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On NPI Licensing in Japanese

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0. Introduction
This paper concerns about the so-called negative polarity items (NPIs) in Japanese. Among the NPIs in the language, two different types must be recognized. One type, $XP$-sika, which means 'anyone/anything but XP,' is an agreement-inducing element, only licensed by Spec-head agreement with Neg at LF. The other type, an indeterminate pronoun (IND) suffixed with -mo, is not an agreement-inducing element in the same sense that $XP$-sika is. However, since it is "identified" with a phonetically null operator, base-generated in Spec of NegP, it must adjoin to that operator at LF. The locality requirement that the NPIs must satisfy in relation to Neg can be derived from the above characterizations of each type of NPIs and the general theory of movement.

In what follows, just for an expository reason, we will refer to these two types of NPIs as SIKA-NPIs and MO-NPIs, respectively. In section 1, we will first present evidence in favor of the NPI-status of SIKA-NPIs and

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MO-NPIs, and then, we will see that the NPIs in Japanese are a class of floating quantifiers. In section 2, we will explicate how these two types of NPIs are licensed. We will also look at two independent arguments in favor of our analysis, that is, multiple occurrence of NPIs and weak crossover effects. Section 3 discusses co-occurrence facts among NPIs and other operators like wh-phrases. Finally, we will touch upon the locality on NPI licensing in section 4, claiming that the clausemate condition on NPIs and Neg can be obviated.

1. Two types of NPIs

An NPI-creating suffix *sika* attaches to virtually any maximal projection, and XP suffixed with *sika* is interpreted as 'anyone/anything but XP' or 'only XP' in combination with Neg. The use of SIKA-NPIs is exemplified in (1):

(1) a. John-sika ringo-o tabe-na-katta (koto)
   -SIKA apple-ACC eat-Neg-PAST (COMP)
   'Only John ate apples.'

   b. John-ga ringo-sika tabe-na-katta (koto)
      -NOM apple-SIKA
      'John ate only apples.'

Japanese has another NPI-creating suffix, i.e. *mo*. *Mo* attaches to what Kuroda (1965) calls "indeterminate pronouns" (INDs) like dare 'who' and nani 'what' and turns them into MO-NPIs. The use of MO-NPIs is exemplified in (2): 1

(2) a. daRE-MO ringo-o tabe-na-katta (koto)
    anyone apples-ACC eat-Neg-eat (COMP)
    'No one ate apples.'

   b. John-ga naNI-MO tabe-na-katta (koto)
      -NOM anything
      'John did not eat anything.'

Evidence supporting the NPI status of SIKA-NPIs and MO-NPIs comes from the fact that they require the presence of a negative morpheme

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1 Japanese is a pitch-accent language and an accent falls on the last syllable of a stretch of high-pitch tones (cf. McCawley 1968). Although INDs are inherently accented, e.g. *DA're* 'who' and *NA'ni* 'what', the NPI-creating *mo* deaccentuates the stem; hence, *daRE-MO* (no accent) 'anyone' and *naNI-MO* (no accent) 'anything'. (Here and in the relevant examples to follow, high-pitch tones are indicated by the upper case, and low-pitch tones, by the lower case.) Note that the universally-quantified particle *mo*, though isomorphic, must be distinguished from this NPI-creating suffix in that the former maintains the accent of the stem; thus, *DA're-mo-ga* 'everyone-NOM' remains as accented as *DA're*. 
in the same clause. Thus, if a SIKA-NPI or a MO-NPI does not co-occur with a negative element, the result will simply be ungrammatical, as shown in (3) and (4):

(3) a. *John-sika ringo-o tabe-ta  
   SIKA apples-ACC eat-PAST
b. *John-ga ringo-sika tabe-ta  
   NOM
   c. *John-sika [Mary-ga ringo-o tabe-na-katta to]  
      eat-Neg-PAST COMP omotte iru  
      think

(4) a. *daRE-MO ringo-o tabe-ta (koto)  
      anyone
b. *John-ga naNI-MO tabe-ta (koto)  
      anything
   c. *daRE-MO [Mary-ga ringo-o tabe-na-katta to] omotte iru

Now let us mention the adverbal nature of the NPIs in Japanese. As indicated in (5) and (6), both SIKA-NPI and MO-NPI may co-occur with a referential noun phrase with a Case-particle.

