

Negation and Focusing in the Grammar of Japanese

Shûichi Yatabe
University of Tokyo

1 Introduction

The aim of this paper is to resolve an issue in Japanese linguistics that has been discussed by numerous authors including Kuno (1980, 1983), Takubo (1985), Kato (1989), and Masuoka (1991) under the rubric of “negator scope.” I will argue that the issue of “negator scope” is automatically resolved if we make (i) a rather uncontroversial assumption that a focused expression is associated with a scope and (ii) a somewhat more controversial, but nevertheless defensible assumption that NegP does not exist in Japanese.

Let me start off by recapitulating what the issue of negator scope is all about. The issue primarily concerns the semantic contrast between a sentence like (1), which is headed by a negative verb (in this case *kawanakatta* ‘buy-NEG-PAST’), and a sentence like (2), which is obtained by attaching the nominalizing morpheme *no* to a sentence headed by a nonnegative verb (in this case *katta* ‘buy-PAST’) and then negating that nominalized sentence (whose subject is incidentally a zero pronoun coindexed with a topic phrase in this case).

- (1)?*Watashi wa Kyôto de kono tokei o kawanakatta*
I TOP Kyoto in this watch ACC buy-NEG-PAST
‘I didn’t buy this watch in Kyoto.’
- (2) *Watashi wa [Kyôto de kono tokei o katta no de wa] nai.*
I TOP [Kyoto in this watch ACC buy-PAST NML COP.GER TOP] NEG-PRES
‘It is not the case that I bought this watch in Kyoto.’

When uttered in an appropriate context, (2) can mean “It was not in Kyoto that I bought this watch”. In this situation, we could perhaps say that what the negative morpheme (glossed as NEG) in this example is negating is the semantic content of the phrase *Kyôto de* ‘in Kyoto’; in Kuno’s terminology, it is said that the phrase *Kyôto de* in example (2) is in the scope of the negative morpheme.

On the other hand, somewhat surprisingly, sentence (1) cannot be interpreted as saying “It was not in Kyoto that I bought this watch”, no matter what the surrounding context is. (What is more, the sentence in (1) sounds awkward, unless embedded in some special kind of context, the nature of which will be examined below). Employing Kuno’s terminology, we can describe this situation by saying that the phrase *Kyôto de* in (1) is not in the scope of the negative morpheme.

Now, the issue of “negator scope” can be stated as follows: what can be in the scope of the negative morpheme under what circumstances?

I will examine two previous analyses of this problem in Section 2, sketch an alternative analysis in Section 3, show how this analysis works in Section 4, and present an additional piece of evidence for the proposed analysis in Section 5.

2 Previous Analyses

2.1 Kuno’s (1983) analysis

Kuno’s (1983) analysis is summarized in (3).

- (3) The scope of the negation morpheme *nai* and that of the question morpheme *ka* do not extend beyond the verbal that immediately precedes them.

Exception 1: A “multiple-choice focus” can be in the scope of *nai* and *ka* even when it is not in the verbal that immediately precedes those morphemes.

Exception 2: A *wh*-word can be in the scope of *ka* even when it is not in the verbal that immediately precedes the morpheme.

On this account, the phrase *Kyôto de* in (1) is correctly expected to be outside the scope of the negative morpheme, as the phrase is not in the verbal that immediately precedes that morpheme. In (1), the only thing that can be negated by the negative morpheme is the verbal stem *em kaw-* ‘buy’. On the other hand, the phrase *Kyôto de* in (2) is correctly expected to be in the scope of the negative morpheme, as the phrase is in the verbal that immediately precedes the negative morpheme; in (2), the verbal that immediately precedes the negative morpheme is the bracketed portion as a whole, and therefore anything in the bracketed portion can be negated by the morpheme. I will come back to the exception clauses in (3) later on.

Kuno’s analysis has three problems, which are listed in (4).

- (4) Three problems with Kuno’s (1983) analysis:
- (i) The supposed distinction between “multiple-choice foci” and “fill-in-the-blank foci” is illusory.
 - (ii) It is not the case that a verbal that immediately precedes the negation morpheme is always in the scope of that morpheme.
 - (iii) The scope of the question morpheme is different from that of the negation morpheme.

