

Arguments Real and Imaginary for Korean NPIs as Universals

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1. Introduction

In Korean, any of the forms of negation can license a negative polarity item (NPI), even in subject position. The examples in (1) show this with the simple NPI *amwu-to* ('anyone') in construction with lexical negation, short-form negation, or long-form negation:

- (1) a. *amwu-to cip-ey eps-ess-ta*
anyone house-at exist-PAST-DECL
'No one was at home.'
- b. *amwu-to ku chayk-ul an ilk-ess-ta*
anyone that book-ACC NEG read-PAST-DECL
'No one read that book.'
- c. *amwu-to ku chayk-ul ilk-ci anh-ass-ta*
anyone that book-ACC read-COMP NEG-PAST-DECL
'No one read that book.'

Data such as this was first taken to motivate a high NegP (see e.g., Ahn and Yoon (1989)), predicting a lack of subject-object asymmetry in NPI licensing, in contrast to a language like English where NegP is lower, and where negation has a narrower licensing domain:

- (2) a. John has not read *any books*.
b. **Any student* has not read that book.

Several researchers have suggested that Korean NPIs are not in the scope of negation (or at least, that they need not be in that scope). This is the view of Chung and Park (1998), Kim (1999), Lee (2001), A.-R. Kim (2002), Han et al. (2007), Sells (2001), among others. An example like (3) shows that lexical negation cannot scope over the subject position, even though an NPI is licensed in the same position in (1)a.

- (3) *manhun salam-tul-i cip-ey eps-ess-ta*
many people-PLU-NOM house-at NEG.be-PAST-DECL
'Many people were not at home.' (the only scope order is *many* > *neg*)

Further, the contrast in (4) shows that the NPI *han salam-to* is licensed in a position over which negation cannot scope.

- (4) a. *han salam-i o-ci anh-ass-ta*
one person-NOM come-COMP NEG-PAST-DECL
'One person did not come.' (the only scope order is *one* > *neg*)
b. *han salam-to o-ci anh-ass-ta*
one person (NPI) come-COMP NEG-PAST-DECL
'Not one person came.'

A similar contrast is seen in (5), with short-form negation:

- (5) a. chelswu-man an o-ass-ta
Chelsoo-only NEG come-PAST-DECL
'Only Chelsoo didn't come.' (the only scope order is *only* > *neg*)
- b. amwu-to an o-ass-ta
anyone NEG come-PAST-DECL
'No one came.'

There has been considerable debate in the literature as to whether the fundamental status of an NPI is best analyzed as a kind of universal quantifier, with negation in its immediate scope (i.e., $\forall\neg$), or whether it is best considered to the truth-conditionally equivalent form of an existential with negation in its immediate scope ($\neg\exists$). Horn (2005) presents a recent overview of the issue and the history of relevant proposals. The recent analysis of Chierchia (2004) ties the very nature of the use of an NPI to its status as an existential within the scope of negation.

In this paper we survey the arguments for the universal nature of NPIs, which follows if they must be outside of the scope of negation, providing one additional real argument for this position to those already known in the literature. We also consider two potential arguments, involving quantifiers, and 'almost', which are in fact inconclusive; these are imaginary arguments for the universal nature of NPIs. In all, there is only positive evidence for the universal status of NPIs, and no positive evidence against it, or for the existential analysis. In passing, we will also show that the scope of negation itself is real, contra Watanabe (2004), on similar data in Japanese.

As we will show in this paper, the Korean facts are especially interesting in showing that:

- (6) a. at least in one language, NPIs are not within the semantic scope of negation;
b. this necessitates a syntactic licensing mechanism (licensing by negation) which cannot be reduced to the semantic scope of negation; and
c. due to an independent constraint on an NPI and the scope of negation, namely the Immediate Scope Constraint of Linebarger (1987), the $\forall\neg$ and $\neg\exists$ interpretations are very difficult to distinguish in many cases.

