



Licensing of PPI indefinites: Movement or pseudoscope?

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Published online: 30 August 2019
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Abstract

Positive Polarity indefinites (PPI indefinites), such as *some* in English, are licensed in simplex negative sentences as long as they take wide scope over negation. When it surfaces under a clausemate negation, *some* can in principle take wide scope either by movement or by some semantic mechanism; e.g., it can take pseudoscope if it is interpreted as a choice function variable. Therefore, there is some uncertainty regarding the way 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.

Keywords Positive polarity · Hindi-Urdu · Indefinites · Choice functions · Pseudoscope · Exhaustification

Introduction

Positive Polarity Items (PPIs) are phrases that are very diverse from the perspective of their syntactic labels and makeup, but 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—a notion we'll look at closely in Sect. 1—is the immediate scope of a clausemate negation. That's why clausemate negation is commonly used to diagnose PPI-hood: barring rescuing or shielding, two concepts we

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also elucidate in Sect. 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 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, as shown in (3):

- (3) 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. If *some* is a generalized quantifier (GQ), it can achieve wide scope via Quantifier Raising (QR).

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 1993; Reinhart 1997):

¹ For 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 2011, 2013, 2015), which is normally interpretable with narrow scope under a clausemate negation, without shielding or rescuing; similarly *iedereen* 'everybody' in Dutch (Zejlstra 2017).

² The 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 value 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; 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.

- (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 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 optionally be interpreted as a choice function variable (Reinhart 1997; Winter 1997; Kratzer 1998; Matthewson 1999; Chierchia 2001; see also Sect. 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 pseudoscope over the anti-licenser without moving, using the kind of device we see at play when it takes ultra-wide scope out of a tensed clause or an island (this is the semantic route to wide scope).⁵ Saying that *some* can QR is to assume that it is or can be a generalized quantifier; the availability of pseudoscope on the other hand suggests that *some* can also be interpreted as a choice function variable,⁶ although it is possible to maintain a uniform GQ analysis for *some* by implicitly restricting its domain of quantification (Schwarzschild 2002), a point we address in Sect. 5.2.2.

³ Existential quantification in the antecedent of a conditional (with a material implication 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):

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

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 this dialogue B's response is only natural if there is wide scope existential import in the original assertion.

⁴ Further 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 QRed 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.

⁵ This 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 license the PPI, but could also result from the idiosyncrasy of the homophonous item. We defer the discussion of this possibility until Sect. 5.

⁶ 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.

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 (Sect. 1). Then, in Sects. 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. We first determine the scope of sentential negation in Hindi-Urdu, and then introduce the indefinite *kuch*, which we show to be a PPI indefinite; it is possible to construct so-called *trapping configurations*, i.e., negative sentences where the PPI follows a negative polarity item (NPI) on the surface and gets anti-licensed, for want of covert raising past negation. In English as well, it is possible to demonstrate that pseudoscope (the semantic route to wide scope) is irrelevant for licensing (Sect. 4). The implications for theories of indefinites of the novel facts presented here are drawn in Sect. 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. These facts, 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 (Sect. 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

But it is not anti-licensed if it takes narrow scope under a superordinate negation or immediately under a clausemate merely downward-entailing (DE) expression:⁷

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

⁷ Downward-entailingness (DE-ness) 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-categorial entailment, which is defined in the following way by von Stechow (1999) (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 : $f(x) \Rightarrow g(x)$.

It thus appears that *some* is sensitive (i) to the negative strength of certain operators (hence the difference between (5a)-(5b), which feature anti-additive operators,⁸ and (6b), which features a merely DE operator), and (ii) to the distance (to be defined more precisely) that separates it from such operators (as shown by (5a) vs. (6a); see Ladusaw 1980: 84–85). 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 (2011, 2019) showed that the contrast between (5a) and (6a) could be naturally understood against the background of the licensing of negative polarity items (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 at LF.

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 at LF. What does it mean to talk about the monotonicity of a constituent? Monotonicity (DE-ness, anti-additivity) is a property of functions; so we can define a function by abstracting over the position occupied by a 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 purposes, the biggest 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: 34):

(9) [not [any dogs] 1 John saw t_1]

(10) $f := \lambda x_{et,ett}. \llbracket [\text{not } [v_{\langle et,ett,2 \rangle} \text{ dogs}] 1 \text{ John saw } t_1] \rrbracket^{g[v_{\langle et,ett,2 \rangle} \rightarrow x]}$

⁸ Anti-additivity is a more strongly negative property than mere DE-ness: 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 anti-additive (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