Let me examine these one by one.

First, the first exception clause in (3) relies on the distinction between “multiple-choice foci” and “fill-in-the-blank foci”, which turns out to be illusory. This exception clause is intended to explain the contrast between a sentence like (5) and a sentence like (7) below.

- (5) ?Shêkusupia wa 1564 nen ni umarenakatta.
 Shakespeare TOP the year 1564 in be born-NEG-PAST
 ‘Shakespeare wasn’t born in 1564.’

According to Kuno, the phrase *1564 nen ni* in sentence (5) is not a multiple-choice focus, which is defined as an expression that is understood as contrasting with a small number of alternatives; the phrase *1564 nen ni* in sentence (5) simply fills in a gap in an information structure, as illustrated in (6), and is not understood as contrasting with a limited number of alternatives such as the year 1566 and the year 1562.

- (6) Shêkusupia wa (1564 nen) ni umareta.

On the other hand, according to Kuno, the phrase *kuruma de* in sentence (7) is a multiple-choice focus; it is understood as contrasting with a small number of alternatives such as “by train” and “on foot”, as illustrated in (8).

- (7) Kyô wa kuruma de konakatta node, aruite kaeranakereba naranai.
 today TOP car INST come-NEG-PAST because walk-GER return-NEG-PROV ’become’-NEG-PRES
 ‘Since I didn’t come here by car today, I will have to walk back.’

- (8) Watashi wa $\left\{ \begin{array}{l} \text{aruite (on foot)} \\ \text{densha de (by train)} \\ \text{basu de (by bus)} \\ \text{kuruma de (by car)} \end{array} \right\}$ kita.
 I TOP come-PAST

The supposed distinction between these two types of focus is, in my view, illusory. For one thing, it is not so obvious that the phrase *kuruma de* in sentence (7) is understood as contrasting with a small number of alternatives whereas the phrase *1564 nen ni* in sentence (5) is not. For another thing, there are cases where an expression that counts as a multiple-choice focus cannot be in the scope of the negative morpheme, contradicting what Kuno’s theory leads us to expect. (9) is a case in point.

- (9) Kimi, moshikasuru to kuruma de kita?
 you by any chance car INST come-PAST
 ‘Did you come here by car, by any chance?’
 ??Uun, kuruma de konakatta yo.
 no car INST come-NEG-PAST I tell you
 ‘No, I didn’t come here by car.’

In the second sentence in (9), the speaker is trying to express what is normally expressed by a sentence like (10).

- (10) Uun, [kuruma de kita n jâ] nai yo.
 no [car INST come-PAST NML COP.GER.TOP] NEG-PRES I tell you
 ‘No, I didn’t come here by car.’

The second sentence in (9), however, fails to express the same content as sentence (10); the phrase *kuruma de* in sentence (9), which must be a multiple-choice focus according to Kuno’s view, cannot be negated by the negative morpheme, despite what the first exception clause in (3) says.

The second problem with Kuno’s theory is that it is not the case that a verbal that immediately precedes the negation morpheme is always in the scope of that morpheme. Consider the sentence in (11).

- (11)?Shêkusupia wa 1616 nen ni umarenakatta yo.
 Shakespeare TOP the year 1616 in be born-NEG-PAST I tell you
 (12) Shêkusupia wa [1616 nen ni umareta n jâ] nai yo.
 Shakespeare TOP [the year 1616 in be born-PAST NML COP.GER.TOP] NEG.PRES I tell you
 (Shinda n da yo.)
 (die-PAST NML COP.PRES I tell you)
 ‘It is not the case that Shakespeare was *born* in 1616. (He *died* that year.)’

No matter in what way it is pronounced, sentence (11) cannot mean what sentence (12) means: “What happened to Shakespeare in 1616 was not birth but something else”. In other words, the negative morpheme in sentence (11) cannot specifically negate the content of the verb *umare-* ‘be born’. This situation contradicts Kuno’s analysis, which states that the verbal that immediately precedes a negative morpheme can always be in the scope of that morpheme.

