Strong NPIs, the Scope of Negation, and the Components of Interpretation of *Sika/Pakkey* in Japanese and Korean[*]

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1 Introduction

1.1 Outline of the Paper

This paper is concerned with data from Japanese and Korean which involves NPIs and other phrases that are licensed by or associate with negation. I think that the observations here argue for certain general strategies of analysis, though I do not propose any specific formalization here.

After this brief section of introduction and background, Section 2 is concerned with the scope of negation, and where negation needs to scope to license an NPI. This can be diagnosed using examples which involve both an NPI and a focus phrase which associates with negation. The main goal of the paper is to consider some aspects of the meaning of *sika/pakkey*-phrases, which must co-occur with negation to give the meaning of 'only', and hence are types of NPI. Section 3 presents the background to the analysis of *sika/pakkey*. I briefly survey the main features of the meaning of 'only', and the re-

lated meaning of exceptives, to consider where *sika*/*pakkey*-phrases actually
fit in to that landscape. Then section 4 considers the interaction of *sika*/*pakkey*
with other NPIs in the same clause, and I argue that the surface position of
a *sika*/*pakkey* relative to any other NPI matters for the final interpretation.
The observations in sections 3 and 4 are briefly summarized at the end of the
paper, as to what they indicate about necessary components of the analysis of
the meaning of *sika*/*pakkey*.

1.2 Background

The earliest work on negation in Japanese and Korean (J/K) (e.g. McGloin
1976 on Japanese) took the position that it scopes rather low, and that
NPIs immediately outscope negation. Negation can take scope over different
clause-level constituents, but has low default scope (Korean, Sells and Kim
2006, Sells 2010; Japanese, Kuno 1980, Yatabe 1996, Shimoyama 2011).
To illustrate how negation scope can be considered, I begin with a subset of
the 'strong' NPIs, NPIs which are licensed only by an overt expression of
negation (more or less), such as *dare-mo* and similar NPIs in Japanese, and
amwu-to and similar NPIs in Korean.

A Japanese form like *dare-mo* may be interpreted as a true universal quan-
tifier or as an NPI, depending on the pitch-accent pattern. The true universal
has accent on the initial syllable; the NPI is unaccented. I do not represent
this in the examples, but it should be controlled for, in the interpretations.

There has been debate in the literature about the nature of NPIs, such as
those in (1), precisely with regard to their scope relation to negation.

(1)   a.   dare-mo ko-na-katta
              anyone come-NEG-PAST
              'No one came.'
    b.   amwu-to o-ci   anh-ass-ta
              anyone come-COMP NEG-PAST-DECL
              'No one came.'

The analytical question is whether an NPI is best analysed as a kind of uni-
versal quantifier, with negation in its immediate scope: $\forall\neg$, or whether it is
best analysed as existential in the immediate scope of negation: $\neg\exists$. For the
English example (2), the two options are shown by the formulae in (a) and
(b):

(2)   John has not read any books.

    a. $\forall x[book(x) \rightarrow \neg read(j, x)]$ NPI scopes over negation
    b. $\neg\exists x[book(x) \wedge read(j, x)]$ negation scopes over NPI

For English NPIs, the consensus is that they are existentials (as in (2b)),

within the scope of negation (e.g. Horn 2005 for an overview). Further, Linebarger (1987) argued that existential NPIs must be in the immediate scope of negation, and she proposed the 'Immediate Scope Constraint' (ISC) on licensing.

For Japanese and Korean, though, the analysis in (2a) seems more strongly supported. This is taken up in the next section.

2   Negation, NPIs, and Focus Phrases

2.1   NPIs and Negation Scope

Several researchers have argued that NPIs in J/K outscope negation, including: Chung and Park (1998), Kim (1999), Lee (2001), Kim (2002), Han et al. (2007), Sells (2001), Sells and Kim (2006), Shimoyama (2011).

Sells and Kim (2006) make a more precise claim about (*amwu*-type) NPIs in Korean and their scopal relation to negation; they argue that an NPI immediately outscopes it, and propose a generalization of Linebarger's Immediate Scope Constraint:

(3)   *Generalized Immediate Scope Constraint* (GISC)
         An NPI and negation are in an immediate scope relation with each other.

As a quantifier that scopes over negation, an NPI in J/K is therefore a kind of universal quantifier as in (2a), but it differs in some semantic and pragmatic properties from a true universal quantifier (see Sells and Kim 2006).

One argument involves the situation in which an NPI is licensed but there is also an intervening quantificational adverb, as in the following Korean examples. In the interpretation, negation must scope **just under** the NPI, but not under the adverb as well. NPIs are shown in red in all the examples that follow, and glossed in italics.