- (11) a. $\llbracket \text{at least two} \rrbracket \Rightarrow \llbracket \text{any} \rrbracket$ ⁹
 b. $f(\llbracket \text{any} \rrbracket) \Rightarrow f(\llbracket \text{at least two} \rrbracket)$
 c. ‘It’s not the case that John saw any dogs’ entails ‘It’s not the case that John saw 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* (a phenomenon already observed by Baker (1970)) 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.
 $\checkmark \text{IMPOSSIBLE} \gg \text{NEG} \gg \text{SOME}$

According to Homer (2011, 2019), rescuing simply amounts to flip-flop, or polarity reversal (two DE expressions create a UE environment); Homer 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*.¹⁰ 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 (Kroch 1979: 121–122):

- (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.
 $\checkmark \text{NEG} \gg \text{SOME}$
 c. Not every student understood something/*anything from the lecture.
 $\checkmark \text{NEG} \gg \text{SOME}$

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). Chierchia (2004, 2006, 2013) argues 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; the effect of this incorporation is a non-monotonic local environment, leading to the anti-licensing of the NPI. We can assume that the same cause (the breaking of the monotonicity of the

⁹ This is assuming that *any*, like *some*, is an existential quantifier over individuals; ‘ \Rightarrow ’ stands for cross-categorical entailment, as defined in fn. 7.

¹⁰ A 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.

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, shown in (6a)? The licensing condition of *some*, just like that of NPIs stated in (7), should contain an existential quantification ('there is a constituent...'). The difference between (5a) and (6a) (repeated below) must be that in the former it is impossible to find a constituent that is not DE w.r.t. the position of the PPI.

- (14) a. John didn't understand something from the lecture. (=5a)

*NEG>>SOME
- b. I don't think that John understood something from the lecture. (=6a)

✓NEG>>SOME

But how can this be? It seems that the vP 'understand something' (with *something* adjoining to vP by QR and being interpreted in this position, under negation) has the right monotonicity; that is, 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. 10, and minimizer NPIs for all speakers), in any given clause, only the constituents that contain the Pol head of that clause are eligible;¹¹ he calls those constituents that are eligible for assessing a polarity item π the *domains* of π . The licensing condition is thus:

- (15) *Licensing condition of 'some'* (Homer 2011, 2019):

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*.

This condition holds at LF. 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*. The schematic LFs below illustrate this point; the constituents that are domains of *some* have a box around their names:

- (16) a. LF of (6a): [TP T [PolP not [vP think [CP that [TP John T [PolP [vP some₁ understand t₁]]]]]]]]

b. LF of (5a): *[TP John T [PolP not [vP some₁ understand t₁]]]

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) and also distance. As for the latter, the negative part of *nobody* is sentential negation, therefore *nobody* is 'contained' in PolP: this is a version of the decomposition analysis of negative indefinites advocated in Jacobs 1980, Kratzer 1995, Rullmann 1995, Iatridou and Sichel 2009, Brasoveanu et al.

¹¹ Pol is located above v and below T. Its specifier is where sentential negation resides; in positive sentences, this specifier is empty.

2013 (on decomposition, see also Zeijlstra and Penka 2005, Penka 2007; note that the decompositional approach is criticized by Geurts (1996) and de Swart (2000), a.o.). Unlike *nobody*, *few students* can scope outside of PolP, as shown in (18c):

- (17) a. Nobody swims.
 b. [_{TP} T [_{PolP} not anyone [_{VP} swim]]]
- (18) a. Few students swim.
 b. [_{TP} few students T [_{PolP} [_{VP} swim]]]
 c. Few students don't swim. ✓FEW>>NEG

In fact, *few students* is also a potential anti-licenser, but because it can be interpreted in a position outside of PolP, e.g., Spec,TP, it is not usually an anti-licenser of *some* (as illustrated by the grammatical (5b)). Showing that *some* is sensitive to DE-ness requires using another property described in Homer 2011, 2019, 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 (other cases of entanglement between polarity items were observed in Baker 1970 and Ladusaw 1980). To see the effect of DE-ness on *some*, we use entanglement as follows:

- (19) a. At most five people sold someone anything.
*AT_MOST_FIVE>>SOME
 b. (19a): *[[_{TP}] at most five people T [_{PolP}] [_{VP} someone₂ anything₁ sell t₂ t₁]]]

Some cannot take scope under *at most five people*, a merely DE expression, in (19a). Homer assumes that the NPI *any* doesn't raise out of PolP, due to an independently motivated ban on raising of NPIs. The relative scope of the two quantifiers at LF remains what it is on the surface, because of scope freezing (Bruening 2001) in double object constructions.¹² The NPI *any* needs to be evaluated in constituents that contain *at most five people*, but in those constituents, *some* is also present and should be acceptable too, by virtue of entanglement. But it is not, since it cannot take narrow scope under the DE expression. Therefore it appears that DE-ness anti-licenses *some*.

