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Projection of Negative Scope in Japanese

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Abstract: On the basis of NPIs licensed under the scope of negation, this article shows that in Japanese, a negative head introduced in the head position of NegP extends its scope over TP if it undergoes Neg-head raising. While a grammatical negator (paired with lexical verbs) is subject to Neg-head raising, a lexical negator retaining original categorical properties as an adjective does not undergo Neg-head raising, in which case negative scope extends only over vP. By making use of the raising construction headed by the aspectual verb *iru* 'be', it is shown that subjects undergo raising to Spec-TP when the clause includes a nominative argument, but that oblique subjects may remain in their base-generated predicate-internal position. It is also shown that there are two types of raising constructions formed on the verb *naru* 'become'—one type in which the subject of the embedded verb is moved to the matrix clause, and the other in which the embedded subject moves only in the embedded clause.*

Key words: adjectival negator; negative scope; *sika nai*; raising construction; Japanese

1. Introduction

In a language like Japanese with SOV word order, the putative results of movement operations, even if they apply, are often not visible in the surface strings. This gives rise to a number of controversies; for instance, in the Japanese literature, there has been a debate as to whether subjects are raised to Spec-TP by A-movement (i.e. subject raising) or remain in predicate-internal position (with no subject raising) (see e.g. Kuroda 1988, Miyagawa 1989a, 1989b, Fukui 1995, Kishimoto 2001). There is also an issue whether Japanese has instances of head movement—the most prominent issue being whether the verb remains within vP or is raised to T (see e.g. Otani and Whitman 1991, Sakai 1998, Fukui and Takano 1998, Koizumi 1999, 2000, Fukui and Sakai 2003). The main purpose of the present paper is to show that in Japanese, there are certain movement operations, including phrasal and head movement, that bring out some syntactic consequences, which shed light on the clause structure of the language. Specifically, it is shown that a nega-

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tive head *nai* 'not' projecting syntactic negative scope is an element that undergoes head movement, and that the syntactic behavior of negative polarity items (NPIs) licensed under negative scope is affected by two types of movement—subject raising and Neg-head raising.

In Japanese, negation is expressed by a clausal negator occupying a head position, and the most typical clausal negator is *nai* 'not'. One notable fact of the negative head *nai* is that the extent of negative scope changes in accordance with its head movement. A negative head introduced in the head position of NegP extends its scope over TP if it undergoes head movement. When no Neg-head raising takes place, the scope of negation extends only over vP (instead of TP), and a subject-object asymmetry is observed with regard to the licensing of NPIs. When negative scope falls over TP, it is not possible to discern whether subjects are located in Spec-TP or in predicate-internal position. Nevertheless, the raising construction (formed on the aspectual verb *iru* 'be'), where long distance A-movement is induced, makes it possible to confirm that subjects undergo A-movement to TP when a nominative argument is included in the clause. Data on NPIs lead us to conclude that Japanese invokes both phrasal and head movement, even though their effects are not necessarily visible in the superficial sequences of words.

The present paper is organized as follows. First, section 2 discusses how negative scope extends over TP in Japanese, and then, shows that while a non-adjectival (or decategoricalized) grammatical negator appearing with verbs is amenable to Neg-head raising, a clausal negator associated with adjectives retains the original categorical status of an adjective, and does not undergo Neg-head raising. On the basis of the aspectual construction headed by *iru* 'be', section 3 shows that subjects undergo raising to Spec-TP when the clause contains a nominative argument, and that oblique subjects may remain in their base-generated predicate-internal position. It is also shown that there are two types of *naru*-constructions—one type in which the nominative subject of the main verb is extracted from the embedded clause, and the other in which the raising of the nominative subject takes place only within the embedded clause. Section 4 presents a conclusion.

2. Negative scope and Neg-head raising

In this section, on the basis of the behavior of negative polarity items (NPIs), which are licensed under the syntactically projected scope of negation, it is argued that the extent to which a negative head extends its scope differs depending on where it is located in clause structure.

2.1. Negative scope in simple verbal clauses

Let us first go over the basic facts of NPIs, which allow us to assess the clause architecture of Japanese. Among several types of NPIs available in Japanese, NPIs formed with the particle *sika* 'only' are used, because *sika* can turn many types of DPs/PPs into NPIs by attaching to them.[1] Broadly speaking, DPs with the par-

[1] Kishimoto (2017) suggests that NPIs having the form *wh*-Q (e.g. *dare-mo* 'anyone' and

ticle *sika*, which serve as NPIs, are legitimate regardless of whether they appear in subject or object position, but cannot be included in affirmative clauses, as exemplified in (1).

(1) a. *Ken-sika* hon-o {yoma-nakat-ta/*yon-da}.
Ken-only book-ACC {read-NEG-PAST/read-PAST}
'Only Ken {did not read/read} the book.'
b. Ken-ga *kono hon-sika* {yoma-nakat-ta/*yon-da}.
Ken-NOM this book-only {read-NEG-PAST/read-PAST}
'Ken {did not read/read} only this book.'

The examples in (2) illustrate that NPIs with *sika* need to be located within the finite clause in which a clausal negator appears.

(2) a. **Ken-sika* [Mari-ga ko-naka-ta to] it-ta.
Ken-only Mari-NOM come-NEG-PAST COMP say-PAST
'Only Ken said that Mari did not come.'
b. *Ken-ga [*Mari-sika* ki-ta to] iwa-nakat-ta.
Ken-NOM Mari-only come-PAST COMP say-NEG-PAST
'Ken did not say that only Mari came.'

In (2a), the NPI *Ken-sika* appears in the matrix clause, but a negator is located in the embedded clause. Since the NPI is not c-commanded by the negator, the former falls outside the scope of the latter. Thus, (2a) is excluded as unacceptable. In (2b), on the other hand, the negator in the main clause c-commands the NPI in the embedded clause, but the sentence is excluded on the grounds that a finite clause boundary intervenes between the negator and the NPI (see e.g. Kato 1985).

There is one important difference that distinguishes Japanese from English: In English, unlike Japanese, a subject-object asymmetry is observed with regard to the licensing of NPIs, as illustrated in (3).

(3) a. **Anyone* did not read the book.
b. John did not read *anything*.

In both Japanese and English, a clausal negator looks like occurring in the same structural position, which is lower than TP but higher than vP. This suggests that the two languages have the layered clause structure: $[_{TP}\ [_{NegP}\ [_{vP}\ ]]]$. Then, a question arises as to why NPIs are sanctioned in both subject and object positions in Japanese, as opposed to English.

In the literature on Japanese, there is the proposal that clause-wide negative

nani-mo 'anything') behave like floating quantifiers, appended to arguments. On the other hand, NPIs with *sika* behave as arguments, but not as floating quantifiers. For many speakers, the judgments on NPIs with *sika* are clear, but I occasionally came across speakers who are not really sensitive to the syntactic factors, and these speakers allow a DP with *sika* to be linked to a negator, regardless of their hierarchical position. The discussion in this paper is based on the judgments by the first group of speakers.

scope is made available via Neg-head raising; i.e. Neg-head raising is responsible for the lack of a subject-object asymmetry in NPI licensing in Japanese. To be concrete, on the assumption that a tense head is head-raised to Fin for the purpose of identifying the finiteness of the clause in Japanese (cf. Rizzi 1997, 2004, Radford 2009), Kishimoto (2013) suggests that negative scope extends over TP, which is occupied by the subject, as a consequence of Neg-head raising (see also Kishimoto 2007, 2008).

(4) $[_{FinP}$ $[_{TP}$ SUBJ $[_{NegP}$ $[_{vP}$ ~~SUBJ~~ OBJ V-v] ~~Neg~~] ~~Neg-T~~] Neg-T-Fin]

Negative Scope

In this analysis, when a negative head undergoes head raising, it first forms a complex head with T by virtue of Neg-head raising to T, and then, the entire head complex comprised of Neg and T is head-raised and occurs in the Fin-head position, as illustrated in (4).[2] In this configuration, NPIs in subject position as well as NPIs in object position are licensed, because the complex head (including Neg) takes TP as its c-command domain. This analysis accounts for the difference in the behavior of NPIs between Japanese and English in terms of Neg-head raising. (The Neg-head raising analysis assumes that subjects are located in Spec-TP in both English and Japanese.) In Japanese, subjects in Spec-TP fall under the scope of negation, because negative *nai* is head-raised to Fin. In English, by contrast, the negative *not* does not undergo raising in clauses like (3), and hence its scope domain is limited to vP, located below NegP. Accordingly, English displays a subject-object asymmetry in the licensing of NPIs in (3).

Note that the predicate-internal subject hypothesis makes two subject positions available—one is a predicate-internal subject position (Spec-vP (for verbal predicates) or Spec-aP (for adjectival predicates)), where a subject receives its theta role from the predicate, and the other, Spec-TP, which is the landing site of a subject when subject raising applies (see Kitagawa 1986, Kuroda 1988, Sportiche 1988, Koopman and Sportiche 1991, Fukui 1995, among others). Given this, another possibility suggests itself. In fact, there is another line of inquiry pursued in the literature, which attempts to account for the absence of a subject-object asymmetry in NPI licensing by assuming that subjects stay within vP (Aoyagi and Ishii 1994, Kato 1994, Watanabe 2004).

(5) $[_{FinP}$ $[_{TP}$ $[_{NegP}$ $[_{vP}$ SUBJ OBJ V-v] Neg] T] Fin]

Negative Scope

According to the 'subject-in-situ' analysis, a negative head projecting scope is

[2] In Japanese, the sentential negator is combined with tense to form a complex head. In English, and also in other European languages, sentential negators, even if they are realized as heads, function as elements independent of tense, and normally do not interact with it (see Haegeman 1995, Zanuttini 1997b, and others).

located in NegP without head raising in Japanese, as in (5). In Japanese, even though the negator takes scope only over vP, a subject NPI (as well as an object NPI) appears in a position low enough to be licensed by *nai* located in NegP. Thus, no subject-object asymmetry is observed in NPI licensing. On the other hand, in English, subjects are located in TP, falling outside the scope of negation, so that NPIs display a subject-object asymmetry, as observed in (3).

The second 'subject-in-situ' analysis might capture the Japanese facts of (1) without positing Neg-head raising, but it faces an empirical problem in accounting for the well-formedness of (6), which includes the adjunct NPI *kinoo-sika* 'only yesterday'.

