

Licensing of PPI Indefinites: Movement or Pseudoscope?

Abstract

Positive Polarity indefinites, such as *some* in English, are licensed in simplex negative sentences, as long as they take wide scope over negation. They can take wide scope either by movement or by some semantic mechanism, for example, they can take pseudoscope if they are interpreted as choice function variables. Therefore there is some uncertainty regarding the ways in which PPI indefinites get licensed: can pseudoscope suffice? In this article, we show, using novel data from Hindi-Urdu and English, that pseudoscope is not sufficient, and that it is the syntactic position of PPI indefinites at LF, rather than their actual scope, which is relevant for licensing. These facts support a unified view of PPI indefinites as generalized quantifiers, and disfavor analyses where they are, or can be, interpreted as choice function variables.

Introduction

Positive Polarity Items (PPIs) are phrases that are very diverse from the perspective of their syntactic labels and makeup, but which share a common inability to be interpreted in negative environments (Baker 1970, van der Wouden 1997, Szabolcsi 2004 a.o.). An example of a negative environment (for a complete explanation of this notion of environment, see §1) is the immediate scope of a clausemate negation. That's why clausemate negation is commonly used to diagnose PPIhood: barring rescuing or shielding, two concepts we also elucidate in §1, many PPIs cannot be interpreted with narrow scope under a clausemate negation.¹ For example, *would rather* is ungrammatical in (1b), a sentence which is not scopally ambiguous, due to the anti-licensing of the PPI *would rather*:

- (1) a. John would rather leave.
b. *John wouldn't rather leave.

Unlike *would rather*, whose scope is uniquely determined by its surface position, certain PPIs can be acceptable despite following a clausemate negation, because they have

¹For some other PPIs, detecting them as PPIs requires more involved tests than the clausemate negation test. This is for example the case of the deontic modal *devoir* 'must' in French (Homer 2010, 2012, 2015), which is normally interpretable with narrow scope under a clausemate negation, without shielding or rescuing; similarly *iedereen* 'everybody' in Dutch (Zeijlstra 2017).

the ability to outscope that negation. This is true of the indefinite *some* in *some NP*, *something*, *someone* (but not in *somewhat*, which does not have such scope flexibility):

- (2) John didn't understand something from the lecture.
✓ SOME≫NEG; *NEG≫SOME

Some, like *would rather*, cannot be interpreted with narrow scope w.r.t. a clausemate negation, as indicated in (2); however it can outscope negation, unlike *would rather*, leading to the SOME≫NEG reading. *Some* is known to have the ability to take wide scope within a clause via Quantifier Raising, as shown in (3):

- (3) Wide scope by Quantifier Raising:
 A: John always scolded someone.² ✓ SOME≫ALWAYS
 B: Really? Who is that person that John always scolded?

The sentence contains *always*, which, being an adverb, is scopally fixed; there exists a reading where the indefinite *someone* takes wide scope over the adverb, despite the linear precedence of the latter over the former; the wide scope is evidenced by the naturalness of the dialogue.

Some can also take scope out of tensed clauses and islands for movement (Fodor and Sag 1982). This is believed to not be possible via QR, as QR is a syntactic movement (thus subject to syntactic islands) and clause-bounded (thus unable to reach out of tensed clauses) (May 1977, Abusch 1994, Reinhart 1997):

- (4) Ultra-wide scope out of an island for movement:
 A: If John invites some philosopher to the party, Mary will be offended.
 Possible paraphrase: $\exists x[\text{philosopher}'(x) \wedge \text{invite}'(x)(j) \rightarrow \text{offended}'(m)]$
 B: Really? Who is that philosopher that Mary doesn't want to see?³

Here *some philosopher* can be interpreted as a specific indefinite, with scope outside of

²The putative wide scope reading of the indefinite over the adverb, SOME≫ALWAYS, entails the surface scope reading, ALWAYS≫SOME. Therefore showing that it is available as a separate reading, distinct from the surface scope reading, poses a problem, for we distinguish readings by their truth-values. Due to the entailment relation, there can be no situations that make the inverse scope reading true and the surface scope reading false (Ruys 1992). We could instead find situations that deliver the opposite truth-values for each reading; but this means that a falsity judgment task would be the way to evidence the existence of the inverse scope reading, which might conflict with a principle of charity, whereby speakers preferentially access true readings. Using a dialogue as in the text creates a specific linguistic task that circumvents this problem (Koller and Niehren 1999, Sanford and Sturt 2002, Ferreira and Patson 2007, cited in Szabolcsi 2010): speakers are not asked to assess the truth or falsity of a given sentence, but have to judge whether a response to a certain assertion is natural. Here the response can only be natural if the inverse scope reading exists qua reading and is true.

³Existential quantification in the antecedent of a conditional (with a material conditional interpretation) is logically equivalent to wide scope universal quantification outside of the antecedent of the conditional (provided that no variable becomes bound accidentally due to quantifier movement):

$$\exists x\phi(x) \rightarrow \psi \iff \forall x(\phi(x) \rightarrow \psi)$$

This is one of the Laws of Quantifier Movement. In order to ensure that the reading we are interested in (4), i.e. wide scope of the existential outside of the antecedent of the conditional, is a genuine reading, and is not just an entailment of the surface scope reading, equivalent to universal quantification outside of the antecedent of the conditional, we provide a dialogue in (4), in which B's response is only possible if there is wide scope existential import in the original assertion.

the conditional antecedent, which is an island for movement (non indefinite quantifiers are unable to take wide scope in the same fashion). Since movement (QR) is not an option,⁴ some other, non-syntactic mechanism, must be at play, e.g. *some* can be optionally interpreted as a choice function variable (Reinhart 1997, Winter 1997, Kratzer 1998, Matthewson 1999, Chierchia 2001; see also §5).

There are in principle two ways in which *some* can scope out of an anti-licensing environment, such as the immediate scope of a clausemate negation (2): either the indefinite PPI moves covertly (in other words, it undergoes QR; this is the syntactic route to wide scope), or it takes scope through the device that allows it to take ultra-wide scope out of a tensed clause or an island (this is the semantic route to wide scope).⁵

This article asks the question: can we determine which of the two routes to wide scope is used by a PPI indefinite that overcomes an anti-licensing environment? To answer this question, we first provide an overview of positive polarity (Section 1). And then, in Sections 2-3, we show that Hindi-Urdu provides unequivocal grounds for the claim that it is the syntactic route that is required for polarity purposes, because the movement by which a PPI indefinite achieves licensing is overt in that language. In English as well, it is possible to demonstrate that pseudoscope (the semantic route to wide scope) is irrelevant for licensing (Section 4). The implications for theories of indefinites of the novel facts presented here are drawn in Section 5: we conclude in particular that our facts favor a uniform analysis of PPI indefinites as generalized quantifiers, over an analysis where they can denote choice function variables.

1 Background on PPIs

In this section, we present some basic facts about PPI indefinites, e.g. *some*, in English. Those, together with a particular licensing condition also provided in this section, will form the background for our subsequent discussion. When examining indefinites in Hindi-Urdu (§2), we will point out the relevant similarities and differences between them and *some*.

Some is anti-licensed if it takes narrow scope immediately under a clausemate negation or clausemate negative quantifier, such as *nobody*:

- (5) a. John didn't understand something from the lecture. *NEG>>SOME
 b. Nobody understood something from the lecture. *NOBODY>>SOME

⁴Further evidence that QR is not at play comes from plural indefinites, for example *three relatives of mine*, which resist being distributed over when they take island-external scope (while distributivity is possible with QRred quantifiers). (i) cannot mean that I will receive up to three houses, one for the passing of each one of three particular relatives of mine (Ruys 1992, Reinhart 1997):

- (i) If three relatives of mine die, I will inherit a house.

⁵This alternative does not in fact exhaust all logical possibilities. For *some* could also be ambiguous between a PPI and a non-PPI which only yields a wide scope interpretation (either through syntactic movement or through some semantic mechanism): this way, wide scope in (2) would not necessarily be a way to satisfy the needs of a PPI, it could also result from the idiosyncrasy of the homophonous item. We defer the discussion of this possibility until Section 5.

But it is not anti-licensed if it takes narrow scope under a superordinate negation or immediately under a clausemate merely DE expression:⁶

- (6) a. I don't think that John understood something from the lecture. \checkmark NEG \gg SOME
 b. Few students understood something from the lecture. \checkmark FEW \gg SOME

It thus appears that *some* is sensitive to the negative strength of certain operators (hence the difference between (5a)-(5b), which feature anti-additive operators,⁷ and (6b), which features a merely DE operator), and to the distance (to be defined more precisely) that separates it from such operators (as shown by (5a) vs. (6a)). Such a description inspired Szabolcsi's (2004) account of PPI licensing, according to which the distribution of PPI indefinites is governed by a negative c-command requirement, i.e. *some* cannot be c-commanded by an anti-additive operator. It ultimately relies on the presence of negative features inside the indefinite and on their interaction with c-commanding expressions equipped with negative features as well, and under additional assumptions, can capture the distance effect in (6a). However Homer 2012 showed that the contrast between (5a) and (6a) could be naturally understood against the background of the licensing of NPIs, as spelled out by Gajewski (2005). Gajewski's condition is as follows:

- (7) **NPI Licensing condition (Gajewski 2005):**
 An NPI α is licensed in a sentence S only if there is a constituent A of S containing α such that A is Downward-Entailing with respect to the position of α

Unlike Szabolcsi's approach, which is operator-based, Gajewski's and Homer's are environment-based, that is, they hold that polarity items are sensitive to the monotonicity of constituents with respect to their position. What does it mean to talk about the monotonicity of a constituent? Monotonicity (DEness, anti-additivity) is a property of functions: so we can define a function by abstracting over the position occupied by a

⁶DEness is defined as follows:

- (i) A function f is downward-entailing iff for all A, B in the domain of f such that $A \Rightarrow B$, $f(B) \Rightarrow f(A)$.

' \Rightarrow ' stands for cross-categorical entailment, which is defined in the following way (it is a generalization of entailment applying to all types that 'end in t'):

- (ii) a. For p, q of type t : $p \Rightarrow q$ iff $p = \text{False}$ or $q = \text{True}$;
 b. For f, g of type $\langle \sigma, \tau \rangle$: $f \Rightarrow g$ iff for all x of type σ : $f(x) \Rightarrow g(x)$.

⁷Anti-additivity is a more strongly negative property than mere DEness: a function f is anti-additive if and only if it is downward-entailing and also verifies $f(X) \wedge f(Y) \Rightarrow f(X \vee Y)$ (Zwarts 1998). For example, *no student* and *at most four students* are both downward-entailing, but the former, unlike the latter, verifies the extra condition and is thus AA:

- (i) a. At most four students smoke and at most four students drink $\not\Rightarrow$ At most four students smoke or drink
 b. No student smokes and no student drinks \Rightarrow No student smokes or drinks

given polarity item in a certain constituent:

- (8) A constituent A is DE with respect to the position of α ($\llbracket \alpha \rrbracket \in D_\sigma$) iff the function $\lambda x_\sigma. \llbracket A[\alpha/v_{\langle \sigma, i \rangle}] \rrbracket^{g[v_{\langle \sigma, i \rangle} \rightarrow x]}$ is DE.
 $A[\alpha/\gamma]$ is the result of replacing α with γ in A.

For concreteness, the constituent in (9) is DE w.r.t. the position of the NPI *any*, because the function f , defined in (10) by abstraction over the position of *any*, is DE (Gajewski 2005, p. 34):

- (9) [not [any dogs]] John saw t_1]
(10) $f := \lambda x_{et,ett}. \llbracket \llbracket \text{not } [v_{\langle et,ett,2 \rangle} \text{ dogs}]] \text{ John saw } t_1 \rrbracket \rrbracket^{g[v_{\langle et,ett,2 \rangle} \rightarrow x]}$
(11) a. $\llbracket \text{at least } 2 \rrbracket \Rightarrow \llbracket \text{any} \rrbracket$
b. $f(\llbracket \text{any} \rrbracket) \Rightarrow f(\llbracket \text{at least } 2 \rrbracket)$
c. ‘John didn’t see any dogs’ entails ‘John didn’t see at least two dogs’.

Homer shows that PPI indefinites can be handled naturally within this environment based view. The existence of the rescuing and the shielding phenomena for PPIs (so named by Szabolcsi (2004)) follows straightforwardly in this conception. *Rescuing* refers to the effect of making an otherwise ungrammatical occurrence of *some* grammatical by placing it in the scope of a second DE expression, e.g. *impossible*:

- (12) Rescuing:
It’s impossible that John didn’t understand something from the lecture.
 $\checkmark \text{IMPOSSIBLE} \gg \text{NEG} \gg \text{SOME}$

In Homer’s approach, rescuing simply amounts to flip-flop, or polarity reversal (two DE expressions create a UE environment); he shows that flip-flop can also be created, *mutatis mutandis*, with French weak NPIs (*quoi que ce soit*), and, at least for some dialect of English, with *any*.⁸ Just like for *any* then, it is the monotonicity of constituents which is the ultimate licenser of *some*.

