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Negative Structure in Japanese

Abstract

In this paper, I investigate negative structure in Japanese. The scope of Japanese negation appears to be narrower than that of English, which has led to different treatment of Japanese and English negation in the literature (e.g., Kuno 1980, 1983, Han et al. 2004, Kataoka 2006, Kishimoto 2008). In contrast, I propose an analysis that maintains the same negative structure for Japanese and English. I demonstrate that all the scope facts regarding negative sentences in Japanese can be accounted for if Japanese has obligatory object movement into a higher domain, above NegP; the difference between Japanese and English is not the structural position of negation but the existence of this obligatory movement in Japanese. With this single negative structure + object movement analysis, I show that all the scope patterns discussed in the paper can be captured without any additional assumptions, and more importantly, that there is no need to assume different negative structure for Japanese any more.

Negative Structure in Japanese

Yoshiyuki Shibata*

1 Introduction

Negative structure in Japanese has been controversial. Quantifier phrases (QPs) in object position can take scope either over or under negation in Japanese as in (1):

- (1) a. Taroo-wa gakusee-zen'in-o sikar-anakat-ta.
Taro-TOP student-all-ACC scold-NEG-PAST
'lit. Taro didn't scold all students.' (Obj.>>Neg; Neg>>Obj.)
b. Taroo-wa gakusee-go-nin-o sikar-anakat-ta.
Taro-TOP student-5-CL-ACC scold-NEG-PAST
'lit. Taro didn't scold five students.' (Obj.>>Neg; Neg>>Obj.)

This contrasts with English, where the universal QP in object position is trapped inside the scope of negation as in (2):

- (2) John didn't scold every student. (*Obj.>>Neg; Neg>>Obj.)

This state of affairs is rather mysterious since Japanese is often assumed to lack optional quantifier raising (QR) process; Japanese is a so-called scope-rigid language. Thus, the availability of the 'Obj.>>Neg' reading in examples like (1) is far from straightforward. Below, I will briefly review how the issue of Japanese negative structure has been treated in the literature.

Kuno (1980, 1983) argues that the scope of negation basically does not extend beyond the immediately preceding element in Japanese. His generalization is stated as in (3):

- (3) The scope of negation is extremely limited and extends only to the verbal constituent that negative morpheme *na-i* is attached to: the immediately preceding verb, adjective or X+copula. (Kuno 1983: 130)

This is compatible with the availability of 'Obj.>>Neg' reading. Then, he claims that cases other than those where the element immediately preceding the negation is a focus of negation are due to some discourse or pragmatic factor.¹

Han, Storoshenko, and Sakurai (2004) conducted an experimental study on the possible scope relations between object QPs and negation in Japanese, using the Truth Value Judgment Task. One sample of their test sentences is given in (4):

- (4) Donald-ga orenji-subete-o tabe-nakat-ta.
Donald-NOM orange-all-ACC eat-NEG-PAST
'lit. Donald didn't eat every orange.' (Han et al. 2004: 118)

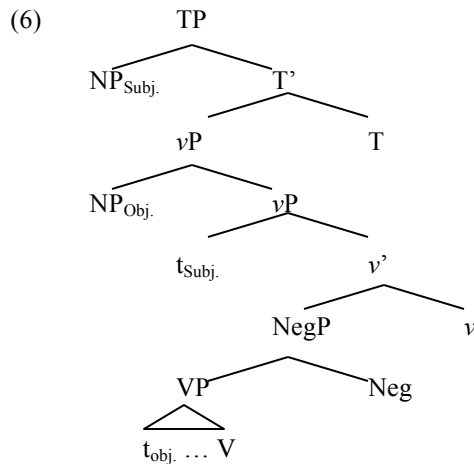
They tested 48 participants in total (20-30 years old native speakers of Japanese), and obtained (5):

- (5) Mean Percentage Acceptance
a. object QP>>Neg: 98%
b. Neg>>object QP: 54%

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¹Kuno (1983) states that the generalization (3) holds unless the focus of negation is a multiple-choice focus, though the precise definition of 'multiple-choice focus' is not provided in a series of his work (He merely suggests that it is determined (i) by the information concerning the events that can repeatedly occur, or (ii) by the choice being strictly limited among the elements that can appear as the focus).