(6) *Kinoo-sika* Ken-ga hataraka-nakat-ta.
yesterday-only Ken-NOM work-NEG-PAST
'Ken worked only yesterday.'

The temporal adverb *kinoo* 'yesterday' can appear only in clauses where the predicate appears in the past tense (see section 2.2). Given that modifiers are associated with the projections they modify (Radford 2009), it can be postulated that the temporal adjunct *kinoo* involves adjunction to TP.

In the second 'subject-in-situ' analysis, the negator appears in NegP, and the scope of negation extends only over vP. This leads to the prediction that the temporal adjunct *kinoo-sika* in (6) will not be licensed under the scope of negation, contrary to fact. On the other hand, the acceptability of (6) is naturally expected on the first Neg-head raising analysis, since the scope of negative *nai* extends over TP as a consequence of Neg-head raising to Fin. In light of this consideration, it is apparent that the Neg-head raising analysis is favored over the subject-in-situ analysis.

Under the Neg-head raising analysis, the clausal negator *nai* takes clause-wide scope when it undergoes Neg-head raising to T (and further to Fin). Obviously, in Japanese, this situation is obtained in verbal clauses, as shown in (1). The Neg-head raising analysis leads to the prediction that a subject-object (or subject-complement) asymmetry will be observed in the licensing of NPIs when Neg-head raising does not take place, because, in such cases, the scope of *nai* does not extend over TP. As I will discuss below, the kind of distribution predicted by the absence of Neg-head raising is found in non-verbal clauses (in Japanese).

2.2. Negative scope in non-verbal clauses

Before discussing how negative scope extends in non-verbal clauses, it is instructive to consider the facts that provide an impetus for the Neg-head raising analysis. To be concrete, observe that in English, the aspectual verb *have* is subject to overt head raising, but its lexical counterparts are not (see Radford 1997).

(7) a. John *has* not finished his homework yet.
b. John did not *have* his students take all the classes.
c. John did not *have* his son examined by the doctor.

The relative order of *have* and *not* differs between (7a) and (7b–c). In English, main verbs are not subject to head raising to T, so that the lexical verb *have* appears to the right of *not*, as in (7b) and (7c). In (7a), the aspectual *have* appears to the left of *not* as a consequence of head raising to T. Importantly, the aspectual verb *have* is a grammatical (or functional) word which does not possess lexical properties as a main verb, and thus, it is subject to head raising.

The Neg-head raising analysis, proposed by Kishimoto (2007, 2008), maintains that an analogical pattern obtains in the head raising of negative *nai* in Japanese. Negative *nai* conjugates just like an ordinary adjective, which suggests that it probably originated as a lexical adjective. However, as I will see below, negative *nai* paired with verbal predicates now functions as a decategoricalized (i.e. deadjectival) grammatical negator (by virtue of losing its original lexical properties as an adjective). Thus, this type of *nai* is amenable to Neg-head raising.[3] The negative *nai* retaining its categorical status as an adjective can also be found. Generally, the negator *nai* associated with adjectives (including nominal adjectives) show properties that are expected if it retains the categorical status of an adjective, i.e. it behaves as a category that does not undergo head raising. (The negative *nai* projects negative scope irrespective of whether it is categorized as a deadjectival negator or an adjectival negator, because it serves to reverse the polarity of a proposition.) It is reasonable to hypothesize here that the negative head *nai* undergoing head raising is a deadjectival grammatical marker, but that the negative *nai* occurring with adjectives is an adjectival negator that retains the categorical status as an adjective, so that it is not subject to head raising.

To substantiate the present claim, let us check whether negative *nai* associated with adjectives possesses the categorical status of an adjective, which differs from *nai* occurring with verbs. Whether or not a negative head has the categorical status of an adjective can be determined by way of embedding the negative clause under *omou* 'think', as discussed by Kishimoto (2007, 2008). The examples in (8) show that when *omou* takes a small-clause complement, adjectives (as well as nominal adjectives), but not verbs, are allowed to occur as the small-clause predicate.

(8) a. Eri-wa [sore-o omosiroku/hituyoo-ni] omo-u (koto-ga ar-u).
Eri-TOP it-ACC interesting/necessary think-PRES fact-NOM be-PRES
'(There are times when) Eri considers it interesting/necessary.'
b. *Ken-wa [hon-o ure-naku] omo-u (koto-ga ar-u).
Ken-TOP book-ACC sell.can-NEG think-PRES fact-NOM be-PRES
(Lit.) '(There are times when) Ken considers books not to sell well.'

The embedded predicate immediately preceding *omou* 'think' is required to have adjectival inflection. The negated verb in (8b) qualifies as a predicate standing in front of the verb *omou*, at least, morphologically, owing to the adjectivally-inflect-

[3] There are other factors that affect the possibility of Neg-head raising, but for the present purposes, it suffices to note that the categorical status of *nai* is a factor for determining whether its head raising takes place (see Kishimoto 2007, 2008).

ing *nai*. Nevertheless, (8b) is excluded, because *nai* here serves as a grammatical negator that does not retain the categorical status of an adjective. In contrast, negated adjectives can be placed in a small-clause complement to the verb *omou* 'think', as shown in (9).

(9) Ken-wa [sore-o omosiroku naku] omo-u (koto-ga ar-u).
Ken-TOP it-ACC interesting NEG think-PRES fact-NOM be-PRES
'(There are times when) Ken considers it uninteresting.'

(9) might be a little awkward when it stands alone, but it is acceptable. The judgment is facilitated when the sentence is followed by a phrase like *koto-ga aru* 'there are times when…', while carrying the implication that the described situation holds rather exceptionally.[4] In (9), the selectional requirement imposed on the small-clause predicate is not violated by *nai* occurring with the adjectives, which suggests that the negator has the categorical status of an adjective.

From the present perspective, if negative *nai* associated with adjectival predicates is a lexical adjective, it does not undergo Neg-head raising, i.e. *nai* remains in NegP where it is base-generated. This leads to the prediction that in adjectival clauses, the negative *nai* will take scope over aP, but not TP. In point of fact, the examples in (10) show that its scope does not extend beyond aP (located below NegP).

(10) a. *Asita-wa *watasi-sika* isogasiku na-i.
tomorrow-TOP I-only busy NEG-PRES
'Only I will be busy tomorrow.'
b. Watasi-wa {**asita-sika/sukosi-sika*} isogasiku na-i.
I-TOP {tomorrow-only/slightly-only} busy NEG-PRES
'I will be busy {only tomorrow/only a little}.'

As shown in (10), where an adjectival predicate is negated, neither the subject NPI *watasi-sika* nor the temporal adjunct NPI *asita-sika* is sanctioned. On the other hand, the NPI *sukosi-sika* functioning as a predicate modifier to the adjective (which we can assume is adjoined to aP) is licensed. In this connection, note that a temporal adverb like *asita* specifying a specific point of time is sensitive to the tense form of the predicate, as (11) shows.

(11) Eri-wa asita {*hatarai-ta/hatarak-u/*isogasikat-ta/isogasi-i}.
Eri-TOP tomorrow {work-PAST/work-PRES/busy-PAST/busy-PRES}
'Eri {worked/will work/was busy/will be busy} tomorrow.'

[4] One reviewer remarks that the small-clause construction embedding full-blown adjectives (including some negative adjectives such as *moosiwake-nai* 'sorry' and *otonage-nai* 'childish') is fully acceptable, but that (9) is awkward even if *koto-ga aru* follows it. On the other hand, some speakers I consulted find the same sentence in (9) fully acceptable even without *koto-ga aru*. It is not clear why speaker variation is found in regard to the judgments on this particular example.

The fact suggests that *asita* is related to TP, which carries the tense information of the clause. Since, as noted earlier, modifiers are adjoined to the projections they modify (Radford 2009), it is easy to see that a temporal adverb like *asita* is adjoined to TP.[5]

Given that subjects as well as temporal adverbs like *asita* referring to a specific time frame fall outside the scope domain of *nai*, the configuration (12) can be assigned to the adjectival clauses in (10).

(12) $[_{FinP}\,[_{TP}\ Adv_{temp}\ \ SUBJ\ \ [_{NegP}\,\underbrace{[_{aP}\ \sout{SUBJ}\ \ Pred\text{-}Mod\ \ A\text{-}a]}_{\text{Negative Scope}}\ Neg\ ]\ \sout{T}]\ T\text{-}Fin]$

In (12), *nai* associated with the intransitive adjective *isogasii* 'busy' remains in NegP (without head raising). The negator does not extend its scope over TP, but takes scope over aP located below NegP. Consequently, the negator *nai* does not license the NPIs *watasi-sika* and *asita-sika* located in TP, while the predicate modifier *sukosi-sika* is licensed. The fact suggests that nominative subjects are raised to Spec-TP in the clause headed by an adjectival predicate.[6]

Japanese has adverbials like *syuu-hutuka* 'two days a week' and *nen-ni mikka* 'three days a year', which specify frequencies (or intervals) rather than refer to a specific point of time (related to tense). A frequency adverb like *syuu-hutuka* behaves differently from *asita* 'tomorrow', although they both refer to a temporal relation in one way or another. In the first place, the occurrence of *syuu-hutuka* is not constrained by the tense of the predicate.

(13) Ano hito-wa syuu-hutuka {hatarai-ta/hatarak-u}.
that person-TOP week-two.days {work-PAST/work-PRES}
'That person {worked/works} two days a week.'

Secondly, the two adverbs *asita* and *syuu-hutuka* show different behaviors in pseudo-cleft constructions where vP is focused.

(14) a. Ken-ga su-ru no wa [nikki-o {syuu-hutuka/?*asita}
Ken-NOM do-PRES that TOP diary-ACC {week-two.days/tomorrow}
kaku] koto da.
write fact COP
'What Ken does is keep a diary {two days a week/tomorrow}.'

b. Ken-ga {syuu-hutuka/asita} su-ru no wa [nikki-o
Ken-NOM {week-two.days/tomorrow} do-PRES that TOP diary-ACC
kaku] koto da.
write fact COP
'What Ken will do {two days a week/tomorrow} is keep a diary.'

[5] Tense information is encoded in the tense head that projects to TP. Thus, a temporal adjunct is adjoined to TP, although the tense head is raised to Fin for its licensing.

[6] If nominative and accusative argumnets occur with *sika*, their morphological case marking is not overtly manifested, even though they carry structural Case features.