The last point here will occupy us in the second part of the paper, where we show that it almost seems that natural language displays a sort of 'conspiracy' to make the logically distinct possible interpretations very hard to tease apart in practice: the Immediate Scope Constraint does not allow any other quantifier to intervene between an NPI and negation, regardless of their scope relations with respect to each other.

As this constraint will figure in the discussion through much of the paper, we present it here. Linebarger (1987) showed that it is not sufficient for NPIs to be in the scope of negation; their relation to the licensing negation is subject to a locality condition. For this, she proposed the Immediate Scope Constraint according to which an NPI can be licensed only if it is in the 'immediate scope' of a negation.

- (7) *Immediate Scope Constraint (ISC)* (Linebarger 1987: 338)
A negative polarity item is acceptable in a sentence S if in the LF of S the subformula representing the NPI is in the immediate scope of the negation operator. An operator is in the immediate scope of NOT only if (i) it occurs in a proposition that is the entire scope of NOT, and (ii) within this proposition there are no logical elements intervening between it and NOT.

The ISC is a kind of minimality requirement on NPI-licensing which ensures that no other logical operator can intervene between an NPI and its licensing negation. The 'logical elements' in (7) correspond roughly to propositional operators (e.g., quantified NPs, quantificational adverbs and so on). The effect of the ISC is seen in the contrast in examples like those in (8), from Honcoop (1998, 116):

- (8) a. Nobody gave John *a red cent/anything*.
b. *Nobody gave most beggars/every beggar *a red cent/anything*.

According to the ISC, an NPI must be in the *immediate scope* of its licensor, (8)b fails because *every beggar*, a scope-bearing element, intervenes between the negation and the NPI *a red cent/anything*. (See also (19)b and (26)a for other examples of ISC violations.) The relevance of the ISC is noted already in Kim (1999), who proposes the same generalizations for Korean NPIs as we argue for here.

2. Arguments Which Go Through As Given

We argue here that Korean NPIs are universal quantifiers, which are additionally polarity sensitive – they need to be licensed by negation, but as a fact about syntactic licensing (essentially, a clause-mate condition (see Choe (1988) and Kuno (1998))). This sensitivity to negation makes them different from regular universal quantifiers; and we do not intend the NPI-as-universal analysis to necessarily mean that NPIs have all the semantic and pragmatic properties of universals. In particular, NPIs outside the scope of negation can lack the presupposition of existence often assumed in the analysis of an English quantifier such as *every*. The interpretation of the NPI may be closer to a kind of free-choice, ‘no matter what’, interpretation (for some brief discussion, see Sells (2001)).

Unlike NPIs, regular universals may appear both in positive and negative clauses, and they may appear in the scope of negation, as shown in (9):

- (9) nwukwuna (ta) o-ci-nun anh-ass-ta. celpan-man o-ass-ta
 everyone all come-COMP-FOC NEG-PAST-DECL half-only come-PAST-DECL
 ‘It is not the case that everyone came. Only half came.’

Now it has been repeatedly shown in the literature (cited above) that NPIs can be licensed in positions where there is no independent evidence of negation being able to scope (e.g., by the lack of wide scope for negation in (3), (4)a and (5)a). Typically, it is the subject position which is outside the scope of negation. In the next subsection we look at examples in which NPIs are unambiguously forced to be inside the scope of negation, as in (9) – and the result is that the examples are ungrammatical.

2.1. NPIs are not in the Scope of Negation

One strong piece of evidence for the universal interpretation is the fact that NPIs are typically not good when negation itself is combined with the focus marker *-nun* on the verb (see Sells (2001), A.-R. Kim (2002)). Here *-nun* is used in a construction meaning ‘it is not the case that ...’, as shown in (10)a, which can be continued by (10)b, showing that the negation has scope over the subject.