Comparing *any* and *some* can also help understand the shielding phenomenon. *Some* can be licensed in the scope of a clausemate negation if a strong scalar term (*everyone, always, necessarily...*) intervenes:

- (13) a. John didn’t always understand something/*anything from the lecture.
 $\checkmark \text{NEG} \gg \text{SOME}$
b. John doesn’t necessarily understand something/*anything from the lecture.
 $\checkmark \text{NEG} \gg \text{SOME}$

⁸A flip-flop situation with NPIs involves two negative expressions that are sufficiently close to each other:

- (i) %It’s not impossible that John understood anything from the lecture.

In Homer’s approach, the unacceptability of (i), in some dialect of English at least, is due to the fact that VPs are not eligible constituents for evaluating the acceptability of *any* in that dialect: in each clause only constituents containing the Pol head of that clause are eligible constituents. In (i), the eligible constituents either contain no DE expression or contain two DE expressions, whose co-occurrence yields a UE environment.

- c. Not every student understood something/*anything from the lecture.

✓NEG≫SOME

Homer observes that these interveners are just the same interveners that cause the anti-licensing of *any* (Linebarger (1980, 1987) was first to describe the intervention effect on NPIs). Under the view, due to Chierchia (2004, 2006, 2013), that strong scalar terms trigger an indirect scalar implicature under negation, which gets incorporated in the calculation of the monotonicity of the local environment of the polarity item, we can assume that the same cause (the breaking of the monotonicity of the environment), which has a disruptive effect on *any*, has a salvaging effect on *some*. Again, monotonicity, rather than c-command by an appropriate operator, seems to be decisive in licensing *any* and *some*. In the case of *some*, the right environments should not be DE (we see that a non-monotonic environment, such as the one created by an indirect scalar implicature, is satisfactory).

What about the effect of distance (6a)? The licensing condition of *some*, just like that of NPIs (7), should contain an existential quantification ('there is a constituent. . .'). The difference between (5a) and (6a) must be that in the latter it is impossible to find a constituent that is not DE w.r.t. the position of the PPI. But how can this be? It seems that the VP 'understand something' has the right monotonicity, that it, it is not DE w.r.t. the position of the PPI. In fact, not every constituent is eligible for evaluating the acceptability of a polarity item. Homer contends that in the case of *some* (also *any* for some speakers, cf. fn. 8, and minimizer NPIs for all speakers), in any given clause, only the constituents that contain the Pol head of that clause are eligible: he calls those constituents that are eligible for assessing a polarity item π the *domains* of π . The licensing condition is thus:

(14) **Licensing condition of *some* (Homer 2012):**

Some is licensed in sentence *S* only if there is a domain of *some* in *S* that is not DE with respect to the position of *some*.

In (6a), several domains of *some* are UE w.r.t. it (for example the embedded PolP or the embedded TP). In (5a) on the other hand, there is only one clause; and all the constituents of that clause that contain Pol and *some* are DE w.r.t. the position of *some*. Finally, Homer shows that there are two relevant differences between (5b) and (6b): negative strength (*nobody* denotes an anti-additive expression, while *few students* denotes a merely DE expression) but also distance (the negative part of *nobody* is sentential negation, therefore *nobody* is 'contained' in PolP, Jacobs 1980, Ladusaw 1992, Geurts 1996, de Swart 2000, Zeijlstra and Penka 2005, Penka 2007, Iatridou and Sichel 2008; *few students* can scope outside of PolP).⁹

This particular view of PPI licensing holds that only the syntactic position of PPIs, not their actual semantic scope, is relevant for licensing. It does not countenance licensing by pseudoscope; it is the goal of this article to determine if pseudoscope can in

⁹In fact, *few students* is also a potential anti-licenser, but because it need not sit in PolP, but can take scope out of it, it is not usually an anti-licenser of *some* (as illustrated by the grammatical (5b)). Showing that *some* is sensitive to DEness requires using another property discovered by Homer, namely the *entanglement* between *any* and *some*, i.e. the fact that in any given constituent that contains an occurrence of *any* and one of *some*, each is acceptable only if the other is too.

fact satisfy the licensing needs of a PPI in a potential anti-licensing environment.

In the next section, we document a case of anti-licensing of PPIs in Hindi-Urdu, christened *trapping*, which will form the basis for the subsequent claim that pseudo-scope is not sufficient to salvage PPIs.

2 PPIs in Hindi-Urdu: Trapping

As we indicated at the outset, no prior study has determined precisely by which mechanism indefinite PPIs avoid anti-licensing in a downward-entailing environment. It could be that they use covert movement: this is expected to be the case if Homer’s licensing condition is correct, as this condition refers to the syntactic position of the PPI, not to its scope. Alternatively, if pseudoscope is sufficient for polarity purposes, indefinite PPIs could exploit a mechanism like choice functions that can give them exceptional scope.

To help answer this still unsolved question, we now turn to Hindi-Urdu, where we can choose between these two options. We will see that the way the equivalent of a *some* PPI in Hindi-Urdu escapes anti-licensing in a downward-entailing environment is through syntactic movement. We can be confident that this is the case because this movement is overt. To set up the configurations which show that *some*-PPIs in Hindi-Urdu overtly move out of downward-entailing environments, we begin with introducing the relevant aspects of the Hindi-Urdu system.

2.1 Negation and polarity in Hindi-Urdu

Hindi-Urdu is an ergative SOV language that belongs to the Indo-Aryan family. While the default order is SOV, the language has scrambling and other re-ordering processes. As a result, in principle all six possible orders are available for a simple transitive clause with a subject, an object and a verb.

The negative marker *nahī*: appears as part of the verb sequence. The most normal position for it is the immediately pre-verbal one, as shown below, but it can also appear between the participial verb and the auxiliary or follow the auxiliary as long as it is contiguous with the verb sequence.

- (15) Default order: *nahī*: V Aux
Ram=ne seb nahī: khaa=yaa thaa
Ram=ERG apple.M NEG eat=PFV.MSG be.PST.MSG
'Ram had not eaten apples/the apple.'

2.1.1 The scope of sentential negation

The surface position of *nahī*: is not telling with respect to its scope (Mahajan 1990b, Kumar 2006). From its immediately pre-verbal position where it follows the subject and the object, it is not possible to directly determine whether it is low (maybe as low as the immediate periphery of vP) or high. In fact, it is conceivable that sentential negation, that is, the morpheme that carries semantic negation, is covert, while what

appears to be a negative morpheme, *nahī*; is only a correlate of this silent item;¹⁰ in order to acknowledge this possibility, we will use the name ‘NEG’ to refer to sentential negation as diagnosed by scope tests, keeping in mind that it need not be the same as the morpheme *nahī*. A first test indicates that NEG is higher than the lowest position where a subject NPI can be interpreted, which might be a reconstructed position: it licenses subject NPIs (as well as object NPIs) (for an in-depth study of NPIs in Hindi-Urdu, see Lahiri 1998):

- (16) a. NPI subject licensed by sentential negation:
 ek=bhi: laṛke=ne seb nahī: khaayaa
 one=even boy=ERG apple.M NEG eat.PFV.MSG
 ‘Not even a single boy ate apples.’
- b. NPI object licensed by sentential negation:
 Ram=ne ek=bhi: seb nahī: khaayaa
 Ram=ERG one=even apple.M NEG eat.PFV.MSG
 ‘Ram did not eat even a single apple.’

Assuming that it has only one position in the clause, NEG is either (1) below the canonical position of subjects or (2) above it in Hindi-Urdu. This subject position might be Spec,TP, but there is no compelling evidence in favor of that position; instead, as will become clear at the end of this discussion, it seems that this position is in fact below T: for the purposes of this discussion, we will thus assume that it is Spec,AspP (but nothing in the ongoing discussion hinges on that decision). So, to reiterate, NEG is either (1) below Asp or (2) above Asp in Hindi-Urdu. To determine whether NEG is higher than the canonical surface position of subjects, we construct a configuration with a third element, a semantically fixed point, the adverb *hameshaa* ‘always’: it is a fixed point in the sense that adverbs are not believed to raise or lower covertly. As a first step, note that sentential negation preferentially takes scope over *hameshaa* (and other adverbs):

- (17) Ram=ne hameshaa mehnat nahī: ki:
 Ram=ERG always handwork.F NEG do.PFV.F
 ‘Ram did not work hard all the time.’
 easy: NEG≫ALWAYS; marginally available: ALWAYS≫NEG

Whether NEG is above or below Asp, there are two positions for the adverb *hameshaa*, one above NEG, the other below it. Note that in English too the two scope relations exist, but they are transparently read off of surface order:

- (18) a. John doesn’t always vote.
 b. John always doesn’t vote.

Our test case has the surface order ‘NPI . . . *hameshaa* . . . *nahī*’:

- (19) ek=bhi: laṛke=ne hameshaa mehnat nahī: ki:
 one=even boy=ERG always handwork.F NEG do.PFV.F

¹⁰Alternatively, *nahī*: is semantically negative, and it is attached to the right of VP, as in Kumar 2006, so that the word order ‘*nahī*: V’ is the result of the verbal head rightward-moving around the negative marker.

‘Not even one boy worked hard all the time.’ NEG≫ANY≫ALWAYS
 *ALWAYS≫NEG≫ANY

When NEG licenses an NPI subject, it must outscope a clausemate *hameshaa* ‘always’. Note that the putative ALWAYS≫NEG≫ANY reading, which we claim to be missing, is logically stronger than the available one, which respects the surface order of the NPI and the adverb, NEG≫ANY≫ALWAYS. Because of the entailment relation, we need to exercise some caution: the sentence will be true, although underinformative, under the attested NEG≫ANY≫ALWAYS reading, in situations that verify the stronger reading ALWAYS≫NEG≫ANY, e.g. situations in which no boy ever worked hard. Therefore in order to verify whether the stronger reading is available, we construct a dialogue that can only be coherent if the stronger reading is available. B’s response in the following discourse is deviant, showing that (19) lacks the stronger reading:

- (20) A: ek=bhi: laṛke=ne hameshaa mehnat nahī: ki:
 B: #You’re exactly right, no boy ever worked hard.

Now, going back to the alternative about the position of NEG w.r.t. Asp, if NEG is below Asp in Hindi-Urdu, then the availability of the NEG≫ANY≫ALWAYS reading shows that when NEG licenses an NPI subject, NEG can be fairly high in the structure, higher than the (lower) position of *hameshaa*, and the NPI does not reconstruct to its base position under the adverb, but only undergoes short reconstruction from Spec,AspP to under NEG:

- (21) Surface: [_{AspP} NPI₁ [_{Asp} Asp ... NEG ... t₁ ... hameshaa ... [_{vP} t₁ ...]]]
 (22) After *short* reconstruction:
 [_{AspP} [_{Asp} Asp ... NEG ... NPI₁ ... hameshaa ... [_{vP} t₁ ...]]]

Note that if reconstruction to the base position were required, the NPI would be anti-licensed, due to the intervention effect of the adverb (strong scalar terms like *every*, *necessarily*, and *always* are interveners in English and so are their equivalents in Hindi-Urdu¹¹). The fact that the ALWAYS≫NEG≫ANY reading is unavailable is surprising under the NEG-under-Asp hypothesis, since we expect short reconstruction under NEG to be possible here too (in a structure with a high *hameshaa*), as shown in (24):

- (23) Surface: [_{AspP} NPI₁ [_{Asp} Asp ... hameshaa ... NEG ... t₁ ... [_{vP} t₁ ...]]]
 (24) *After *short* reconstruction:
 [_{AspP} [_{Asp} Asp ... hameshaa ... NEG ... NPI₁ ... [_{vP} t₁ ...]]]

¹¹(ii) is an example of intervention in Hindi-Urdu:

- (i) har laṛke=ne Sita=se baat nahī: ki:
 every boy=ERG Sita=with talk NEG do.PFV.F
 ‘Every boy didn’t talk to Sita.’ EVERY≫NEG; NEG≫EVERY
- (ii) har laṛke=ne ek=bhi: laṛki:=se baat nahī: ki:
 every boy=ERG one=also girl=with talk NEG do.PFV.F
 ‘Every boy talked to no girl.’ EVERY≫NEG≫ANY; *NEG≫EVERY≫ANY

sally quantified adverb. For inverse scope to obtain, reconstruction is the only possibility, as adverbs don't QR. The following sentence lacks an inverse scope reading (this kind of data has led researchers to dub Hindi-Urdu a 'scope rigid' language), unlike its English counterpart:

- (27) ek/kisi: larke=ne hameshaa mehnat ki: (hε)
 a/some boy=ERG always hard.work.F do.PFV.F be.PRS.SG
 'A/some boy has always worked hard.' A/SOME≫ALWAYS
 *ALWAYS≫A/SOME
 Impossible continuation: '... sometimes it was a boy from the U.S., sometimes from Canada.'

To summarize, we conclude that NEG sits above the canonical position of subjects, which we assume to be Spec,Asp,¹⁴ in which case subject NPIs are licensed without reconstruction.¹⁵ We also have evidence that non-NPI subjects do not reconstruct. Lastly, we see here that we can use NPI licensing as a way to delimit the scope of negation. The discussion of reconstruction will be resumed in Section 3.2: there we will provide direct evidence that reconstruction of *scrambled* NPIs is unavailable.