As discussed by Kishimoto (2016b), in the pseudo-cleft construction where vP is placed in its focus position, an adverb adjoined to vP can appear either in the antecedent clause or in focus position, but a TP adverb can appear only in the antecedent clause.[7] The data in (14) suggest that *syuu-hutuka* is adjoined to vP, whereas *asita* is adjoined to TP. Furthermore, the NPI *syuu-hutuka-sika*, unlike the NPI *asita-sika*, is licensed in an adjectival clause.

(15) Ken-wa {**asita-sika/syuu-hutuka-sika*} suugaku-no
Ken-TOP {tomorrow-only/week-two.days-only} math-GEN
yosyuu-ga hituyoo-de na-i.
preparation-NOM necessary NEG-PRES
'Ken needs to prepare for the math class {only tomorrow/only two days a week}.'

The facts of the NPI adverbs in (15) are expected if the frequency adverb *syuu-hutuka*, unlike the temporal adverb *asita*, is adjoined to aP.

In verbal clauses, the scope of negation extends over TP, due to the presence of Neg-head raising. Accordingly, both subject and temporal adverb NPIs are licensed by *nai* in (16).

(16) a. *Kinoo-sika* Ken-ga hasira-nakat-ta.
yesterday-only Ken-NOM run-NEG-PAST
'Ken ran only yesterday.'
b. Kinoo-wa *Ken-sika* hasira-nakat-ta.
yesterday-TOP Ken-NOM run-NEG-PAST
'Only Ken ran yesterday.'

Since the temporal adverb *kinoo* accompanying *sika* is adjoined to TP, it can be stated that the negative *nai* occurring with the verb takes scope over TP. The facts of NPI licensing in (16) follow if *nai* is raised to FinP, as illustrated in (17).

(17) $[_{FinP}\ \underbrace{[_{TP}\ Adv_{temp}\ SUBJ\ [_{NegP}\ [_{vP}\ \sout{SUBJ}\ V\text{-}v]\ \sout{Neg}\ ]\ \sout{Neg\text{-}T}]}_{\text{Negative Scope}}\ Neg\text{-}T\text{-}Fin]$

The negative head *nai* appearing in verbal clauses is a decategoricalized grammatical marker. The subject *Ken-sika* and the temporal adverb *kinoo-sika* are both legitimate in (16), because the negative head is raised to FinP and takes scope over TP. In section 3, it will be argued that when T carries the uninterpretable Case feature [+Nom], which values the unvalued Case feature on a nominative argument, an EPP feature to motivate subject raising is assigned to it.[8] Note that the

[7] For some other restrictions imposed in vP-pseudo-cleft constructions, see Kishimoto (2016b).

[8] In the Case-assignment system, a Case-head assign Case to arguments (Chomsky 1981). Under the Agree system, Case features on arguments are valued by their probes. Pesetsky and Torrego (2001) suggest that nominative Case is an unvalued 'tense' feature on D, so that it is deleted in association with a tense feature on T. For Chomsky (2000, 2001), manifesta-

adjective *isogasii* 'busy' in (10) selects a nominative subject, suggesting that the subject should be raised to TP. In the examples in (10), negative scope does not extend over TP, and thus, the syntactic behavior of NPIs in (10) does indicate that subject raising is implemented in the adjectival clauses.

Recently, Shibata (2013, 2016) proposes an analysis of negative structure taking the negator *nai* to occupy the same structural position as *not* in English, as in $[_{TP}\ [_{NegP}\ [_{vP}\ ]\ na]i]$. His proposal is similar to the subject-in-situ analysis discussed in section 2.1, in the sense that the absence of a subject-object asymmetry in NPI licensing is attributed to the NPI subject (as well as the object NPI) staying below vP, over which *nai* takes scope. The example in (16a) poses an empirical problem on his analysis, however, because the temporal adverb *kinoo*, which is located above NegP, is licensed under the scope of negation.

If *nai* associated with adjectives does not undergo Neg-head raising, as proposed above, it is further predicted that transitive adjectives will display a subject-complement asymmetry in regard to the licensing of NPIs with *sika*. This prediction is borne out.

(18) a. *Kono kurasu-de-wa *Ken-sika* ano onnanoko-ni yasasiku
this class-in-TOP Ken-only that girl-DAT kind
nakat-ta.
NEG-PAST
'Only Ken was kind to that girls in this class.'

b. Kono kurasu-de-wa Ken-ga *ano onnanoko-ni-sika* yasasiku
this class-in-TOP Ken-NOM that girl-DAT-only kind
nakat-ta.
NEG-PAST
'Ken was kind to only that girl in this class.'

Transitive adjectives like *yasasii* 'kind' and *kibisii* 'strict' take nominative subjects and dative complements. In (18), the dative-marked NPI with *sika* is licensed, but the nominative-marked NPI with *sika* is not.

A transitive adjective like *hituyoo-da* 'necessary' takes a dative-nominative rather than a nominative-dative case-marking pattern. With this type of predicate, the distributional pattern of NPIs is reversed, as shown in (19).

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tion of structural Case depends on the probe; T values the Case feature on an argument as nominative, and v as accusative (see also Chomsky 2008, Radford 2009). Kishimoto (2017) proposes that a formal feature on the probe determines the Case value of an argument, and that finite T has [+Nom] and transitive v has [+Acc]. The present paper adopts the assumption that formal features on the probe (and not the probe itself) Agree with the Case features of arguments, for this analysis has the advantage of providing an account for some case-marking constraints, e.g. the nominative-case constraint in Japanese, as discussed by Kishimoto (2017). I assume that this Case valuation system is not a matter of parametric variation. Recently, proposals are advanced in the literature to dispense with the EPP in favor of the labeling algorithm (Chomsky 2013, 2015). I will leave open the theoretical question of how the EPP effects can be captured along this line of inquiry.

(19) a. **Ken-ni-sika* ano okane-ga hituyoo-de nakat-ta.
Ken-DAT-only that money-NOM necessary NEG-PAST
'Only Ken needed that money.'
b. Ken-ni-wa *ano okane-sika* hituyoo-de nakat-ta.
Ken-DAT-TOP that money-only necessary NEG-PAST
'Ken needed only that money.'

In (19), the nominative argument accompanying *sika* is licensed, but the dative argument with *sika* is not.

Obviously, the difference in the behavioral pattern of NPIs between (18) and (19) is correlated with the question of which argument serves as the subject of the clause. This can be confirmed by considering how subject-oriented *zibun* (which takes a subject located in aP or vP as its antecedent) behaves in the two types of transitive adjective clauses (Shibatani 1978, Kishimoto 2005).[9]

(20) a. Ken$_i$-ga zibun$_i$-no kodomo-ni-dake yasasikat-ta.
Ken-NOM self-GEN child-DAT-only kind-PAST
'Ken was kind only to his own children.'
b. Ken$_i$-ni(-wa) zibun$_i$-no okane-ga hituyoo-dat-ta.
Ken-DAT-TOP self-GEN money-NOM necessary-PAST
'Ken needed his own money.'

With a transitive adjective like *yasasii* 'kind', subject-oriented *zibun* can take only the nominative argument as its antecedent. On the other hand, with *hituyoo-da* 'necessary', only the dative argument can be the antecedent of *zibun*. This shows that the subject of *yasasii* is the nominative argument, while the subject of *hituyoo-da* is the dative argument, and that these arguments fall outside the scope of negation in (18a) and (19a).

The failure of licensing the NPI subjects in (18a) and (19a) comes from the fact that they are raised to TP, while the scope of negation does not extend over TP, due to the absence of Neg-head raising, as illustrated in (21).

(21) [$_{FinP}$ [$_{TP}$ SUBJ [$_{NegP}$ [$_{aP}$ ~~SUBJ~~ Compl A-a] Neg]~~T~~]T-Fin]
Negative Scope

In adjectival clauses, subjects are located in Spec-TP, and thus, the nominative NPI subject in (18a) and the dative NPI subject in (19a), formed by attaching *sika*, are

[9] In the causative construction (i), the embedded clause does not include tense (see Saito 2009), but the causee *Mari* (as well as the causer *Ken*) can be the antecedent of *zibun*.

(i) Ken$_i$-ga [Mari$_j$-o zibun$_{i/j}$-no heya-de hatarak]-ase-ta.
Ken-NOM Mari-ACC self-GEN room-at work-CAUS-PAST
(Lit.) 'Ken made Mari work at self's room.'

This fact suggests that reflexivization is an operation targeting a subject located in Spec-vP (or its copy left there by movement).

not licensed. By contrast, the NPI complements accompanying the particle *sika* in (18b) and (19b) are located below NegP, and hence are licensed by the negator *nai,* regardless of whether they appear in the nominative case or dative case.

The facts of NPI adjuncts lend further support to the present view. In both examples in (22), the temporal adjunct *kinoo* is prevented from accommodating the particle *sika*, but it is possible to append *sika* to the predicate modifier *sukosi*.

(22) a. Ken-wa {**kinoo-sika/sukosi-sika*} kodomo-ni yasasiku nakat-ta.
Ken-TOP {yesterday-only/little-only} child-DAT kind NEG-PAST
'Ken was kind to the children {only yesterday/only a little}.'

b. Ken-ni-wa {**kinoo-sika/sukosi-sika*} okane-ga hituyoo-de
Ken-DAT-TOP {yesterday-only/little-only} money-NOM necessary
nakat-ta.
NEG-PAST
'Ken needed money {only yesterday/only a little}.'

The predicate modifier *sukosi* appears in a position lower than NegP, while *kinoo* is adjoined to TP. Thus, the data in (22) suggest that the scope of *nai* appearing in adjectival clauses is limited to aP, projected below NegP, as illustrated in (21).

Incidentally, the negative *nai* associated with verbal predicates has morphological status different from the negative *nai* occurring with adjectival predicates, in the sense that in the former, but not the latter, supportive verb insertion is implemented when a focus particle like *mo* 'also' intervenes between the predicate and *nai*, as in (23).

(23) a. Ken-ga {hasira-naka-ta/hasiri-mo *si*-naka-ta}.
Ken-NOM {run-NEG-PAST/run-also do-NEG-PAST}
'Ken did not (even) run.'

b. Sore-wa utukusiku(-mo) nakat-ta.
that-TOP beautiful(-also) NEG-PAST
'That was not (even) beautiful.'