(4)   **amwu-to** hangsang cip-ey   iss-ci   anh-ass-ta
         anyone   always   home-at be-COMP NEG-PAST-DECL
         a.   'Nobody was at home all the time.' (respecting GISC)
               (*NPI > Neg > always*)
         b.   *'For everyone, it was always the case that he was not at home.'
               (NPI > *always > Neg*) (violation of GISC)

The example is grammatical with long-form negation but not with lexical negation (or at least, is much more marked with lexical negation), as in (5b):

(5)   a.   **amwu-to** cip-ey   eps-ess-ta
               anyone   home-at not.be-PAST-DECL
               'No one was at home.' ('Everyone was not at home.')

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b. ***amwu-to** hangsang cip-ey   eps-ess-ta
   anyone   always   home-at not.be-PAST-DECL
   (the only possible scope order is *NPI > always > Neg*,
   but this violates GISC)

The reasoning about the scopal relation of NPI and negation goes as follows. (5b) is ungrammatical with lexical negation, which cannot take scope over another quantifier, even though it can otherwise license an NPI in subject position, as in (5a). In (5a) there is no other quantifier interrupting the licensing relationship between negation and the NPI. Now, it if had been assumed that negation scopes **over** an NPI subject in order to license it, negation should equally scope over the subject in all cases, and there should be no contrast between the examples in (5), or between (4) and (5b).

2.2 Attraction to Focus

Other evidence about the scope of negation when it licenses an NPI comes from the interaction of that licensing with attraction to focus – wherein negation associates with a focussed sub-constituent of a sentence. Starting again with English, the NPI in (6) is acceptable only if the negation is not attracted to focus (Ladusaw 1983):

(6)   John didn't meet anyone on [Sunday]$_F$.
   a.   It was on Sunday that John didn't meet anyone.
        (no attraction of Neg to focus)
   b.   *It wasn't on Sunday that John met anyone.
        (attraction of Neg to focus; cannot license NPI)

Ladusaw observed that negation cannot both license an NPI and be attracted to focus; attraction to focus would require a scope structure *Neg > Focus > anyone*, which would violate the ISC for the English existential NPI.

Now looking at comparable examples in Korean, the facts are different: negation can both license an NPI ('above' negation), and target a separate focus ('below' negation) (noted by Sohn 1995). This difference between English and Korean can only be traced to relative licensing properties of NPIs.

(7)   Mina-nun **amwu-to** [ilyoil]$_F$-ey manna-ci-nun   anh-ass-ta
       Mina-TOP *anyone*   Sunday-on meet-COMP-FOC NEG-PAST-DECL
       'Whoever it was, it wasn't on [Sunday]$_F$ that Mina met him.'

(8)   kutul-un **amwu il-to** [wanpyekhakey]$_F$ ha-ci-nun
       they-TOP *any work*   perfectly   do-COMP-FOC
       anh-ass-ta
       NEG-PAST-DECL

'They didn't do any work [perfectly]_F.' (adverb negated)

Such examples show that the scope relation must be *NPI > Neg > Focus*, so that the NPI outscopes Neg on the one hand, and Neg can negate another constituent on the other. This scope structure is only consistent with the universal analysis of NPIs, where an NPI takes negation in its immediate scope, respecting the GISC.

Looking further into negation and focus, Sohn (1995, 2004) made some important observations about how focus phrases associate with negation. First, consider examples without NPIs, where negation will associate with a *nun*-marked focus phrase. The examples are coded to show the subject and object; due to the location of the *nun*-marking negation scopes high in (9), over the subject, but it scopes under the subject in (10):

(9)   [twu salam ta-**nun**]_SU [manhun chayk-ul]_DO ilk-ci
        two person all-FOC   many   book-ACC   read-COMP
        anh-ass-ta
        NEG-PAST-DECL
        'It is not the case that BOTH of them read many books.'
        (The only scope order is *Neg > both > many*.)

(10)   [manhun salam-i]_SU   [twu salam ta-**nun**]_DO chotayha-ci
        many   person-NOM two person all-FOC   invite-COMP
        anh-ass-ta
        NEG-PAST-DECL
        'Many people did not invite BOTH of them.' (*many > Neg > both*)

So now, on the view that an NPI requires negation to scope under it, it is expected in (11a) that the NPI blocks negation from associating with the focus. In (11b), the lower phrase is scrambled over the higher one, and the example is fully acceptable:

(11)   a. ?*[twu salam ta-**nun**]_SU **amwukes-to**_DO cohaha-ci
            two person all-FOC   *anything*   like-COMP
            anh-ass-ta
            NEG-PAST-DECL
            Intended: 'It's not the case that BOTH of them liked anything.'
            (*Neg > both > NPI*)

         b. **amwukes-to**_DO [twu salam ta-**nun**]_SU t_DO cohaha-ci
            anything   [two person all-FOC]   like-COMP
            anh-ass-ta
            NEG-PAST-DECL

'There was nothing that BOTH of them liked.' (*NPI > Neg >
both*)

In (11b) both phrases can have the appropriate relationship to negation, re-
specting the GISC. The same is true in (12), in which the base order gives the
right configuration for the interpretation to be compatible with the GISC:

(12)   **amwu-to** [twu salam ta-**nun**] chotayha-ci anh-ass-ta
     anyone   two person all-FOC invite-COMP NEG-PAST-DECL
     'No one invited BOTH of them.' (*NPI > Neg > both*)

From the above considerations, I conclude that the strong NPIs in J/K are li-
censed by negation but scope above it. Hence a lower focus can also associate
with negation, in contrast to the situation in English.

    The Japanese examples in (13) provide corroborating evidence about rel-
ative scope and about how different elements are scopally licensed. They are
modified from examples in Shimoyama (2009). McGloin (1976) showed that
a *wa*-marked phrase in Japanese can be interpreted as a focus which negation
associates with, as in (13a), but negation cannot associate with focus – scop-
ing over it – and license a lower NPI at the same time, as in (13b), which has
the same formal properties as (11a):

(13)   a.   zennin-wa omiyage-o   motte ko-na-katta
         all-FOC   souvenir-ACC bring-NEG-PAST
         'Not all brought a souvenir.'
     b. ?*zennin-wa omiyage-o   **nani-mo** motte ko-na-katta
         all-FOC   souvenir-ACC *anything* bring-NEG-PAST
         Intended: 'It is not the case that everyone brought some or other
         souvenir.'

3   Finding Where Exclusives Fit in the Landscape

The main topic of this paper is the interpretation of *sika*/*pakkey*-phrases, in-
volving an investigation of the components that go into that interpretation.
In this section I provide a context for a consideration of these components.
Given that *sika*/*pakkey* in construction with negation means 'only', I begin
with a brief overview, and then consider to what extent *sika*/*pakkey* can be
considered markers of exceptives.

3.1   *Only*

Let us look at some equivalents for the English example in (14), which is
followed by Korean examples; Japanese equivalents are in (15). In each pair
of J/K examples, in the first example 'only' is expressed by a form that does
not require negation, and in the second, the *sika*/*pakkey* forms are used. In all

the examples that follow, *sika*/*pakkey* are marked in purple.

(14)   'Yesterday, only Mina went to the office.'

    a.   ecey-nun   Mina-man samwusil-ey ka-ss-ta
        yesterday-TOP Mina-only office-to   go-PAST-DECL

    b.   ecey-nun   Mina-**pakkey** samwusil-ey ka-ci
        yesterday-TOP Mina-EXCL   office-to   go-COMP
        anh-ass-ta
        NEG-PAST-DECL
        ('No one except Mina went to the office.')

(15)   a.   kinoo-wa   Mina-dake zimusyo-ni it-ta.
        yesterday-TOP Mina-only office-to   go-PAST

    b.   kinoo-wa   Mina-**sika**   zimusyo-ni ik-ana-katta.
        yesterday-TOP Mina-EXCL office-to   go-NEG-PAST
        ('No one except Mina went to the office.')

It is well accepted that there are two parts to the meaning of 'only', the negative part and the positive part. For the examples above, and taking the meaning as expressed in English, these amount to:

(16)   a.   No one other than Mina went to the office. ('negative')
        i.e. For all x such that $x \neq$ Mina, x did not go to the office.

    b.   Mina went to the office. ('positive')

In the J/K examples above, the a-version appears to express the positive part directly (i.e. there is no overt negation in the example), and so the negative part must be computed via some semantic mechanism. The b-version examples do have overt negation, of course, and so we would hypothesise that it is the negative part of the meaning that is (more or less) directly expressed – see the further account of this in section 4 below – and the positive part must be computed.

    In the formal semantics literature on 'only', there are many different analyses of the parts of meaning in (16), but here I will continue at the level of observations. It has been noted previously that the negative part has a universal character, but the positive part has an existential character (e.g. von Fintel 1994, Horn 1996). The existential component of 'only' can be illustrated with examples such as (17), here from Horn (1996):

(17)   Only Democrats supported Clinton.