(5) a. John-ga ringo-sika kudamono-o tabe-na-katta  
      NOM apples-SIKA fruits-ACC eat-Neg-PAST  
      'Among fruits, John ate only apples.'
   b. John-ga kudamono-o ringo-sika tabe-na-katta
   c. (?)ringo-sika John-ga kudamono-o tabe-na-katta
(6) a. John-ga naNI-MO kudamono-o tabe-na-katta  
      NOM anything fruits-ACC eat-Neg-PAST  
      'John did not eat any fruits.'
   b. John-ga kudamono-o naNI-MO tabe-na-katta
   c. naNI-MO John-ga kudamono-o tabe-na-katta

However, the examples in (7) show that neither type of NPI may be Case-marked. Compare (7) with (1b) and (2b).

(7) a. *John-ga ringo-o-sika/ringo-sika-o tabe-na-katta  
      ACC-SIKA/SIKA-ACC  
      'John ate only apples.'
      'John did not eat anything.'

Thus, we may attribute the relatively free distribution of NPIs and their lack of Case particles to their adverbal nature.

Furthermore, as noted by Fujita (1991), the distribution of NPIs is similar to that of floating numeral quantifiers (FQs) like 3-bon '3-classifier', as exhibited in (8).
(8)  

a. John-ga 3-bon banana-o tabe-ta  
   -NOM -CL -ACC eat-Past  
   'John ate 3 bananas.'

b. John-ga banana-o 3-bon tabe-ta

c. 3-bon John-ga banana-o tabe-ta

Following Fujita, we will assume that NPIs are a class of FQs and that they do not form a constituent with the referential NPs that they modify.²

Throughout this paper, we will assume the clausal structure represented in (9) for Japanese.

(9)

We will adopt the VP-internal subject hypothesis, advocated by authors like Fukui (1986), Kitagawa (1986), Koopman & Sportiche (1991), and Kuroda (1988) among others. Following Laka (1990), Ouhalla (1990), Pollock (1989), and Zanuttini (1991), we assume that Neg heads its own maximal projection, NegP, which is generated below T', but higher than VP.

According to Miyagawa (1989), FQs are base-generated in sister relation to their host (referential) NPs. We will extend his analysis of FQs to NPIs; NPIs are base-generated as sisters to the referential NPs that they are predicated of, as indicated in (9).³

²For an alternative view of FQs, see Kitahara (1993).
³Note that our claim in the text is neutral to the feature checking theory of Chomsky (1992). According to Chomsky, arguments must move to Spec of AGR for morphological checking. Although arguments might have to be accommodated by
2. Licensing Conditions on NPIs
In this section, we will propose licensing conditions for SIKA-NPI and MO-NPI. We will then look at two independent arguments in favor of our licensing conditions in the subsequent two sections.

2.1. Licensing condition on SIKA-NPIs
We propose that SIKA-NPI is an agreement-inducing element, and subject to the licensing condition in (10):

(10) SIKA-NPI is an agreement-inducing element licensed by Spec-head agreement with Neg at LF. (cf. Takahashi 1990)

Let us consider (1a), repeated here as (11), as an example. Its derivation proceeds as in (12):

(11) John-sika ringo-o tabe-na-katta (koto)
     -SIKA apple-ACC eat-Neg-PAST (COMP)
     'Only John ate apples.'
(12)  a. S-structure:
      [TP [NegP [VP John-sika ringo-o tabe-na-katta]]]
      b. LF:
      [TP [NegP John-sika [VP ti ringo-o tabe-na-katta]]]

As indicated in (12a), John-sika 'only John' stays in Spec of VP at S-structure; however, it moves to Spec of NegP in order to be licensed as an NPI through Spec-head agreement with Neg, as indicated by (12b).

2.2. Licensing condition on MO-NPIs
As we will see, MO-NPI is not an agreement-inducing element in the same sense that SIKA-NPI is. Extending Ouhalla's (1990) analysis of NegP in English, we will propose that Spec of NegP in Japanese can

Spec of AGR for checking even in Japanese, NPIs in this language are non-arguments, therefore, exempted from checking. We will also remain non-committal to the nature of V-raising in Japanese. No matter what driving force is involved (e.g. morphological amalgamation or feature checking), we will simply assume that V raises (through Neg) to 'T in LF, at the latest.