The negator appearing with the verb *hasiru* 'run' is a bound morpheme morphologically, but the negator paired with the adjective *utukusii* 'beautiful' is not. One might claim then that *nai* associated with verbs undergoes Neg-head raising because it is a bound element.[10] On the contrary, the difference in the morphological status of *nai* does not tightly correlate with the distinction of 'raising' versus 'non-raising' Neg-heads. This can be verified by the syntactic behavior of the negative *nai* occurring with *iru* 'need'. First, observe an asymmetry in the licensing of NPI arguments in (24).

[10] Another related issue concerns the form of negative *nai*. When a verb is negated, the negative *nai* appears in the *mizen* 'irrealis' form. But when an adjective is negated, *nai* appears in the *renyoo* 'adverbial' form. Needless to say, the difference in Neg-form is not tightly correlated with the possibility of Neg-raising, either.

(24) a. **Ken-ni-sika* suugaku-no yosyuu-ga ira-na-i.
Ken-DAT-only math-GEN preparation-NOM need-NEG-PRES
'Only Ken needs to prepare for his math class.'
b. Ken-ni-wa *suugaku-no yosyuu-sika* ira-na-i.
Ken-DAT-TOP math-GEN preparation-only need-NEG-PRES
'Ken needs to prepare for only his math class.'

In (24), the nominative object of *iru* 'need' with *sika* is licensed under the scope of negation, but the dative subject with *sika* is not. Further, this negated predicate gives rise to a difference in acceptability with regard to the licensing of adjunct NPIs as well.

(25) Watasi-ni-wa {**kyoo-sika/sukosi-sika*} okane-ga ira-na-i.
I-DAT-TOP {today-only/little-only} money-NOM need-NEG-PRES
'I need money {only today/only a little}.'

In (25), the predicate modifier *sukosi-sika* is licensed under the scope of negation, but the temporal adverb *kyoo-sika* is not. The failure of the negative *nai* to license the temporal adverb *kyoo-sika* and the dative subject *Ken-ni-sika* illustrates that the scope of negation does not extend over TP. This fact shows that the negative *nai* appearing with *iru* 'need' does not undergo Neg-head raising. Crucially, morphological support is necessary for the negative *nai* associated with *iru* 'need' when an adverbial particle intervenes between them.

(26) Ken-ni-wa okane-ga mattaku {ira-nakat-ta/iri-mo
Ken-DAT-TOP money-NOM at.all {need-NEG-PAST/need-also
si-nakat-ta}.
do-NEG-PAST}
'Ken does not {need/even need} money at all.'

With *iru* 'need', just like ordinary verbs, when *nai* is separated from the host predicate, the supportive verb *suru* 'do' is inserted to its left, as in (26), thus showing that negative *nai* associated with this predicate is a bound morpheme (in morphological terms). Nevertheless, this negative element is not subject to Neg-head raising.

The facts regarding the behavior of NPIs in (24) and (25) plus the morphological property of *nai* shown in (26) suggest that whether or not *nai* undergoes Neg-head raising is not determined by its morphological status. Rather, the distinction is correlated with its categorical status. With a view to providing confirmation on this claim, let us consider whether *ira-nai* 'need not' can appear in the small-clause complement selected by *omou* 'think'.

(27) Ken-wa [kono hon-o ira-naku] omo-u (koto-ga ar-u).
Ken-TOP this book-ACC need-NEG think-PRES fact-NOM be-PRES
'(There are times when) Ken considers this book unnecessary.'

The sentence in (27), where the negated verb *ira-nai* 'not need' occurs as a small-clause predicate, is acceptable. This fact suggests that the negator *nai* appearing with *iru* 'need' functions as an adjective in categorical terms. Note, further, that the

predicate *iru* 'need' looks like a verb, but does not have the categorical status as a verb, as confirmed by the predicate's inability to appear in the subordinate clause selected by *hosii* 'want'.

(28) Watasi-wa [Ken-ni sore-ga {deki-te/*it-te}] hosi-i.
I-TOP Ken-DAT it-NOM {can.do-GER/need-GER} want-PRES
'I want Ken to {be able to do/need} it.'

As discussed by Kishimoto (2008), the desiderative predicate *hosii* 'want' allows a lexical verb to appear in the embedded clause. Nevertheless, the predicate *iru* 'need' cannot appear in the embedded clause, despite the fact that it conjugates like a verb. The fact points to the conclusion that *iru* is not a verbal predicate (categorically). Perhaps, this can be taken as a symptom that the predicate *iru* 'need' has been decategoricalized through grammaticalization and has lost the status of a lexical verb. In any event, given that the non-adjectival negator *nai* is paired with lexical verbs, there is a sense in which the necessity predicate *iru* selects for an adjectival negator, which is not subject to Neg-head raising.

When negated, the necessity predicates *hituyoo-da* 'necessary' and *iru* 'need' take an adjectival negator, which does not undergo Neg-head raising, but other necessity predicates like *hituyoo-to suru* 'need' and *hituyoo-ni naru* 'become necessary' take a clausal negator amenable to Neg-head raising. Thus, with the latter predicates, temporal adjunct NPIs, as well as predicate modifier NPIs, are licensed by *nai*, as shown in (29).

(29) a. Ken-ga {*kinoo-sika/sukosi-sika*} okane-o hituyoo-to
Ken-NOM {yesterday-only/little-only} money-ACC need
si-nakat-ta.
do-NEG-PAST
'Ken needed money {only yesterday/only a little}.'
b. Ken-ni-wa {*kinoo-sika/sukosi-sika*} okane-ga hituyoo-ni
Ken-DAT-TOP {yesterday-only/little-only} money-NOM necessary
nara-nakat-ta.
become-NEG-PAST
'Ken needed money {only yesterday/only a little}.'

Furthermore, in both sentences in (30), headed by *hituyoo-to suru* and *hituyoo-ni naru*, the subject NPIs with *sika* are licensed under the scope of negation.

(30) a. *Ken-sika* okane-o hituyoo-to si-nakat-ta.
Ken-only money-ACC need do-NEG-PAST
'Only Ken needed the money.'
b. *Ken-ni-sika* okane-ga hituyoo-ni nara-nakat-ta.
Ken-DAT-only money-NOM necessary become-NEG-PAST
'Only Ken needed the money.'

The data illustrate then that *nai* occurring with *hituyoo-to suru* and *hituyoo-ni naru* extends its scope over TP. In addition, observe that these predicates cannot be

embedded in the small-clause complement of *omou* 'think'.

(31) Ken-wa [sore-o {*hituyoo-to si-naku/?*hituyoo-ni nara-naku}]
Ken-TOP it-ACC {need do-NEG/necessary become-NEG}
omo-u (koto-ga ar-u).
think-PRES fact-NOM be-PRES
'(There are times when) Ken considers it necessary.'

The example in (31) indicates that the negative *nai* appearing with *hituyoo-to suru* and *hituyoo-ni naru* is classified as a deadjectival negator that extends its scope over TP as a consequence of Neg-head raising. Apparently, this comes from the fact that the negator is anchored to the verbs *suru* 'do' and *naru* 'become'.

To summarize, negative *nai* associated with adjectival predicates, as well as *nai* paired with the necessity predicate *iru* 'need', retains the categorical status of an adjective. The adjectival type of sentential negator *nai* does not undergo Neg-head raising and hence does not take scope over TP.[11]

3. Subject raising in complex clauses

Under the view held here, a decategoricalized grammatical marker *nai* (paired with verbs) takes clause-wide scope owing to its Neg-head raising. In simple verbal clauses, then, NPI subjects are licensed regardless of whether they are raised to Spec-TP or remain within vP. Accordingly, simple verbal clauses cannot be used for assessing whether subjects undergo raising. Nevertheless, it is possible to dis-

[11] There are some exceptional cases where negative *nai* appearing with adjectives is subject to Neg-head raising. The adjectives *suki-da* 'fond of' and *hosii* 'want' allow their associated negator to undergo Neg-head raising, so that in the clauses headed by these adjectives, negative scope extends over TP, as shown by (i).

(i) a. *Ken-sika* gohan-ga hosiku-nakat-ta.
Ken-only meal-NOM want-NEG-PAST
'Only Ken wants meals.'
b. Ken-ga *gohan-sika* hosiku-nakat-ta.
Ken-NOM meal-only want-NEG-PAST
'Ken wants only meals.'

When the negated predicate *hosiku nai* 'not want' is embedded under *omou*, the sentence is deviant.

(ii) ?*Ken-wa [gohan-o hosiku naku] omo-u (koto-ga ar-u).
Ken-TOP meal-ACC want NEG think-PRES fact-NOM be-PRS
'(There are times when) Ken does not want meals.'

The deviance of (ii) shows that the negator associated with the adjectival predicate *hosii* is a functional negator. It is suggested by Shimizu (2013) that some emotional predicates, including *suki-da* and *hosii*, have been derived from their verbal counterparts. If this is the case, it is plausible to postulate that a deadjectival negator *nai* is associated with *hosii* and *suki-da*, because they somehow retain certain verbal properties (as their idiosyncrasies).

cern whether subjects are located in Spec-TP or in predicate-internal position by looking at raising constructions which allow the subject of the embedded predicate to be moved from the embedded clause to the matrix clause.

Drawing on the raising construction headed by the aspectual verb *iru* 'be', section 3.1 shows that when tense (T) has a Case feature to license a nominative argument, it also has an EPP feature to attract subjects, i.e. subject raising is invoked when the clause contains a nominative argument. In section 3.2, it is argued that in another type of raising construction formed on *naru* 'become', the possibility of subject raising out of the subordinate clause differs according to the type of complement clause it takes.

3.1. The aspectual construction

As noted earlier, the predicate-internal subject hypothesis makes two subject positions available in simple clauses. Logically, subjects could be located in a predicate-internal position (if no subject raising takes place) or in Spec-TP (if they undergo subject raising). In Japanese, there is an issue as to which position subjects occupy. For instance, Fukui (1995) and Kuroda (1988) hold that subjects appear in predicate-internal position without subject raising, while Miyagawa (1989b, 2001) and Kishimoto (2001) maintain that subjects are raised to Spec-TP by virtue of the EPP requirement imposed on T.

(32) a. $[_{TP}$ $[_{vP}$ SUBJ $[_{VP}$ V] v] T]
b. $[_{TP}$ SUBJ $[_{vP}$ ~~SUBJ~~ $[_{VP}$ V] v] T]

The discussion of the structural position of subjects is often confined to cases involving nominative subjects, but more recently, a different claim has been advanced in Kishimoto (2010), to the effect that the structural position of subjects varies depending on their marking; that is, nominative subjects are raised to TP, whereas subjects marked with oblique *kara* 'from' or *de* 'with' remain within the predicate (cf. Ueda 2003).