The third problem with Kuno’s theory is that the scope of the question morpheme is different from that of the negative morpheme. Compare the sentence in (13) with that in (2).

- (13) Kimi, moshikasuru to *Kyôto de* kono tokei o katta kai?
 You, by any chance Kyoto in this watch ACC buy-PAST Q
 ‘Was it by any chance in Kyoto that you bought this watch?’

Sentence (13) asks if it was in Kyoto that the addressee bought the watch. What is questioned by the question morpheme is, in a sense, the content of the phrase *Kyôto de*; in Kuno’s terminology, it is said that the phrase *Kyôto de* in this sentence is in the scope of the question morpheme *ka*. Since the phrase *Kyôto de* in this position cannot be in the scope of the negative morpheme, as shown in (1), it can be concluded that the scope of the negative morpheme and that of the question morpheme are not identical.

Thus Kuno’s thought-provoking theory of “negator scope” turns out to be inadequate.

2.2 Masuoka’s analysis

Next, let me examine Masuoka’s (1991) analysis. His analysis can be summarized as in (14). (Masuoka’s theory is couched in his highly idiosyncratic terminology. (14) is a result of my effort to rephrase his theory in a more conventional terminology.)

- (14) A sentence containing a focus must be nominalized by the nominalizer *no* or *n*.
A sentence containing no focus need not be nominalized.

On this account, the contrast between sentence (1) and sentence (2) receives the following explanation. Both of the sentences contain a focus, *Kyôto de*, but sentence (1) nevertheless does not contain the nominalizer *no*, unlike sentence (2). Therefore only the sentence in (2) is acceptable.

It is to be noted that Masuoka’s theory successfully accounts for the status of the sentence in (11). In sentence (11), the verb *umare-* is focused. The sentence, however, is not nominalized, in violation of what is stated in (14). Thus it is correctly predicted that this sentence cannot mean what it is intended to mean.

Masuoka’s theory has two inadequacies, however. First, like Kuno, Masuoka relies on the imaginary distinction between multiple-choice foci and fill-in-the-blank foci in order to account for the status of sentences like (7). Second, there are sentences that contain a focus but are not nominalized. The sentence in (15) is a case in point.

- (15) Watashi wa *Kyôto de* kono tokei o katta.
I TOP Kyoto in this watch ACC buy-PAST
‘I bought this watch *in Kyoto*.’

3 A Sketch of an Alternative Analysis

In this section, I will present an outline of my alternative proposal.

3.1 Focus interpretation

First of all, I would like to set forth a few relatively uncontroversial assumptions about focusing. Unlike Kuno (1983), I will use the term *focus* in the same sense as authors like Jackendoff (1972), Chomsky (1981), and Rooth (1992) do. Thus, while Kuno uses the word *focus* to refer to whatever is being specifically negated or questioned, I will use the word to refer to an expression whose denotation is understood as contrasting with some other semantic object of the same type. For the sake of concreteness, I will assume in what follows that the meaning of a sentence containing a focused expression can be represented by a logical form that is constructed by first replacing the focused expression with a variable, say x , and then attaching the string “It is when $x = \langle$ the focused expression \rangle that we can say” at the front of the sentence. An example of this procedure is given in (16). By assumption, the meaning of the sentence in the first line is given by the logical form shown in the second line.

- (16) John ate $[_{+F}]$ a banana].
It is when $x =$ “a banana” (as opposed to $x =$ “an apple”, etc.) that we can say “John ate x ”.

It is to be noted here that a focused expression is always associated with a scope, just as a quantifier is. The meaning of a sentence containing a focused expression is affected by which clause that focused expression takes as its scope. For instance, the sentence in (17) is ambiguous, depending on whether the focused expression *a banana* takes S1 or S2 as its scope.

- (17) $[_{S1}$ Mary believes $[_{S2}$ John ate $[_{+F}]$ a banana $]]$.
Mary believes that it is when $x =$ “a banana” that we can say “John ate x ”.
(The scope of the focused expression is S2.)
It is when $x =$ “a banana” that we can say “Mary believes John ate x ”.
(The scope of the focused expression is S1.)

3.2 The syntax of negative sentences in Japanese

Next, I would like to present a hypothesis about negative sentences in Japanese.