This state of affairs must be contrasted to NPIs in languages like English. While there is no subject/object asymmetry in occurrence of NPIs in Japanese, as exhibited in (1) and (2), NPIs may not appear in subject position in English, as illustrated in (i):

(i) a. John didn't eat anything
    b. *Anyone didn't eat apples

If feature checking indeed takes place in English, and if NPIs must be in the c-command domain of Neg to be licensed, the impossibility of (ib) shows that NPIs in English are, unlike those in Japanese, arguments; subject NPIs must raise to Spec of TP (or AGRsP), higher than Neg, at the time of NPI-licensing.
accommodate a null operator as a licenser for MO-NPI, and that MO-NPI is subject to the following licensing condition:

(13) At LF, MO-NPI must be identified with a phonetically null operator which is base-generated in Spec of NegP.

Following Watanabe's (1992) idea on "identification" of a wh-phrase with a null operator, we will assume that MO-NPI must adjoin to the null operator in Spec of NegP at LF. With these in mind, let us consider (2a), repeated here as (14), and its derivation in (15).

(14) daRE-MO ringo-o tabe-na-katta (koto) anyone apples-ACC eat-Neg-PAST (COMP) 'No one ate apples.'

(15) a. S-structure:

\[ \text{TP} \left[ \text{NegP} \text{ OP } \left[ \text{VP daRE-MO ringo-o tabe-na-katta} \right] \right] \]

b. LF:

\[ \text{TP} \left[ \text{NegP } [\text{daRE-MO}_i [\text{OP}]] \left[ \text{VP } t_i \text{ ringo-o tabe-na-katta} \right] \right] \]

\( OP \) designates a phonetically null operator. In (14a), \( OP \) is accommodated in Spec of NegP to license MO-NPIs. In (14b), the MO-NPI is adjoined to \( OP \) at LF; thus, the licensing condition in (13) is satisfied. 4

2.3. Multiple Occurrence of NPIs

There are several arguments in favor of our licensing conditions. First of all, as noted by Kato (1985), although multiple occurrence of MO-NPIs is permissible, that of SIKA-NPIs is not, as indicated in (16):

(16) a. daRE-MO naNI-MO tabe-na-katta (koto) anyone anything eat-Neg-PAST (COMP) 'No one ate anything.'

b. *John-sika ringo-sika tabe-na-katta (koto) -SIKA apple-SIKA eat-Neg-PAST 'Only John ate only apples.'

Since a SPEC-head relation is basically a one-on-one relation, multiple occurrence of SIKA-NPIs with respect to one Neg should be prohibited. A

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4 As long as Spec of NegP is in the c-command domain of Neg at LF (after V together with Neg raises to T), our analysis conforms to the recent proposal by Fujita (1991) and Homma (1991) that MO-NPI is an existential quantifier taking narrow scope under Neg, rather than a wide-scope universal quantifier. However, we differ from those authors in that licensing of MO-NPI is completed by movement; i.e., MO-NPI is not licensed in situ. Although this contention seems to render a lot of consequences, the space limitation does not allow us to discuss them all.
MO-NPI, on the other hand, is not an agreement-inducing element in itself, but is licensed by an empty operator, which may accommodate more than one MO-NPIs at LF. 5

Furthermore, our analysis can correctly predict that co-occurrence of SIKA-NPI and MO-NPI is never permitted, as shown below: 6

(17) a. *John-sika naNI-MO tabe-na-katta
    -SIKA anything eat-Neg-PAST
    'Only John ate nothing/everything.'

    b. ?*daRE-MO ringo-sika tabe-na-katta
    anyone apples-SIKA eat-Neg-PAST
    'No one/Everyone ate only apples.'

Remember that SIKA-NPI is licensed by Spec-head agreement with Neg, and MO-NPI, by a null operator in Spec of NegP. Let us assume that a specifier position can accommodate only one element when it induces agreement with the head. Then, in (17), since the SIKA-NPI in Spec of NegP induces agreement with Neg, Spec of NegP cannot accommodate a licenser for the MO-NPI; thus, the deviance of the examples in (17) straightforwardly follows.