Summing up, this particular view of PPI licensing holds that only the syntactic position of PPIs at LF, 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 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 pseudoscope is not sufficient to salvage PPIs.

¹² In 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.

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 at LF, 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 negative 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 negative 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.

- (20) 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,¹³ in order to acknowledge this possibility, we will use the label 'NEG' to refer to sentential negation as diagnosed by scope tests, keeping in mind that it need not be the same as

¹³ Alternatively, *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.

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):

- (21) a. NPI subject licensed by sentential negation:
 ek=bhi: larke=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, and that it doesn’t move, NEG is either (i) below the canonical position of subjects or (ii) 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 present purposes, 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 (i) below Asp or (ii) above Asp in Hindi-Urdu. To determine where NEG is relative to 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):

- (22) 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 at least two positions for the adverb *hameshaa*. One of them is above NEG, one of them below it. Note that in English too the two scope relations exist, but they are transparently read off of surface order:

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

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

- (24) ek=bhi: larke=ne hameshaa mehnat nahī: ki:
 one=even boy=ERG always handwork.F NEG do.PFV.F
 ‘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 (24) lacks the stronger reading:

- (25) a. A: ek=bhi: larke=ne hameshaa mehnat nahī: ki: (= (24))
 b. B: #aap=ne bilkul sahi: kahaa ki kisi=bhi: larke=ne
 you.HON=ERG exactly correct say.PFV that some=ever boy=ERG
 kabhi:=bhi: mehnat nahī: ki:
 sometime=EVER hardwork.F NEG do.PFV.F
 ‘#You said it exactly right that 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*. The NPI does not reconstruct to its base position under the adverb, but only undergoes short reconstruction from Spec,AspP to under NEG.¹⁴

- (26) Surface: [_{AspP} NPI_I [_{Asp} ... NEG ... t_I ... hameshaa ... [_{VP} t_I ...] Asp]]
 (27) After *short* reconstruction:
 [_{AspP} [_{Asp} ... NEG ... NPI_I ... hameshaa ... [_{VP} t_I ...] Asp]]

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—see Linebarger 1980 and Chierchia 2004—and so are their equivalents in Hindi-Urdu¹⁵). 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 (29):

- (28) Surface: [_{AspP} NPI_I [_{Asp} ... hameshaa ... NEG ... t_I ... [_{VP} t_I ...] Asp]]

¹⁴ Our bracketed structures show NEG as left-attached rather than right-attached, but nothing hinges on this decision.

¹⁵ (ii) is an example of intervention in Hindi-Urdu:

- (i) har larke=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 larke=ne ek=bhi: larke:=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

(29) *After *short* reconstruction:

[_{AspP} [_{Asp} ... hameshaa ... NEG ... NPI₁ ... [_{vP} t₁ ...] Asp]]

Under the hypothesis which holds that NEG sits below Asp, this fact suggests that reconstruction of subject NPIs is in fact barred. But then, this hypothesis becomes untenable: a contradiction follows from it, for we infer both that short reconstruction is possible and that no reconstruction is possible. We could rescue the hypothesis if we made a stipulation: suppose that *hameshaa* cannot be merged below the canonical position of subjects and above the putative position of NEG; then, in order to get the ALWAYS≫NEG≫ANY reading, *hameshaa* must be higher than the canonical subject position on the surface. This means in turn that the subject NPI must first scramble past this high position, yielding the word order where the NPI precedes *hameshaa*, and then reconstruct under NEG at LF. Scrambled NPIs, as it turns out, cannot reconstruct, as we show in Sect. 3.2 of the present article. Making this stipulation about *hameshaa* would thus allow us to explain why the relevant reading is missing.