In simple verbal clauses, the constituent position of subjects cannot be evaluated by way of the syntactic behavior of NPIs. The reason is that the same results follow regardless of whether subject NPIs undergo raising to Spec-TP or remain in vP. Nevertheless, it is possible to assess the constituent position of subjects by making use of one type of raising construction formed on the aspectual verb *iru* 'be'.

(33) Ken-ga hon-o yon-de i-ru.
Ken-NOM book-ACC read-GER be-PRES
'Ken is reading the book.'

One remarkable feature of the aspectual construction in (33) is that the clausal negator *nai* can either precede or follow the aspectual verb (but must follow the main verb).

(34) a. Ken-ga hon-o yon-de i-na-i.
Ken-NOM book-ACC read-GER be-NEG-PRES
'Ken is not reading the book.' V-BE-NOT

b. Ken-ga hon-o yoma-nai-de i-ru.
Ken-NOM book-ACC read-NEG-GER be-PRES
'Ken is not reading the book.' V-NEG-BE

In particular, the type of aspectual construction given in (34b), where a negator is embedded under the aspectual verb *iru* 'be', allows us to assess whether a subject is raised to Spec-TP or not, because negative scope does not extend over TP in the matrix clause.

The aspectual verb *iru* takes a raising complement, as confirmed by the fact that inanimate subjects are allowed, as in (35a), as well as the fact that clausal idioms can be embedded with no loss of their idiomatic meanings, as in (35b) (see Carnie 2006).

(35) a. Sora-ga mada {hare-nai-de i-ru/hare-te i-na-i}.
sky-NOM still {clear-NEG-GER be-PRES/clear-GER be-NEG-PRES}
'The sky has not cleared yet.'

b. Kono mise-de-wa imadani kankodori-ga {naka-nai-de
this store-at-TOP still cuckoo-NOM {sing-NEG-GER
i-ru/nai-te i-na-i}.
be-PRES/sing-GER be-NEG-PRES}
'There are still some customers at this store.'

Note that inanimate subjects and clausal idioms are not allowed to appear in control constructions, as exemplified in (36).

(36) a. *Sora-ga hare-ta-i.
sky-NOM clear-want-PRES
'The sky wants to clear.'

b. *Kono mise-de-wa kankodori-ga naki-ta-i.
this store-at-TOP cuckoo-NOM sing-want-PRES
'The cuckoo wants to sing at this store.'

The predicate *-tai* 'want' takes a control complement, as [Subj [PRO V]-*tai*]. Because PRO needs to refer to an animate entity (see Kishimoto 2005), the sentences in (36) are not acceptable. These sentences are ruled out, since the subject in (36a) is not animate, and the subject idiom in (36b) does not contain a referential subject. The data in (35) show that (33) is a raising construction whose subject is generated in the embedded clause, i.e. the upper verb *iru* does not impose selectional restrictions on the subject.[12] The variant of the aspectual construction

[12] In control constructions, neither inanimate subjects nor subject idioms can be embedded. This restriction is observed in the auxiliary verb constructions in (i).

(i) a. *Sora-ga hare-te oi-ta.
sky-NOM clear-GER put-PAST
'The sky cleared.'

b. *Kono mise-de-wa mada kankodori-ga nai-te oi-ta.
this store-at-TOP still cuckoo-NOM sing-GER put-PAST
'The cuckoo still sang at this store.'

in (34b), where *nai* precedes the aspectual verb *iru*, has an agentive implication semantically, on the basis of which Takezawa (2004) argues that it has a control structure. Nevertheless, the pattern of distribution observed above suggests that (34b), as well as (34a), is a raising construction.

In the aspectual construction, the non-finite TP in the *te*-complement clause does not serve as the (final) landing site of the subject undergoing subject raising. Therefore, the configuration in (37a) can be posited for (33) if the thematic subject of the main verb undergoes subject raising. On the other hand, (33) has the structure in (37b) if no subject raising is implemented.

(37) a. $[_{FinP}\ [_{TP}$ SUBJ $[_{vP}\ [_{FinP}\ [_{TP}$ ~~SUBJ~~ $[_{vP}$ ~~SUBJ~~ $[_{VP}$ OBJ V]v]T]T-Fin]BE]T]T-Fin]

b. $[_{FinP}\ [_{TP}\ \ \ [_{vP}\ [_{FinP}\ [_{TP}\ \ \ [_{vP}$ SUBJ $[_{VP}$ OBJ V]v]T]T-Fin]BE]T]T-Fin]

In (37a), the matrix T, as well as the embedded T, is assigned an EPP feature, so that the nominative subject is moved to the matrix TP by way of the embedded TP (Chomsky 1995, Bošković 2002). The aspectual construction has a bi-clausal structure, and thus, the extent to which the scope of the negative *nai* extends differs according to where it appears. In particular, when the negator precedes the aspectual verb, negative scope does not extend over the matrix TP, but is limited to the embedded TP, for the Neg-head resides in the embedded clause. On the basis of this aspectual construction, it can be confirmed that in Japanese, nominative subjects undergo raising.

Let us now look at how NPIs with *sika* behave in the aspectual construction. When *nai* intervenes between the main and the aspectual verbs, a difference in acceptability is observed with regard to the licensing of NPIs, as in (38).

(38) a. Gakusei-ga *hon-sika* yoma-nai-de i-ru.
student-NOM book-only read-NEG-GER be-PRES
'The student has been reading only books.'

b. **Gakusei-sika* hon-o yoma-nai-de i-ru.
student-only book-ACC read-NEG-GER be-PRES
'Only the student has been reading books.'

While the NPI object in (38a) is licensed, the NPI subject in (38b) is not. A similar pattern of distribution is found in (39), which involves adjunct NPIs.

(39) Ken-wa {**asita-sika/koko-de-sika*} hataraka-nai-de i-ru.
Ken-TOP {tomorrow-only/here-in-only} work-NEG-GER be-PRES
'Ken has been working {only tomorrow/only here}.'

The locative adjunct *koko-de* specifies the place of the event described by the main verb, which suggests that it appears in the embedded clause. On the other hand, the choice of the temporal adverb *asita* is affected by the tense form of the matrix aspectual verb *iru* 'be'.

In (i), the auxiliary verb *oku* 'put' selects a control complement, and since PRO needs to refer to an animate entity, the examples in (i) are excluded.

(40) Ken-wa asita hataraka-nai-de {i-ru/*i-ta}.
Ken-TOP tomorrow work-NEG-GER {be-PRES/be-PAST}
'Ken {will be/was} working tomorrow.'

This fact suggests that the adverb *asita* is adjoined to the matrix TP.[13] Given that the subject in (38b) patterns with *asita* in (39) with regard to the licensing of NPIs with *sika*, it is fair to state that the negative head *nai* occurring between the main verb and the aspectual verb *iru* is raised to the embedded FinP, but not any further, whereas the nominative subject is moved to the matrix Spec-TP, as depicted in (41).

(41) $[_{FinP}\,[_{TP}$ SUBJ $[_{vP}\,[_{FinP}\,[_{TP}\,[_{NegP}\,[_{vP}$ ~~SUBJ~~ OBJ V-v]Neg]~~T~~]**NEG**-T-Fin]Be]~~T~~]T-Fin]

Negative Scope

When the negative *nai* is embedded under the aspectual verb, the negative scope is extended only over the embedded clause. In (38), a subject-object asymmetry is observed in regard to NPI licensing, since the subject, but not the object, is extracted from the scope domain of *nai*.

In this connection, observe that a numeral quantifier with *sika*, which is floated from the subject, is licensed by *nai* in the embedded clause, as shown in (42).

(42) {Gakusei-ga *hito-ri-sika/*Kono gakusei-sika*} hasira-nai-de i-ru.
{student-NOM one-CL-only/this student-only} run-NEG-GER be-PRES
'Only {one/this} student has been running.'

The contrast in acceptability in (42) suggests that while the subject is raised to the matrix TP, the numeral quantifier *hito-ri* 'one person' associated with the subject is allowed to occur in the embedded clause. This fact is naturally expected, because a numeral quantifier launched off the subject can be appended to its copy in vP-internal position (Miyagawa 1989).

In the aspectual construction, if *nai* is placed in the matrix clause, it takes scope over the matrix clause, and no subject-object asymmetry is found in NPI licensing,

[13] In simple clauses, the choice of a temporal adjunct depends on the tense form of the predicate. In the aspectual construction formed on the aspectual verb *iru* 'be', this correlation is not necessarily obtained, as exemplified in (i).

(i) Ken-wa kinoo hasit-te {i-ru/i-ta/i-na-i/i-nakat-ta}.
Ken-TOP yesterday run-GER {be-PRES/be-PAST/be-NEG-PRES/be-NEG-PAST}
'Ken {is/was not/is not/was not} running yesterday.'

Example (i) shows that a temporal adverb referring to a past time can appear even when the aspectual verb takes the present form. This is because (i) can have an experiential interpretation where the embedded clause is taken to describe a past event. This experiential interpretation is not available for the *nai-de iru* construction, so that *kinoo* 'yesterday' is allowed only when the aspectual verb appears in the past form. For obvious reasons, the experiential use is not available when the adverb *asita* 'tomorrow' referring to a future is used.

as shown in (43).

(43) a. Saikin Ken-ga *hon-sika* yon-de i-na-i.
recently Ken-NOM book-only read-GER be-NEG-PRES
'Recently, Ken has been reading only books.'
b. Saikin *Ken-sika* hon-o yon-de i-na-i.
recently Ken-only book-ACC read-GER be-NEG-PRES
'Recently, only Ken has been reading books.'

No difference in acceptability is observed between the two types of NPI adjuncts with *sika*, i.e. *kinoo-sika* and *koko-de-sika*, either, if the negator follows the aspectual verb.

(44) a. Ken-wa *kinoo-sika* hatarai-te i-nakat-ta.
Ken-TOP yesterday-only work-GER be-NEG-PAST
'Ken was working only yesterday.'
b. Zutto Ken-wa *koko-de-sika* hatarai-te i-nakat-ta.
all.the.time Ken-TOP here-in-only work-GER be-NEG-PAST
'Ken was working only here all the time.'