¹⁴Under the hypothesis that *nahī:* is semantically negative, and it is right attached, with V rightward-moving around it, our argument that NEG sits above the canonical position of subjects leads us to conclude that this canonical position is probably not Spec,TP: for auxiliaries are ordered after *nahī:* on the surface, and are thus higher than negation; if we assume that auxiliaries are in T, then the canonical position of subjects should be lower than T. Note that the adjacency between V and Aux can be broken, by an object for example, unlike the adjacency between *nahī:* and V, suggesting that Aux need not form a morphological complex with V.

¹⁵We can make a similar point using a universal quantifier over individuals rather than instants, namely *har kitaab* 'every book'. An object *every NP* can be interpreted above or below negation (but, as with *hameshaa*, the wide scope interpretation over negation is marginal); given the availability of scrambling, we can assume that the high interpretation of the object obtains, or can obtain, by scrambling.

- (i) Ram=ne har kitaab nahī: parhi:
 Ram=ERG every book.F NEG read.PFV.F
 'Ram didn't read every book'. Easy: NEG≫EVERY;
 possible with pitch accent on *har*: EVERY≫NEG

We now change the subject into a DP containing an NPI, preceding the universal object on the surface:

- (ii) Surface: [NPI₁ EVERY₂ nahī: t₁ t₂]
 ek=bhi: larke=ne har kitaab nahī: parhi:
 one=even boy=ERG every book.F NEG read.PFV.F
 'No boy read every book.' NEG≫ANY≫EVERY; *EVERY≫NEG≫ANY

The NEG≫ANY≫EVERY interpretation is readily available. The EVERY≫NEG≫ANY interpretation however is missing. In other words, a wide scope interpretation of the object universal over negation causes the NPI to be unlicensed. This is unexpected if subject NPIs reconstruct from their canonical surface position under negation. If on the other hand negation sits higher than the canonical position of subjects, we can straightforwardly explain why (ii) is grammatical under the NEG≫ANY≫EVERY reading (in this case the universal is not scrambled past negation), and ungrammatical under the EVERY≫NEG≫ANY reading (note that in this case the universal would have to raise covertly past NEG, which seems to be impossible, see §3.1 below).

2.1.2 Introducing the determiner *kuch*

The Hindi-Urdu determiner *kuch* ‘some’, which takes plural complements, is, by its very meaning and its sensitivity to negative environments, similar to English *some*.¹⁶ Like English *some*, in a simplex negative sentence, it cannot be interpreted with ‘immediate’ narrow scope under a clausemate negation — by ‘immediate scope’, we mean that no scope-taking element intervenes between it and negation. This holds true irrespective of whether it is a subject or an object:

- (28) a. Some boys didn’t read this book. only: SOME≫NEG
 b. John didn’t read some books. only: SOME≫NEG
- (29) a. Subject *kuch* escaping the scope of negation:
kuch laṛkō=ne yeh kitaab nahī: paṛhi:
 some boys=ERG this book.F NEG read.PFV.F
 ‘Some boys didn’t read this book.’ only: SOME≫NEG
 b. Object *kuch* escaping the scope of negation:

¹⁶The determiner *kuch* needs to be distinguished from *kuch* without a restrictor, which just means ‘something’ and can take scope immediately under negation, and thus does not pass the clausemate negation test for PPIhood (but further tests would be needed to show decisively that it is not a PPI):

- (i) Ram=ne kuch nahī: khaayaa
 Ram=ERG something NEG eat.PFV.3MSG
 ‘Ram didn’t eat anything.’ ✓NEG≫KUCH

Unlike the determiner *kuch*, which takes plural restrictors, the determiner *koi/kisi*: ‘some’, which takes singular complements, does not pass the clausemate negation test for PPIhood either (plurality of the restrictor seems to play a role in the PPIhood of the Hindi-Urdu determiners):

- (ii) Ram=ne koi kitaab nahī: paṛhi:
 Ram=ERG some.SG book NEG read.PFV.3FSG
 ‘Ram didn’t read anything.’ ✓NEG≫KOI

In both these examples, the indefinites strongly prefer to take scope under negation. Wide scope interpretations are impossible with bare *kuch* and only marginally possible with *koi* ‘some_{sg}’ given strong prosodic support. Bare *kuch* has a number of other properties that set it apart both from bare *koi* and the determiner *kuch*. Bare *kuch* resists scrambling. If scrambled, the resulting structures are deviant. It does not combine with postpositions; strikingly it cannot combine with the DOM postposition *-ko* when it is an object. It can only range over inanimate objects. Bare *kuch* shares these properties with the question pronoun *kyaa* ‘what’.

Unlike the other indefinites under discussion, bare *kuch* does not support discourse anaphora. It also seems to not take scope over other scopal elements. The fact that it cannot scope over other clausemate quantifiers can be related to the fact that it is always the lowest DP in its clause and the fact that it does not scramble. The lack of ultra-wide scope could be related to its inability to support discourse anaphora.

Hindi-Urdu does allow for NP-ellipsis. So in certain cases the determiner *kuch* can appear without its NP and superficially look like bare *kuch*. But the two are still featurally and semantically distinct. The determiner *kuch* with an elided NP agrees in plural features and can refer to animates as well as inanimates. Depending upon the gender features of the elided NP, it can have feminine gender features. In contrast bare *kuch* can only refer to inanimates and always has MSg features.

For completeness, let us consider the four indefinites under discussion together:

- (iii) a. bare *kuch*: singular, default masculine features; inanimate reference; narrowest scope
 b. *kuch* + NP_{pl}: plural, both animate and inanimate; PPI (as established in this section)
 c. bare *koi*: singular, animate reference
 d. *koi* + NP_{sg}: singular, both animate and inanimate

Ram=ne kuch kitaabē nahī: paṛhī:
Ram=ERG some book.FPL NEG read.PFV.FPL
'Ram didn't read some books.' only: SOME≫NEG

Like *some*, it can take narrow scope under a non-clausemate negation or under a clausemate merely downward-entailing quantifier:

- (30) a. I don't think that John read some books.
possible: NEG≫THINK≫SOME;
also possible: SOME≫NEG≫THINK
b. Few boys read some books. possible: FEW≫SOME
also possible: SOME≫FEW
- (31) a. *Kuch* in the scope of a non-clausemate negation:
Mina-ko nahī: lagtaa [ki Rina=ne kuch laṛkō=se baat
Mina-DAT NEG seem.HAB that Rina=ERG some boys=INST talk.F
ki: thi:]
do.PFV.F be.PST.F
'Mina doesn't think that Rina talked to some boys.'
possible: NEG≫SEEM≫SOME;
also possible: SOME≫NEG≫SEEM
b. *Kuch* in the scope of a clausemate merely downward-entailing quantifier:
chand=hi: laṛkō=ne kuch kitaabē paṛhī:
few-only boys=ERG some book.FPL read.PFV.FPL
'Only a few boys read some books.' possible: FEW≫SOME
also possible: SOME≫FEW

2.1.3 Shielding and rescuing of *kuch*

The facts presented so far do not unequivocally support the claim that *kuch* is a PPI, as they could also result from some requirement that *kuch* be a scopally high element. In order to establish that *kuch* is indeed a PPI, i.e. an element anti-licensed by negativity, rather than an element which, regardless of polarity sensitivity, needs to be interpreted with relatively wide scope, we now proceed to show that there exist configurations which make it possible to interpret *kuch* with narrow scope under a clausemate negation by altering the monotonicity properties of its environment.

Rescuing *Kuch* can be interpreted with narrow scope under a clausemate negation when a second downward-entailing element (a second NPI licenser) scopes above it. As explained in Section 1, this is a rescuing configuration (Szabolcsi 2004), where the anti-licensing by negation gets counteracted by another downward-entailing expression, and it is evidence that the nature of the restriction on the narrow scope of *kuch* is tied to polarity sensitivity, rather than some item-specific scope requirement. In (32), a local negation inside the (subjunctive) relative clause cannot scope over *kuch*, but the low scope reading becomes available when *kuch* is also in the scope of a matrix negation (cross-clausal rescuing):

- (32) a. koi vajah he: [ki kuch lagaan naa barhaaye jaaẽ]
 some reason is that some taxes NEG increase.PFV PASS.SBJV.MPL
'There is a reason why some taxes shouldn't be increased.'
 Unavailable: *'There is a reason why no taxes should be increased.'*
 ✓SOME»NEG
 *NEG»SOME
- b. koi vajah nahī: [ki kuch lagaan naa barhaaye
 some reason NEG that some taxes NEG increase.PFV.MPL
 jaaẽ]
 PASS.SBJV.MPL
 Available: *'There's no reason why no taxes should be increased.'*
 ✓NEG»NEG»SOME
Possible continuation: '... but I'm not saying that all taxes should be increased.'

Such facts are decisive in showing that *kuch* is sensitive to the monotonicity of its environment: it is anti-licensed by negation, but the presence of another downward-entailing expression turns the environment into an upward-entailing one, resulting in acceptability. It bears saying that the configurations where *kuch* gets rescued are not exactly the same as the rescuing configurations of English *some*. For example, *kuch* seems to resist being rescued by a superordinate negation (even though cross-clausal licensing of NPIs is possible in Hindi-Urdu) when it occurs in a complement clause (whether subjunctive or indicative):

- (33) I don't think that John didn't read some books. ✓NEG»NEG»SOME
 Can mean approx.: I don't think that John didn't read any books.
- (34) mujhe nahī: lagtaa ki John=ne kuch kitaabẽ nahī: parhī:
 me.DAT NEG seem.HAB that John=ERG some books.F NEG read.PFV.FPL
'I don't think that there are some books that John didn't read.'
 ✓NEG»SOME»NEG; *NEG»NEG»SOME

This imperfect similarity across the two languages regarding the narrow scope of indefinites under an anti-licenser is worth investigating (separately), but does not seem to us to threaten the claim that *kuch* is a PPI, as long as (i) it can be rescued in some environments, and (ii) those environments are exactly those in which other PPIs in Hindi-Urdu are rescued. To demonstrate (ii), the class of expressions that we will use as a yardstick in our comparison with *kuch* are light verbs in compound predicates (Hook 1973). The case for those verbs being PPIs is more direct than for *kuch*, as all available evidence suggests that they are structurally lower than negation: they appear before passive morphology,¹⁷ and they cannot scope above negation (in fact, given their verbal nature, it

¹⁷Given its position before passive morphology shown in (i) below, a compound verb stands in the following scopal relationship to Voice and Aspect: Aspect»Voice»Compound Verb. Since NEG»Voice (by semantic considerations), a compound verb is, by transitivity of asymmetric c-command, lower than the position where NEG sits.

- (i) darwaazaa khol diyaa gayaa he
 door open give.PFV PASS.PFV be.PRS.SG

is not clear how they could be scopally high elements).

A few words of introduction are in order. Hindi-Urdu has a productive class of verbal structures that consist of a main verb followed by a verb whose semantic contribution includes a range of meanings such as completion, benefaction, unexpectedness, and suddenness. This verb is often called a light verb; following Hook 1973, we will refer to the combination of the main verb with this kind of light verb as a ‘compound verb’:

- (35) Simple verb:
Ram=ne khaanaa khaayaa
Ram=ERG food.MSG eat.PFV.MSG
‘Ram ate food.’
- (36) Compound verb:
Ram=ne khaanaa khaa liyaa
Ram=ERG food.MSG eat take.PFV.MSG
‘Ram ate food.’

Those compound verbs are not grammatical in the immediate scope of negation in a simplex clause (with no interveners):

- (37) Negated simple verb:
Ram=ne khaanaa nahī: khaayaa
Ram=ERG food.MSG NEG eat.PFV.MSG
‘Ram did not eat food.’
- (38) Negated compound verb:
*Ram=ne khaanaa nahī: khaa liyaa
Ram=ERG food.MSG NEG eat take.PFV.MSG
Intended: *‘Ram didn’t eat food.’*

Compound verbs can be rescued when they occur in a subjunctive relative clause, in a similar fashion to *kuch* (see (32b) above):

- (39) koi vajah nahī: [ki laga:n baṛhaa na: diya: jaae]
some reason NEG that tax increase NEG give.PFV.MSG PASS.SBJV.3SG
‘There is no reason why taxes shouldn’t be increased.’

In fact, the behavior of the two (classes) of items is strikingly parallel. We show this with another example of cross-clausal rescuing in a subjunctive relative clause, where the two (classes of) items behave similarly:

- (40) Subjunctive relative clause
a. *Kuch*
yahā: esaa koi bhi: nahī: [jis=ne Sita=ke liye kuch kaam
here such some ever NEG REL=ERG Sita=GEN for some work.MPL

‘The door has been opened.’

naa kiye hō]
 NEG do.PFV.MPL be.SBJV.3PL
 ‘There is no one here who hasn’t done some jobs for Sita.’
 Can mean approx.: Everyone here has done some jobs for Sita.

- b. Compound verb
 yahā: εsaa koi bhi: nahī: [jis=ne Sita=ke liye yeh kaam naa kar
 here such some ever NEG REL=ERG Sita=GEN for this work NEG do
 diyaa ho]
 give.PFV.MSG be.SBJV
 ‘There is no one here who hasn’t done this work for Sita.’
 Can mean approx.: Everyone here has done this job for Sita.