If on the other hand NEG sits above Asp, i.e., higher than the canonical surface position of the subject, then the NPI is licensed and doesn't need to reconstruct for licensing (but might still reconstruct for independent reasons). We can then straightforwardly account for the availability of the NEG≫ANY≫ALWAYS reading:

(30) Surface: [... NEG ... [_{AspP} NPI₁ [_{Asp} ... hameshaa ... [_{vP} t₁ ...] Asp]]]

The unavailability of the ALWAYS≫NEG≫ANY reading is also easily derived: this reading would require having the adverb higher than NEG on the surface, with the subject NPI scrambled past it.¹⁶ Since scrambled NPIs don't reconstruct (see Sect. 3.2 below), we expect the NPI to be ungrammatical.¹⁷

The hypothesis that negation sits higher than Asp fares better than the hypothesis that it is lower, because it explains the relevant facts without stipulation.¹⁸ It makes reconstruction of subject NPIs redundant. Note that if reconstruction of subject NPIs is in fact *impossible*, and the ban holds across languages, then the difference between English and Hindi-Urdu would lie in the position of sentential negation w.r.t. subjects (higher than the canonical position of subjects in Hindi-Urdu, lower in English). For in English subject NPIs are not licensed, indicating that they cannot reconstruct, while certain non-NPI subjects can.¹⁹

¹⁶ Covertly moving the adverb from a low position past NEG is not an option: QR of adverbs is undocumented, as far as we can tell; see Sect. 3.1 for independent evidence that covert movements are barred or very limited in Hindi-Urdu.

¹⁷ Note that the ALWAYS≫NEG reading of (22) requires, if the NEG-above-Asp hypothesis is correct, that the subject DP *Ram* scrambles into a high position on the surface.

¹⁸ Using a different set of facts, Kumar (2006) also arrives at the conclusion that NEG, which he believes to be the same as *nahī̄*, is above Asp; however he contends that subjects are higher than NEG in their canonical position.

¹⁹ When an NPI is embedded in a subject in English, it can be licensed, inasmuch as the DP it is contained in can reconstruct:

- (31) a. No reconstruction:
 *Anyone didn't come.
- b. Reconstruction:
 (i) Everyone didn't come. ✓NEG≫EVERY
 (ii) Someone always found the solution to this puzzle. ✓ALWAYS≫SOME

Although we cannot be sure that it is impossible to reconstruct subject NPIs, we can show that reconstruction of non-NPI subjects in Hindi-Urdu is impossible. A simple test case is the following, where an existentially quantified subject precedes a universally 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:

- (32) ek/kisi: lar̥ke=ne hameshaa mehnat ki: (hɛ)
 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,²⁰ in which case subject NPIs are licensed without reconstruction.²¹ We also have evidence that non-NPI subjects do not reconstruct.

Footnote 19 continued

- (i) a. A doctor who knew anything about acupuncture was not available.
(Linebarger 1980, ex. (21a); de Swart 1998, ex. (13c))
- b. *A doctor who knew anything about acupuncture did not agree with the diagnosis.
(Linebarger 1980, ex. (22))

On the complex matter of the reconstruction of NPIs embedded in subjects in English, which is constrained by various factors such as aspectual properties of the main predicate, see Linebarger 1980, Uribe-Etxebarria 1994, 1996, and de Swart 1998.

²⁰ Under the hypothesis that *nahī:* is semantically negative, and that 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.

²¹ We can make a similar point using a universal quantifier over individuals rather than instants, such as *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: par̥hi:
 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

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 Sect. 3.2: there we will provide direct evidence that reconstruction of *scrambled* NPIs is unavailable.

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*.²² Like English *some*, in a simplex negative sentence, it cannot be interpreted with ‘imme-

Footnote 21 continued

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 Sect. 3.1 below).

²² The 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 PPI-hood (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 PPI-hood either (plurality of the restrictor seems to play a role in the PPI-hood of the Hindi-Urdu determiners):

- (ii) Ram=ne koi kitaab nahī: parhi:
 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.

diate' 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:

- (33) a. Some boys didn't read this book. only: SOME≫NEG
 b. John didn't read some books. only: SOME≫NEG
- (34) 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:
 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:

- (35) 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
- (36) 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

Footnote 22 continued

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

2.1.3 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.

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 Sect. 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 (37), 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):

- (37) a. *koi vajah he: [ki kuch lagaan naa barhaaye jaaē]*
 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
jaaē]
 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.

However, 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); thus (39) lacks a reading that (38) has:

- (38) 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.’

- (39) mujhe nahī: lagtaa ki John=ne kuch kitaabē 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
 Cannot mean: 'I don't think that John didn't read any books.'
 *NEG»NEG»SOME

This imperfect similarity between 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,²³ and they cannot scope above negation (in fact, given their verbal nature, it 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':

- (40) Simple verb:
 Ram=ne khaanaa khaayaa
 Ram=ERG food.MSG eat.PFV.MSG
 'Ram ate food.'
- (41) 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):

- (42) Negated simple verb:
 Ram=ne khaanaa nahī: khaayaa
 Ram=ERG food.MSG NEG eat.PFV.MSG
 'Ram did not eat food.'