Based on this result, following Koizumi's (1995) and Miyagawa's (2001) claim that Japanese objects undergo raising to [Spec,vP] to check accusative Case, Han et al. argue that Japanese NegP is located between vP and VP as shown in (6):



As for the 54% of speakers who accept the ‘Neg>>QP’ reading, adopting the definition of c-command in Kayne (1994),² Han et al. claim that the verb moves to T, picking up the negation on the way to T. They assume that this process is not available to all speakers, which contributes to the lower acceptance rate of this reading. Thus, the claim by Han et al. is that the position of NegP in Japanese is different from the one in English, where NegP is generally assumed to dominate vP.

Then, Kataoka (2006) notes that not only objects but also subjects can be within the scope of negation in Japanese:³

- (7) (Kono kurasu-no) [go-nin-izyoo-no seeto-ga] [geemu sofuto-o san-bon-izyoo]
 this class-GEN 5-CL-or.more-GEN student-NOM game software-ACC 3-CL-or.more
 motte-inai. (Subj.>>Neg; Neg>>Subj.)
 have-NEG (Obj.>>Neg; Neg>>Obj.)
 ‘Five or more students (in this class) don’t have 3 or more pieces of game software.’
 (Kataoka 2006: 55)

In (7), the scope relation between the subject and the negation is ambiguous, in addition to the ambiguous scope relation between the object and the negation. Then, assuming that all arguments are generated within VP in Japanese, Kataoka regards this as evidence that Japanese negation *-nai* can have a sister relation to any node of the projection of V (or A), as shown in (8):

- (8) a. [_{VP} NP-*ga* [_V NP-*o/ni* [[V]-*nai*]]]
 b. [_{VP} NP-*ga* [[_V NP-*o/ni* V]-*nai*]]
 c. [[_{VP} NP-*ga* [_V NP-*o/ni* V]-*nai*]] (Kataoka 2006: 56)⁴

In (8a), only the verb is negated, and in (8b), the object is also within the scope of negation. In (8c), even the subject can be the focus of negation. Thus, Kataoka claims that Japanese has several

²The definition of c-command in Kayne (1994) is given in (i) below, where a segment cannot enter into a c-command relation:

(i) X c-commands Y iff X and Y are categories and X excludes Y and every category that dominates X dominates Y.

³Miyagawa (2003) argues that it is impossible to interpret a subject NP in transitive sentences as being inside the scope of negation in Japanese, and he claims that to get that reading, the object has to undergo scrambling over the subject. However, many authors (Kato 1985, Kataoka 2006, Saito 2009, among others) observe that the ‘Neg>>Subj.’ reading is possible in transitive sentences, though not the most prominent. For a discussion of blocking factors for ‘Neg>>Subj.’ readings in Japanese, see Shibata (2013).

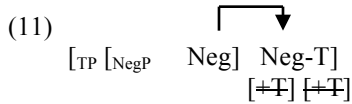
⁴Here, *-ga* is a nominative marker, *-o* an accusative marker, *-ni* a dative marker, and *-nai* negation.

possible positions for the negation, and that the scope of negation varies depending on its position.

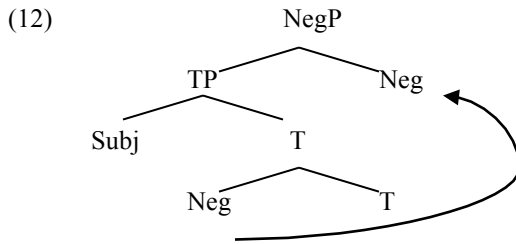
As the last account reviewed in this section, let us look at Kishimoto (2008). Kishimoto (2008) argues that Japanese negation can take scope over TP as a result of head movement of the negation to T. He claims that this accounts for the lack of a subject-object asymmetry in negative polarity item (NPI) licensing in Japanese as in (9), which contrasts with the English case in (10):

- (9) a. Daremo_{NPI} Taroo-o tatak-anakat-ta.
anyone Taro-ACC hit-NEG-PAST
'Nobody hit Taro.'
- b. Taroo-ga daremo_{NPI} tatak-anakat-ta.
Taro-NOM anyone hit-NEG-PAST
'Taro didn't hit anyone.'
- (10) a. *Anyone didn't hit Taro.
 b. Taro didn't hit anyone.