To complete the picture, we show two more rescuing configurations of *kuch* and compound verbs, namely *jab tak*-clauses and antecedents of counterfactuals:

- (41) *Jab tak* ‘as long as’
- a. *jab tak* clause + *kuch* + negation + simple verb
 [jab tak Ram=ne kuch laḍḍu: nahī: khaaye] [tab tak Mina
 when till Ram=ERG some laddu NEG eat.PFV.MPL then till Mina.F
 use pareshaan karti: rahi:]
 he.DAT disturb do.HAB.F stay.PFV.F
 ‘Mina kept harassing Ram until he ate some laddus.’
 Lit.: As long as Ram was in the state of not having eaten some laddus,
 Mina kept harassing him. AS_LONG_AS»NEG»SOME
- b. *jab tak* clause+negation+compound verb (based on Hook 1973, p. 182)
 [jab tak Ram vahā: pahūc nahī: gayaa] [tab tak Mina
 when till Ram.M there arrive NEG go.PFV.MSG then till Mina.F
 steshan=pe intezaar karti: rahi:]
 station=on wait do.HAB.F stay.PFV.F
 ‘Mina waited at the station until Ram arrived.’
- (42) Counterfactuals¹⁸
- a. *Kuch*
 agar mē=ne Ram=ko kuch laḍḍu: nahī: khilaaye
 if I=ERG Ram=DAT some laddu.MPL NEG feed.PFV.MPL
 hote, to vo zaruur behosh ho gayaa hotaa
 be.HAB.MPL then he definitely unconscious be go.PFV be.HAB.MSG
 ‘If I hadn’t fed Ram some laddus, he would have definitely lost consciousness.’
 IF»NEG»SOME
- b. Compound verb

¹⁸Counterfactuals pattern with *jab tak* clauses with respect to rescuing. This is not entirely surprising as conditionals and *jab tak* clauses are both realized as correlatives. But it is not the case that all correlatives pattern with counterfactuals and *jab tak* clauses with respect to rescuing. For example we do not find rescuing with plain conditionals, plain *jab* ‘when’ clauses or correlatives over individuals. There is in addition an interesting difference between *jab tak* clauses and counterfactuals: *jab tak* clauses anti-license compound verbs; this is not the case with counterfactuals.

agar mē=ne Ram=ko laḍḍu: khilaa nahī: diye
 if I=ERG Ram=DAT laddu.MPL feed NEG give.PFV.MPL
 hote, to vo zaruur behosh ho gayaa hotaa
 be.HAB.MPL then he definitely unconscious be go.PFV be.HAB.MSG
 ‘If I hadn’t fed Ram laddus, he would have definitely lost consciousness.’

Shielding *Kuch* in Hindi-Urdu seems to differ from English *some* with respect to the phenomenon of shielding (Szabolcsi 2004, and Section 1 above), whereby English *some* can be interpreted with narrow scope under a clausemate negation if there is an intervening strong scalar item (e.g. *every, always, necessarily*):

- (43) a. Everyone didn’t understand something. ✓NEG≫EVERY≫SOME
 b. John didn’t always understand something. ✓NEG≫ALWAYS≫SOME

The corresponding elements in Hindi-Urdu do not seem to be able to shield the determiner *kuch*, even though they do seem to block NPI licensing (i.e. *NEG≫EVERY≫ANY, *NEG≫ALWAYS≫ANY) and as such can be deemed to affect the monotonicity of the environment *kuch* appears in. They can in principle take scope under negation (see (44) for universal QPs; see Section 2.1.1 above for evidence that *hameshaa* can take scope below NEG), making the absence of shielding shown in (45) surprising.

- (44) A subject universal QP can be interpreted in the scope of NEG:
 har laṛke=ne vo kitaab nahī: paṛhi:
 every boy=ERG that book.F NEG read.PFV.F
 ‘Every boy didn’t read that book.’ NEG≫EVERY (easier); EVERY≫NEG

- (45) a. Potential shielder: *har laṛkaa* ‘every boy’
 har laṛke=ne kuch kitaabē nahī: paṛhī: thī:
 every boy=ERG some books.FPL NEG read.PFV.FPL be.PST.FPL
 ‘For every boy, there are some books such that that boy hadn’t read them.’
 EVERY≫SOME≫NEG
 unavailable shielding reading: *NEG≫EVERY≫SOME
 unavailable: *SOME≫NEG≫EVERY
- b. Potential shielder: *hameshaa* ‘always’
 Ram=ne hameshaa kuch kitaabē nahī: paṛhī: thī:
 Ram=ERG always some books.FPL NEG read.PFV.FPL be.PST.FPL
 ‘There were always some books such that Ram hadn’t read them.’
 ALWAYS≫SOME≫NEG
 unavailable shielding reading: *NEG≫ALWAYS≫SOME
 unavailable: *SOME≫NEG≫ALWAYS

The unavailability of the SOME≫NEG≫EVERY/ALWAYS reading is noteworthy (see also §3.1 below). At this point, we will just note that this reading becomes available if we scramble *kuch* over the potential shielder:

- (46) *Kuch* is scrambled over the potential shielder:
 a. Potential shielder: *har laṛkaa* ‘every boy’

kuch kitaabē har laṛke=ne nahī: paṛhī: thī:
 some books.FPL every boy=ERG NEG read.PFV.FPL be.pst.FPL
 ‘There are some books such that every boy hadn’t read them.’
 SOME»NEG»EVERY
 SOME»EVERY»NEG

- b. Potential shielder: *hameshaa* ‘always’
 kuch kitaabē Ram=ne hameshaa nahī: paṛhī: thī:
 some books.FPL Ram=ERG always NEG read.PFV.FPL be.pst.FPL
 ‘There were some books such that Ram hadn’t ever read/didn’t always
 read.’
 SOME»NEG»ALWAYS
 SOME»ALWAYS»NEG

We observe the same failure of shielding with compound verbs:

- (47) *Anu=ne har kita:b nahī: paṛh li:
 Anu=ERG every book.F NEG read take.PFV.F
 Intended: ‘Anu didn’t read every book.’
 (48) *Anu hamesha: nahī: aa gayi:
 Anu.F always NEG come go.PFV.F
 Intended: ‘Anu didn’t always come.’

In sum, we didn’t find that *kuch* was amenable to shielding, unlike *some* in English. However, the availability of rescuing, which indicates sensitivity to monotonicity, and the close parallel with a class of expressions whose PPIhood is easier to confirm, lead us to conclude that *kuch* is indeed a PPI.

2.2 Trapping

We have seen in (16) that sentential negation can license both subject and object NPIs. And we have seen in (29) that both subject and object PPIs must escape the scope of a clausemate negation.

If we combine a PPI, e.g. *kuch*, and an NPI, e.g. *ek bhi:*, in the same sentence, the following generalization emerges:

- (49) **Generalization:** In a simplex clause in Hindi-Urdu, having an NPI preceding a PPI leads to ungrammaticality.

We illustrate the generalization with a subject NPI and an object PPI indefinite (but the generalization is about precedence, and holds regardless of subjecthood and objecthood):

- (50) *NPI_{subj} PPI_{obj} nahī: V *Trapping*
 *ek=bhi: laṛke=ne kuch kitaabē nahī: paṛhī:
 one=even boy=ERG some book.FPL NEG read.PFV.FPL
 Intended: ‘No boy read some books.’

When a PPI precedes an NPI (for example a subject PPI indefinite preceding an object NPI), the result is grammatical:

- (51) ✓ PPI_{subj} NPI_{obj} nahī: V
- (52) kuch ṭi:carō=ne mujhe ek=bhi: kitaab nahī: dikhaayi:
 some teachers=ERG me.DAT one=even book.F NEG show.PFV.F
 ‘Some teachers didn’t show me a single book.’

The problem seems to be with the ‘NPI. . .PPI’ order. Two NPIs (or more) can be happily licensed by a clausemate negation and likewise two PPIs (or more) can happily escape the scope of a clausemate negation:

- (53) a. ✓ NPI NPI nahī: V NEG≫NPI≫NPI
 b. ✓ PPI PPI nahī: V PPI≫PPI≫NEG

We will refer to ungrammatical configurations characterized by (49), like (50), as *trapping configurations*. Our intuition is that ungrammaticality arises in these configurations because either the PPI is unable to escape the scope of a clausemate negation, or the NPI is not licensed. The NPI needs to be in a downward-entailing environment at LF. If the Homeric view of Section 1 is correct, then the PPI needs to be in a non downward-entailing environment at LF, irrespective of its actual semantic scope: so it must move out of the scope of the clausemate negation.

There are three possible combinations of the NPI, the PPI and the negation, corresponding to the ‘NPI. . .PPI’ surface order:

- (54) Three surface orders leading to trapping:
 a. *NEG NPI PPI PPI unacceptable
 b. *NPI PPI NEG NPI unacceptable
 c. *NPI NEG PPI Both items unacceptable

If the scopal relations between NEG and the polarity items which are relevant for the computation of licensing, namely the relations at LF, remain as they are on the surface, then for each of the three configurations in (54), either the PPI is in the scope of negation at LF or the NPI is out of its scope at LF. We need to make two assumptions about Hindi-Urdu, which we will justify in the subsequent text: once they are justified, we will have established that the relevant scopal relations remain at LF as they are on the surface. The first assumption is that in Hindi-Urdu PPI indefinites, and possibly all quantified DPs, cannot move covertly past negation, otherwise the PPI could covertly escape from the scope of negation in (54a), leading to grammaticality, contrary to fact. The second is that there is no reconstruction of scrambled NPIs, otherwise the NPI could reconstruct under negation in (54b), leading to grammaticality, contrary to fact. We need both assumptions concurrently to rule out (54c). These assumptions are elucidated and justified in the next section.

3 Deriving the trapping effect

3.1 No covert raising past negation

The first assumption, about lack of covert raising past negation in Hindi-Urdu, can be independently justified by considering scopal relations between co-arguments. These scopal relations seem to be determined by linear order. In effect the following sentence where an existential quantifier subject precedes a universal quantifier object has only one scope, the surface scope.¹⁹ This is in contrast to English (56), where the corresponding sentence permits both the surface scope and the inverse scope:

- (55) SOV — only $S \gg O$; unavailable: $O \gg S$
 kisi: laṛke=ne har laṛki:=se baat ki:
 some boy=ERG every girl=INST talk.F do.PFV.F
 ‘Some boy talked to every girl.’ $\exists \gg \forall; * \forall \gg \exists$
- (56) Some boy talked to every girl. $\exists \gg \forall; \forall \gg \exists$

Following Johnson and Tomioka 1998, we take inverse scope between co-argument QPs to require two operations: lowering of the QP that is higher on the surface and QR of the QP that is lower. Therefore the lack of inverse scope exemplified in (55) indicates that the two operations are not jointly available in Hindi-Urdu, in other words, that one of the two, possibly both, is barred. As far as covert raising (QR) is concerned, if Johnson and Tomioka (1998) are correct, it can only take the object QP to a medial position, higher than the position of English negation but lower than the surface position of subjects in English (in order to bring the subject in the scope of the raised object, subject reconstruction is thus needed). Since we are seeking independent evidence that covert raising to a position higher than negation is barred in Hindi-Urdu, we do not need to determine whether English-style QR, characterized as this relatively short covert movement to a mid-clausal position, occurs in Hindi-Urdu. It suffices to note that a movement that could target a position above the surface position of the subject in Hindi-Urdu (which we hypothesize to be Spec,Asp) is unavailable: if it existed, this movement could by itself, without the help of concomitant reconstruction of the subject, deliver inverse scope in (55). Now, if covert raising past the canonical position of subjects is missing, it stands to reason that covert raising past a higher position yet, *viz.* the position of negation (we established that NEG is higher than the canonical position of subjects in §2.1.1), is also missing.

To generate the $\forall \gg \exists$ reading with an existential quantifier subject and a universal quantifier object, we need to overtly move the object over the subject:

- (57) OSV — available: $O \gg S$

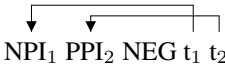

¹⁹Nevins and Anand (2003) document and discuss the availability of inverse scope readings, which they note only arise with nominative subjects. For some speakers, however, the determining factor for such readings is non-episodic environments and not nominative subjects *per se*. To sidestep this difference in judgments, all our examples feature non-nominative subjects where there is general agreement about the unavailability of inverse scope readings. We would like to note though that the trapping effect remains even when the subject is nominative; we leave the implications of this for the proper analysis of the relevant inverse scope environments for future research.

har laṛki:=se kisi: laṛke=ne baat ki:
 every girl=INST some boy=ERG talk.F do.PFV.F
 ‘Some boy talked to every girl.’ available: $\forall \gg \exists$

The unavailability of covert raising to high positions removes the possibility of undoing the trapping configuration by covertly moving the PPI past negation in (54a).