The data suggest that in the aspectual construction where *nai* follows the aspectual verb *iru*, *nai* is raised to the matrix Fin, as illustrated in (45).

(45) $[_{FinP}\ [_{TP}$ SUBJ $[_{NegP}\ [_{vP}\ [_{FinP}\ [_{TP}\ [_{vP}$ ~~SUBJ~~ OBJ V-v]~~T~~]T-Fin]Be]~~Neg~~]~~T~~]**NEG**-T-Fin]

Negative Scope

When the negative head *nai* appears in the matrix clause, its scope extends over the entire clause by virtue of its head movement. Accordingly, in (43), the subject and the object of the main verb are both licensed under the scope of negation.

As remarked earlier, the discussion on subject raising in Japanese is often confined to cases where subjects receive nominative case. But note that subjects can bear case markings other than nominative case (Inoue 1998, Kishimoto 2005).

(46) a. *Ken-ni* sono zi-ga mie-ta.
Ken-DAT that letter-NOM see-PAST
'Ken was able to see that letter.'
b. *Watasi-kara* sono koto-o hanasi-ta.
I-from that matter-ACC talk-PAST
'I talked about that matter.'
c. *Kodomo-tati-de* atumat-ta.
child-PL-with get.together-PAST
'The children got together.'

The subject is marked with dative case in (46a). Dative subjects appear mainly in clauses headed by transitive stative predicates. In (46b), the subject bears the ablative *kara* 'from', since it is thematically identified as a source, as well as an agent (Kishimoto 2010). In (46c), the subject is assigned *de* 'with', for it is an agent argu-

ment referring to a group of people (Kishimoto 2005, Takubo 2010).

The initial arguments bearing different markings in the three clauses in (46) all behave as subjects syntactically. This is confirmed by the fact that they can be the antecedents of *zibun*, which takes a subject in vP as its antecedent.

(47) a. Ken$_i$-ni zibun$_i$-no ie-ga mie-ta.
Ken-DAT self-GEN house-NOM see-PAST
'Ken saw his own house.'
b. Ken$_i$-kara-wa zibun$_i$-no koto-o hanasa-nakat-ta.
Ken-from-TOP self-GEN matter-ACC speak-NEG-PAST
'Ken did not talk about his own matter.'
c. Kodomo-tati$_i$-de zibun$_i$-(tati)-no keikaku-o tate-ta.
child-PL-with self-PL-GEN plan-ACC make-PAST
'The children drew up their own plans.'

Subject honorification, which targets a subject located in vP, provides another type of corroboration for the adequacy of the present view (Harada 1976, Hasegawa 2006).[14]

(48) a. Sensei-ni sore-ga o-mie-ni-nat-ta.
teacher-DAT it-NOM HON-see-DAT-become-PAST
'The teacher saw it.'
b. Sensei-kara sono koto-o o-hanasi-ni-nat-ta.
teacher-from that fact-ACC HON-speak-DAT-become-PAST
'The teacher talked about that matter.'
c. Sensei-tati-de o-atumari-ni-nat-ta.
teacher-PL-with HON-get.together-DAT-become-PAST
'The teachers got together.'

Given that the italicized arguments in (46) can be targeted for subject honorification, and can also serve as the antecedents of subject-oriented reflexive *zubin*, it can be stated that they serve as subjects, regardless of their marking.

Let us now turn to the question of how various types of subjects behave when they are embedded in the *nai-de iru* construction. To begin with, note that the dative-subject construction gives rise to a subject-object asymmetry in NPI licensing, as in (49).

(49) a. *Zutto *Ken-ni-sika* sonna undoo-ga deki-nai-de
all.the.time Ken-DAT-only such exercise-NOM can.do-NEG-GER

[14] In (i), the embedded subject is targeted for subject honorification, even if it appears in the small clause, which does not comprise a tense element (Takezawa 1987).

(i) Watasi-wa [Sasaki-sensei-o totemo o-utukusiku] omo-u.
I-TOP Sasaki-teacher-ACC very HON-beautiful think-PRES
'I think Ms. Sasaki very beautiful.'

This fact suggests that subject honorification picks out an argument located in vP.

i-ru.
be-PRES
'Only Ken has been able to do such exercises all the time.'

b. Zutto Ken-ni-wa *sonna* *undoo-sika* deki-nai-de
all.the.time Ken-DAT-TOP such exercise-only can.do-NEG-GER
i-ru.
be-PRES
'Ken has been able to do only such exercises all the time.'

The data show that in the dative-subject construction, the dative subject is raised to Spec-TP, whereas an object is not even if it is marked with nominative case.

Obliquely-marked NPI subjects with *sika* behave differently. In the aspectual construction where *nai* is located in the complement clause, the NPI subject marked with the oblique *de* 'with' or *kara* 'from' is licensed by *nai*, as in (50).

(50) a. Zutto *kodomo-tati-de-sika* ryokoo-no keikaku-o
all.the.time child-PL-with-only trip-GEN plan-ACC
tate-nai-de i-ru.
make-NEG-GER be-PRES
'Only the children have been planning on their trips all the time.'

b. Zutto *hahaoya-kara-sika* hanasi-o si-nai-de i-ru.
all.the.time mother-from-only talk-ACC do-NEG-GER be-PRES
'Only the mother has been talking all the time.'

In (50), the negative scope does not extend over the matrix clause. The acceptability of the sentences in (50) shows then that the oblique subjects remain in situ without raising to the matrix Spec-TP.

The data indicate that dative subjects, just like nominative subjects, undergo raising to Spec-TP, while oblique subjects do not. One question that arises at this point is why it is that the nominative and the dative subjects undergo raising to Spec-TP. In this connection, note that both nominative-subject and dative-subject constructions need to comprise a nominative argument (due to the nominative-case constraint: see Shibatani 1987).[15] As is well-observed (Takezawa 1997, Koizumi 1999, and many others), the availability or unavailability of a nominative argument is correlated with the question of whether the clause has a finite tense.[16] In the light of this fact, I suggest that when T carries the uninterpretable Case feature [+Nom] to license the Case feature of a nominative argument, an EPP feature (to motivate subject raising) is imposed on T (cf. Pesetsky and Torrego 2001,

[15] Shibatani (1978) claims that the nominative-case constraint is a general case-marking constraint in Japanese. Inoue (1998, 2007) observes that when subjects are marked with oblique case, the clause is exempt from the nominative-case constraint, but does not provide any explanation as to why this constraint does not apply in this case. See Kishimoto (2016a) for the discussion on this point.

[16] Kuno (1973) and Tada (1992) take the view that stative predicates license nominative case on their objects by virtue of their stativity.

Chomsky 2004, 2008).

To be a little more concrete, in both nominative- and dative-subject constructions, a nominative argument needs to be included in the clause, which suggests that T should possess both nominative Case feature and EPP feature.[17] Thus, in the nominative-subject construction, subject raising takes place, as (51) illustrates.[18]

(51) $[_{TP}$ SUBJ$_{[\text{+NOM}]}$ $[_{vP}$ ~~SUBJ~~$_{[\text{+NOM}]}$ V-v] T $_{[\text{+NOM, EPP}]}$]

In (51), the Case feature on T is deleted after it values the Case feature on the nominative subject, and the EPP feature is deleted via the raising of the subject. The derivation of the nominative-subject construction in (51) converges when subject raising takes place.

In the dative-subject construction in (46a), T establishes an Agree relation with both dative subject and nominative object. I assume here, with Chomsky (2001), that the dative argument bears inherent Case with structural properties, so that T enters into an Agree relation with the dative subject (cf. Ura 1999).

(52) $[_{TP}$ SUBJ-DAT $[_{vP}$ ~~SUBJ-DAT~~ OBJ$_{[\text{+NOM}]}$ V-v] T $_{[\text{+NOM, EPP}]}$]

In (52), the Case feature on T is deleted via Agree with the nominative object, and the dative subject, which is structurally closer to T than the nominative object, is raised to Spec-TP to satisfy the EPP requirement. Note that T does not value the Case feature of the dative argument, and that Case valuation is executed only between T and the nominative object. The derivation in (52) converges, since all the formal features can be deleted. In the oblique-subject constructions in (46b) and (46c), by contrast, no nominative argument appears in the clause, so T without any formal features is merged.

(53) $[_{TP}$ $[_{vP}$ SUBJ-ABL/INSTR V-v] T]

The inert type of T associated with the oblique-subject constructions does not include an EPP feature, so that no subject raising takes place, as (53) illustrates.

In regard to the derivation of the dative subject construction, one reviewer raises the question of why it is that the dative subject with *sika* is not licensed in (54), where the nominative object is scrambled to the sentence-initial position.

(54) *Zutto sonna undoo-ga *Ken-ni-sika* deki-nai-de
all.the.time such exercise-NOM Ken-DAT-only can.do-NEG-GER
i-ru.
be-PRES
'Only Ken has been able to do such exercises all the time.'

In the dative-subject construction, both dative subject and nominative object enter

[17] For the sake of simplicity, I discuss the derivations of simple clauses here.

[18] Under the present perspective, T is raised to Fin after its Case and EPP features are deleted by Agreeing with arguments.

an Agree relation with T. Nevertheless, (54) suggests that even if the object is scrambled across the subject, the dative subject rather than the object undergoes A-movement to Spec-TP. The fact follows, given that scrambling is an adjunction operation, as often claimed (e.g. Saito 1986).

To be concrete, suppose that in (54), the object is first adjoined to vP (and then is moved to a higher position) via scrambling. When the object is moved and adjoined to vP, it occurs in a position structurally closer to T than the subject filling Spec-vP, as illustrated in (55), (and the same holds true when it is moved by operator movement).

(55) $[_{TP}$ $[_{vP}$ OBJ $[_{vP}$ SUBJ V-v]] T]

Nevertheless, the scrambled object in vP does not qualify as an argument to undergo A-movement to TP, because it appears in A'-position.[19] If subject raising to TP at issue involves A-movement, the raising of the object to Spec-TP results in a non-uniform A-A'-A chain, which is illegitimate (Chomsky 1995). Thus, the subject rather than the scrambled object is raised to Spec-TP by A-movement, and the scrambled object is moved to a structural position higher than the subject filling in Spec-TP in (54).

Under the present analysis, the possibility of subject raising is determined by the properties of tense. This analysis makes the further prediction that the raising of an oblique-marked subject to Spec-TP will be implemented if the clause has a nominative argument. This prediction is in fact borne out, for oblique subjects are susceptible to subject raising when they occur in a clause that includes a nominative object.