As for the lack of the asymmetry in NPI-licensing in Japanese, Kishimoto assumes that both the negative head and tense occur with uninterpretable [+T] features, and that these formal features are deleted under matching after Neg-head raising, as depicted in (11):



Then, he proposes that when the negative head in the T-head takes scope, it undergoes exorporation out of the tense morpheme as in (12):



As a result of this Neg-movement, the subject is now under the scope of negation, which he argues is responsible for the lack of the subject-object asymmetry in NPI-licensing in Japanese.

The approaches reviewed above assume that the negative structure in Japanese is fundamentally different from the one in English. In this paper, I pursue another possibility that the difference between Japanese and English is in fact not the position of negation but the position of objects, and discuss several consequences of this analysis.

2 Surface Scope Effects

Shibata (to appear) shows that focused and disjunctive phrases are revealing in understanding the position of scope bearers. In English, QP subjects allow inverse scope as in (13a-b), while focused or disjunctive phrases do not as in (13c-d):

- (13) a. Every student didn't come. (Subj.>>Neg; Neg>>Subj.)
- b. A student didn't come. (Subj.>>Neg; Neg>>Subj.)
- c. Only John didn't come. (Subj.>>Neg; *Neg>>Subj.)
- d. John or Tom didn't come. (Subj.>>Neg; *Neg>>Subj.)

Interestingly, the same holds for Japanese; with a normal quantifier, the subject allows the inverse scope reading as in (14), while with a focused or disjunctive phrase, it allows only the wide scope reading over the negation as in (15):

- (14) a. [Subete-no gakusee-ga] ko-nakat-ta.
all-GEN student-NOM come-NEG-PAST
'lit. All students didn't come.' (Subj.>>Neg; Neg>>Subj.)
- b. [Go-nin-izyoo-no gakusee-ga] ko-nakat-ta.
5-CL-or.more-GEN student-NOM come-NEG-PAST
'lit. Five or more students didn't come.' (Subj.>>Neg; Neg>>Subj.)
- (15) a. Taroo-mo/dake ko-nakat-ta.
Taro-also/only come-NEG-PAST
'lit. Also/Only Taro didn't come.' (Subj.>>Neg;*Neg>>Subj.)
- b. [Taroo-ka Ziroo-ga] ko-nakat-ta.
Taro-or Ziro-NOM come-NEG-PAST
'lit. Taro or Ziro didn't come.' (Subj.>>Neg;*Neg>>Subj.)

Thus, these data suggest that focused and disjunctive phrases have the anti-reconstruction effects.

Then, to account for the above scope effect, I would like to note one property that these phrases share, that is, the property of 'introducing alternatives'. Focused phrases like *only* are known to introduce alternatives (see Rooth 1985, 1992). For instance, an example like *Only John didn't come* entails that 'there was no alternative person to John who did not come'. As for disjunctions, according to Chierchia, Fox, and Spector (to appear), disjunctive phrases are typically interpreted with alternatives. For example, (16a) below only means (16b), not (16c), even though logically the reading in (16c) should be possible:

- (16) a. John or Tom will come.
b. John will come or Tom will come.
c. Both John and Tom will come.

Chierchia et al. claim that in this case, there is a silent exhaustive operator O_{ALT} as in (17), which excludes its alternative like (16c):

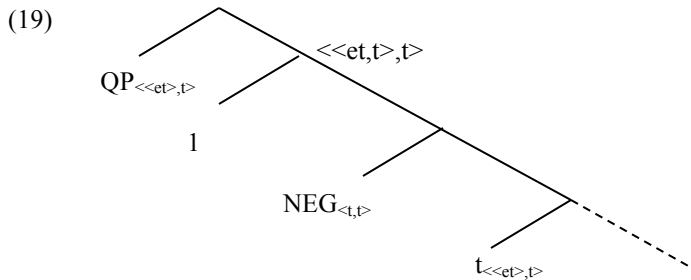
- (17) O_{ALT} (John or Tom) will come.

