language), (22) also serves to describe the scope possibility of the negation in Japanese.

3. Scope of Negation in Japanese

In section 2, we have seen that the syntactic domain is the crucial notion in describing the scope property of the negation in English. In this section we shall see if a principle like (22) is also at work in Japanese.

3.1 First consider the Japanese counterparts for (11) and (12):

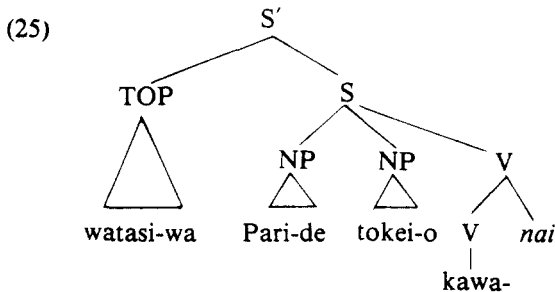
- (23) a. *Watasi -wa Pari-de tokei-o kawa-na-katta.*
 I -TOP in-Paris watches did-not-buy
 'In Paris, I didn't buy watches.'
 b. *Watasi -wa Pari-de tokei- o katta no dewa nai.*
 'I didn't buy watches in Paris.'
- (24) a. (*kanozyo ga*) *kanemoti-datta kara,* kanozyo-to kekkon-si-
 she -NOM was-rich because with-her marry-
 na-katta.
 did-not
 'Because she was rich, I did not marry her.'
 b. (*kanozyo-ga*) *kanemoti-datta kara,* kanozyo-to kekkon-sita no
 dewa nai.
 'I did not marry her because she was rich.'

As we have seen in section 1, (23a) cannot mean (13) and (24a) cannot mean (14). For the italicized constituents to come in the focus of the negation, the

sentences must first be nominalized (e.g. by adding *no*) as in (23b) and (24b). This is what Kuno's generalization expresses. The problem with Kuno's analysis as given in (9) is that, just like Quirk et al's description, it is ad hoc and cannot provide answers to the kind of questions asked concerning English negation scope. I would like to argue that given the independently motivated structural property (viz. nonconfigurality), of Japanese, (22) can describe the scope property of *nai*. The differences of scope possibilities between the two languages must, then, be attributed to the differences in configurability.

3.2 It has long been recognized that Japanese differs from English in that the former lacks the configurational property that exists in the latter. The relevant difference here is the existence of a VP node. Japanese is usually considered a flat, VPless language, while English is characterized as having a VP. This difference, I will argue, is responsible for the scope difference observed between the two languages. Given the fact that (at least in unmarked cases) Japanese lacks a VP node, the scope property of *nai* can be characterized by the c-command requirement of the negation given in (22) and the lexical property of *nai*, i.e. it is affixed to verbs. We shall see how it works below.

Since *nai* is affixed to verbs, the structure of (23a) will be like the following (tense marker is omitted):



In (25) *Pari-de* and *tokei-o* are not c-commanded by *nai*. In general, given a VPless, flat structure, the only constituent that is c-commanded by, and is in the syntactic domain of, the suffix of the verb is the verb itself, the arguments of the verb as well as all the adjuncts all being outside the c-command domain of it. An interesting prediction that this hypothesis makes is that in some marked cases, where we can posit a VP node, the constituents inside that VP can be in the scope of *nai*. The case in point is the construction involving the complementizer *to*:

- (26) *watasi -wa [kare-ga iku to] (wa) omowa-na-katta.*
 I-TOP he-NOM go Comp think-NEG-Past
 ‘I didn’t think that he would go.’

There are reasons to believe that a complement sentence marked by *to* form a constituent with the verb to make up a VP. I will discuss one here (see Inoue(1976) for others).

There is a construction in Japanese that has the effect of repeating a verb to express concession:

- (27) *Watasi -wa iku koto -wa itta.*
 I-TOP go thing TOP went
 ‘I did go, (but I did not have any fun there).

Usually the constituent repeated is only a verb. The arguments of the verb are not repeated.

- (28) *Watasi -wa sore-o suru koto -wa sita.*
 I - TOP it do thing TOP did
 ‘I did do it (but without any results).’

- (29) **Watasi -wa sore-o suru koto -wa sore-o sita.*
 ‘same as above’

But when the complement is *soo*, the pronominal for *to* marked complement, it can be repeated together with the verb.

- (30) *Watasi mo soo omou koto -wa soo omoimasu*
 I also so think think
 ‘I think so, too,(but can’t say so to her).’

Thus the rule at work is to be stated as the repetition of a verb phrase. Since ‘*soo*’ is the pronominal for *to* complement, *to* phrase can be said to be within the VP.⁴ This analysis predicts that *to* complement can come in the scope of the negation. This is correct, as we have seen in section 1. Thus (22) can explain the negation scope of *nai* in sentences like (10) and (26), provided that our analysis to posit a VP in these cases is correct. Kuno’s (9) cannot even describe the scope property of *nai* in sentences like (10) and (26), because it defines the negation scope in terms of linear precedence.