(56) a. *Zutto *kodomo-tati-de-sika* hanasi-ga deki-nai-de i-ru.
all.the.time child-PL-with-only talk-NOM can.do-NEG-GER be-PRES
'Only the children have been able to talk all the time.'

b. *Zutto *hahaoya-kara-sika* hanasi-ga deki-nai-de i-ru.
all.the.time mother-from-only talk-NOM can.do-NEG-GER be-PRES
'Only the mother has been able to talk all the time.'

The examples in (56) differ from those in (50) in case marking. In (56), the object is marked with nominative case. (Note that *dekiru*, which can sanction nominative case on its object, is a suppletive potential form of *suru* 'do'.) In (56), the NPI object marked with nominative case is licensed by *nai*, but the NPI subject is not.[20]

[19] It is sometimes claimed (e.g. Tada 1993) that clause-internal scrambling displays A-properties. At the same time, some researchers argue (e.g. Saito 1992) that clause-internal scrambling exhibits some A'-properties. I presume here that the mixed properties of scrambling emerge from the fact that an argument moved by scrambling does not form an operator-variable structure even though it appears in A'-position.

[20] One reviewer is not certain whether the examples in (56) are totally unacceptable. Although there might be some speaker variation in judgments here, the crucial point is that there exists a contrast in acceptability between (50) and (56).

The failure of the negative *nai* to license the oblique subject NPIs in the aspectual construction in (56) where the negative takes scope just over its complement clause gives us a good indication that oblique subjects are raised to the matrix Spec-TP when objects are marked with nominative case, as illustrated in (57a).

(57) a. [$_{TP}$ SUBJ-kara/de [$_{vP}$ ~~SUBJ-kara/de~~ OBJ-NOM V-v]T]
b. [$_{TP}$ [$_{vP}$ SUBJ-kara/de OBJ-ACC V-v]T]

Note that subject raising is not implemented in the oblique-subject constructions when an object is marked with accusative rather than nominative case, as in (57b). These facts lead to the conclusion that subject raising is induced when tense bears the Case feature [+Nom] to value the Case feature of a nominative argument.

3.2. *Naru*-constructions

Japanese has another type of raising construction, which is constructed by embedding a clause under *naru* 'become' specifying the meaning of a change of state. The *naru*-construction shows syntactic behaviors different from those observed for the aspectual construction with the verb *iru*. The *naru*-construction takes a negated predicate or a clause introduced by *yooni* as its complement. It is shown that the subject of the main predicate, if subject raising applies, is extracted from the embedded clause in the *naru*-construction taking a *yooni*-complement, but not in the *naru*-construction which directly embeds a negated predicate.

First of all, observe that the predicate *naru* 'become' can take an adjectival predicate as its complement, as shown in (58).

(58) Ken-ga yasasiku nat-ta.
Ken-NOM kind become-PAST
'Ken became kind.'

Since the verb *naru* can take an adjective as its complement, and since negative *nai* inflects like an adjective, a negated verbal clause can be embedded under the verb *naru*, as in (59).

(59) Ken-ga hanasa-naku nat-ta.
Ken-NOM talk-NEG become-PAST
'Ken stopped talking.'

Needless to say, the verb itself does not inflect like an adjective, so it is not possible for the verb to be embedded directly under *naru*.

Another type of complementation is possible with the predicate *naru*; the predicate *naru* can select a complement clause introduced by the complementizer *yooni*.

(60) Ken-ga hanasa-nai yooni nat-ta.
Ken-NOM talk-NEG COMP become-PAST
'Ken stopped talking.'

In the variant of the *naru*-construction in (60), the embedded predicate does not

have to be negated, as *naru* does not directly select it. Thus, the affirmative form *hanasu* 'speak' can appear in the complement clause, instead of the negated verb *hanasa-nai* 'not speak'. Nevertheless, the complement clause is not finite, so the embedded verb cannot appear in the past form, i.e. the past form *hanasi-ta* 'spoke' cannot be placed in the complement clause.

In both variants of the *naru*-construction, represented by (59) and (60), inanimate subjects and subject idioms are allowed to occur, as shown in (61).

(61) a. Kinoo-kara sora-ga {hare-naku/hare-nai yooni} nat-ta.
yesterday-since sky-NOM {clear-NEG/clear-NEG COMP} become-PAST
'The sky has not cleared since yesterday.'
b. Kono mise-de-wa kankodori-ga {naka-naku/naka-nai yooni}
this store-at-TOP cuckoo-NOM {sing-NEG/sing-NEG COMP}
nat-ta.
become-PAST
'Customers began to shop at this store.'

The data suggest that the upper verb does not impose a selectional restriction on the subject, and that the two types of *naru*-constructions possess a raising structure where the subject is generated in the complement clause.

The *naru*-constructions in (59) and (60) carry similar meanings, but the nominative subjects occupy different constituent positions: the subject of the predicate *hanasu* 'speak' in (59) remains in the embedded clause, as represented in (62a), but the subject of *hanasu* in (60) is raised to the matrix clause, as represented in (62b).

(62) a. $[_{FinP}\ [_{TP}\ \ [_{vP}\ [_{FinP}\ [_{TP}$ SUBJ $[_{vP}$ ~~SUBJ~~ OBJ V-v]T]T-Fin]*nar*]T]T-Fin]
b. $[_{FinP}\ [_{TP}$ SUBJ $[_{vP}\ [_{FinP}\ [_{TP}$ ~~SUBJ~~ $[_{vP}$ ~~SUBJ~~ OBJ V-v]T]T-Fin]*nar*]T]T-Fin]

In (59), no overt tense element appears in the complement clause selected by the predicate *naru*. Nevertheless, the embedded clause can be assumed to have a TP projection even though it is not visible in the overt strings, given Zanuttini's (1997a) generalization that whenever NegP is projected in a clause, TP is also projected.

In both variants of the *naru*-construction given in (59) and (60), the structural position of subjects can be readily confirmed, since the negative *nai* appearing in the embedded clause does not take scope over the matrix TP. In the first type of *naru*-construction in (59), NPI subjects with *sika* are licensed irrespective of whether they are marked with nominative case or oblique case.

(63) a. *Ken-sika* hanasa-naku nat-ta.
Ken-only talk-NEG become-PAST
'Everyone except Ken stopped talking.'
b. *Ken-kara-sika* kodomo-ni hanasi-o si-naku nat-ta.
Ken-from-only child-to talk-ACC do-NEG become-PAST
'Everyone except Ken stopped talking to the child.'

c. *Kodomo-tati-de-sika* atumara-naku nat-ta.
child-PL-with-only gather-NEG become-PAST
'Everyone except the children stopped getting together.'

While all types of NPI subjects are licensed by the negative *nai* located in the embedded clause, a temporal adverb like *kinoo-kara-sika* 'only from yesterday' is not licensed.[21]

(64) **Kinoo-kara-sika* Ken-ga hanasa-naku nat-ta.
yesterday-from-only Ken-NOM talk-NEG become-PAST
'Ken stopped talking only from yesterday.'

The adverb *kinoo-kara* is allowed to appear in the construction only when the matrix predicate *naru* takes the past form, as in (65), which suggests that it is adjoined to the matrix TP.

(65) Kinoo-kara Ken-ga hanasa-naku {nat-ta/*nar-u}.
yesterday-from Ken-NOM talk-NEG {become-PAST/become-PRES}
'Ken has stopped talking since yesterday.'

In (64), the temporal NPI is not licensed. This shows that the negative *nai* does not extend its scope over the matrix TP. On the other hand, in (63a), the nominative subject with *sika* is licensed by *nai*. This does not indicate that the subject remains in vP with no subject raising. Rather, the subject is raised to the embedded TP. The presence of subject raising in the embedded clause can be confirmed by the examples in (66).

(66) a. *Dare-ga gakusei-o home-mo {si-nakat-ta/si-naku
anyone-NOM student-ACC praise-Q {do-NEG-PAST/do-NEG
nat-ta}.
become-PAST}
'Anyone {did not praise/stopped praising} the students.'
b. Sensei-ga dare-o home-mo {si-nakat-ta/si-naku
teacher-NOM anyone-ACC praise-Q {do-NEG-PAST/do-NEG
nat-ta}.
become-PAST}
'The teacher {did not praise anyone/has stopped praising everyone}.'

As discussed in Kishimoto (2001), an indeterminate pronoun like *dare* 'anyone'

[21] If a temporal adverb is not anchored to a specific point of time, it allows the addition of the NPI *sika*, as in (i).

(i) Ken-ga *yuusyoku-go-ni-sika* hanasa-naku nat-ta.
Ken-NOM dinner-after-only talk-NEG become-PAST
'Ken stopped talking except after dinner.'

In (i), the NPI adverb *yuusyoku-go-ni-sika* 'only after dinner' is permitted, because it can be associated with the lower clause.

is interpreted as an NPI when it is construed with *mo*. Note that a Q particle *mo* attached to the verb takes scope over vP. Then, the unacceptability of (66a), where *mo* fails to bind the indeterminate pronoun *dare*, suggests that the nominative subject is moved out vP. On the other hand, the object is located inside vP, as shown by the acceptability of (66b). Importantly, the fact remains the same regardless of whether or not *naru* follows the verb, which shows that the nominative subject is raised to the embedded TP, but not to the matrix TP in the first type of *naru*-construction.[22]

In the second type of *naru*-construction given in (60), *naru* takes a non-finite complement clause introduced by the complementizer *yooni*. This type of *nai*-construction, unlike the first type of *naru*-construction, does not allow a nominative subject to accompany *sika*.

(67) *Kaigi-de-wa *Ken-sika* hanasa-nai yooni nat-ta.
meeting-at-TOP Ken-only talk-NEG COMP become-PAST
'Everyone except Ken stopped talking at the meeting.'

Similarly, a temporal adjunct like *kinoo-kara* with *sika* is not licensed by the negator *nai* in the lower clause.

(68) **Kinoo-kara-sika* Ken-ga hanasa-nai yooni nat-ta.
yesterday-from-only Ken-NOM talk-NEG COMP become-PAST
'Ken stopped talking only from yesterday.'

(68) shows that the temporal adjunct *kinoo-kara-sika* appears in the matrix clause. Then, the unacceptability of (67) suggests that the nominative subject appears in the matrix clause, which lies outside the scope of the negative *nai*. By contrast, oblique subjects with *sika* are licensed by *nai*, as in (69).