Perhaps surprisingly, this does not have the negative and positive components as in (18), but rather it has those in (19):

(18) a. All non-Democrats did not support Clinton. ('negative')
      b. (So,) all Democrats supported Clinton. ('positive, universal')

(19) a. All non-Democrats did not support Clinton. ('negative')
      b. Some Democrats supported Clinton. ('positive, existential')
          i.e. If any x supported Clinton, x is a Democrat.

In other words, 'only' does not fully partition the domain: it does not partition into a set of individuals of which some property does not hold, and a complement set of individuals of which the property does hold (this is what characterizes (18)). Rather, there are two propositions, one of which has a negative character, which has a universal interpretation over the relevant domain, and the other has a positive character, but is existential in nature.

Both Horn (1996) and von Fintel (1997) take the view that the existential interpretation in the positive part of the interpretation arises because use of *Democrats* in (17) is generic(-like): a generic does not commit the speaker to a universal claim, as generics can allow for exceptions.

3.2 Exceptives

sika/*pakkey*-phrases seem to have some properties of exceptives, and the etymology of *pakkey* (meaning 'outside') at least suggests that it could be an exceptive. So in this subsection I move on to look at some important aspects of the interpretation of exceptives, with a view to understanding the account of *sika*/*pakkey*. They could be considered to form exceptive constructions; and the semantics of 'only' constructions and of exceptive constructions is known to be similar (e.g. von Fintel 1994).

To provide some context for the discussion to follow, I summarize some main features of exceptives as presented in García Álvarez (2009), including some of his examples, such as those in (20):

(20) a. every human culture except some nomadic societies ...
      b. (There were) no marked complications except three cases of skin irritation.

Gárcia Álvarez makes several key observations about the semantics of exceptives which should be captured in the correct analysis:

(21) a. There is a generalization, and there is an exception to that generalization, which have opposite polarities (polarity reversal).
      b. The exception part is necessarily existential: **there is** an exception.
      c. The exception is 'small' with regard to the generalization.
      d. Polarity reversal is actually stated on predicates, not propositions.

My claim here is that *sika/pakkey* have only some of these properties, and so they are not truly exceptives.

The first point to note follows (21c) – the exception should be (contextually, relevantly) small. Hence (22b) is odd:

(22) a. No students except Kim and Sandy finished the exam.
      b. ??No students except 75 final-years finished the exam.

Next, let us look further at (21a), and the notion of polarity reversal. This is what generates the positive and negative parts of interpretation, exactly similar to what is described above for 'only'. (The absolute polarity of the 'positive' and 'negative' parts will of course be determined by whether the predicate in an exceptive example is itself non-negated or is negated. This will be important in the discussion below.)

There are examples (again from Gárcia Álvarez) which have the same existential character as we saw above for 'only', in the positive part.

(23) a. "We rowed every day except some Sundays," he said.
      b. Every film but some minor productions received a positive review.

In order to derive the correct truth conditions for such examples, Gárcia Álvarez argues that polarity reversal cannot be stated at the proposition level, but rather must happen at the predicate level. Using (24) as an illustrative example, polarity reversal over propositions gives the wrong truth conditions when the exception itself is existentially quantified. This is the interpretation in (24b), which can only be true if no first-year student finished the exam; but this is not what (24) means. Instead, the existential quantifier must scope over the predicate, with negation at the predicate level, as in (24c):

(24) All students except some first-years finished the exam.
      a. Positive part:
          'Removing some students from the domain, all finished the exam.'
      b. Negative part: Reverse the polarity of (a) over the proposition.
          *'It is not the case that some first-years finished the exam.'
          → incorrect truth conditions
      c. Negative part: Reverse the polarity of (a) over the predicate.
          'Some first years have the property of not finishing the exam.'
          → correct truth conditions

So, schematically, if we apply Gárcia Álvarez' scheme to an example in which the predicate is negated – in preparation for the consideration of *sika/*

pakkey below, this is how polarity reversal applies in exceptives:

(25)   Schematically: "X except Y not-P"
      a.   For all elements in $\{X - Y\}$, not-P holds.
      b.   Now take the predicate and reverse it:
      c.   If P holds, it holds of elements of Y.
      d.   And P does hold, because **there is** an exception.

For a negative generalization like (25a), the exception will necessarily be positive, and as the exception must exist, there will be some instantiation.

3.3 *Sika/Pakkey* are Exclusives, not Exceptives

From the considerations above, I do not think it can be sustained to treat *sika/pakkey* as exceptives. If we were to make this connection, some aspects of the interpretation of *sika/pakkey* are covered: treating them as exceptives (along the lines of 'No one except Mina went to the office.') accounts for the polarity reversal between the negative and positive parts of the meaning. Furukawa (2006) and Yoshimura (2007), among others, take the exceptive route. *sika/pakkey* could be treated as a variation on the basic exceptive: one difference is that there is usually no overt host (the 'X' in (25)) for these exceptives.