3.2 No reconstruction of scrambled NPis

Regarding the second route to grammaticality that the ‘NPI . . . PPI’ surface order seems to leave open, we need to show that the second assumption, namely the lack of reconstruction of scrambled NPis, is indeed warranted. If reconstruction was an option, the following two-step derivation would become available:

1. On the surface, both items have moved:

(=(54b))
2. The NPI reconstructs under negation:


Reconstruction of the NPI would allow for the needs of the PPI and the NPI to be met simultaneously. Therefore such a derivation needs to be blocked. We have established (Section 2.1.1) that negation is above Asp, therefore configuration 1. above obtains by scrambling the NPI and the PPI (regardless of subjecthood or objecthood) past negation. Furthermore we know that non-NPI subjects do not reconstruct ((27) on p. 11) and that NPI subjects need not do so (precisely because of the high position of negation). We must now show that scrambled NPis (subjects or objects; we will in fact show this with objects, as it is difficult to identify scrambled subjects) do not reconstruct.

3.2.1 Scrambling leading to trapping

An initial step in the direction of showing that scrambled NPis do not reconstruct is the observation that the trapping effect still obtains when an object NPI is obviously scrambled past a subject PPI:

- (58) *NPI_{obj1} PPI_{subj} t₁ nahī: V
 (59) *ek=bhi: kitaab kuch ṭi:carō=ne mujhe nahī: dikhaayi:
 one=even book some teachers=ERG me.DAT NEG show.PFV.F
 Intended: ‘Some teachers didn’t show me a single book.’

This is so despite the fact that the corresponding order without scrambling ‘PPI_{subj} NPI_{obj} nahī: V’ is grammatical (see (52) repeated below):

- (60) kuch ṭi:carō=ne mujhe ek=bhi: kitaab nahī: dikhaayi:
 some teachers=ERG me.DAT one=even book.F NEG show.PFV.F
 ‘Some teachers didn’t show me a single book.’

As a control, we verify that scrambling of a PPI past an NPI doesn't create ungrammaticality (in accordance with the Trapping generalization (49)):

(61) ✓ PPI_{obj1} NPI_{subj} t₁ nahī: V

(62) *Control:*

kuch kitaabē ek=bhi: laṛke=ne nahī: paṛhi:
 some books one=even boy-ERG NEG read.PFV.F
 'Some books weren't read by even one boy.' SOME≫NEG≫ANY

The ungrammaticality of (59) cannot be explained by a putative ban against scrambling of NPIs as scrambled NPIs can in fact be licensed, as shown in (64), where scrambling is past a non-polarized subject:

(63) SOV:

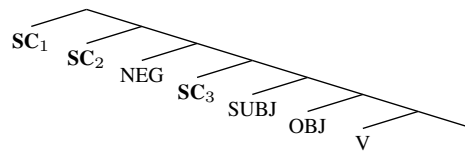
Ram=ne ek=bhi: laṛki:=se baat nahī: ki:
 Ram=ERG one=even girl=with talk NEG do.PFV.F
 'Ram didn't talk to any girl.'

(64) OSV:

ek=bhi: laṛki:=se Ram=ne baat nahī: ki:
 one=even girl=with Ram=ERG talk NEG do.PFV.F
 'Ram didn't talk to any girl.'

It must then be due to lack of reconstruction of the scrambled NPI. Now if, as we are about to demonstrate in the next section, scrambled NPIs are unable to reconstruct in general (not just out of trapping configurations like (59)), this means, for the grammatical cases with a non-polarized subject, e.g. (64), that there are landing sites for scrambling above the canonical position of subjects and below the position of negation (e.g. SC₃ in the tree below), therefore if NEG is above AspP, it is not right above it. These landing sites are positions where NPIs scrambled past the canonical subject position get licensed, without reconstruction:

(65)



3.2.2 No NPI reconstruction over QPs

We examine cases involving quantificational subjects as these are revealing with respect to where the NPI is interpreted. As a preliminary observation, when the subject is quantificational and the NPI object stays *in situ*, we find that only one of the three LFs where the NPI is in the scope of negation is available:

(66) NPI object stays *in situ*:

har laṛke=ne ek=bhi: kitaab nahī: paṛhi:
 every boy=ERG one=even book NEG read.PFV.F

'Every boy didn't read even one book.' EVERY»NEG»ANY
 *NEG»ANY»EVERY: 'there is no book such that every boy read it'
 *NEG»EVERY»ANY

The LF where the NPI is not in the immediate scope of negation, namely NEG»EVERY»ANY, is ruled out because of the intervention effect of *every* and is not considered further here. In addition, the NEG»ANY»EVERY LF, which does not involve an intervention by *every*, is also ruled out. This follows if there is no covert movement of the NPI over the subject (Section 3.1). Note that given our claim that negation sits above Asp, and thus above the canonical subject position in Hindi-Urdu, the subject in (66) has scrambled past it in the only available LF.

Now we consider the case where the object is locally scrambled over the subject:

(67) NPI object is scrambled:
 ek=bhi: kitaab har larke=ne nahī: paṛhi:
 one=even book every boy=ERG NEG read.PFV.F
'No book is such that every boy read it.' NEG»ANY»EVERY
 *EVERY»NEG»ANY

Here the NEG»ANY»EVERY interpretation is the only one available. If it was in fact possible to reconstruct the NPI, we would expect (67) to share the EVERY»NEG»ANY reading with (66). We assert that it does not. Showing that it does not involves more than a direct appeal to intuition, as there is an entailment relationship between the two readings: the EVERY»NEG»ANY reading entails the NEG»ANY»EVERY reading. So, as we did previously in a similar situation (Section 2.1.1, example (20)), we use a dialogue where an unambiguous paraphrase of the stronger reading is offered as a possible restatement of the sentence:

(68) A: ek=bhi: kitaab har larke=ne nahī: paṛhi:
 B: #You're exactly right, no boy read any book.

B's response is deviant, therefore the reading is missing; this in turn indicates that the scrambled NPI cannot reconstruct.

The ban on reconstruction in Hindi-Urdu has a broader scope than scrambled NPIs: it appears to apply to all scrambled phrases. For example, a sentence where an object is scrambled past a subject only has a surface scope reading (see also Kidwai 2000, ex. (61) on p. 52):²⁰

²⁰Hindi-Urdu seems to differ from Japanese with regard to the reconstruction of local scrambling. In Japanese, scrambling an object past a subject results in a scopally ambiguous sentence (Kuno 1973, Hoji 1985, Nakanishi 2001):

- (i) a. Dareka-ga daremo-o aisiteiru.
 someone-NOM everyone-ACC love
'Someone is such that they love everyone.' S»DO; *DO»S
 b. Dareka-o daremo-ga aisiteiru.
 someone-ACC everyone-NOM love
'Someone loves everyone.' S»DO; DO»S

- (69) koi kitaab har laṛke=ne paṛhi:
 some book.F every boy=ERG read.PFV.F
 ‘Every boy read some book.’ only: SOME≫EVERY

In the next subsection, we adduce more evidence to demonstrate the lack of reconstruction in the general case (i.e., with non-NPI QPs), using pronominal binding.

3.2.3 Variable binding and putative reconstruction of (local) scrambling

Variable binding in Hindi-Urdu obeys a c-command(-like) requirement: the binder of a pronoun must c-command the pronoun (or be (transitively) the possessor of an XP that c-commands the pronoun):²¹

- (70) [[har aadmi:]_i=ki: mā:] [us=ki:_i beṭi:]=ko pasand karti:
 every man=GEN.F mother he=GEN.F daughter=DAT like do.HAB.F
 he
 be.PRS.SG
 ‘Every man’s mother likes his daughter.’

If a locally scrambled object could be reconstructed into the scope of the subject, then we would expect the subject to be able to bind into the scrambled object. However, this is not possible. The sentence, which is otherwise well-formed, is unacceptable with binding as weak crossover ensues:²²

- (71) ???[us=ki:_i beṭi:]=ko [[har aadmi:]_i=ki: mā:] pasand karti:
 he=GEN.F daughter=DAT every man=GEN.F mother like do.HAB.F
 he
 be.PRS.SG
 Intended: ‘Every man’s mother likes his daughter.’

3.2.4 Forcing reconstruction with reflexives

We have shown that weak crossover violations caused by scrambling are not amnestied by reconstruction, which confirms the lack of reconstruction we observed with scrambled NPIs. However, it is well known from the scrambling literature that reflexives are grammatical under scrambling (Mahajan 1990a, Dayal 1994, Kidwai 2000):

²¹The examples in this section have the binder as a possessor because of the anti-subject orientation of pronominal possessors in Hindi-Urdu. Having the binder be a possessor of the subject helps us evade the anti-subject orientation.

²²It is worth noting that our claims about the lack of reconstruction are limited to local scrambling. Long scrambling can, and, in fact, does reconstruct and in such cases, a pronoun in the fronted object can be bound by a QP that follows it:

- (i) Long scrambling (obligatory reconstruction)
 [[us=ki:_i beṭi:]=ko [[har aadmi:]_i=ki: mā:] socti: he ki [t_i prize mil-naa
 he=GEN.F daughter=DAT every man=GEN.F mother think.HAB.F be.PRS.SG that prize get-INF
 caahiye]]
 should
 ‘Every man’s mother thinks that his daughter should get a prize.’

- (72) [apni:_i kitaab]_j Ram=ne_i mujhe t_j dikhaayi:
 self.F book Ram=ERG me.DAT show.PFV.F
 'Ram showed me his book.'

Reconstruction is one way to handle the acceptability of reflexives under local scrambling. This would lead to a picture where local scrambling can in fact reconstruct but does so only for the purposes of satisfying Condition A. A further prediction is made here: if we put an NPI in the scrambled constituent that contains a reflexive, the trapping effect will go away, as in schema 2. on page 21. This is indeed what happens: observe the difference between (73) and (74):

- (73) Trapping:
 *ek=bhi: kitaab kuch ṭi:carō=ne mujhe nahī: dikhaayi:
 one=even book some teachers=ERG me.DAT NEG show.PFV.F
 Intended: 'Some teachers didn't show me a single book.' (=59)
- (74) Trapping undone:
 [apni: ek=bhi: kitaab] kuch ṭi:carō=ne mujhe nahī: dikhaayi:
 self.F one=even book some teachers=ERG ME.DAT NEG show.PFV.F
 'Some teachers didn't show me any of their own books.'

Note that the amnesty can't be just due to adding a possessor to the DP that contains the NPI:

- (75) *[Ram=ki: ek=bhi: kitaab] kuch ṭi:carō=ne mujhe nahī: dikhaayi:
 Ram=GEN.F one=even book some teachers=ERG me.DAT NEG show.PFV.F
 Intended: 'Some teachers didn't show me any of Ram's books.'

The amnesty only arises when the scrambled constituent contains a reflexive. The fact that the trapping effect disappears precisely when reconstruction is forced supports our overall proposal which relies on the unavailability of reconstruction of scrambled NPIs.²³ It is worth noting that the need to satisfy Condition A takes precedence over the ban on reconstruction of local scrambling. The needs of polarity items licensing on the other hand do not take precedence over the ban on reconstruction (if they did, then NPIs scrambled past negation on the surface could generally reconstruct under negation, as in 2. on p. 21, leading to an elimination of trapping): they are a weaker requirement than Condition A.

We have seen above that we can use Condition A driven reconstruction to undo a surface trapping configuration. Quite strikingly, we can also use Condition A driven reconstruction to create a trapping configuration. If a DP contains a PPI and a reflexive bound by a following NPI DP, then reconstruction forces the PPI DP to be interpreted in the scope of the NPI DP (and negation), thereby creating a trapping configuration:

- (76) Trapping with a 'PPI . .NPI' surface order obtained by scrambling:
 *[apni: kuch kitaabē] ek=bhi: laṛke=ne nahī: paṛhī:
 self.F some books one=even boy=ERG NEG read

²³The fact that reflexive binding travels with polarity licensing in Hindi-Urdu suggests that structural conditions play a significant role in reflexive binding in Hindi-Urdu and that reflexive binding is not achieved by non-structural restrictions involving for example logophoricity.

Intended: *'Not a single boy read some of his own books.'*

By 'NPI DP', we mean a DP whose determiner is an NPI such as 'any book' or a DP whose possessor is an NPI DP, such as 'any boy's book'. The definition is recursive. Hence 'any boy's book's author' counts as an NPI DP. PPI DPs are similarly defined. We can confirm that the trapping effect in (76) is due to Condition A driven reconstruction by replacing the reflexive with an R-expression. In the absence of the reflexive, reconstruction does not take place and there is no trapping effect:

- (77) [Ram=ki: kuch kitaabē] ek=bhi: laṛke=ne nahī: paṛhī:
Ram=GEN.F some books one=even boy=ERG NEG read
'Some books of Ram's weren't read by a single boy.'

In light of the new facts discussed in this subsection, the trapping generalization that we introduced in (49), repeated below (with the words 'NPI' and 'PPI' replaced with 'NPI DP' and 'PPI DP'), needs to be revised:

- (78) **Trapping Generalization** (original surface version):
In a simplex clause in Hindi-Urdu, having an NPI DP preceding a PPI DP leads to ungrammaticality.

This generalization is stated in terms of word order. The reflexive reconstruction facts in (74) and (76) tell us that the generalization is more abstract and can only be stated in terms of LF configurations, along the following lines:

- (79) **Trapping Generalization** (revised LF version):
In a simplex clause in Hindi-Urdu, having an NPI DP taking syntactic scope over a PPI DP at LF leads to ungrammaticality.