Noting that the phrases in question have the property of introducing alternatives, the anti-reconstruction property of these phrases is accounted for as follows: First, assume that A-movement does not reconstruct in the syntax (Chomsky 1995, Lasnik 1998, 1999),⁵ which means that the inverse scope readings in (13a-b) and (14) are obtained post-syntactically, i.e. in the semantics. To get the inverse scope in such cases, I adopt the approaches by Cresti (1995) and Rullmann (1995), referred to as *Semantic Reconstruction*, as in (18):

- (18) *Semantic Reconstruction*

A moved QP may leave a higher type trace of generalized quantifier and reconstruct as a consequence of λ -conversion in the semantics.

This process is described in (19) below:



⁵Chomsky (2001) and Lasnik (2010) have different views from their works cited above though.

$$\begin{aligned} & [\mathbf{QP}_{\langle\langle e \rangle, t \rangle}] [\lambda f \in D_{\langle\langle e \rangle, t \rangle}. [\dots [\mathbf{NEG} [\dots \mathbf{t}_{\langle\langle e \rangle, t \rangle} \dots]]]] && (\lambda\text{-conversion}) \\ & = [\dots [\mathbf{NEG} [\dots [\mathbf{QP}_{\langle\langle e \rangle, t \rangle} \dots]]]] \end{aligned}$$

In (19), the moved QP leaves a trace of type $\langle\langle e \rangle, t \rangle$, not the usual individual-denoting trace of type e , and consequently, at the application of λ -conversion in the semantics, this moved QP is plugged into the trace position, resulting in the reading where the moved QP takes scope under the negation. In this way, A-moved elements can reconstruct to the original position, but crucially this happens in the semantics, not in the syntax.⁶

Then, assuming that alternatives are calculated on the basis of LF structures, we get (20):

(20) *Surface scope effects of alternative-introducing elements*

An element interpreted with its alternatives allows only surface scope.

As illustration, consider example (13c) ‘*only John didn’t come*’; first, note that the subject is located above negation at LF; hence the alternative propositions are of the form ‘[X [didn’t come]]’, where X is an alternative person to *John*. (Recall that it is assumed that alternatives are calculated based on LF structures.) This yields the presupposition that ‘there is no other person who didn’t come’ (i.e., negation is included in the presupposition), which is compatible only with the ‘*only*>>Neg’ reading. Note here that in order to obtain the presupposition that ‘there is no other person who came’ (i.e., negation is not included in the presupposition), which is compatible with the ‘Neg>>*only*’ reading, the subject would have to undergo reconstruction below negation in the syntax, which is excluded by the assumption above. Therefore, there is no way for the subject to be interpreted below the negation in (13c). In the next section, using the surface scope effect (20), I will show that the difference between Japanese and English negative sentences does not lie in the position of negation but the existence of object movement in Japanese,

3 Negative Structure in Japanese

As we have seen, subjects can take scope under the negation in Japanese as in (14), which means that negation has to be in a position where it c-commands (a copy of) the subject; otherwise, this reading should be unavailable. The availability of this reading does not seem to pose a serious problem for the approaches from Section 1; Kuno (1980, 1983) would capture it as a result of some discourse or pragmatic factor, and Han et al. (2004), Kataoka (2006), and Kishimoto (2008) all allow this reading in one of their negative structures.⁷

However, the surface scope effect (20) indicates that the multiple-negative-structure approaches from Section 1 are not on the right track. Crucially, when focused or disjunctive phrases are placed in object position, the ‘Neg>>Obj.’ reading becomes unavailable in Japanese:

- (21) a. Taroo-wa [yasai-mo/dake] tabe-nakat-ta.
Taro-TOP vegetable-also/only eat-NEG-PAST
‘lit. Taro didn’t eat also/only vegetable.’ (Obj.>>Neg; *Neg>>Obj.)
- b. Taroo-wa [yasai-ka kudamono-o] tabe-nakat-ta.
Taro-TOP vegetable-or fruit-ACC eat-NEG-PAST
‘lit. Taro didn’t eat vegetable or fruit.’ (Obj.>>Neg; *Neg>>Obj.)