However, *sika/pakkey* can be used to express meanings which are incompatible with a true exceptive. In the following examples, *sika/pakkey* actually present the extent of a generalization, not an exception to it. With a numeral, *sika/pakkey* has a scalar 'no more than' interpretation (see e.g. Yeom 2015), as the examples below (first Japanese, then Korean) show.

(26)   The harp is an instrument which has many strings. To play it, it would be useful to have many fingers, but people only have 10 fingers:
      a.   ningen-ni-wa   zyup-pon-**sika** yubi-ga   na-i
             people-DAT-TOP 10-CL-EXCL   finger-NOM NEG-PRES
      b.   salam-un   sonkalak-i yel-kay-**pakkey** eps-ta
             people-TOP finger-NOM ten-CL-EXCL   NEG.PRES-DECL

(27)   You only get one life, so make the most of it:
      a.   anata-ni-wa hito-tu-**sika** inoti-ga nai
             you-DAT-TOP one-CL-EXCL life-NOM NEG-PRES
      b.   insayng-un hana-**pakkey** eps-ta
             life-TOP   one-EXCL   NEG.PRES-DECL

The meanings here, obviously, have an 'only' interpretation, but it does not seem that that interpretion could be derived from an exceptive: "You have no fingers except 10" and "You have no lives except one" are very strange.

Other aspects of interpretation are shared between *sika/pakkey*-phrases

and true exceptives. As I noted above, *sika/pakkey* share with 'only' the existential component of interpretation. (28) again presents a Japanese and then an equivalent Korean example, with a rough gloss for each. The example does not mean that non-Americans did not go to that place and that all Americans did go there, but rather, it means that if anyone went there, that person is American:

(28)   Only Americans went to that place.
      amerika-zin-**sika**   sono basyo-ni   ik-ana-katta
      mikwuk-salam-**pakkey** ku kos-ey   ka-ci anh-ass-ta
      American-EXCL   that place-to   did.not.go

    a.   For all x, if x is not American, x did not go to that place.
         (negative, universal)
    b.   If anyone x did go to that place, x is American.
         (positive, existential)

So, schematically, my proposal is that we outline the semantics of these expressions as follows:

(29)   "Y-*sika/pakkey* not-P"
    a.   All relevant alternatives to elements of Y have the property not-P.
    b.   Predicate reversal: if anything has the property P, it is an element of Y. (this yields the 'positive' part)
    c.   There is an instantiation of this (this yields the existential part of the meaning).

In *sika/pakkey*-examples, the expressed negation provides the negative part of the meaning, as in (29a). That negation can also license another NPI (section 4). The other part of the meaning is derived by predicate reversal, but in a conditional structure, as in (29b). The contribution in (29c) is actually the part that creates the existential import of the positive part of the meaning.

    Researchers who have investigated 'only' have suggested that the existential nature of the positive component can be accounted for by a generic interpretation of the noun (e.g. Horn 1996, von Fintel 1997). However, I am not sure that this works for all examples, such as (30). The example is past tense and episodic, which would not seem compatible with a generic interpretation:

(30)   a.   Due to the pandemic, only local people attended the meeting.
        b.   kansen.bakuhatu-no-tame tikaku-ni sum-u   hito-**sika**
            pandemic-GEN-because   nearby-at live-PRES person-EXCL
            kaigi-ni   syusseki si-na-katta
            meeting-DAT attend-NEG-PAST

c. phaynteymik ttaymwun-ey ciyek cwumin-tul-**pakkey**
pandemic   because-DAT local resident-PL-EXCL
hoyuy-ey   chamsek ha-ci anh-ass-ta
meeting-DAT attend-COMP NEG-PAST-DECL

The source of existentiality might be found in the parts of the meaning of *sika
/pakkey* which **do** carry over from exceptives: that the proposition generated
via polarity reversal on the predicate has an instantiation. (As Gárcia Álvarez
puts it: there **is** an exception.)

4   The 'Scope' of *Sika/Pakkey*

sika/pakkey look like NPIs, and indeed must be licensed by clause-mate nega-
tion; but they are not exceptives. I will refer to *sika/pakkey*-phrases as "exclu-
sive" phrases, following the nomenclature for 'only' in some of the current
literature (e.g. Hasegawa and Koenig 2011, Ido and Kubota 2021). The con-
sensus is that these exclusives scope over negation, as this allows for a fairly
straightforward compositional semantic interpretation (e.g. Furukawa 2006,
Yoshimura 2007, Yeom 2015). In other words, they share this property with
other NPIs in J/K: they need to be licensed by clause-mate negation and they
scope over that negation.