2.4. Weak crossover

Secondly, both SIKA-NPI and MO-NPI induce the weak crossover effect, as shown in (18) and (19) (cf. Hoji 1985, Takahashi 1990):

(18) a. (20-nen mae, Amerika-ni sinsyutusiteita Nihon
    ( years ago  LOC advanced Japan
    kigyou-no uti) Sonyi-sika [sokoi-no raibaru-
    company-GEN among -SIKA its rivaling-
    gaisya]-o obiyakasitei-na-katta
    company-ACC threaten-Neg-PAST
    ' (20 years ago, among those Japanese companies who had
    advanced to the U.S.,) Sony was the only x such that x
    threatened x's rivaling companies.'

    b. ?*[Sokoi-no raibaru-gaisya]-ga Sonyi-sika obiyakasitei-
       na-katta
       'Sony was the only x such that x's rivaling companies
       threatened x.'

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5 This function of the null negative operator can be paralleled with that of the [+wh] null operator in the sense of Watanabe (1992). He argues that in the case of multiple wh-questions, only one null [+wh] operator needs to move to Spec of CP at S-structure, and that all wh-phrases must adjoin to that operator for identification at LF.

6 For some speakers, (17b) is marginally acceptable under the interpretation where daRE-MO 'anyone' is construed as a universal quantifier.
(19) a. (John, Bill, Tom-no uti) daRE-MO_i [soitu_i-no nyooobo]-o
     home-na-katta
     praise-Neg-PAST
     '(Among John, Bill and Tom, there was no one x such that
     x praised x's wife.'

     b. ?*[Soitu_i-no nyooobo]-ga daRE-MO_i home-na-katta
        his wife-NOM anyone praise-Neg-PAST
     'There was no one x such that x's wife praised x.'

As indicated, in the a-sentences in (18) and (19), the pronouns soko 'it' and
soitu 'that guy or he' can be interpreted as variables bound by Sony-sika
'only Sony' and daRE-MO 'anyone', respectively. However, if the subject
and the object are permuted as in each b-sentence, the pronoun contained in
the subject cannot be construed as a variable bound by the phrase in object
position. We may conclude that the failure of bound variable interpretation
in (18b) and (19b) exhibits a typical weak crossover effect. Our analysis
can correctly predict that SIKA-NPI and MO-NPI induce the weak
crossover effect. Under our analysis, the LF-representations of the b-
sentences in (18) and (19) would be (20a) and (20b), respectively:

(20) a. [TP [NegP Sony-sika_i [VP [soko_i-no raibaru-gaisya]-ga ti
         obiyakasite-na-katta]]

     b. [TP [NegP [daRE-MO_i [OP]] [VP [soitu_i-no nyooobo]-ga
         ti home-na-katta]]

In the LF-representations (20a-b), the variable ti does not c-command the
pronoun soko or soitu, and thus cannot be the antecedent of the pronoun due
to the condition in (21):

(21) A variable cannot be the antecedent of a pronoun that is does not

Under our theory, since both the SIKA-NPI in (18b) and the MO-NPI in
(19b) cross over the subject at LF due to the requirement that they move to
Spec of NegP for licensing, they induce the weak crossover effect.

3. Co-occurrence of NPIs and wh-phrases
3.1. Scope and the principle of relation preservation (PRP)

It is widely recognized in the literature that there is a scopal
asymmetry between subject and object quantifiers in languages like
Japanese. The Japanese sentence in (22a) is unambiguous unlike its English
translation; DAre-mo 'everyone' in the object position may not take wide
scope. However, if the object QP is scrambled over the subject QP as in
(22b), a clear ambiguity arises, as first pointed out by Kuroda (1970):
In order to explain the scopal asymmetry as in (22), several conditions have been proposed in the literature. Along the same lines of Huang (1982) and Hoji (1985), we will assume that LF-mapping in languages like Japanese should be constrained by some principle like (23):

(23) The Principle of Relation Preservation (PRP)
An operator A c-commands an operator B at LF iff A c-commands B or a trace of B at S-structure.


We will adopt Reinhart's (1976) definition of scope in (24) and her definition of c-command in (25).

(24) The scope of a is the set of nodes that a c-commands at LF.

(25) A node A c-commands a node B iff neither dominates the other and the first branching node dominating A dominates B.

With these definitions in mind, let us consider (22a-b). Irrelevant details put aside, the logically possible LF-representations of those sentences are schematically shown in (26) and (27), respectively. Note that in (27), the trace $t_j$ in the VP-adjoined position indicates the position of everyone after scrambling at S-structure.