- (18) A hypothesis:
The “infinitival portion” of a sentence is not a syntactic constituent and hence cannot serve as the scope of a focused expression.

This is the central hypothesis to be defended in this paper. The word “infinitival portion” that appear in the statement is intended to refer to the part of a clause that is assumed to form a VP in many versions (such as Kuroda’s (1988)) of the VP-internal subject hypothesis: namely a verb stem (or an adjective stem), all its arguments, and some of its adjuncts. For example, the infinitival portion of the sentence in (19) is the underlined string, which consists of a verb stem *fur-* and its subject *ame ga*.

- (19) Kyô wa ame ga fur-ana-katta.
 today TOP rain NOM fall-NEG-PAST
 ‘It didn’t rain today’

More specifically, I assume, following Sells (1995) among others, that a verb stem (or an adjective stem) and its inflectional suffixes are combined to form a morphosyntactic constituent, as shown in (20a) and (20c), and that structures such as (20b) and (20d) are disallowed by the grammar.

- (20) a. [ame ga [[fur-ana]-katta]]
 b.*[[ame ga fur]-ana-katta]
 c. [ame ga [[fur-imasen]-deshita]]
 d.*[[ame ga fur]-imasen-deshita]]

To avoid a possible misunderstanding, I would like to make a brief comparison between my analysis and Kuno’s at this point. In my analysis, the negative morpheme c-commands the immediately preceding verbal and nothing else. This feature of my analysis might be felt to be reminiscent of Kuno’s analysis, in which the negative morpheme can semantically modify the immediately preceding verbal and nothing else. In fact, this apparent resemblance is misleading. My analysis does not rely on any assumption concerning which expressions the negative morpheme can or cannot semantically modify; it only relies on the assumption concerning the syntactic constituency of negative sentences. In fact, I believe that what the negative morpheme negates is not just the immediately preceding verbal but the infinitival portion as a whole. For instance, in the sentence in (21), it seems reasonable to suppose that what is negated by the negative morpheme is the underlined string as a whole, which is the infinitival portion of the sentence.

- (21) Kinô wa san-ji-chôdo ni yûbin’ya-san ga konakatta.
 yesterday TOP exactly 3:00 at mail carrier NOM come-NEG-PAST
 The event of “a mail carrier coming exactly at 3:00” did not happen yesterday.

4 Reanalysis of Kuno’s Observations

Let us now examine how the proposed analysis accounts for the kinds of fact that Kuno has brought to light. Let me start with sentence (2), which is repeated here as sentence (22).

- (22) [[_{S1} [_{+F} Kyôto de] kono tokei o katta] no de wa nai]
 Kyoto in this watch ACC buy-PAST NML COP.GER TOP NEG-PRES
 It is not when x = “Kyoto” that we can say “I bought this watch in x ”.

The embedded clause means “It is when x = ‘Kyoto’ that we can say ‘I bought this watch in x ’”. The string *no de wa nai*, which appears at the end of this sentence means “it is not the case that”. Thus the sentence as a whole means “It is not when x = ‘Kyoto’ that we can say ‘I bought this watch in x ’”. This interpretation accords well with our semantic intuition about the sentence.

Next, let us consider sentence (1), part of which is repeated here as sentence (23). For expository purposes, I have given three conceivable structures of this sentence: Structure 1, Structure 2, and Structure 3. Here and in what follows, I will indicate the scope of a focused expression by marking it as “S1”.

- (23) *Kyôto de kono tokei o kawanakatta*
 Kyoto in this watch ACC buy-NEG-PAST

Structure 1: * $[_{S1} [_{+F} \text{Kyôto de}] \text{kono tokei o kaw}]$ -ana-katta]

Structure 2: [*Kyôto de kono tokei o [kaw-ana-katta]*] (no focus)

The event of “me buying a watch in Kyoto” did not happen.

Structure 3: $[_{S1} [_{+F} \text{Kyôto de}] \text{kono tokei o [kaw-ana-katta]}]$

It is when x = “Kyoto” that we can say “The event of ‘me buying a watch in x ’ did not happen”.