What exactly is the status of negation in *sika/pakkey* clauses? – Is it just
a constructional marker of the exclusive, or is it semantically potent? It can
be shown that it is semantically potent, as another NPI can be licensed in the
same clause as a *sika/pakkey*-phrase, as shown in the examples below. Even
though *sika/pakkey*-phrases are not true exceptives, to isolate the components
of interpretation, it is actually instructive to treat them as if they were. In the
examples that follow, I first give a translation as an exceptive, which will
become relevant further below, and then the second translation more directly
states the meaning:

(31) a. Mina-**pakkey amwu kes-to** mek-ci   anh-ass-ta
        Mina-EXCL   *anything*   eat-COMP NEG-PAST-DECL
        'Except Mina, no one ate anything.'
        → 'Only Mina ate something.'
     b. Mina-**pakkey amwu tey-to** ka-ci   anh-ass-ta
        Mina-EXCL   *any place*   go-COMP NEG-PAST-DECL
        'Except Mina, no one went anywhere.'
        → 'Only Mina went somewhere.'

(32) a. Mina-**sika   nani-mo** tabe-na-katta
        Mina-EXCL *anything* eat-NEG-PAST
        'Except Mina, no one ate anything.'
        → 'Only Mina ate something.'

b. Mina-**sika** **doko-ni-mo** ik-ana-katta
  Mina-EXCL *any place* go-NEG-PAST
  'Except Mina, no one went anywhere.'
  → 'Only Mina went somewhere.'

These examples are instructive as to the actual scope of negation. If the (red) NPI scopes over negation, as argued here, then a *sika*/*pakkey*-phrase does not take a negated predicate in its direct scope – negation is actually 'lower down'.

We can test this by looking further at the interaction between *sika*/*pakkey* and an NPI. Over some years, it has been noted that certain interactions between an NPI and a *sika*/*pakkey*-phrase lead to an interpretation in which the NPI receives something like a universal reading, e.g. Aoyagi and Ishii (1994), Sells (2001), Kuno and Whitman (2004), Shimoyama (2011). The examples are like those above, but with the phrases in the reverse order, NPI then *sika*/*pakkey*; so in Korean, *amwu* then *pakkey*. The *amwu* NPI is still grammatical, but seems to have more of a universal(-like) interpretation:

(33) **amwu tey-to** Mina-**pakkey** ka-ci   anh-ass-ta
    any place   Mina-EXCL go-COMP NEG-PAST-DECL
    'Wherever it is, except Mina, no one went there.'
    ('Only Mina went anywhere you might think of.')

Not all speakers find such examples (fully) acceptable; but the observation goes back over 20 years. Japanese examples like (33) can be found in (Kuno and Whitman, 2004, 209), who note:

"A similar observation was made for the Japanese NPI *dare-mo* 'anyone' in the oral presentation of Kuno (2000):

(34) $^{?/??}$**daremo** syuumatu ni hanniti **sika** benkyoosi-na-i
     anyone weekend on half-day EXCL study-NEG-PRES
  a. Predicted Interpretation: *'No one studies only half a day on weekend.'
  b. Actual Interpretation: 'No matter which person x you pick, it is not the case that x studies any more than half a day on weekend; Everyone works only half a day on weekend.' "

Similar examples are given in Shimoyama (2011), here with her translations:

(35) a. Kaori-**sika** **doko-ni-mo** ik-ana-katta
    Kaori-EXCL *anywhere-to* go-NEG-PAST
    'Only Kaori went somewhere.'

b. **doko-ni-mo** Kaori-**sika** ik-ana-katta
anywhere-to Kaori-EXCL go-NEG-PAST
'Every place is such that only Kaori went there.'

(Shimoyama's translation of (35b) seems too strong, at least for the Korean counterpart, as the interpretation of the *amwu*-phrase is not truly universal – see below.)

Given that such examples are acceptable, what I want to focus on in this section is that it seems that the position of *sika/pakkey* matters, so it makes sense to talk of the 'scope' of *sika/pakkey*. I illustrate first with Korean. What is important is the contrast in the interpretation of the NPI between (36a) and (36b):

(36) a. Kaori-**pakkey amwu tey-to** ka-ci anh-ass-ta
Kaori-EXCL *any place* go-COMP NEG-PAST-DECL
'Except Kaori, no one went anywhere.'
(≈'Only Kaori went somewhere.')
b. **amwu tey-to** Kaori-**pakkey** ka-ci anh-ass-ta
any place Kaori-EXCL go-COMP NEG-PAST-DECL
'Wherever it is, except Kaori, no one went there.'
(≈'Wherever it is, only Kaori went there.')