(26) a. $[\text{TP } \text{someone}_1 [\text{TP } \text{everyone}_1 [\text{TP } \text{VP } t_i [\text{v'} t_j \text{ V}]]]]$
   b. $[\text{TP } \text{everyone}_1 [\text{TP } \text{someone}_1 [\text{TP } \text{VP } t_i [\text{v'} t_j \text{ V}]]]]$

(27) a. $[\text{TP } \text{someone}_1 [\text{TP } \text{everyone}_1 [\text{TP } \text{VP } t'_j [\text{VP } t_i [\text{v'} t_j \text{ V}]]]]]$
   b. $[\text{TP } \text{everyone}_1 [\text{TP } \text{someone}_1 [\text{TP } \text{VP } t'_j [\text{VP } t_i [\text{v'} t_j \text{ V}]]]]]$

In (22a), someone asymmetrically c-commands everyone at S-structure. Hence, the LF-representation in (26a), where the former c-commands the latter, is well-formed, but the LF-representation in (26b), where the latter asymmetrically c-commands the former, is not. Let us next consider (22b). On the assumption that the landing site for clause-internal scrambling of an argument is a VP-adjoined position (cf. Abe 1993), everyone in (22b) is adjoined to VP at S-structure. It then further adjoins to TP by QR in order to satisfy the syntactic requirement for a quantified phrase at LF. If someone is adjoined to the upper segment of TP, we will get (27a). If
someone is adjoined to the lower segment of TP, we will get (27b). Both
(27a-b) satisfy the PRP, since in (22b), although everyone asymmetrically c-
commands someone, the latter c-commands the trace of the former at S-
structure. The asymmetry in scopal ambiguity between (22a-b) can thus be
accounted for.7

Since in section 2, we have made an explicit claim that MO-NPI
adjoins to an empty operator in Spec of NegP for identification and SIKA-
NPI moves to Spec of NegP for agreement, we should make certain
predictions concerning co-occurrence of NPIs and other operators. In fact,
these predictions seem to be borne out. It can be demonstrated that our
theory of NPIs, together with the PRP, can account for cases where NPIs
interact with other operators like wh-phrases. However, due to the
constraint on space, we will only discuss two cases for illustration in the
following subsections.

3.2. SIKA-NPIs and wh-phrases8

First, we will consider co-occurrence restrictions between SIKA-
NPIs and wh-phrases. If we put a SIKA-NPI in the subject position and a
wh-phrase in the object position, as in (28a), the resulting sentence exhibits
low acceptability. However, if the object wh-phrase scrambles over the
subject NPI as in (28b), the result becomes acceptable. On the contrary,
although the base order of a wh-phrase followed by a SIKA-phrase in (29a)
is perfect, the scrambled order in (29b) sounds awkward.

(28) a. *John-sika NAni-o tabe-na-katta no
    -SIKA what-ACC eat-Neg-PAST Q
    'What did only John eat?'
  b. NAni-o John-sika tʃ tabe-na-katta no

(29) a. DAre-ga ringo-sika tabe-na-katta no
    who-NOM apples-SIKA eat-Neg-PAST Q
    'Who ate only apples?'
  b. ??ringo-sikaʃ DAre-ga (tʃ) tabe-na-katta no

The fact that (29b) has only lower acceptability than (29a) is rather
surprising, because, as is well known, scrambling generally ameliorates an
unfavorable c-command relation between operators. Along the line of Hoji
(1985), the paradigm in (28) and (29) can be accounted for in the following
way. Under our analysis, to put irrelevant details aside, the LF-
representations of (28a-b) and (29a-b) can be schematically shown as in
(30a-b) and (31a-b), respectively:

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7For an alternative view of the crosslinguistic asymmetry in scope interactions, see
Aoun & Li (1993).
8As is usually the case in the discussion of scope interactions, our grammatical
judgments are relative, rather than absolute, in the discussion below.
(30)  a.  [CP what] [TP [NegP only John] [VP t_i [V' t_j V]]]]
    b.  [CP what] [TP [NegP only John] [VP t_j [VP t_i [V' t_j V]]]]

(31)  a.  [CP who] [TP [NegP only apples] [VP t_i [V' t_j V]]]]
    b.  [CP who] [TP [NegP only apples] [VP t_j [VP t_i [V' (t_j) V]]]]

Remember that under our clausal structure for Japanese, Spec of CP is always generated higher than Spec of NegP. Hence, a wh-phrase always c-
commands a SIKA-NPI at LF. In (28a), the SIKA-NPI only John
asymmetrically c-commands what. In its LF-representation (30a), the latter
c-commands the former; hence, the PRP is violated. In (28b), on the other
hand, what c-commands only John as the result of scrambling. Also in its
LF-representation (30b), the wh-phrase c-commands the SIKA-NPI; the
structural relation between the two is preserved, satisfying the PRP. In
(29a), who asymmetrically c-commands the SIKA-NPI only apples, and in
its LF-representation (31a), the former c-commands the latter; therefore,
there is no violation of the PRP.