We have hypothesized that Structure 1 cannot exist. Notice here that, if the structure existed, its meaning would probably be similar to the meaning of sentence (22). The reason why it would be that, in both Structure 1 and sentence (22), the focused phrase *Kyôto de* is surrounded by its scope, which roughly means “my buying a watch in Kyoto”, which is in turn surrounded by a sentence headed by a negative element. Since Structure 1 is not allowed to exist and, as we will see shortly, neither Structure 2 nor Structure 3 could mean what sentence (22) means, it is correctly predicted that sentence (23) cannot express the same meaning as sentence (22).

Structure 2 and Structure 3 are both expected to exist. Structure 2 has no focused expression in it and it simply means “The event of ‘me buying a watch in Kyoto’ did not happen”. The sentence in (23) is indeed acceptable when it is given this interpretation, as shown in (24).

- (24) *Shinai de kore o kau koto ga, sono ryokô no saidai no mokuteki de atta. Shikashi, watashi wa, kekkyoku, Kyôto de kono tokei o kawanakatta.*
 ‘Buying this in the city was the main purpose of that trip. I, however, did not buy this watch in Kyoto, after all.’

In Structure 3, on the other hand, the phrase *Kyôto de* is focused and hence pronounced with stress. Since the infinitival portion is not a syntactic constituent and therefore cannot serve as the scope of the focused expression, the focused phrase takes the matrix clause as whole as its scope. As a result, Structure 3 is given a pragmatically unnatural interpretation: “It is when x = ‘Kyoto’ that we can say ‘The event of “me buying a watch in x ” did not happen’”, i.e., “The place where I didn’t buy this watch is Kyoto”.

Thus the proposed analysis successfully accounts for the contrast between sentence (22) and sentence (23), which initially motivated Kuno’s study of “negator scope”. The analysis captures the fact that sentence (23) does not have the same interpretation as sentence (22), and at the same time it explains why sentence (23) sounds awkward unless embedded in a certain type of context.

Now, let us see how the proposed analysis accounts for some other observations that Kuno made.

The status of sentence (11) receives exactly the same explanation as that of sentence (23). The reason why sentence (11) cannot mean what it is intended to mean is that the scope of the focused verb *umare-* cannot be the infinitival portion of the clause. When the verb stem *umare-* is interpreted as a focused expression, this sentence can only mean “What did not happen to Shakespeare in 1616 was birth”, as opposed to “What happened to Shakespeare in 1616 was not birth”, which is the intended interpretation.

The contrast between sentence (7) and the second line in example (9) also receives a simple explanation. The difference between these two sentences is that the phrase *kuruma de* is focused in the second line of (9) while it is not focused in (7). The antecedent clause in sentence (7) simply means “The event of ‘me coming here by car’ did not happen today”, and there is no semantic reason to focus the phrase in question. In fact, the phrase is not pronounced with stress when this sentence is read aloud. In the second line of example (9), on the other hand, the phrase *kuruma de* must be focused and pronounced with stress, because it is a reply to a question in which the phrase *kuruma de* is focused and pronounced with stress; when you are asked “Was it by car that you came here today?”, you need to respond by saying “Yes, it was by car that I came here today” or “No, it was not by car that I came here today”, rather than “The event of ‘me coming here by car’ did not happen today”.

The following fact, which is briefly discussed in Kuno (1983), is likewise straightforwardly accounted for. Consider (25). The intended meaning of this sentence is “It is not Tokyo that is the world’s biggest city”, but it does not have that interpretation or, for that matter, any sensible interpretation.

- (25)*Tôkyô ga [sekai-ichi no dai-tokai de] nai.
 Tokyo NOM [the world’s top GEN big city COP.GER] NEG-PRES

The reason why this sentence cannot express what it is intended to express is as follows. In this sentence, the subject NP *Tôkyô ga* is obligatorily focused, as the subject NP of a matrix clause headed by a individual-level predicate is obligatorily focused in Japanese. The scope of that focused subject must be the matrix clause as a whole, as the infinitival portion cannot serve as the scope, by assumption. Consequently, this sentence can only mean “It is Tokyo that is not the world’s biggest city”, which is a weird thing to say.