This contrasts with English, where focused or disjunctive phrases can take scope under negation:

⁶As for a detailed discussion of the necessity of semantic reconstruction process, independently of syntactic reconstruction, see Lechner (1998).

⁷However, since Han et al. (2004) assume that verb movement with negation, which for them, accounts for ‘Neg>>Obj.’ readings and can account for ‘Neg>>Subj.’ readings too, is not available to all speakers, they predict that there should be strict correspondence between the availability of ‘Neg>>Obj.’ reading and the availability of ‘Neg>>Subj.’ reading among speakers (i.e., if a speaker allows ‘Neg>>Obj.’ reading, that person should also allow ‘Neg>>Subj.’ reading, and if a person does not allow ‘Neg>>Obj.’ reading, that person should not allow ‘Neg>>Subj.’ reading). I do not know whether this is correct.

- (22) a. John didn't eat only vegetable. (^{OK}Neg>>Obj.)
 b. John didn't eat vegetable or fruit. (^{OK}Neg>>Obj.)

The English case in (22) is not surprising since there is plenty of evidence that object phrases occupy a position below negation in English (e.g., NPIs, which can appear in the c-command domain of negation, can appear in object position but not in subject position in English). What is interesting is that in (21), the 'Neg>>Obj.' reading is disallowed. Note that if Japanese allows multiple negative structures and one of the possible structures allows negation to scope over objects, as proposed in the literature reviewed in Section 1, this state of affairs is unexpected.⁸

Now, recall that focused and disjunctive phrases lack reconstruction effects and hence reflect their surface scope. In (21), since the focused and disjunctive objects do not allow narrow scope under the negation, it follows that object phrases are in fact located in a position above negation in the syntax. Then, I propose the following:

- (23) Japanese objects must undergo movement above negation.⁹

Once we assume object movement into a higher domain in Japanese, all the scope patterns we have seen so far can be captured straightforwardly. First of all, the current analysis can provide a simple answer to the question why object phrases in Japanese can take scope over negation as in (1), unlike English, where the universal QP object is trapped inside the scope of negation as in (2). As noted above, this difference is rather mysterious since Japanese is generally regarded as a scope-rigid language, that is, as lacking optional QR process, which is assumed to be possible in English. Under the current analysis, there is nothing mysterious here since objects are simply located above NegP in the syntax as a result of the movement assumed in (23). In fact, this has an additional desirable consequence. Recall that regarding the possible scope relations between an object and negation, Han et al.'s (2004) experiment shows that 'Obj.>>Neg' readings are much more easily accessible than 'Neg>>Obj.' readings in Japanese. This is exactly what is expected under the current analysis. Since objects are located in a position above negation in the syntax, 'Obj.>>Neg' readings are in fact just a surface scope reading, and it is well known that the surface scope reading is typically stronger than the inverse scope reading (e.g. Bobaljik and Wurmbrand 2012), so the observation by Han et al. can be treated as a natural consequence of this object movement. Furthermore, under the object movement analysis here, the impossibility of focused and disjunctive objects taking scope under the negation as in (21) can be treated on a par with the impossibility of focused and disjunctive subjects taking scope under the negation as in (15). All these phrases are syntactically located above negation, and they are scopally trapped there by the surface scope effect (20). This means that we can capture the impossibility of 'Neg>>Obj.' in (21) and in (15) with the same mechanism of 'anti-reconstruction effects'.