3.3 We have seen above that (22) can explain the negation scope both in English and in Japanese with minimal assumptions. Notice that the descrip-

tions of the negation scope in terms of, precede and command, or precede and Kommand, all fail in this regard. This is so, because the syntactic domain these notions provide are defined in terms of cyclic nodes, i.e. S and NP, which are irrelevant in the description of the negation scope in Japanese as we have demonstrated. Note in this connection that it is extremely improbable that these two languages utilize different principles in regard to the negation scope, e.g. c-command for Japanese, Kommand for English or immediate precedence in Japanese and c-command in English. The evidence required of the language learner to differentiate the grammar in this manner would be so hard to come by as to make this assumption improbable. Thus the discussion given above provides a strong argument for positing (22) as the principle governing the negation scope both in English and Japanese.

4. Conclusion

We have demonstrated above that Kuno's characterization of the scope of *nai* as immediately preceding verbals is inadequate and should be replaced with the one utilizing a hierarchically defined notion, i.e. c-command. This analysis is shown to be descriptively superior to Kuno's in that it can account for the sentences that Kuno's cannot. It also has advantage over Kuno's at an explanatory level, because it can provide a crosslinguistic formulation of the negation scope, explaining language variations as the function of the negation scope and the value of the parameter [\pm configurational].

Footnotes

*This is the first half of a paper I read at the third Korean-Japan Joint Workshop on Formal Grammar Theory. The full version of the paper will appear in *PIJL* vol.10. The present version is included in this volume in order to reflect the atmosphere of the workshop as much as possible. A preliminary version of this paper appeared in *Papers from the Kyoto Workshop on Japanese Syntax and Semantics*(1983). I thank all the people who gave me valuable comments on earlier versions of this paper. The remaining errors are my own.

1. Some people might claim that a constituent marked by *wa* can be in the focus of the negation. That this is false is amply demonstrated in Kuno (1980). (i) does not mean 'the person who went is not him':

- (i) Kare wa ika-na-katta.
 he-TOP go-NEG-Past
 'He did not go.'

It simply means that as for him, he did not go. The possibility that somebody else went is only conversationally implicated and thus can easily be canceled as in (ii):

- (ii) Kare -wa ika-na-katta si, hoka no mono mo ika-na-katta.
 he-TOP go-NEG-Past and other man also go-NEG-Past
 'He did not go and other people did not either.'

The situation is different in the sentences in which *kare* is in the negation focus, as in (iii):

- (iii) Kare-ga it-ta no dewa nai.
 he-NOM go-Past Comp Copula NEG
 'It is not he that went(there).'

With the focus on *kare*, (iii) presupposes that somebody else went, as the English translation suggests, and this presupposition cannot be canceled. The fact that (2b) can become better by adding *wa* to *Pari de*, as in (iv), can be explained in the same way:

- (vi) Iya, *Pari-de-wa* kawa-na-katta.
 No in-Paris-TOP did-not-buy
 'No, I didn't buy them in Paris.'

Although *Pari de* 'in' is not in the negation focus, and thus, cannot be a direct answer to (2b), it can indirectly answer (2b), because it pragmatically implies that I bought watches somewhere else.

2. Kuno gives two sets of exceptions to this generalization. He applies this scope rule to the scope of the question particle *ka* (see Kuno(1982, 1983), Takubo(1983) for discussion)

3. Note that Kuno's (9) does not say anything as to cases where there is no focus, as in some weather sentences like(v):

- (v) Kinoo -wa ame -ga hura-na-katta.
 yesterday-TOP rain-NOM fall-NEG-Past
 'Yesterday it did not rain.'

In (v), it makes no difference whether the scope of *nai* is only the verb or the entire sentence. This is so because, given that *nai* is not focused, it cannot presuppose that something did or did not fall. The sentence simply

means that it did not rain, and not that the thing that fell was not rain or the thing that did not fall was rain. The point is that if there is a focus involved, *ame* can never be in the focus of the negation. Look at the following:

- (vi) ?? Kinoo -wa ame-ga hura-na-katta, yuki-ga hut-ta.
 yesterday-TOP rain-NOM fall-NEG-Past snow-NOM fall-Past
 '(Lit.) Yesterday, it was not rain that fell, it was snow.'

(vi) is not acceptable in the intended reading (i.e. with the negation focus on *ame*). To put *ame* in negation focus, it must be in the scope of *nai* in the sense we described. One such way is to add *no* before *nai*:

- (vii) Kinoo-wa [ame-ga hut-ta no] dewa nai, [yuki-ga hut-ta] no da. 'same as (vi)'

(vii) allows a reading with *ame* in the focus of *nai*.

4. Relaxing the nonconfigurational character of Japanese this way is not so unnatural, because since nonconfigurationality is correlated with the existence of inherent case marking mechanism, we might expect relaxation of that property (e.g. configurational marking of grammatical function etc.) where there is no case marking involved. I would argue that that is what is involved here. Other constructions where VP can be posited are all the cases where no inherent case marking is involved.

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