Let me conclude this section by making sure that the proposed analysis does not make any incorrect predictions about interrogative sentences. It turns out that, unlike Kuno’s analysis, my analysis accounts for the contrast between a negative sentence like (1) and an interrogative sentence like (13) (repeated here as (26)) in a principled way.

- (26) Kimi, moshikasuru to [_{S1} [_[+F] *Kyôto de*] kono tokei o katta] kai?
 You, by any chance Kyoto in this watch ACC buy-PAST Q
 Is it by any chance when x = “Kyoto” that we can say “You bought this watch in x ”?

Assuming that the question morpheme *kai* is adjoined not to a verb or an adjective but to a sentence as a whole, a focused expression in an interrogative sentence can take as its scope the sentence that the question morpheme is adjoined to. For instance, in (26), the focused expression *Kyôto de* can take S1 as its scope, yielding the interpretation “Is it the case that it was in Kyoto that you bought this watch?”.

5 Parallelism with Quantifiers

In this section, I will argue that the existence of parallelism between foci and quantifiers lends additional support for the proposed analysis, which hinges on the view that foci are scope-taking elements, just as quantifiers are. I hypothesized in (18) that the infinitival portion of a clause is not a syntactic constituent and hence cannot serve as the scope of a focused expression. If this analysis is correct, it must be the case that the infinitival portion of a clause cannot serve as the scope of a quantifier either. This expectation is borne out, as shown in (27).

- (27) (from Hasegawa (1991))
 Dono gakusei mo konakatta.
 which student also come-NEG-PAST
 ‘No student came.’

This sentence, in which the first three words, *dono gakusei mo*, is functioning as a quantifier meaning “every student”, is unambiguous; it can only mean “None of the students came”, and it cannot mean “Not all the students came”. In other words, the quantifier obligatorily takes wide scope over the negation. This is expected in the proposed account, as the quantifier must take the entire matrix clause as its scope by assumption whereas the scope of the negative morpheme is the infinitival portion of the matrix clause and hence necessarily smaller than the entire matrix clause. On the contrary, in an analysis where the infinitival portion of a clause is assumed to be a syntactic constituent, this observation comes as a surprise, as nothing in such an analysis prevents the negative morpheme from taking wide scope over the quantifier expression.

As has been noted by Kato (1989) among others, the following example is ambiguous unlike (27).

- (28) *gakusei ga zen'in konakatta* (koto)
 student NOM all come-NEG-PAST (fact)
 ‘(the fact that) none of the students came’
 ‘(the fact that) not all the students came’

This observation does not constitute a counterexample to the claim that a quantifier expression always takes wide scope over negation, as the phrase *zen'in* that appears in this example is arguably best regarded as a plural noun phrase, rather than a quantifier.

The parallelism between quantifiers and focused expressions is preserved in more complex cases. Compare (29) and (30) on the one hand and (31) and (32) on the other.

- (29) (from Hasegawa (1991); cf. McGloin (1976))
Dono gakusei mo konakatta ka?
 which student also come-NEG-PAST Q
 ‘Is it true that no student came?’
 ‘Isn’t it true that every student came?’ (ambiguous)
- (30) [*Dono gakusei mo konai to*] *shiai ga dekinai.*
 [which student also come-NEG-PRES if] game NOM can do-NEG-PRES
 ‘If no student comes, we won’t be able to play a game.’
 ‘Unless every student comes, we won’t be able to play a game.’ (ambiguous)
- (31) *Kimi, [S₁ [_[+F] Kyôto de] kono tokei o kawanakatta]?*
 you, Kyoto in this watch ACC buy-NEG-PAST
 ‘Isn’t it the case that it was in Kyoto that you bought this watch?’
- (32) [*S₁ [_[+F] Kyôto de] kono tokei o kawanai to*], *taihen na koto ni naru*
 Kyoto in this watch ACC buy-NEG-PRES if awful COP.ATTR matter DAT become-PRES
 yo.
 I tell you
 ‘Unless you buy this watch in Kyoto, you’ll have a big problem.’