- (10) a. chelswu-man ca-ci-nun anh-ass-ta
 Chelsoo-only sleep-COMP-FOC NEG-PAST-DECL
 ‘It is not the case that only Chelsoo slept.’
 b. mira-to ca-ss-ta
 Mira-also sleep-PAST-DECL
 ‘Also Mira slept.’

In examples like (10)a, it might be that negation associates with a clause-internal constituent (e.g., *chelswu-man*). If so, that constituent is definitely negated. Now, what is relevant is that an example with *-nun* and an NPI is bad, as in (11)a. An example like this becomes acceptable with *-nun* only if the verb itself receives focal stress (actually, the prosody falls on the complementizer *-ci*), making it the target of negation, with negation definitely scoping lower than the NPI.

- (11) a. amwu-to ca-ci(-*nun) anh-ass-ta
 anyone sleep-COMP(-*FOC) NEG-PAST-DECL
 ‘No one slept.’

- b. amwu-to CA-CI-nun anh-ass-ta
anyone sleep-COMP-FOC NEG-PAST-DECL
 ‘No one SLEPT.’

So, if *-nun* marks wide-scope negation, an NPI cannot be in that scope, or if *-nun* is associated with constituent negation, that constituent cannot be an NPI. The NPI must be outside of the scope of negation.

2.2. NPI Licensing is Clause-Bounded

Another argument for the position that NPIs are outside of the scope of negation comes from the fact that NPI licensing in Korean is clause-bound. More specifically, negation in a higher clause can never license an NPI in a lower one (unlike English), nor can an NPI be embedded inside a clausal constituent inside a negative clause (also unlike English). This is a mystery if NPIs are existentials in the scope of negation, but it is predicted if NPIs are universals.

An important piece of background is the need for syntactic licensing mentioned above. Choe (1988) and Kuno (1998), among others, have shown that Korean has a syntactic clause-mate condition on NPI licensing. In turn, the NPI facts show that Korean syntax needs a notion of ‘negative clause’ which is independent of scope of negation (Sells (2001, 2006)). This is necessary as the NPIs are licensed **only** in negative clauses, even though negation does not scope over the surface position of the NPI. In fact, the NPIs take negation in their immediate scope, as we describe below in section 3.1. In other words, the ‘clause-mate condition’ cannot be reduced to properties of interpretation. One formulation of the necessary syntactic constraint is in (12), from Sells (2006):

- (12) Syntactic Licensing:
 Each Korean NPI must be licensed by the syntactic clausal feature [NEG +]; otherwise the structure is ungrammatical. (cf. the ‘clause-mate condition’ of Choe (1988) and Kuno (1998)).

The examples in (13) involve an NPI in an embedded clause with negation in the matrix clause.

- (13) a. ?*na-nun [amwu haksayng-to ku moim-ey ka-ss-ta-ko] sayngkakra-ci
 I-TOP [*any student* that meeting-to go-PAST-DECL-that] think-COMP
 anh-nun-ta
 NEG-PRES-DECL
 ‘I do not think that any students went to the meeting.’
- b. *na-nun [chelswu-ka amwu chayk-to ilk-ess-ta-ko] sayngkakra-ci
 I-TOP [Chelsoo-NOM *any book* read-PAST-DECL-that] think-COMP
 anh-nun-ta
 NEG-PRES-DECL
 ‘I do not think that Chelsoo read any books.’

Such examples are basically ungrammatical, but for some speakers, a subject NPI in an embedded clause appears to be slightly more acceptable than an object NPI. If the object NPI is scrambled to the left periphery position of the embedded clause, acceptability slightly improves, as well. In the marginally acceptable cases, it seems that the NPI is scrambled into the matrix clause (cf. Sohn (1995), Kuno (1998)). Ko (2005) notes that (13)a is good if there is a pause after the NPI, supporting the claim that the subject NPI has undergone scrambling to a higher clause.¹