[22] In contrast to nominative subjects, oblique subjects can be bound by *mo* attached to the verb, as shown in (i).

(i) a. Sono-go dare-kara kare-ni hanasikake-mo {si-nakat-ta/si-naku
that-after anyone-from he-to talk-Q {do-NEG-PAST/do-NE
nat-ta}.
become-PAST}
'{No one talked /Everyone stopped talking} to him after that.'
b. Dono hito-tati-de atumari-mo {si-nakat-ta/si-naku nat-ta}.
any person-PL-with gather- Q {do-NEG-PAST/do-NEG become-PAST}
'{No one got/Everyone stopped getting} together.'

The examples suggest that the oblique subjects do not undergo subject raising even when they appear in the *naru*-constructions. One reviewer remarks that the sentences in (66) and (i) are awkward, though not unacceptable. The crucial point here is that the sentences comprised of obliquely-marked subjects are much better than those including nominative subjects.

(69) a. *Ken-kara-sika* kodomo-ni hanasi-o si-nai yooni nat-ta.
Ken-from-only child-to talk-ACC do-NEG COMP become-PAST
'Everyone except Ken stopped talking to the children.'
b. *Kodomo-tati-de-sika* atumara-nai yooni nat-ta.
child-PL-with-only gather-NEG COMP become-PAST
'Everyone except the children stopped getting together.'

In the presence of an asymmetry in the licensing of subject NPIs with *sika*, it can be concluded that the nominative subject in (63a) undergoes subject raising to the matrix TP, while the oblique subjects in (63b-c) do not. (In (63b-c), no nominative argument appears in the clause, so the oblique subjects remain in vP with no subject raising.)

In the second type of *naru*-construction in (60), the raising of the nominative subject follows straightforwardly. In (60), the matrix T with the Case feature [+Nom] licenses the nominative subject via Agree, while an EPP feature is assigned to the finite T in the matrix clause, and also to the lower non-finite TP (Chomsky 1995, Bošković 2002). (I postulate here that the two T-heads are assigned an EPP feature concomitantly, since no CP boundary intervenes between them.) Accordingly, when the subject is marked with nominative case, it is raised to the matrix TP, as in (70).

(70) $[_{TP}$ SUBJ $[_{vP}$ ~~SUBJ~~ $[_{FinP}$ $[_{TP}$ ~~SUBJ~~ $[_{NegP}$ $[_{vP}$ ~~SUBJ~~ OBJ V-v]~~Neg~~]~~T~~]Neg-T-Fin]*nar*]T]

In (70), the nominative subject falls outside the scope of negative *nai,* and hence, it cannot be turned into an NPI by the addition of *sika*.

In the first type of *naru*-construction in (59), just like the second type, its nominative subject is Case-licensed by the matrix T, and an EPP feature is assigned to T in the matrix clause, and also to the lower non-finite T (with no intervening CP). Note that the subject is not extracted from the embedded clause in this type of *naru*-construction. This fact falls out, given the assumption that the verb *naru* takes a null pronominal subject *pro*, as in (71).[23]

(71) $[_{TP}$ *pro* $[_{vP}$ ~~*pro*~~ $[_{FinP}$ $[_{TP}$ SUBJ $[_{NegP}$ $[_{vP}$ ~~SUBJ~~ OBJ V-v]~~Neg~~]~~T~~]Neg-T-Fin]*nar*]T]

In (71), the lower T has an EPP feature, so the nominative subject is raised to the embedded TP. For the matrix T, its EPP requirement is met by *pro*. Consequently, the nominative subject of the main predicate remains in the embedded TP and the nominative subject NPI with *sika* is licensed in (63a).

The view that the nominative subjects occupy distinct constituent positions in the two types of *naru*-construction gains additional support from potential verb formation. To be concrete, in both variants of the *naru*-construction, it is possible to add a potential affix to the lower predicate.

[23] Under the present perspective, *naru* is a verb taking an impersonal pronoun (like a weather predicate *rain*), and the structural difference between the two types of *naru*-constructions is analogous, though not identical, to the difference obtained between *John seems to be honest*. and *It seems that John is honest*.

(72) a. Ken-ga kanzyoo-o arawas-e-naku nat-ta.
Ken-NOM feeling-ACC show-POTEN-NEG become-PAST
'Ken cannot show his feelings any longer.'
b. Ken-ga kanzyoo-o arawas-e-nai yooni nat-ta.
Ken-NOM feeling-ACC show-POTEN-NEG COMP become-PAST
'Ken cannot show his feelings any longer.'

In principle, potential verb formation is possible with verbs when they take subjects that refer to individuals having a control over the described events.[24] The well-formedness of the sentences in (72) is naturally expected, since, in both cases, the lower predicate selects an animate subject. When the upper predicate is turned into a potential form, there arises a contrast in acceptability.

(73) a. *Ken-ga kanzyoo-o arawasa-naku nar-e-ta.
Ken-NOM feeling-ACC show-NEG become-POTEN-PAST
'Ken can now keep a grip on his emotions.'
b. Ken-ga kanzyoo-o arawasa-nai yooni nar-e-ta.
Ken-NOM feeling-ACC show-NEG COMP become-POTEN PAST
'Ken can now keep a grip on his emotions.'

The predicate *naru* can be turned into the potential form if the embedded clause is introduced by *yooni*, as in (73b). This fact suggests that in the *naru*-construction taking a *yooni*-complement clause, the DP *Ken* is rendered as the subject of *naru* by moving through the matrix vP when it is raised to TP, as (70) illustrates. On the other hand, when *naru* takes a negated predicate as its complement, as in (73a), potential verb formation with *naru* fails. This fact suggests that the DP *Ken* does not occur in the matrix clause, as illustrated in (71).

Finally, it is worth noting that the subject of the embedded predicate is raised to Spec-TP if the embedded predicate is an adjective, as in (74) (=(58)).

(74) Ken-ga yasasiku nat-ta.
Ken-NOM kind become-PAST
'Ken became kind.'

If the nominative subject is amenable to subject raising, the structure in (75) can be posited for the *naru*-construction in (74).

(75) [$_{TP}$ SUBJ [$_{vP}$ ~~SUBJ~~ [$_{aP}$ ~~SUBJ~~ *isogasiku*] *nar*]T]

In the type of construction where an adjective is directly embedded under *naru*, the matrix predicate *naru* can be turned into a potential form, as in (76).

[24] The subjects of potential verbs need to refer to individuals having a control over a described event (potentially). Thus, (i) is not acceptable.

(i) *Ame-ga hur-e-ru.
rain-NOM fall-POTEN-PRES
'It can rain.'

(76) Mari-wa dare-ni-demo yasasiku nar-e-ru.
Mari-TOP anyone-DAT-even kind become-POTEN-PRES
'Mari can be kind to anyone.'

This fact suggests that the nominative subject is raised to TP via the vP projected from *naru*, so that it counts as the subject of the verb *naru*.[25] Potential verb formation provides empirical evidence that the subject resides in the matrix clause in this type of construction.

To summarize, this section has shown that in the *naru*-constructions where a negated verb is directly embedded under *naru*, subjects are moved only within the lower clause, even if subject raising applies. By contrast, in the *naru*-constructions where *naru* takes a *yooni*-complement, NPI subjects, if marked with nominative case, are not licensed by *nai* located in the embedded clause, showing that they are moved from the subordinate clause to the matrix clause.

4. Conclusion

In this article, on the basis of the syntactic behavior of NPIs with *sika*, it has been shown that the negative head *nai* functioning as a deadjectival negator undergoes head raising, while an adjectival negator retaining its categorical status as an adjective does not. In adjectival clauses, *nai* retains its categorical status as an adjective, so Neg-head raising does not take place. Since the scope of negation does not extend over TP in clauses comprising an adjectival negator, a subject-object (or subject-complement) asymmetry is observed with regard to the licensing of NPIs (even in simple clauses).

Japanese invokes A-movement of subjects to Spec-TP when they are marked with either nominative or dative case. Subject raising is not implemented on oblique subjects when the clause does not include any nominative argument. In simple verbal clauses, the effects of subject raising are not detected by the behavior of NPIs, because a negative head undergoes head raising out of NegP to a structurally higher position where it takes scope over TP. Nevertheless, its effects can be detected in the raising construction where the negator is embedded under the aspectual verb *iru* 'be'. In this type of raising construction, subjects appear outside the scope of the negative *nai* when they undergo subject raising. But when subjects remain in situ, they fall under the scope of negation. Thus, NPI subjects display distinct syntactic behaviors according to whether they undergo subject raising or not. Japanese has another type of raising construction (formed on the verb *naru*).

[25] When an adjective is embedded under the verb *naru* 'become', the adjective can be turned into a subject-honorific form, as in (i).

(i) Sasaki-sensei-ga o-isogasiku nat-ta.
Sasaki-teacher-NOM HON-busy become-PAST
'Ms. Sasaki became busy.'

This fact can also be taken to show that the subject located in the matrix clause is originated from the embedded clause.

There are two variants of the *naru*-construction. In the *naru*-construction taking a *yooni* complement, the subject of the embedded verb is raised to the main clause when subject raising applies. In the *naru*-construction in which a negated verb is embedded under *naru*, the subject moves only within the embedded clause even when subject raising takes place.

Overall, in Japanese, the negative head *nai* undergoes Neg-head raising when it serves as a deadjectival negator, but not when it is an adjectival negator. The syntactic behavior of NPIs is affected by the two types of movement—subject raising and Neg-head raising.

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【要　旨】

日本語の否定のスコープの投射

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本稿では，文の否定辞のスコープの拡がり方を観察することにより，日本語において，主要部移動と名詞句移動の存在を確認することができることを論じる。日本語の否定辞は主要部移動を起こす要素で，移動が起こるかどうかによって，そのスコープの拡がり方が異なる。否定のスコープ内でのみ認可される否定極性表現の振る舞いから，日本語では，形容詞から脱範疇化により文法要素となった否定辞は主要部移動を起こし，形容詞の範疇的性質を残す否定辞は移動を起こさないこと，および，日本語の主語は，時制辞が主格の項を認可する場合に，文の主語位置への移動を起こすことを示す。また，「なる」に節が埋め込まれた複文では，主語の移動が起こった場合に，主節の主語位置に移動する構文と主語が埋め込み節内でのみ移動する構文があることも示す。