(29) and (30) indicate that, in a certain type of question and in a certain type of conditional, the negative morpheme can apparently take “wide scope” over a quantifier expression, unlike in simple sentences such as (27). (31) and (32) indicate that, in a certain type of question and in a certain type of conditional, the negative morpheme can apparently take “wide scope” over a focused expression, unlike in simple sentences such as (27). This parallelism provides further support for the analysis proposed in the previous section, which is based on the view that a focused expression is associated with a scope just as a quantifier expression is.¹

6 Conclusion

In this article, I have argued that the issue that has been widely discussed under the rubric of “negator scope” should really be viewed as an issue of how the scope of a focused expression is determined. More specifically, I have made the claim that the relevant phenomena are all straightforwardly accounted for under the assumption that the infinitival portion of a sentence is not a syntactic constituent and hence cannot serve as the scope of a focused expression.

¹ I would like to suggest that the reason why the type of conditional and the type of question discussed in the text have idiosyncratic semantic properties is that these constructions are idioms of sorts.

In my view, the reason why the type of conditional discussed in the text exhibits the peculiar property that it does is that an antecedent that ends with the string *nai to* can be idiomatically interpreted as saying “except when the proposition *P* holds”, rather than as saying “if the proposition *P* does not hold”. (In this connection, see Geis (1973) and von Stechow (1994) for some discussion of the English word *unless*, which they claim means [except when *S*], rather than [if [not *S*]].)

And the reason why the type of question discussed in the text behaves in a peculiar way is, in my view, that a question that ends with *nakatta* can be idiomatically interpreted as an utterance that urges the listener to confirm that the event being described in the infinitival portion of the sentence actually took place, rather than as an utterance that asks whether the event being described by the negative sentence actually took place.

Reference

- Chomsky, N. (1981). *Lectures on Government and Binding*. Foris, Dordrecht.
- Geis, M. (1973). If and unless. In Kachru, B., Lees, R., Malkiel, Y., Petrangeli, A., & Saporta, S. (Eds.), *Issues in Linguistics: Papers in Honor of Henry and René Kahane*, pp. 231–253. University of Illinois Press, Urbana.
- Hasegawa, N. (1991). Affirmative polarity items and negation in Japanese. In Georgopoulos, C., & Ishihara, R. (Eds.), *Interdisciplinary Approaches to Language: Essays in Honor of S.-Y. Kuroda*, pp. 271–285. Kluwer, Dordrecht.
- Jackendoff, R. (1972). *Semantic Interpretation in Generative Grammar*. MIT Press, Cambridge, Massachusetts.
- Kato, Y. (1989). Hitei no sukôpu. In Inoue, K. (Ed.), *Nihonbunpô Shô-jiten*, pp. 208–212. Taishûkan, Tokyo. (In Japanese).
- Kuno, S. (1980). The scope of the question and negation in some verb-final languages. In Kreiman, J., & Ojeda, A. E. (Eds.), *Papers from the Sixteenth Regional Meeting, Chicago Linguistic Society*, pp. 155–169.
- Kuno, S. (1983). *Shin-Nihonbunpôkenkyû*. Taishûkan, Tokyo. (In Japanese).
- Kuroda, S.-Y. (1988). Whether we agree or not: a comparative syntax of English and Japanese. In Poser, W. J. (Ed.), *Papers from the Second International Workshop on Japanese Syntax*, pp. 103–143. CSLI, Stanford.
- Masuoka, T. (1991). *Modariti no Bunpô*. Kurosio, Tokyo. (In Japanese).
- McGloin, N. H. (1976). Negation. In Shibatani, M. (Ed.), *Japanese Generative Grammar*, Vol. 5 of *Syntax and Semantics*, pp. 371–419. Academic Press, New York.
- Rooth, M. (1992). A theory of focus interpretation. *Natural Language Semantics*, 1, 75–116.
- Sells, P. (1995). Korean and Japanese morphology from a lexical perspective. *Linguistic Inquiry*, 26, 277–325.
- Takubo, Y. (1985). On the scope of negation and question in Japanese. *Papers in Japanese Linguistics*, 10, 87–115.
- von Stechow, K. (1994). *Restrictions on Quantifier Domains*. Ph.D. dissertation, University of Massachusetts, Amherst.