If an NPI in Korean has to be strictly licensed in the syntax, the prediction is that the NPI cannot even be embedded within a constituent in its own clause, even if the clause hosts negation. The NEG feature of the clause is not visible to the NPI if it is in an embedded position. The facts contrast with those of English, where the NPI only needs to be in the semantic scope of negation. To see this, compare

¹The fact that examples with scrambling of the NPI into the negative clause are still low in acceptability is perhaps due to the fact there is no pragmatic motivation for the scrambling.

the Korean examples in (14)–(15) with their English translations. The a-examples are bad as negation is NOT in the scope of (i.e., not c-commanded by) the NPI.² The English translations of the examples are acceptable, as an English NPI merely needs to be within the scope of negation:

- (14) a. *[[amwu-to]_{NPI}-uy phyenci-lul] pat-ci anh-ass-ta
 [[*anyone*]_{NPI}-GEN letter-ACC] receive-COMP NEG-PAST-DECL
 ‘I did not receive anyone’s letters./I received no one’s letters.’
- b. [amwu-uy phyenci-to]_{NPI} pat-ci anh-ass-ta
 [*anyone*-GEN letter-FOC]_{NPI} receive-COMP NEG-PAST-DECL
- (15) a. *[[amwu kes-ey-to]_{NPI} kwanhan sayngkak-i] eps-e-yo
 [[*anything*]_{NPI} concerning idea-NOM] not.exist-DECL-LEVEL
 ‘I don’t have an idea about anything.’
- b. [amwu kes-ey kwanhan sayngkak-to]_{NPI} eps-e-yo
 [*anything*-DAT concerning idea-FOC]_{NPI} not.exist-DECL-LEVEL

Finally, and perhaps surprisingly, the licensing condition (12) is also necessary to account for the ungrammaticality of (16). As we will show below, an NPI is grammatical if negation scopes immediately under it, due to the Immediate Scope Constraint. This might lead us to expect an example like (16) to be grammatical, as negation (in the embedded clause) could perhaps be in the immediate scope of the NPI.

- (16) *amwu-to [chelswu-ka o-ci anh-ass-ta-ko] sayngkakha-n-ta
anyone [Chelsoo-NOM come-COMP NEG-PAST-DECL-that] think-PRES-DECL

(16) violates the condition in (12), as the NPI is not in a negative clause.

It is also worth noting that it is possible to have an NPI in the matrix clause and negation apparently in an embedded constituent, with ‘restructuring’ complex predicates such as that shown in (17):

- (17) amwu-to ku mwun-ul an yel-e po-ass-ta
anyone that door-ACC NEG open-COMP try-PAST-DECL
 ‘No one tried to open the door.’

This example is acceptable, but only if negation scopes over the whole complex predicate, and not just the embedded predicate. (*amwuto* > ¬ > *try* + *open*, **amwuto* > *try* > ¬ > *open*). In general, though, in such complex predicates either the first (most embedded) predicate or the whole complex predicate can be negated by pre-verbal *an* (see Sells (1991)). In this particular example, the ISC forces the wider scope for negation. The example only has the same interpretation as (18), with long-form negation:

- (18) amwu-to ku mwun-ul yel-e po-ci anh-ass-ta
anyone that door-ACC open-COMP try-COMP NEG-PAST-DECL
 ‘No one tried to open the door.’

The adverbial *halwu* (‘one day’) can bias negation to take scope only with the content verb, in the position shown in (19)a:

- (19) a. mila-nun i yak-ul halwu an mek-e po-ass-ta
 Mira-TOP this medicine-ACC one.day NEG eat-COMP try-PAST-DECL
 ‘Mira tried [to not take this medicine for one day] (to see what happened).’
- b. *amwu-to i yak-ul halwu an mek-e po-ass-ta
anyone this medicine-ACC one.day NEG eat-COMP try-PAST-DECL
 (lit.) ‘Everyone tried [to not take this medicine for one day].’