To sum up, we have shown in this section how indefinite PPIs get trapped under negation in Hindi-Urdu: they get trapped if in a simplex clause, they are, at LF, in the syntactic scope of an NPI DP, and, by transitivity, in the scope of a clausemate negation. Now that we have a better understanding of the sources of trapping, it becomes clear that other structures, not involving NPI DPs, can have a similar effect. Those are surface structures where the PPI follows a scope-taking element which does not reconstruct and is interpreted in the scope of a clausemate negation. In fact we have already encountered such a case, in the shielding section (§2.1.3): in (45a) repeated below, the PPI follows the universal quantifier *har laṛkaa* 'every boy' and is unacceptable if the latter is interpreted under negation (the same holds of *hameshaa* 'always' (45b)). Strikingly, shielding doesn't take place in Hindi-Urdu:

- (80) har laṛke=ne kuch kitaabē nahī: paṛhī: thī:
every boy=ERG some books.FPL NEG read.PFV.FPL be.PST.FPL
'For every boy, there are some books such that that boy hadn't read them.'
*NEG>>EVERY

The sentence has parses under which it is grammatical, but the LF in which the universal QP is in the scope of negation is unavailable, because the PPI can't raise covertly, and thus falls in the scope of negation.

In the next section, we turn to English, and verify whether in that language too, PPI indefinites are anti-licensed when in a simplex clause they are in the syntactic scope of negation at LF.

4 PPI indefinites in English

English differs from Hindi-Urdu in two important ways: the scope of sentential negation can reliably be inferred from the surface position of *not/n't* (§2.1.1), and scope-shifting movement can be covert (§3.1). In order to verify whether a PPI indefinite in English, e.g., *some*, needs to move in order to avoid anti-licensing, we have to construct examples where covert syntactic movement is either appropriately restricted or blocked altogether.

A scope frozen double object construction (illustrated in (81a), in contrast with (81b)) is an instantiation of the first possibility (Larson 1990, attributed to D. Lebeaux):

- (81) a. John showed some student everything. *EVERY»SOME
 b. John showed something to every student. ✓EVERY»SOME

Both the IO and the DO can QR in a double object construction (for example past a subject, Bruening 2001), but scope freezing means that their scope with respect to each other remains as it is on the surface. Our test case must have an instance of *some NP* as DO, and a clausemate negation that acts as a potential anti-licenser. The IO, which limits the QR capability of the PPI *some NP*, has to satisfy certain conditions: it should be a quantifier that is interpreted under negation (therefore it cannot be another instance of *some NP*), but it should not create a shielding effect (i.e. counteract the anti-licensing effect of negation) and therefore cannot be a strong scalar term (like *every NP*, *many NP*). In fact, the ideal candidate for IO is an NPI DP, for example *any NP*: it not only can but has to be interpreted under negation, and it is an existential quantifier, and as such is not a shielder. This in fact amounts to creating a trapping configuration, with the 'NEG . . . NPI . . . PPI' surface order: while in Hindi-Urdu the limitation on movement in trapping came from a general ban on covert movement, in English, it comes from a scope-freezing effect, an artifact of double object constructions.

- (82) *John didn't show any student someone.

We observe that there is a contrast in acceptability between the ungrammatical (82), where the PPI is trapped,²⁴ and (83), where the relative scope of the quantifiers is not frozen (*some* can take wide scope w.r.t. negation):

- (83) John didn't show anything to someone. ✓SOME»NEG

(84) is a control indicating that the order 'NEG . . . PPI . . . NPI' in a double object

²⁴In the case at hand, where the two quantifiers are both existential and thus scopally commutative, one cannot say that one quantifier takes scope over the other semantically. But scope freezing, as argued by Bruening (2001), is the result of superiority, analyzed as forcing multiple moved elements to cross paths, along the lines of Richards 1997. Therefore it is really asymmetric c-command, rather than scope *per se*, which is ultimately preserved by so-called scope freezing.

construction, which is not a trapping configuration despite being a scope freezing configuration, is grammatical, with wide scope of the PPI indefinite over negation:

- (84) *Control:*
John didn't show someone any student. ✓SOME»NEG»ANY

Now, scope freezing is a limitation on QR and it is usually demonstrated using a universal QP which is unable to outscope an existential QP it follows on the surface. So scope freezing is known to affect the scopal options of non-indefinite quantifiers like *every NP*, but we might expect that indefinites can circumvent limitations on movement imposed by scope-freezing, via a non-syntactic mechanism. This is indeed what we find: in (85), the DO in the double object construction, *some book*, can outscope the preceding universal quantifier (with which it is not scopally commutative), as shown by B's response, which constitutes an inverse scope test (the putative inverse scope reading entails the surface scope reading; that's why ascertaining that it exists requires a test):

- (85) A: John showed every boy some book. ✓SOME»EVERY
B: Really? What was the book John showed to every boy?

This result shows that a wide-scope mechanism can in principle exempt a PPI indefinite from scope freezing; this semantic device must then be unavailable or insufficient when the indefinite needs to escape from a scope freezing environment which is also an anti-licensing environment, since in (82), the PPI is not acceptable.

Another way of blocking QR of a PPI indefinite past a clausemate negation consists in having the PPI in an island for movement, and the anti-licensing negation outside of that island. For most islands, this solution turns out to be hard to implement though: what happens most of the time is that the island is large enough for the PPI to find, within the island, a licensing environment. For example, in (86), the relative clause is an island for movement, and the negative quantifier creates a potential anti-licensing environment for *something*; however the PPI has no clausemate negation, therefore nothing special (either QR or some semantic scope-taking mechanism) is needed to ensure that it is licensed:

- (86) There is no one who read something. ✓NO»SOME

There is still a way to create the desired configuration, which involves a disjunctive coordinate structure (hence not a clausal island).²⁵ This is illustrated in (87): the PPI, *some professors*, is contained in one of the disjuncts and therefore is prevented from QRing on its own past negation (due to the coordinate structure constraint):

- (87) When he entered the building yesterday, he did not greet students or some professors. . .
a. #. . . as a result all the students were unhappy and some but maybe not all the professors felt annoyed.

²⁵We cannot use the conjunction *and* in our constructed examples as it is a PPI shielder (Chierchia 2004 a.o.).

- b. Unavailable reading: $\exists X[\text{professors}'(X) \wedge \neg\text{greet}'(\text{he}', X)] \wedge \neg\exists Y[\text{students}'(Y) \wedge \text{greet}'(\text{he}', Y)]$
- c. ... but I don't know which group — students or professors — he didn't greet members of.
- d. Available reading: $[\exists Y[\text{students}'(Y) \wedge \neg\text{greet}'(\text{he}', Y)]] \vee [\exists X[\text{professors}'(X) \wedge \neg\text{greet}'(\text{he}', X)]]$

We observe that the wide scope reading of the indefinite past negation (87b) is unavailable, as shown by the continuation in (87a), therefore it doesn't seem that any wide-scope semantic mechanism is either available or sufficient for the interpretation of the indefinite here. The only reading that the speakers we consulted had access to was the so-called wide-scope *or* reading, which is brought out by the continuation in (87c) and represented in (87d): under this reading, the whole island is covertly moved.

In sum, it seems that in English as well, indefinite PPIs need to move to be salvaged from an anti-licensing environment; this movement can be covert in English. The LFs where *some* is in the syntactic scope of negation due to the unavailability of movement are ruled out for the same reason that trapping configurations are ruled out in Hindi-Urdu. The implications for theories of indefinites of the facts brought to light in this article are explained in the last section.

5 Implications for theories of indefinites

There are two main lessons about indefinites we can draw from the previous discussion. The first one is that pseudoscope is not relevant for the licensing of *some/kuch*. The second one is about the very nature of indefinites: the novel facts presented in this article lend support to a view of indefinites as GQs, and are less straightforwardly compatible with the view that they are or can be interpreted as choice function variables.

5.1 On pseudoscope

Pseudoscope mechanisms are not sufficient to salvage *some* or *kuch* when these are in a downward-entailing environment at LF.

English As we pointed out at the outset, a *some*-type PPI in English can be acceptable under a clausemate negation, without rescuing or shielding, under a reading where it takes scope over negation:

- (88) John didn't understand something from the lecture. (=2)
 SOME \gg NEG; *NEG \gg SOME

This sets *some*-type PPIs apart from other PPIs, like *would rather* (see (1b) on page 1). There are two relevant differences between *some* and *would rather*: unlike the latter, the former can undergo movement (in particular QR), and it can also take wide scope *in situ* (in fact, by this *pseudoscope* route, it can take scope out of tensed clauses and islands for movements). So these are, *a priori*, two properties that could help explain the exemption from anti-licensing in (88), and, as a result, shape our theory of licensing.

The type of theory of licensing that one could build upon the second property would center around the semantic scope of *some*. According to such a theory, regardless of the syntactic position of the PPI at LF, what matters is the interpretation it gives rise to: in a simple case then, such as a simplex clause with a clausemate negation, *some* can only be licensed if the interpretation that the sentence, or some smaller constituent, receives is one where *some* takes scope over that negation, either via QR or via pseudoscope. Here is a specific attempt at spelling out a licensing condition along those lines:

(89) **Hypothetical Licensing condition:**

Some is licensed in sentence *S* only if there is a constituent γ of *S* in which replacing *some* with *any* would give rise to a distinguishable interpretation of γ .²⁶

This rule is in essence a rule of competition between *some* and *any*. It has some *a priori* plausibility, as *any* and *some* are both sensitive, albeit with opposite effects, to mere DEness: Homer uses the property of entanglement, i.e. the fact that the acceptability of *any* in a given constituent at LF depends on the acceptability of instances of *some* in the same constituent, and *vice versa*, to show that *some* is anti-licensed by mere DEness (although this is usually obscured; see fn. 9). The licensing condition (89) can make sense of the fact that *some* is licensed in a simplex positive clause, where *any* is not acceptable (therefore *some* yields an LF which is different, from the point of view of interpretation, from a corresponding LF with *any*). The licensing condition can also account for the fact that *some* can appear under negation in a simplex clause as long as it takes scope or pseudoscope (via one of the exceptional wide scope mechanisms available to it) over it: this way the PPI yields a different interpretation than *any* would, as *any* would only have a narrow scope interpretation. The interchangeability of *some* and *any* in (90), and the fact that they can both be interpreted with narrow scope under *impossible*, are at first sight problematic for (89):

(90) It is impossible that John understood something/anything.

✓IMPOSSIBLE»SOME

But in fact they are not. In complex sentences, the effect of the existential quantification in the licensing condition of *any* ('... there is a domain of *any* that is not DE w.r.t. the position of *any*. . .') and in the hypothetical licensing condition of *some* (89) ('...there is a constituent γ of *S* in which replacing *some* with *any*. . .'), combined with the availability of many constituents where the acceptability of PIs can be assessed, make it possible for the two PIs to be acceptable in the same surface position: we would say that narrow scope *some* is only acceptable in embedded constituents of (90), e.g., the embedded TP, because in these constituents, *any* is not acceptable; in the constituents where *any* is acceptable, i.e. in the constituents that contain the matrix predicate *impossible*, e.g., the matrix TP, *some* is acceptable inasmuch as it takes wide pseudoscope (because *any* cannot take wide scope). Thus the two items can be licensed with narrow

²⁶In its wording, this rule bears some resemblance to Buring's (2005) Coreference Rule, itself a reformulation of Grodzinsky and Reinhart's (1993) Rule I. Although we do not draw any substantial parallelism between PPI licensing and NP coreference, our hypothetical PPI rule rests, like the NP Coreference rule, on some competition principle.

scope, in the same surface position of the sentence.

The facts that we have described about English in Section 4 lead us to rule out this type of hypothesis, which countenances pseudoscope as a way of meeting the needs of *some*: they indeed show that *some* cannot be licensed *in situ* in an anti-licensing environment, e.g. under a clausemate negation (unless it is rescued or shielded). This means that when in (88), the indefinite is acceptable under a wide scope reading while following a clausemate negation without rescuing or shielding, it has in fact moved covertly past negation. The condition in (89) is too permissive as it wrongly predicts that *some* is grammatical in this frame if it is interpreted with pseudoscope over negation. (89) should thus be discarded.

Hindi-Urdu In Hindi-Urdu too, indefinites can take exceptional scope, without movement, out of tensed clauses, and out of islands for movement such as the antecedent of a conditional:

- (91) Exceptional scope out of an island for movement:
 [agar tum kuch nartakō=ko bulaaoge] [to Ram khush hogaa]
 if you some dancers=DAT call.FUT.2MPL then Ram happy be.3MSG
 'If you invite some dancers, Ram will be happy.'
 Available reading: There are some dancers such that if you invite them, Ram will be happy. ✓ SOME≫IF

Although we haven't established a key element that would substantiate the competition theory sketched above, i.e. we haven't shown that it is the same semantic property (e.g. DEness) which licenses *ek bhi*: and anti-licenses *kuch*, we can safely say that, *mutatis mutandis*, the above licensing condition (89) would be inappropriate for Hindi-Urdu as well. The trapping data show that *kuch* cannot be licensed *in situ* under a clausemate negation, i.e. pseudoscope is irrelevant for licensing purposes. One might wonder if the unavailability of pseudoscope in trapping configurations in Hindi-Urdu is an effect of some economy principle, which favors (overt) movement, as a way of achieving wide scope, whenever possible. To control for this possibility, we set up the following configuration. *Kuch* can take pseudoscope out of a complex DP, an island for movement (92); but if we embed a trapping configuration in a complex DP, the ungrammaticality remains (93):

- (92) mujhe yah baat pataa hē ki [tum=ne kuch kitaabē paṛhi:
 me.DAT this thing known be.PRS.SG that you=ERG some books.F read.PFV.F
 hē]
 be.PRS.PL
 'I know (the proposition) that you have read some books.'
 possible: SOME≫THINK
- (93) *mujhe yeh baat pataa hē ki [ek=bhi: laṛke=ne kuch kitaabē
 me.DAT this thing known be.PRS.SG that one=even boy=ERG some books.F
 nahī: paṛhī:]
 NEG read.PFV.F.PL
 Intended: 'I know (the proposition) that no boy read some books.'