⁸ One might think that focused and disjunctive phrases undergo some focus movement above NegP. For example, Miyagawa (2010) argues that expressions with a particle *-mo/-ka* move to T for the focus licensing reason. However, this does not seem to work since adding a focus particle does not affect the scope relation among arguments:

- (i) Taroo-ga [yo-nin-izyoo-no sensee-ni] [san-nin-no dansi gakusee-**mo/dake**] syookaisi-ta.
 Taro-NOM 4-or-more-GEN teacher-DAT 3-CL-GEN male student-also-dake introduce-PAST
 'lit. Taro introduced also/only three male students to four or more teachers.' (Dat>>Acc; *?Acc>>Dat)

Also, these focused and disjunctive phrases do not seem to be positive polarity items (PPIs) (contra Hasegawa 1991 and Goro 2007), for they cannot take scope below the local negation even with another downward-entailing operator as in (ii) (see Szabolcsi 2002, 2004), which is unexpected if they are PPIs (see (iii)):

- (ii) Taroo-wa [Ziroo-ga [pan-mo/dake] / [pan-ka-kome]-o tabe-nakat-ta to] omow-anakat-ta.
 Taro-TOP Ziro-NOM bread-also/dake bread-or-rice-ACC eat-NEG-PAST C think-NEG-PAST
 'lit. Taro didn't think that Ziro didn't eat [also/only bread]/[bread or rice]' (→Obj.>¬; *¬>¬>Obj.)

- (iii) a. John didn't call someone. (*¬>>Obj)
 b. I don't think that John didn't call someone. (^{OK}¬>>¬>>Obj)

⁹ See also Ochi (2009) and Bošković (2011) on Japanese object shift. For a more detailed discussion of the motivation for the movement in question, which is tied to the nature of Japanese (case) particles, see Shibata (2013).

At this point, one might ask a question; if both subjects and objects are located in a position above negation in Japanese, how are NPIs licensed. Recall that Kishimoto (2008) argues that negation in principle can take scope over TP after Neg-raising, on the basis of the fact that Japanese lacks a subject-object asymmetry in NPI licensing, but also recall that this analysis cannot account for why focused and disjunctive phrases in object position cannot take scope under the negation in (21). Under the current analysis where both subjects and objects are outside of the scope of negation, the answer to this question is as follows: expressions ‘indeterminate + a particle *-mo* (also)’, which have often been assumed to be NPIs in Japanese, should not be the same type of NPI as English *any*. This seems to be on the right track. For instance, Watanabe (2004) claims that indeterminate + *-mo* in Japanese is a type of negative concord items, not NPIs like English *any*, based on the five diagnostics from Vallduví (1994) and Giannakidou (2000). Also, Shimoyama (2011) argues that the phrases in question are not narrow scope existentials like English *any*, but wide scope undersals with respect to negation, based on the close investigation of the scopal properties of these items. The current analysis supports these claims from another aspect.¹⁰

The assumption that Japanese object phrases move into a higher domain, above negation, thus have a number of desirable consequences. Most importantly, we no longer need to assume different negative structure(s) for Japanese; all the scope patterns noted in this paper can be captured with a single negative structure.¹¹ Therefore, I propose the structure in (24) for Japanese negative sentences, which is actually the structure widely assumed crosslinguistically:

- (24) Negative Structure in Japanese is uniformly:
 [TP T [NegP Neg [_{VP} v ...]]] (the linear order is irrelevant)

4 Conclusion

In this paper, I investigated negative structure in Japanese. The scope of Japanese negation appears to be narrower than that of English, which has led to different treatment of Japanese and English negation in the literature (e.g., Kuno 1980, 1983, Han et al. 2004, Kataoka 2006, Kishimoto 2008). In contrast, I have proposed an analysis that maintains the same negative structure for Japanese and English. I have demonstrated that all the scope facts regarding negative sentences in Japanese can be accounted for if Japanese has obligatory object movement into a higher domain, above NegP, that is, the difference between Japanese and English is not the structural position of negation but the existence of this obligatory movement in Japanese. The crucial argument for this analysis came from the scopal property of Japanese object phrases; normal QPs in object position allow either wide or narrow scope with respect to negation, while focused and disjunctive phrases

¹⁰ Aoyagi and Ishii (1994) claim that expressions ‘indeterminate + *-mo*’ are not arguments but adjuncts in sentences like (9), noticing that these phrases can co-occur with Case-marked arguments. If they are indeed adjuncts, the question discussed above may not have any influence on the current analysis even if they were the same type of NPI as English *any* since we can simply assume that those adjuncts can be adjoined to a position below negation.