Note that (19)b is ungrammatical: as can be seen in the English attempted translation, the higher verb *try* intervenes between the NPI and negation. The string in (19)b, if interpretable at all, only has the interpretation ‘No one tried to take this medicine for one day’, in which negation scopes higher than *try*.

²The account of Lee (1996) has a similar structure. He proposes that an NPI is a functor which takes a negative predicate as its argument, simplifying the proposal a little.

3. Arguments Which Do Not Go Through As Given

The data in this section all involve scope interactions, or in some cases, the lack of expected scope interactions. We show first that simple expected scope interactions do not distinguish the existential vs. universal approach to NPIs. In 3.1.2 we show that the classic argument from ‘almost’ does discriminate in favor of the universal analysis over the existential one, though not for the reasons given in the previous literature.

3.1. Scope Interactions (or Lack Thereof)

Consider now the expected scope interactions in (20).

- (20) a. haksayng twu-myeng-i amwu chayk-to ilk-ci anh-ass-ta
student two-CL-NOM *any book* read-COMP NEG-PAST-DECL
- b. Two students are such that there is no book that they read.
- c. *It is not the case that two students read a(ny) book.

The NPI-as-existential interpretation might appear to allow both interpretations, but in fact (20)b is the only available interpretation. This does not argue against the existential analysis, because the missing interpretation in (20)c is ruled out independently by the ISC.

Consider also the following example:

- (21) a. amwu-to chayk-ul yel-kwen ilk-ci anh-ass-ta
anyone book-ACC ten-CL read-COMP NEG-PAST-DECL
‘No one read ten books.’
- b. Everyone is such that it is not the case that there are ten books that they read. \equiv
It is not the case that there is someone such that there are ten books that that person read.
- c. *Everyone is such that there are ten books that they did not read.

In (20)b and (21)b, negation and the NPI have adjacent scope, as determined by the ISC (see also S.-S. Kim (2002)). We argue that the ISC holds cross-linguistically, but with the NPI and negation allowed in either relative scope relationship, consistent with the ISC. Note that both ‘translations’ of (21)b, which are equivalent, both obey the ISC.

The missing readings in (20)c and (21)c are due to the fact that the numeral quantifier intervenes between the NPI and negation, regardless of their relative scope (‘no book’ could be $\forall\neg$ or $\neg\exists$). Hence, while the data in (20) is consistent with a view of NPIs as universals, it is also consistent with an indefinite interpretation of NPIs.

To make the case more convincingly, let us look at some scope interactions which do not involve NPIs:

- (22) a. chelswu-ka ppang-man mek-ci-nun anh-ass-ta
Chelsoo-NOM bread-only eat-COMP-FOC NEG-PAST-DECL
‘It is not the case that Chelsoo ate only bread.’ (NEG > *only*)
- b. chelswu-ka ppang-man mek-ci anh-ass-ta
Chelsoo-NOM bread-only eat-COMP- NEG-PAST-DECL
(preferred) ‘Bread is the only thing that Chelsoo didn’t eat.’ (*only* > NEG)
(marginally possible) ‘It is not the case that Chelsoo ate only bread.’ (NEG > *only*)
- c. chelswu-ka ppang-man an mek-ess-ta
Chelsoo-NOM bread-only NEG eat-PAST-DECL
‘Bread is the only thing that Chelsoo didn’t eat.’ (*only* > NEG)
(impossible) ‘It is not the case that Chelsoo ate only bread.’ (NEG > *only*)

In these examples with an *only*-phrase, the presence of *-nun* on the main verb with long-form negation in (22) gives the interpretation where negation scopes over *only*. In the b-c examples, the other scope relation is highly preferred (with long-form negation) or required (with short-form negation).