Therefore, in Hindi-Urdu as well as in English, it is the syntactic position at LF of a PPI indefinite, rather than its actual scope, that is relevant for licensing.

5.2 On the nature of indefinites

At the beginning of the article, in fn. 5, we alluded to a possible ambiguity of *some*: it is *a priori* possible that there exists a non-PPI *some* (*kuch*), which is characterized by the fact that it only yields wide scope interpretations, either through syntactic movement or through pseudoscope. This would be e.g. an indefinite specialized in specific interpretations; it would be insensitive to polarity. The configurations that we set up in this article (the paradigm examples of trapping, which are plainly ungrammatical, and the other cases in Hindi-Urdu and English, which either are ungrammatical or lack crucial readings) lead to unacceptable LFs. In those configurations, *some* (*kuch*) cannot be interpreted *in situ*, which only follows if it is a PPI and pseudoscope is irrelevant to its licensing. We thus conclude that either *some* (*kuch*) is ambiguous but it is a PPI in both its guises, or it is not ambiguous and it is a PPI. Either way, *some* (*kuch*) is always a PPI. Although we do not have a theory that can predict which items are or are not PPIs, it still seems like a striking coincidence that *some* (*kuch*) is a PPI under both of its incarnations, if it is ambiguous. This fact lends plausibility to a single nature of *some* (*kuch*).

5.2.1 The choice function analysis

Furthermore, the new facts described in this article allow us to shed new light on the very nature of PPI indefinites such as *some* or *kuch*. A conservative approach (following Montague 1973) analyzes them as generalized quantifiers; but their exceptional wide scope properties suggest that they might be of a different nature, perhaps that they can in fact lead two lives, as GQs and as something else. The prime candidate to explain the exceptional wide scope properties is the choice function analysis (Reinhart 1997, Winter 1997 a.o.).²⁷ An influential version of this approach appeals to a rule of existential closure; the existential closure operator binds a variable over choice functions, namely the denotation of *some* (*kuch*). A choice function is a function (type $\langle\langle e, t \rangle, e\rangle$) which applies to a property and returns an element of the characteristic set of that property, provided that this set is non-empty. In other words, a choice function (a member of the set CH defined below) is a way of picking an element from some (non-empty) set:

$$(94) \quad \text{CH} := \{f_{\langle\langle e, t \rangle, e\rangle} : \forall P[\{x : P(x) = \text{T}\} \neq \emptyset \rightarrow f(P) \in \{x : P(x) = \text{T}\}]\}$$

The indefinite, treated as a variable, is equipped with an index (interpreted by an assignment function); the existential closure is also equipped with an index: this is called Quantifier Indexing, and it is a way of establishing a restricted dependence between \exists and the indefinite, and of providing the conditions for Predicate Abstraction:

²⁷ Authors disagree on the question whether indefinites should always be interpreted as choice function variables. For example, Kratzer (1998) and Matthewson (1999) argue that all English indefinites are ambiguous between a choice function interpretation and a quantificational interpretation; Winter (1997) holds that all simple indefinites (the indefinites that contain *a*, *some*, or a bare numeral) are always interpreted using choice functions, while Reinhart (1997) claims that simple indefinites can be analyzed as GQs.

(95) $\llbracket \text{some}_i \rrbracket^g = g(i)$

(96) Existential Closure Rule (modified after Heim 1982):

$\llbracket \exists_i \alpha \rrbracket^g = \exists f \in \text{CH}: \llbracket \alpha \rrbracket^{g[i \rightarrow f]}$

Existential closure can apply non-locally: it can occur wherever it is interpretable, at the root or embedded, and for that reason it can account for the wide scope of the indefinites (some versions of the choice function approach such as Kratzer's (1998) do away with existential closure but add a parameter to the function, in order to account for the restrictions on the intermediate scope readings of indefinites). For example, (97) receives the truth-conditions in (98):

(97) If John invites some philosopher to the party, Mary will be offended. (=4)

(98) $\exists f[\text{CH}(f) \wedge (\text{invite}'(f(\text{philosopher}'))(j) \rightarrow \text{offended}'(m))]$

(98) says that there is some way of choosing such that if John invites the philosopher picked out by it, Mary will be offended. Assuming that PPI indefinites can (or have to) denote variables over choice functions, what do our new facts say about choice functions? Regardless of whether *some* (*kuch*) should always be analyzed as a choice function variable or not, as long as it can be, it is a PPI in this construal. Given what we know about PPIs, there is no a priori reason to discard this possibility: PPIs vary greatly in categories and in semantic types, as we find among them verbs (the Hindi-Urdu compound verbs), phasal adverbs (*still*, *already*...), and quantificational expressions (*must*, *seem*, *should*, Dutch *iedereen* 'everybody', ...). Now, could an expression of type $\langle\langle e, t \rangle, e\rangle$ be a PPI? Assuming the licensing condition from Section 2 (from Homer 2012), which crucially does not countenance pseudoscope, we can show that if *some* (*kuch*) could be construed in such a way, we would not observe the restrictions on its distribution (unacceptability in the immediate scope of a clausemate negation at LF, in trapping configurations, etc.), which is admittedly an unwelcome outcome. Let's see why.

(99) **Licensing condition of *some*** (from Homer 2012):

Some is licensed in sentence *S* only if there is a domain of *some* in *S* that is not DE with respect to the position of *some*.

(100) A constituent A is DE with respect to the position of α ($\llbracket \alpha \rrbracket \in D_\sigma$) iff the function $\lambda x_\sigma. \llbracket A[\alpha/v_{\sigma,i}] \rrbracket^{g[v_{\langle \sigma, i \rangle} \rightarrow x]}$ is DE.

$A[\alpha/\gamma]$ is the result of replacing α with γ in A.

Note that the licensing condition might need to be modified for *kuch*, as it is possible that *kuch* is in fact sensitive to anti-additivity, instead of mere DENess. Being DE is a necessary condition for being AA. It turns out that we do not need to worry about the sensitivity of indefinites qua choice function variables to anti-additivity, as the DENess, and hence the anti-additivity, of any given constituent with respect to the position of an expression denoting a choice function variable is not warranted. This is because when, following (100), one abstracts over such a variable, whose type ends in *e*, the resulting function is only defined for arguments that cannot stand in a cross-categorical entailment relation, for only arguments whose type ends in *t* (i.e. which yield propositional objects

once they have been given all their arguments) can stand in such a relation, per the definitions of DEness and cross-categorial entailment (repeated from fn. 6):

- (101) a. A function f is downward-entailing *iff* for all A, B in the domain of f such that $A \Rightarrow B$, $f(B) \Rightarrow f(A)$.
 b. Definition of \Rightarrow , cross-categorial entailment:
 (i) For p, q of type t : $p \Rightarrow q$ *iff* $p = \text{False}$ or $q = \text{True}$;
 (ii) For f, g of type $\langle \sigma, \tau \rangle$: $f \Rightarrow g$ *iff* for all x of type σ : $f(x) \Rightarrow g(x)$.

It is in fact an open question whether the undefinedness caused by the type of the choice function variable makes the necessary condition of (99), ‘there is a domain of *some* in S that is not DE with respect to the position of *some*’, undefined or always true or false. But we do not need to settle the issue. It suffices to note that given this licensing condition, either the acceptability of a PPI choice function variable will always be undecidable (if the licensing condition cannot be applied), or the choice function variable will be uniformly acceptable or unacceptable (if the necessary condition contained in (99) is always or never met). We do not observe this kind of uniform behavior though: the acceptability of the putative choice function variable *some* (*kuch*), as attested by the availability of exceptional scope, varies, and depends systematically on monotonicity.

5.2.2 The singleton indefinite analysis (Schwarzschild 2002)

If we turn to an alternative *in situ* view of exceptional scope of indefinites, namely Schwarzschild’s (2002) singleton indefinite analysis, we see that, under the licensing condition (99), it fares better than its competitor, the choice function approach. Schwarzschild 2002 conforms with the traditional view of *some* as an existential quantifier (type $\langle \langle e, t \rangle, \langle \langle e, t \rangle, t \rangle \rangle$), but accounts for apparent exceptional wide scope in pragmatic terms. The source of pseudoscope of indefinites lies in quantifier domain restriction: if indefinites are generalized quantifiers, then it is expected that, just like any other quantifier, their domain can be implicitly restricted. Restricting the domain of an indefinite to a singleton set results in neutralizing the scope of the indefinite, similarly to a definite. In a sense then this analysis agrees with Fodor and Sag 1982 in ascribing exceptional wide scope, which is in fact scopelessness, to a referential construal of the indefinite; but no ambiguity needs to be posited to account for the apparent special behavior of *some*, for a referential indefinite is not essentially different from a non-referential indefinite; the only difference lies in the size of the domain. This analysis also manages, unlike Fodor and Sag’s, to account for intermediate scope readings (which were pointed out by Farkas (1981) and King (1988)), by letting the quantifier’s restrictor contain bound variables. Furthermore, it does not require any movement: exceptional wide scope does not involve island-violating or clause-boundedness violating movement, and the indefinite takes wide scope while being interpreted *in situ*. Under this approach, *some* (*kuch*) is always a generalized quantifier PPI, subject to the same syntactic conditions on movement as other GQs. We can thus apply the licensing condition (99) to it: the type of the indefinite ends in t , so we do not run into the definedness issue. We can compute the DEness of constituents with respect to the position of *some* (*kuch*), and we correctly predict the new facts described in this article: in all the ex-

amples where the PPI is trapped or appears in the coordinate structure island, all of its domains are DE (in fact AA) w.r.t. its position.

5.2.3 Alternative-based licensing (Nicolae 2012a,b)

The comparison between the two *in situ* accounts of exceptional wide scope, i.e. choice functions vs. singleton indefinites, can be carried out on the basis of a different rule for evaluating the acceptability of PPIs. Building upon Chierchia's (2013) theory of polarity based on alternatives and exhaustification, Nicolae (2012a,b) proposes a system where *some* carries a feature, the $[+D_E]$ feature, which needs to be checked by a c-commanding operator carrying the same feature, namely the covert operator **E** (a covert, presuppositionless version of the particle *even*). In this system, there is actually no licensing condition in the strict sense: polarity items do not need to be licensed. But the presence of an operator of exhaustification, needed for the purpose of checking a syntactic feature, can lead to a semantic failure in certain environments, specifically a contradiction (statements that come out as always true or always false, by an arbitrary substitution of the lexical terminal nodes, are perceived as ungrammatical: this notion, inherited from Gajewski 2002, is a crucial ingredient of Chierchia 2013). PPI indefinites obligatorily activate super-domain alternatives. Here is an example of an ungrammatical sentence with an occurrence of *some* (analyzed as a GQ) in the immediate scope of a clausemate negation.

(102) *John didn't see someone $_{[+D_E]}$.

The set of alternatives is obtained by replacing the domain of the quantifier with proper supersets thereof; applying the exhaustifier **E** to its prejacent results in asserting the prejacent and adding that it asymmetrically entails all its alternatives (the prejacent is the least likely alternative, with likelihood being defined in terms of asymmetric entailment):

- (103) a. Assertion: $\neg\exists x \in D[\text{saw}'(j,x)]$
 b. Alternatives: $\{\neg\exists x \in D'[\text{saw}'(j,x)]: D \subset D'\}$
 c. $\mathbf{E}_{[D_E]}$ John didn't see someone $_{[+D_E]} =$
 $\neg\exists x \in D[\text{saw}'(j,x)] \wedge$
 $\forall D' \supset D [(\neg\exists x \in D[\text{saw}'(j,x)]) \triangleright_c (\neg\exists x \in D'[\text{saw}'(j,x)])]$
 d. $p \triangleright_c q$ iff $p \Rightarrow q$ and $q \not\Rightarrow p$

The exhaustification with **E** (103c) is contradictory, as the alternatives entail the prejacent (for any set D' a proper superset of D , that John didn't see any member of D' entails that John didn't see any member of D). If there was no negation in the prejacent, as in (104), the direction of entailment would be reversed and the result of exhaustification would be coherent (if John saw a member of a certain domain, then he saw a member of any proper superset of that domain), as desired:

(104) $\mathbf{E}_{[D_E]}$ John saw someone $_{[+D_E]}$.