The most salient appearance of the 'universal' aspect of the NPI interpretation is in examples like (36b). How does this emerge? And what is the difference between the examples in (36)?

Given that *sika/pakkey*-examples necessarily involve negation, from the overt negative component of meaning, polarity reversal on the predicate leads to the positive component. I will show the mechanism of this reversal with respect to the constituents in the examples, using Korean. The corresponding Japanese example is given right below the gloss.

Imagine that the components of the interpretation of (36a) are as shown by what follows the arrow. Replace the exclusive phrase by the corresponding NPI, then set up a second line which reverses the polarity, in a conditional:

(36a) Kaori-**pakkey amwu tey-to** ka-ci anh-ass-ta
Kaori-EXCL *any place* go-COMP NEG-PAST-DECL
Kaori-**sika doko-ni-mo** ik-ana-katta

⟶ **amwu-to amwu tey-to** ka-ci anh-ass-ta
No one went anywhere
and if anyone has the opposite property, it is Kaori

As the NPIs (in red) scope over negation, they can be informally translated as 'for any x you pick', etc. So, the negative component is:

1. For anyone x you pick and any place y you pick, x did not go to y.

And there is a positive component, based on reversing the predicate:

2. If anyone went anywhere, it is Kaori; and
3. Someone went somewhere.

The universal component of meaning comes from 1, while the existential component comes from the combination of 2 and 3. What these phrase do inherit from exceptives is the contribution that there **is an instantiation** of the positive part.

Now, the other example is crucially different, due to the different order of constituents. The position of *sika*/*pakkey* marks how much of the structure feeds into the positive and negative parts of the interpretation. In (36b) the order of NPI and *sika*/*pakkey*-phrase is reversed, and effectively the exclusive interpretation emerges **under** the scope of the NPI:

(36b)　　**amwu tey-to** Kaori-**pakkey** ka-ci　　anh-ass-ta
　　　　　any place　Kaori-EXCL　go-COMP NEG-PAST-DECL
　　　　　doko-ni-mo Kaori-**sika** ik-ana-katta

$\longrightarrow$　　**amwu tey-to**
　　　　　　　　　　amwu-to　　ka-ci anh-ass-ta
　　　　　　　　　　and if anyone has the opposite property, it is Kaori

The negative component has two parts, 1 and 2:

1. For any place y you pick:
　2. Then for any person x you pick, x did not go to y.
　And there is a positive component, based on reversing the predicate:
　3. If anyone went there, it is Kaori; and
　4. Someone went somewhere.

The contributions 2–4 are effectively subordinated to 1; consequently the meaning of (36b) can be expressed this way:

5. For any place you pick, if anyone went there, it is Kaori (and someone went somewhere).

This meaning contrasts with the meaning of (36a), which is 'If anyone went anywhere, it is Kaori'. Strictly speaking, this may not be a truth-conditional difference in meaning, but rather is related to the information structure properties of the initial phrase. Very roughly, we might say that (36a) is about who might have gone somewhere, while (36b) concerns a set of places and who, if anyone, went to any of those places.

5   Conclusion

From the observations above, I draw out some consequences for semantic accounts, to inform their further development.

- For the types of strong NPI considered here, they scope over negation. They have a universal(-like) interpretation which can actually be directly observed in examples like (36b).
- Due to the licensing properties of the NPIs, negation in J/K can both license an NPI and associate with focus (unlike English).
- The positive part of the meaning of *sika*/*pakkey*-clauses is existential in character – in common with true exceptives.
- The relative linear position of *sika*/*pakkey* matters for the overall interpretation. The existential component of the exclusive meaning emerges relative to where *sika*/*pakkey* is. This means that *sika*/*pakkey* cannot just be QR'ed out to take widest scope over an entire negated proposition, which is the most common semantic treatment.

References

Aoyagi, Hiroshi and Toru Ishii. 1994. On NPI licensing in Japanese. In N. Akatsuka, ed., *Japanese/Korean Linguistics*, vol. 4, pages 295–311. Stanford: CSLI Publications.

Chung, Daeho and Hong-Keun Park. 1998. NPIs outside of negation scope. In H.-M. Sohn and J. Haig, eds., *Japanese/Korean Linguistics*, vol. 6, pages 415–435. Stanford: CSLI Publications.

von Fintel, Kai. 1994. *Restrictions on quantifier domains*. Ph.D. thesis, University of Massachusetts, Amherst.

von Fintel, Kai. 1997. Bare plurals, bare conditionals, and *Only*. *Journal of Semantics* 14:1–56.