Now we replace the subject *chelswu-ka* by an NPI:

- (23) a. amwu-to ppang-man mek-ci-nun anh-ass-ta
anyone bread-only eat-COMP-FOC NEG-PAST-DECL
 ‘Everyone is such that it is not the case that they ate only bread.’ (≡ ‘No one ate only bread.’)
- b. ??amwu-to ppang-man mek-ci anh-ass-ta
anyone bread-only eat-COMP NEG-PAST-DECL
 (grammatical for those speakers who allow NEG > *only* (e.g., A.-R. Kim (2002)),
 but bad for other speakers (e.g., Sohn (1995)))
- c. *amwu-to ppang-man an mek-ess-ta
anyone bread-only NEG eat-PAST-DECL
 (uninterpretable)

(23)c is ungrammatical due to a violation of the ISC. As we saw with (22)c, there is no chance for short-form negation to scope over the intervening focus element, and so negation cannot be in the immediate scope of the NPI.

(23)b is an interesting case. There seem to be two groups of speakers regarding its grammaticality. And this can be related with the scope of negation which is illustrated in (22)b. For some, negation can take scope over the object focus phrase, and so these speakers should find (23)b acceptable; for others, this scoping is not possible, and so they should find (23)b bad.

The contrast in (24) also illustrates an intervention effect:

- (24) a. amwuto hangsang cip-ey iss-ci anh-ass-ta
anyone always home-at be-COMP NEG-PAST-DECL
 ‘Nobody was at home all the time.’ ($\forall > \neg > \textit{always}$)
 *‘For everyone, it was always the case that he was not at home.’ ($\forall > \textit{always} > \neg$)
- b. *amwuto hangsang cip-ey eps-ess-ta
anyone always home-at not.be-PAST-DECL
 *($\forall > \textit{always} > \neg$)

Long-form negation can scope high enough over the adverbial ‘always’ to give the interpretation of (24)a where ‘always’ scopes lowest (though the verb may need a *-(n)un* following the suffix *-ci*). For most speakers, however, lexical negation as in (24)b cannot outscope any quantifier, and hence the example is unacceptable as the only possible interpretation violates the ISC.

In summary, the NPI-as-existential analysis would be expected to make predictions about the interaction with other scopal elements which are not borne out. However, the missing interpretations are excluded by the ISC, and hence the data in this section is consistent equally with either a $\forall\neg$ or a $\neg\exists$ of NPIs: the data favors neither analysis, nor does it disfavor either analysis.

3.2. What ‘Almost’ Really Shows

The modifier ‘almost’ has been taken as a diagnostic for a universal quantifier, as opposed to an existential; see Carlson (1980). For Korean, some researchers such as Chung and Park (1998) and Lee (1996, 2001) have cited the contrast in (26) as evidence that if English NPIs are existentials, Korean NPIs are not (and hence, are universals). Consider the data in (25) and (26):

- (25) a. *John met almost someone.
 b. John met almost everyone.

- (26) a. *John did not meet almost anyone.
 b. John-un keuy amwu-to manna-ci anh-ass-ta
 John-TOP almost *anyone* meet-COMP NEG-PAST-DECL
 'John met almost no one.'

The reasoning goes as follows: if 'almost' cannot modify an existential, as shown by the contrast in (25), then (26)a would be explained if *anyone* is also an existential. In that case, as (26)b is grammatical, it must be the case that the Korean NPI *amwuto* is not an existential, therefore a universal.

However, Penka (2006) shows that Carlson's original generalization is incorrect: any NP that has a denotation dense enough to support the scalar nature of 'almost' may cooccur with it, even an indefinite (with an existential interpretation), as in (27).

- (27) a. John waited almost an hour.
 b. King Penguins are almost a meter high.

Horn (2005) cites many examples of 'almost' modifying an NPI, presumably an existential, contrasting in acceptability with (26)a:

- (28) a. The quarterbacks couldn't complete almost any of their passes.
 b. He doesn't know almost anything about computers.
 c. I don't like almost any of the food that is traditionally served on Thanksgiving.