¹¹ One might think that the current analysis cannot account for why the *because*-clause cannot be within the scope of negation in Japanese as in (i), which was one motivation for Kuno (1980) to assume that the scope of Japanese negation is relatively narrow:

- (i) Hanako-wa [Taro-ga but-ta kara] naitei-nai.
 Hanako-TOP Taro-NOM hit-PAST because be.crying-NEG
 OK ‘Because Taro has hit her, Hanako isn’t crying.’
 * ‘Hanako is crying not because Taro hit her.’

Since the English equivalent *Hanako is not crying because Taro hit her* is ambiguous, this has been regarded as an argument that Japanese negation is relatively narrow. Under the current analysis, (i) simply shows that the *because*-clause in Japanese should be generated above NegP. This would not be unreasonable since even in English, for instance, the causal *since*-clause cannot be within the scope of negation even though it is semantically similar to the *because*-clause as in (ii):

- (ii) The room was not warm since the air condition broke down.
 * ‘The room was warm. Its cause was not that the air condition broke down.’
 OK ‘The room was not warm. It caused that the air condition broke down.’ (Kawamura 2008: 108)

Thus, I conclude that (i) does not pose any serious problem to the current analysis.

allow only wide scope. On the basis of the observation that focused and disjunctive phrases lack reconstruction effects, I then argued that Japanese objects move above NegP. With this single negative structure + object movement analysis, I showed that all the scope patterns discussed in the paper can be captured without any additional assumptions, and more importantly, that there is no need to assume different negative structure for Japanese any more.