Note that in order to apply Nicolae's procedure to *some* (*kuch*) interpreted as a choice function variable, we need to assume that the variable carries the $[+D_E]$ feature and

activates super-domain alternatives (obtained by substituting the denotation of its NP argument with proper supersets thereof).

$$(105) \quad \mathbf{E}_{[D_E]} \exists_i \dots \text{NEG} \dots \text{some}_{i[+D_E]}$$

With an LF such as (105), we predict that exhaustification with **E** is coherent, since the existential closure operator scopes above negation. The interpretation is indeed as in (106):

$$(106) \quad \exists x \in D[\neg \text{saw}'(j,x)] \wedge \forall D' \supset D[(\exists x \in D[\neg \text{saw}'(j,x)]) \triangleright_c (\exists x \in D'[\neg \text{saw}'(j,x)])]$$

However this is an incorrect prediction, as the PPI is not in fact acceptable in the immediate syntactic scope of negation at LF, regardless of its actual semantic scope, as we demonstrated.²⁸ It again seems that the interpretation of PPI indefinites as choice function variables is incompatible with a plausible condition on the acceptability of PPIs. Note that Nicolae's principle, unlike Homer's, is not suited to systematically rule out pseudoscope as a way of satisfying the needs of PPIs: it predicts coherent exhaustification when the indefinite takes wide scope over negation via an existential closure operator. But it does not predict that all pseudoscope devices should be sufficient to salvage PPIs, as it makes the right prediction about the singleton indefinite construal. When we apply Nicolae's analysis to Schwarzschild's uniform GQ interpretation of indefinites, even though the reduction of the domain to a singleton yields wide pseudoscope of the quantifier, we see that Nicolae's procedure correctly predicts ungrammaticality in the cases of interest. Going back to (103c) (or any configuration where the PPI is in the immediate scope of a clausemate negation), with the restrictor of *some* a singleton set, we correctly derive a contradiction when exhaustifying the alternatives with **E** (we form alternatives by substituting the singleton domain in the preadjacent with proper supersets thereof).

Conclusion

Trapping configurations in Hindi-Urdu and the other configurations that we set up for English indicate that pseudoscope is not relevant for the licensing of PPI indefinites, while syntactic scope at LF is. Whether *some*-type indefinites are ambiguous or not between a GQ interpretation and some other interpretation, e.g. choice function variables, they are PPIs in all their guises. We used two plausible licensing conditions, Homer's and Nicolae's (or rather two principles for assessing the acceptability of PPIs), and applied them to two accounts of wide scope indefinites (the choice function and the

²⁸In trapping configurations, the PPI co-occurs with an NPI. Under the Chierchia-Nicolae approach, each PI activates domain alternatives: *any* activates sub-domain alternatives, while *some* activates super-domain alternatives. It might thus be the case that the exhaustifications of the two sets of alternatives conflict with each other (Homer 2012 evidenced the existence of 'entanglement' between *some* and *any*). But we can assume that in our coordinate structure configuration (87) at least, the unavailability of the PPI is not due to a clash caused by two conflicting exhaustifications, as the disjunction, the only other candidate for exhaustification, is in a DE environment, while it only gives rise to a scalar implicature, a product of exhaustification, in non-DE environments.

singleton indefinite accounts). Granted, we do not have a decisive argument against the choice function account, but we observe that it cannot be right if either of the licensing procedures is correct. On the other hand, the singleton indefinite account, which is a unified GQ account, makes the right predictions.

References

- Abusch, Dorit. 1994. The scope of indefinites. *Natural Language Semantics* 2:83–135.
- Baker, Carl Leroy. 1970. Double negatives. *Linguistic Inquiry* 1:169–186.
- Bruening, Benjamin. 2001. QR obeys superiority: Frozen scope and ACD. *Linguistic Inquiry* 32:233–273.
- Büring, Daniel. 2005. *Binding theory*. Cambridge Textbooks in Linguistics. Cambridge University Press.
- Chierchia, Gennaro. 2001. A puzzle about indefinites. In *Semantic interfaces: Reference, anaphora, and aspect*, ed. C. Cecchetto, G. Chierchia, and M. T. Guasti, 51–89. Stanford: CSLI.
- Chierchia, Gennaro. 2004. Scalar implicatures, polarity phenomena, and the syntax/pragmatics interface. In *Structures and beyond*, ed. A. Belletti, 39–103. Oxford: Oxford University Press.
- Chierchia, Gennaro. 2006. Broaden your views: Implicatures of domain widening and the ‘logicality’ of language. *Linguistic Inquiry* 37:535–590.
- Chierchia, Gennaro. 2013. *Logic in grammar: polarity, free choice, and intervention*. Oxford.
- Dayal, Veneeta Srivastav. 1994. Binding facts in Hindi and the scrambling phenomenon. In *Theoretical perspectives on word order in South Asian languages*, ed. Miriam Butt, Tracy Holloway King, and Gillian Ramchand, number 50 in CSLI Lecture Notes, 237–262. Stanford, California: CSLI.
- Farkas, Donka. 1981. Quantifier scope and syntactic islands. In *Papers from the 17th regional meeting of the Chicago Linguistic Society*, ed. Randall Hendrick, Carrie Masek, and Mary Frances Miller, 59–66. University of Chicago: Chicago Linguistics Society.
- Ferreira, Fernanda, and Naomi Patson. 2007. The “good enough” approach to language comprehension. *Language and Linguistics Compass* 1:71–83.
- Fodor, Janet, and Ivan Sag. 1982. Referential and quantificational indefinites. *Linguistics and Philosophy* 5:355–398.
- Gajewski, Jon. 2002. On analyticity in natural language. Ms., University of Connecticut.
- Gajewski, Jon. 2005. Neg-raising: Polarity and presupposition. Doctoral Dissertation, MIT, Cambridge, Massachusetts.
- Geurts, Bart. 1996. On *No*. *Journal of Semantics* 13:67–86.
- Grodzinsky, Yosef, and Tanya Reinhart. 1993. The innateness of binding and coreference. *Linguistic Inquiry* 24:69–102.
- Heim, Irene. 1982. The semantics of definite and indefinite noun phrases. Doctoral Dissertation, UMass, Amherst.

- Hoji, Hajime. 1985. Logical form constraints and configurational structures in Japanese. Doctoral Dissertation, University of Washington.
- Homer, Vincent. 2010. Epistemic modals: High ma non troppo. In *Proceedings of NELS 40*, 273–286.
- Homer, Vincent. 2012. Domains of polarity items. *Journal of Semantics* (forthcoming).
- Homer, Vincent. 2015. Neg-raising and positive polarity: The view from modals. *Semantics and Pragmatics* 8:1–88. URL <http://dx.doi.org/10.3765/sp.8.4>.
- Hook, Peter Edwin. 1973. The compound verb in Hindi. Doctoral Dissertation, University of Pennsylvania.
- Iatridou, Sabine, and Ivy Sichel. 2008. Negative DPs and scope diminishment: Some basic patterns. In *Proceedings of NELS 38*, ed. Anisa Schardl, Martin Walkow, and Muhammad Abdurrahman, 411–424.
- Jacobs, Joachim. 1980. Lexical decomposition in Montague grammar. *Theoretical Linguistics* 7:121–136.
- Johnson, Kyle, and Satoshi Tomioka. 1998. Lowering and mid-size clauses. In *Proceedings of the 1997 Tübingen Workshop on Reconstruction*, ed. Graham Katz, Shin-Sook Kim, and Winhart Haike, 185–206. Tübingen, Germany: Sprachtheoretische Grundlagen für die Computer Linguistik.
- Kidwai, Ayesha. 2000. *XP-adjunction in universal grammar: Scrambling and binding in Hindi-Urdu*. Oxford Studies in Comparative Syntax. New York, NY: Oxford University Press.
- King, Jeff C. 1988. Are indefinite descriptions ambiguous? *Philosophical Studies* 53:417–440.
- Koller, Alexander, and Joachim Niehren. 1999. Scope underspecification and processing. ESSLLI Reader.
- Kratzer, Angelika. 1998. Scope or pseudoscope? Are there wide-scope indefinites? In *Events and grammar*, ed. Susan Rothstein, 163–196. Dordrecht: Kluwer Academic Publishers.
- Kumar, Rajesh. 2006. *The syntax of negation and the licensing of negative polarity items in Hindi*. Outstanding Dissertations in Linguistics. London: Routledge.
- Kuno, Susumu. 1973. *The structure of the Japanese language*. Cambridge, MA: Massachusetts Institute of Technology.
- Ladusaw, William A. 1992. Expressing negation. In *Proceedings of SALT 2*, ed. Chris Barker and David Dowty, 237–259. Columbus: Ohio State University.
- Lahiri, Utpal. 1998. Focus and negative polarity in Hindi. *Natural Language Semantics* 6:57–123.
- Larson, Richard. 1990. Double objects revisited: Reply to Jackendoff. *Linguistic Inquiry* 21:589–632.
- Linebarger, Marcia C. 1980. The grammar of negative polarity. Doctoral Dissertation, MIT, Cambridge, Massachusetts.
- Linebarger, Marcia C. 1987. Negative polarity and grammatical representation. *Linguistics and Philosophy* 10:325–387.

- Mahajan, Anoop Kumar. 1990a. The A/A-bar distinction and movement theory. Doctoral Dissertation, MIT, Cambridge, Massachusetts. Distributed by MIT Working Papers in Linguistics.
- Mahajan, Anoop Kumar. 1990b. LF conditions on negative polarity licensing. *Lingua* 80:333–348.
- Matthewson, Lisa. 1999. On the interpretation of wide-scope indefinites. *Natural Language Semantics* 7:79–134.
- May, Robert. 1977. The grammar of quantification. Doctoral Dissertation, MIT, Cambridge, Massachusetts.
- Montague, Richard M. 1973. The proper treatment of quantification in ordinary English. In *Formal philosophy*, ed. R. H. Thomason, 247–270. New Haven: Yale University Press.
- Nakanishi, Kimiko. 2001. Indefinites and frozen scope in Japanese: Restriction on QR and choice functions. In *Proceedings of WCCFL 20*, ed. K. Megerdumian and L. A. Barel, 456–469. Somerville: Cascadilla Press.
- Nevins, Andrew, and Pranav Anand. 2003. Some AGREEMENT matters. In *Proceedings of WCCFL 22*, ed. Gina Garding and Mimura Tsujimura, 370–383. Somerville, MA: Cascadilla Press.
- Nicolae, Andreea Cristina. 2012a. Negation-resistant polarity items. *Empirical Issues in Syntax and Semantics* 9:225–242.
- Nicolae, Andreea Cristina. 2012b. Positive polarity items: An alternative-based account. In *Proceedings of Sinn und Bedeutung 16*, 475–488.
- Penka, Doris. 2007. Negative indefinites. Doctoral Dissertation, Universität Tübingen, Tübingen, Germany.
- Reinhart, Tanya. 1997. Quantifier scope: How labor is divided between QR and choice functions. *Linguistics and Philosophy* 20:335–397.
- Richards, Norvin. 1997. What moves where when in which language? Doctoral Dissertation, MIT, Cambridge, Massachusetts.
- Ruys, Eddy. 1992. The scope of indefinites. Doctoral Dissertation, University of Utrecht.
- Sanford, Anthony J., and Patrick Sturt. 2002. Depth of processing in language comprehension: Not noticing the evidence. *Trends in Cognitive Science* 6:382–386.
- Schwarzschild, Roger. 2002. Singleton indefinites. *Journal of Semantics* 19:289–314.
- de Swart, Henriëtte. 1998. Licensing of negative polarity items under inverse scope. *Lingua* 105:175–200.
- de Swart, Henriëtte. 2000. Scope ambiguities with negative quantifiers. In *Reference and anaphoric relations*, ed. Klaus von Stechow and Urs Egli, 109–132. Dordrecht: Kluwer.
- Szabolcsi, Anna. 2004. Positive polarity-negative polarity. *Natural Language and Linguistic Theory* 22:409–452.
- Szabolcsi, Anna. 2010. *Quantification*. Research Surveys in Linguistics. Cambridge University Press.
- Uribe-Etxebarria, Myriam. 1994. Interface licensing conditions on negative polarity items: A theory of polarity and tense interactions. Doctoral Dissertation, University of Connecticut, Storrs.

- Uribe-Etxebarria, Myriam. 1996. Levels of representation and negative polarity item licensing. In *Proceedings of WCCFL 14*, ed. J. Camacho, L. Choueiri, and M. Watanabe, 571–586. Stanford, CA: CSLI Publications.
- Winter, Yoad. 1997. Choice functions and the scopal semantics of indefinites. *Linguistics and Philosophy* 20:399–467.
- van der Wouden, Tom. 1997. *Negative contexts. Collocation, polarity and multiple negation*. London: Routledge.
- Zeijlstra, Hedde. 2017. Universal quantifier PPIs. *Glossa: A Journal of General Linguistics* 2:1–25. URL <http://doi.org/10.5334/gjgl.220>.
- Zeijlstra, Hedde, and Doris Penka. 2005. Negative indefinites in Dutch and German. Ms., Universität Tübingen, Tübingen, Germany.
- Zwarts, Frans. 1998. Three types of polarity. *Plurality and Quantification* 69:177–238.