Furukawa, Yukio. 2006. It's time to say goodbye to syntactic analyses about the *SIKA-NAI* construction. In T. Vance and K. Jones, eds., *Japanese/Korean Linguistics*, vol. 14, pages 189–200. Stanford: CSLI Publications.

García Álvarez, Iván. 2009. *Generality and exception: A study in the semantics of exceptives*. Ph.D. thesis, Stanford University.

Han, Chung-hye, Jeffrey Lidz, and Julien Musolino. 2007. Verb-raising and grammar competition in Korean: Evidence from negation and quantifier scope. *Linguistic Inquiry* 38:1–47.

Hasegawa, Akio and Jean-Pierre Koenig. 2011. Focus particles, secondary meanings, and Lexical Resource Semantics: The case of Japanese *shika*. In S. Müller, ed., *Proceedings of the 18th International Conference on Head-Driven Phrase Structure Grammar*, pages 81–101. Stanford: CSLI Publications.

Horn, Laurence R. 1996. Exclusive company: *Only* and the dynamics of vertical inference. *Journal of Semantics* 13:1–40.

Horn, Laurence R. 2005. Airport '86 revisited: Toward a unified indefinite *any*. In G. Carlson and F. Pelletier, eds., *The Partee Effect*, pages 179–205. Stanford: CSLI Publications.

Ido, Misato and Yusuke Kubota. 2021. The hidden side of exclusive focus particles: An analysis of *dake* and *sika* in Japanese. Ms., NINJAL, to appear in *Gengo Kenky*u.

Kim, Kwang-sup. 1999. A paradox in Korean NPI licensing. *Studies in Generative Grammar* 9:403–428.

Kim, Ae-Ryung. 2002. Two positions of Korean negation. In N. Akatsuka and S. Strauss, eds., *Japanese/Korean Linguistics*, vol. 10, pages 587–600. Stanford: CSLI Publications.

Kuno, Susumu. 1980. The scope of the question and the negation in some verb-final languages. In *CLS 16*, pages 155–169. University of Chicago: Department of Linguistics.

Kuno, Susumu and John Whitman. 2004. Licensing of multiple negative polarity items. In Y.-K. Kim-Renaud and J. Whitman, eds., *Studies in Korean Syntax and Semantics by Susumu Kuno*, pages 207–228. Seoul: International Circle of Korean Linguistics.

Ladusaw, William A. 1983. Logical form and conditions on grammaticality. *Linguistics and Philosophy* 6:373–392.

Lee, Hyunoo. 2001. The morphology-based semantics of "Any" in English and Korean. *Enehak* 31:127–158.

Linebarger, Marcia. 1987. Negative polarity and grammatical representation. *Linguistics and Philosophy* 10:325–387.

McGloin, Naomi Hanaoka. 1976. Negation. In M. Shibatani, ed., *Syntax and Semantics 5: Japanese Generative Grammar*, pages 371–419. New York: Academic Press.

Sells, Peter. 2001. Negative polarity licensing and interpretation. In S. K. et al., ed., *Harvard Studies in Korean Linguistics*, vol. 9, pages 3–22. Dept. of Linguistics, Harvard University.

Sells, Peter. 2010. How negation scopes in Japanese and Korean. In M. den Dikken and W. McClure, eds., *Japanese/Korean Linguistics*, vol. 18, pages 328–344. Stanford: CSLI Publications.

Sells, Peter and Shin-Sook Kim. 2006. Korean NPIs scope over negation. *Language Research* 42:275–297.

Shimoyama, Junko. 2009. Indeterminate NPIs and scope. In T. Friedman and S. Ito, eds., *Proceedings of Semantics and Linguistic Theory (SALT)*, vol. 18, pages 711–728. Ithaca, NY: CLC Publications.

Shimoyama, Junko. 2011. Japanese indeterminate negative polarity items and their scope. *Journal of Semantics* 28:1–40.

Sohn, Keun-Won. 2004. NP *ta-nun* takes non-syntactic scope. *Studies in Generative Grammar* 14:299–306.

Sohn, Keun-Won. 1995. *Negative Polarity Items, Scope, and Economy*. Ph.D. thesis, University of Connecticut.

Yatabe, Shûichi. 1996. Negation and focusing in the grammar of Japanese. In T. Gunji, ed., *Studies on the Universality of Constraint-Based Phrase Structure Grammars*, pages 217–225. Osaka University: Graduate School of Language and Culture.

Yeom, Jae-Il. 2015. Semantics of exceptives *oyey* and *pakkey* in Korean. *Language and Information* 19:55–80.

Yoshimura, Keiko. 2007. Semantics of *-shika* 'only' as NPI-universal with exceptive *but*. Ms. University of Chicago.