References

- Aoyagi, Hiroshi, and Toru Ishii. 1994. On NPI licensing in Japanese. *Japanese/Korean Linguistics* 4, ed. Noriko Akatsuka, 295–311. Stanford: CSLI.
- Bobaljik, Jonathan, and Susi Wurmbrand. 2012. Word order and scope: transparent interfaces and 3/4 signature. *Linguistic Inquiry* 43:371–421.
- Bošković, Željko. 2011. Rescue by PF deletion, traces as (non)intervener, and the *that*-trace effect. *Linguistic Inquiry* 42:1–44.
- Chierchia, Gennaro, Danny Fox, and Benjamin Spector. to appear. The grammatical view of scalar implicatures and the relationship between semantics and pragmatics. In *Handbook of Semantics*, ed. Paul Portner, Claudia Maienborn, and Klaus von Stechow, Berlin/New York: Mouton de Gruyter.
- Chomsky, Noam. 1995. *The minimalist program*. Cambridge, Mass.: MIT Press.
- Chomsky, Noam. 2001. Derivation by phase. In *Ken Hale: A Life in Language*. ed. Michael Kenstowicz, 1–54. Cambridge, Mass.: MIT Press.
- Cresti, Diana. 1995. Extraction and reconstruction. *Natural Language Semantics* 3:79–122.
- Giannakidou, Anastasia. 2000. Negative ... concord? *Natural Language and Linguistic Theory* 18:457–523.
- Goro, Takuya. 2007. Language specific constraints on scope interpretation in first language acquisition. Doctoral dissertation, University of Maryland, College Park
- Han, Chung-Hye, Dennis Ryan Storoshenko, and Yasuko Sakurai. 2004. Scope of negation, and clause structure in Japanese. In *Proceedings of Berkeley Linguistics Society* 30, 118–129.
- Hasegawa, Nobuko. 1991. Affirmative polarity items and negation in Japanese. In *Interdisciplinary Approaches to Language: Essays in Honor of S.-Y. Kuroda*, ed. Carol Georgopoulos, and Roberta Ishihara, 271–285. Dordrecht: Kluwer Academic Publishers.
- Kataoka, Kiyoko. 2006. *Nihongo hiteibun-no kouzou* [the structure of Japanese negative sentences]. Tokyo: Kuroshio-shuppan.
- Kato, Yasuhiko. 1985. *Negative sentences in Japanese*. Tokyo: Sophia University.
- Kayne, Richard. 1994. *Antisymmetry of syntax*. Cambridge, Mass.: MIT Press.
- Kawamura, Tomoko. 2008. Adverbial *because*-clauses as focal elements. *Nanzan Linguistics: Special Issue 3*, Vol. 2:103–122.
- Kishimoto, Hideki. 2008. On the variability of negative scope in Japanese. *Journal of Linguistics* 44:379–435.
- Koizumi, Masatoshi. 1995. Phrase structure in minimalist syntax. Doctoral dissertation, MIT, Cambridge.
- Kuno, Susumu. 1980. The scope of the question and negation in some verb-final languages. In *Proceedings of the Chicago Linguistic Society*, ed. Jody Kreiman and Almerindo E. Ojeda, volume 16, 155–169. Chicago Linguistic Society.
- Kuno, Susumu. 1983. *Shin Nihon Bunpoo Kenkyuu* [New Japanese Grammar Study]. Tokyo: Taisyuukan.
- Lasnik, Howard. 1998. Some reconstruction riddles. In *University of Pennsylvania Working Papers in Linguistics* 5(1), 83–98.
- Lasnik, Howard. 1999. Chains of arguments. In *Working Minimalism*, ed. Samuel Epstein, and Norbert Hornstein, 189–215. Cambridge, Mass.: MIT Press.
- Lasnik, Howard. 2010. Quantifier lowering? Course material for LNG819 Spring 2010 at University of Maryland. URL <http://ling.umd.edu/~lasnik/LING819%202010/QL%20HO.pdf>.
- Lechner, Winfried. 1998. Two kinds of reconstruction. *Studia Linguistica* 52:276–310.
- Miyagawa, Shigeru. 2001. EPP, scrambling, and *wh*-in-situ. In *Ken Hale: A Life in Language*. ed. Michael Kenstowicz, 293–338. Cambridge, Mass.: MIT Press.
- Miyagawa, Shigeru. 2003. A-movement scrambling and options without optionality. In *Word Order and Scrambling*, ed. Simin Karimi, 177–200. Oxford: Blackwell.
- Miyagawa, Shigeru. 2010. *Why agree? Why move? Unifying agreement-based and discourse-configurational languages*. Cambridge, Mass.: MIT Press.
- Ochi, Masao. 2009. Overt object shift in Japanese. *Syntax* 12:324–362.
- Rooth, Mats. 1985. Association with focus. Doctoral dissertation, University of Massachusetts at Amherst.
- Rooth, Mats. 1992. A theory of focus interpretation. *Natural Language Semantics* 1:75–116.
- Rullmann, Hotze. 1995. Maximality in the semantics of *wh*-construction. Doctoral dissertation, University of Massachusetts at Amherst.

- Saito, Mamoru. 2009. Optional A-scrambling. In *Japanese/Korean Linguistics* 16, ed. Yukunori Takubo, Tomohide Kinuhata, Szymon Grzelak, and Kayo Nagai, 44–63. Stanford: CSLI.
- Shibata, Yoshiyuki. 2013. Negative structure and object movement in Japanese. Ms., University of Connecticut, Storrs.
- Shibata, Yoshiyuki. to appear. Alternatives tell you where you are. In *Japanese/Korean Linguistics* 22. CSLI.
- Shimoyama, Junko. 2011. Japanese indeterminate negative polarity items and their scope. *Journal of Semantics* 28:413–450.
- Szabolcsi, Anne. 2002. Hungarian disjunctions and positive polarity. In *Approaches to Hungarian* 8, ed. Istvan Kenesei, and Peter Siptar, 217–241. Budapest: Akademiai Kiado.
- Szabolcsi, Anne. 2004. Positive polarity – Negative polarity. *Natural Language and Linguistic Theory* 28:409–452.
- Vallduví, Enric. 1994. Polarity items, n-words and minimizers in Catalan and Spanish. *Probus* 6:263–294.
- Watanabe, Akira. 2004. The genesis of negative concord: Syntax and morphology of negative doubling. *Linguistic Inquiry* 35:559–612.

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