As for (29b), notice that the NPI only apples scrambles at S-structure.
Since, as noted in section 1, SIKA-NPI is an adverbial element, we propose
that either scrambling of adverbials does not leave a trace at all or, if it does,
such a trace does not count for the purpose of relation preservation.9 If we
take the latter option, although in (29b), who c-commands the trace of the
NPI at S-structure, that trace does not count. Then, the c-command relation
between the two operators is reversed in the mapping from the S-structure
in (29b) to the LF in (31b), violating the PRP.

3.3.  MO-NPIs and wh-phrases

Next we will consider the cases in which MO-NPIs and wh-phrases
interact. If we put a MO-NPI in the subject position and a wh-phrase in the

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9This view is supported by the fact that with quantificational adverbials, the
reversed order does not result in scope ambiguity, as indicated in examples like the
following (cited from Hoji 1985:245):

(i)  a.  John-ga [nitiyoobi ka doyoobi-ni] [ekimae ya kooen-de]
     -NOM Sunday or Saturday-on in front of the station and park at
     gitaa-o hiiteiru
     'On Sunday or Saturday, John plays the guitar in front of the station, at the
     park and so on.'
     b.  John-ga [ekimae ya kooen-de] [nitiyoobi ka doyoobi-ni] gitaa-o hiiteiru
     'In front of the station, at the park and so on, John plays the guitar on
     Sunday or Saturday.'

This is in contrast with the fact that in the case of argument QPs, the reversed order
creates scope ambiguity, as shown in (22b). Hoji suggests that adverbials are simply
base-generated in a random order, rather than they scramble without leaving a trace.
However, the choice between the two options does not affect our argument in the
text.
object position, as in (32a), the result sounds awkward to many speakers. As indicated in (32b), when the object wh-phrase scrambles, the result becomes much improved. As shown in (33a), if we put a wh-phrase in the subject position and MO-NPI in the object position, the result is acceptable. If the object MO-NPI scrambles, as indicated in (33b), the result becomes unacceptable:

(32) a. ??daRE-MO NAni-o tabe-na-katta no anyone what-ACC eat-Neg-PAST Q
   'What did no one eat?'
b. NAni-o j daRE-MO t j tabe-na-katta no
   'What did no one eat?'

(33) a. DA-re-ga naNI-MO tabe-na-katta no
   who anything eat-Neg-PAST Q
   'Who ate nothing?'
b. ??naNI-MO DA-re-ga (t j ) tabe-na-katta no
   'Who ate nothing?'

The LF-representations of the examples in (32a, b) and (33a, b) are shown in (34a, b) and (35a, b), respectively:

(34) a. [CP \textit{what} [TP [NegP \textit{anyone} [OP]] [VP t j t j eat-Neg-Past]]]] Q]
b. [CP \textit{what} [TP [NegP \textit{anyone} [OP]] [VP t j [VP t i t j eat-Neg-Past]]]] Q]

(35) a. [CP \textit{who} [TP [NegP \textit{anything} [OP]] [VP t i t j eat-Neg-Past]]]] Q]
b. [CP \textit{who} [TP [NegP \textit{anything} [OP]] [VP t j [VP t j (t j) eat-Neg-Past]]]] Q]

In (32a), although the MO-NPI daRE-MO 'anyone' asymmetrically ccommands the wh-phrase NAni-o 'what', the latter ccommands the former in its LF-representation in (34a) in violation of the PRP. In (32b), NAni-o asymmetrically ccommands daRE-MO, and the c-command relation is maintained during the mapping from (32b) to (34b); there is no PRP violation. In (33a), DA-re-ga 'who' asymmetrically ccommands naNI-MO 'anything'. Also in its LF-representation (35a), \textit{who} ccommands anything in Spec of NegP; the PRP is met. On the contrary, the c-command relation between naNI-MO and DA-re-ga is asymmetrically reversed during the mapping from (33b) to (35b); hence the derivation is ruled out. Remember that the trace of anything after scrambling in (35b) is not relevant for relation preservation.