Penka (2006) argues that the crucial example (26)a is bad due to the intervention effect of the ISC – 'almost' cannot intervene between negation and the NPI. This is supported by the contrast in (29). Note that under an existential analysis of English NPIs, (29)a has the scope structure $\neg > almost > \exists$ while (29)b has the scope structure $almost > \neg > \exists$; only the latter respects the ISC:

- (29) a. *John did not meet almost anyone.
 b. John met almost noone.

Hence, these examples show that NPI licensing necessarily requires the NPI and negation to be in an immediate scope relation with each other, but show nothing about the quantificational status of whatever 'almost' modifies.

Let us now revisit the Korean NPI example (26)b:

- (26) b. John-un keuy amwu-to manna-ci anh-ass-ta
 John-TOP almost *anyone* meet-COMP NEG-PAST-DECL
 'John met almost no one.'

If the NPI is an existential, the only way to interpret the example while respecting the ISC is as in (30)a:

- (30) a. $almost > \neg > \exists$
 b. $almost > \forall > \neg$

However, (30)a involves negation take scope between 'almost' and the NPI, and it involves negation taking scope over the NPI, which we know is not possible. Note that *keuy amwuto* in (31) is grammatical even in subject position:

- (31) a. keuy amwu-to an o-ass-ta
 almost *anyone* NEG come-PAST-DECL
 ‘Almost no one came.’
- b. keuy amwu-to ku sasil-ul moll-ass-ta
 almost *anyone* that fact-ACC not.know-PAST-DECL
 ‘Almost no one knew that fact.’

Given that there is only evidence against the mechanisms necessary to derive the scopal relations in (30)a, as we saw above in sections 1 and 2, but given that (26)b and (31) are grammatical, we conclude that the right interpretation of these examples involves the elements in (30)b. Note that the relative scopes of these elements corresponds directly to the surface order.

To sum up this section, the behavior of *almost/keuy* is not a diagnostic for universal vs. existential, so according to this criterion, *almost/keuy* are not useful as test elements. However, looking at the interactions of the compositional semantics of NPI sentences and the ISC shows quite clearly that the universal analysis as suggested in (30)b is the correct one, and hence we have one more argument that NPIs in Korean are universal in character, outside of the scope of negation.

4. Conclusion

In conclusion, we have discussed four putative arguments that Korean NPIs are universals: three turn out to be positive arguments for that position and one is neutral. We have shown that all the data here is consistent with the claim that Korean NPIs have negation immediately in their scope, and hence are universals. There is no evidence that negation can ever scope over an NPI, and in some cases there is positive evidence that it does not. The discussion in section 3 shows that negation does have its own semantic scope, just below the NPI. This has the consequence that the approach of Watanabe (2004), in which negation itself is pleonastic, cannot be maintained.

We have also highlighted the crucial ‘Intervention Effect’ of the Immediate Scope Constraint, which applies robustly, and has the interesting effect that $\forall\neg$ and $\neg\exists$ will be truth-conditionally equivalent (for no quantifier can intervene to distinguish the two meanings). However, we have not discussed the nature of the ISC itself, and whether it is rooted in the syntax or in the semantics. One interesting issue that arises is how the ISC is satisfied in examples containing multiple NPIs, as in (32)a, though we do not address it here. The apparent problem is that if negation is in the scope of the lower NPI, the higher NPI cannot have negation in its immediate scope.

- (32) a. amwu-to amwu kes-to mek-ci anh-ass-ta
anyone anything eat-COMP NEG-PAST-DECL
 ‘No one ate anything.’
- b. Who gave which book to whom?

For some discussion of the relevant data and generalizations, see Kuno and Whitman (2004) and Sells (2006). Sells argues that the notion of ‘absorption’ is necessary for these cases, creating a polyadic quantifier which does have negation in its immediate scope.

This is somewhat parallel to instances of licensing *wh* in multiple-*wh* constructions, discussed in S.-S. Kim (2006), where one *wh* does not create an intervention effect for the licensing of another. Kim uses the operation of ‘Multiple Agree’ to account for such constructions.

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