\footnote{For speakers to whom D-linking of NAni 'what' is easily available, (32a) is quite acceptable.}
4. Locality of NPI Licensing
4.1. "Long-distance" NPI licensing

Finally, we will touch upon the locality of NPI licensing. In Japanese, "long-distance" NPI-licensing is generally prohibited, as exemplified in (36): 11

    PAST
    'John did not say that Mary would eat anything but apples.'

    PAST
    'John did not say that Mary would eat anything.'

    tabe-ru to] iw-ana-katta (koto)
    'John did not say to anyone but Bill/anyone that Mary
    would eat apples.'

As indicated in (36a-b), NPIs in the embedded object positions cannot be licensed by the matrix negative elements.

4.2. The "clausemate" condition

In order to prohibit "long-distance" NPI-licensing, the "clausemate condition" like (37) has been stipulated in the literature:

(37) An NPI must be a clausemate of Neg.
    (cf. McGloin 1976, Muraki 1978)

However, we will claim that a condition like (37) can be obviated.

Let us first consider the case of SIKA-NPI in (36a). In order for ringo-sika 'only apples' to be properly licensed, it must move from the

11 "Long-distance" NPI licensing seems to be less restricted if we use omow 'think' as the matrix verb, as shown below:

(i) a. ??John-ga [Mary-ga ringo-sika tabe-ru to] omow-ana-katta (koto)
    -NOM -NOM apple-SIKA eat-NPST C think-Neg-Past
    'John did not think that Mary would eat anything but apples.'

b. ??John-ga [Mary-ga naNI-MO tabe-ru to] omow-ana-katta (koto)
    anything
    'John did not think that Mary would eat anything.'

It is still true, however, that there is a contrast in acceptability between sentences like (ia-b) and sentences like (36c). It is this contrast that we will aim to account for in this section.
embedded object position to Spec of NegP in the matrix clause. Notice that this movement must be mediated by Spec of CP; otherwise, the resultant chain-link would violate the subadjacency condition. Since V raises through Neg to T, Spec of NegP is [+L-related] in the sense of Chomsky (1992) and Mahajan (1990). Spec of CP, however, remains [-L-related] at LF. Hence, if only apples moves from the embedded object position to Spec of the embedded CP, and then to Spec of the matrix NegP, the resultant chain is not uniform with respect to L-relatedness, as depicted in (38):

(38) \[
\text{TP} \quad \text{[NegP only apples]} \quad \text{[VP} \quad \text{[CP} \quad \text{t'} \quad \text{[TP} \quad \text{[VP} \quad \text{[V'} \quad \text{I} \quad \text{V]}}]\\]
\]

The chain (only apples, t', t) in (38) violates the chain uniformity condition in (39), proposed by Chomsky & Lasnik (1991) and Fukui (1992). Chains must be uniform with respect to L-relatedness.

Turning now to MO-NPI, the ill-formedness of (36b) can be accounted for in a similar fashion. In order for naNI-MO 'anything' to be properly licensed, it must adjoin to the empty operator in Spec of the matrix NegP. If this movement were not mediated by Spec of CP, it would violate the subadjacency condition. Let us assume that every position within a maximal projection of a [+L-related] category is identified as [+L-related]. Since V raises to T through Neg, every position within TP is [+L-related] in Japanese. Hence, if anything moves from the embedded object position to Spec of the embedded CP, and then adjoins to Spec of the matrix NegP, the resultant chain is not uniform with respect to L-relatedness, as illustrated below:

(40) \[
\text{TP} \quad \text{[NegP} \quad \text{[anything]} \quad \text{[OP]} \quad \text{[VP} \quad \text{[CP} \quad \text{t'} \quad \text{[TP} \quad \text{[VP} \quad \text{[V'} \quad \text{I} \quad \text{V]}}]\\]
\]

The chain (anything, t', t) in (40) violates the chain uniformity condition in (39). Hence, the "clausemate condition" on NPI licensing can be subsumed under the theory of movement incorporating the condition in (39).

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12 The choice between S-structure and LF for the level of V-raising is irrelevant here. See footnote 3.
13 Since we would not want to permit deletion of the intermediate trace in Spec of the embedded CP to satisfy (39), which is allowed by Chomsky & Lasnik (1991), but not by Fukui (1992), the latter should be preferred over the former in the present discussion.
14 Note that our analysis also obviates the binding requirement, proposed, for instance, by Progovac (1988), that NPIs are subject to Condition A of the binding theory.
4.3. Apparent counterevidence

There seems to be an apparent exception to the "clausemate condition" on NPI-licensing. Although several factors like the choice of predicates intervene, NPIs in the complement object position may hardly be licensed by the matrix Neg, as indicated in (41a).\(^\text{15}\) If NPIs appear at the beginning of the complement clause, however, they can be licensed, as shown by the grammaticality of (41b).

\begin{align*}
(41) & \quad \text{a. } ?\text{-John-wa [Mary-ga ringo-sika/naNI-MO tabe-ru to]} \\
& \quad \quad \quad \quad \quad -\text{TOP} \quad -\text{NOM} \quad \text{apple-SIKA/anything eat-NPST COMP} \\
& \quad \quad \quad \quad \quad \text{omow-ana-katta (koto)} \\
& \quad \quad \quad \quad \quad \text{think-Neg-Past (COMP)} \\
& \quad \quad \quad \quad \quad '\text{John did not think that Mary would eat anything but apples/anything.'} \\
& \quad \quad \quad \quad \quad \text{b. } \text{John-wa [Mary-sika/daRE-MO ringo-o tabe-ru to]} \\
& \quad \quad \quad \quad \quad -\text{SIKA/anyone} \quad -\text{ACC} \\
& \quad \quad \quad \quad \quad \text{omow-ana-katta (koto)} \\
& \quad \quad \quad \quad \quad '\text{John did not think that anyone but Mary/anyone would eat apples.'}
\end{align*}

The contrast between (41a) and (41b) might suggest the lack of the "clausemate condition" effect with respect to NPIs in the complement subject.

However, there is an alternative account for the contrast between (41a) and (41b). Ishii (1990) and Hoji (1991) independently argue that verbs like omow 'think' can be associated with a "major object", as indicated by the underlined parts in (42a) and (42b):

\begin{align*}
(42) & \quad \text{a. } \text{John-wa Mary-i-o [kanozyo-i-ga/proi baka da to] omot-ta} \\
& \quad \quad \quad \quad \quad -\text{TOP} \quad -\text{ACC} \quad \text{she-NOM fool be C think-Past} \\
& \quad \quad \quad \quad \quad '\text{John thought of Mary that she was a fool.'} \\
& \quad \quad \quad \quad \quad \text{b. } \text{John-wa Mary-i-o [Bill-ga ?kanozyo-i-ga/proi gokaisiteiru to] omot-ta} \\
& \quad \quad \quad \quad \quad \text{misunderstand} \\
& \quad \quad \quad \quad \quad '\text{John thought of Mary that Bill misunderstood her.'}
\end{align*}

If this analysis is correct, the NPIs in (41b) can be in the "major object" position, hence, "clausemates" with Neg.

If the "major object" position is occupied by some other element, we should expect that the NPI in the complement subject position may not be licensed. Indeed, this prediction is borne out, as exhibited in (43).

\footnote{As noted in footnote 11, (41a) is more acceptable than (36a-b) for many speakers. This is presumably because the matrix predicate in (41a) is more "transparent" with respect to negation than that in (36a-b); i.e., omow 'think' is more readily identified as a Neg-Raising predicate than iw 'say' is.}
(43)  *John-wa Mary-j-o [Bill-sika/daRE-MO kanozyo-o/PRj
     -TOP  -ACC  -SIKA/anyone
     gokaisiteiru to] omow-ana-katta
     misunderstand COMP think-Neg-PAST
     'John did not think of Mary that anyone but Bill/anyone
     misunderstood her.'

Hence, as long as the "major object" analysis is available in cases like (41b),
our analysis is not jeopardized.

5. Conclusion

Japanese has two types of NPIs, SIKA-NPI and MO-NPI, and they
are subject to different licensing conditions. While SIKA-NPI is licensed
by Spec-head agreement with Neg, MO-NPI is identified with an null
operator in Spec of NegP by adjoining to it. Facts about multiple
occurrence of NPIs, weak crossover, co-occurrence restrictions among NPIs
and other operators like wh-phrases, and the locality of NPI-licensing have
evidenced our analysis.

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