²³ Given 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 we have 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 hē
 door open give.PFV PASS.PFV be.PRS.SG
 'The door has been opened.'

(43) Negated compound verb:

*Ram=ne khaanaa nahī: khaa liyaa
 Ram=ERG food.MSG NEG eat take.PFV.MSG
 Intended: 'Ram did not eat food.'

Compound verbs can be rescued when they occur in a subjunctive relative clause, but not when they occur in a complement clause, in a similar fashion to *kuch* (see (37b) and (39) above):

(44) 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.'

(45) mujhe nahī: lagtaa [ki John=ne yeh kitaabē nahī: paṛhī:/
 me.DAT NEG seem.HAB that John=ERG these books.F NEG read.PFV.FPL/
 *paṛh lī:]
 read take.PFV.FPL
 'I don't think that John didn't read these books.'

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:

(46) Subjunctive relative clause:

a. *Kuch*:

yahā: εsaa koi bhi: nahī: [jis=ne Sita=ke liye kuch kaam
 here such some ever NEG REL=ERG Sita=GEN for some work.MPL
 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:

(47) *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: 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.'

(48) Counterfactuals:²⁴

- a. *Kuch*:
 agar mē=ne Ram=ko kuch laḍḍu: nahī: khilaaye hote,
 if I=ERG Ram=DAT some laddu.MPL NEG feed.PFV.MPL be.HAB.MPL
 to vo zaruur behosh ho gayaa hotaa
 then he definitely unconscious be go.PFV be.HAB.MSG
 'If I hadn't fed Ram some laddus, he would have definitely lost conscious-
 ness.' IF»NEG»SOME
- b. Compound verb:
 agar mē=ne Ram=ko laḍḍu: khilaa nahī: diye hote,
 if I=ERG Ram=DAT laddu.MPL feed NEG give.PFV.MPL be.HAB.MPL
 to vo zaruur behosh ho gayaa hotaa
 then he definitely unconscious be go.PFV be.HAB.MSG
 'If I hadn't fed Ram laddus, he would have definitely lost consciousness.'

2.1.4 Lack of shielding

Kuch in Hindi-Urdu seems to differ from English *some* with respect to the phenomenon of *shielding* (Szabolcsi 2004, and Sect. 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*):

- (49) 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 (50) for universal QPs; see Sect. 2.1.1 above for evidence that *hameshaa* can take scope below NEG), making the absence of shielding shown in (51) surprising.

²⁴ Counterfactuals 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.

- (50) 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
- (51) 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 Sect. 3.1 below). At this point, we will just note that this reading becomes available if we scramble *kuch* over the potential shielder:

- (52) *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 didn’t always read them/hadn’t
 ever read them.’
 SOME≫NEG≫ALWAYS
 SOME≫ALWAYS≫NEG

We observe the same failure of shielding with compound verbs:

- (53) *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.’
- (54) *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 PPI-hood is easier to confirm, lead us to conclude that *kuch* is indeed a PPI.

2.2 Trapping

We have seen in (21) that sentential negation can license both subject and object NPIs. And we have seen in (34) 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*: 'any, even one', in the same sentence, the following generalization emerges:

- (55) *Trapping Generalization* (to be revised):
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):

- (56) *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:

- (57) ✓PPI_{subj} NPI_{obj} nahī: V
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:

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

We will refer to ungrammatical configurations characterized by (55), like (56), 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 Homer's licensing condition (Sect. 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 NEG corresponding to the surface order where the NPI precedes the PPI, i.e., three syntactic scope relations prior to potential ‘LF movements’ (raising or reconstruction):²⁵

- (59) Three surface syntactic scope relations 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 (59), 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 below; 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, since otherwise the PPI could covertly escape from the scope of negation in (59a), leading to grammaticality, contrary to fact. The second is that there is no reconstruction of scrambled NPIs, since otherwise the NPI could reconstruct under negation in (59b), leading to grammaticality, contrary to fact. If either movement is unavailable, (59c) cannot lead to a grammatical structure. 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.²⁶ This is in contrast to English (61), where the corresponding sentence permits both the surface scope and the inverse scope:

- (60) 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.’ $\exists \gg \forall$; * $\forall \gg \exists$

²⁵ Remember that NEG is sentential negation, and need not be identical to *nahī*.

²⁶ Nevins 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.

- (61) 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 (60) 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 into 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,AspP) is unavailable: if it existed, this movement could by itself, without the help of concomitant reconstruction of the subject, deliver inverse scope in (60). 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 Sect. 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:

- (62) OSV—available: $O \gg S$
 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: $\forall \gg \exists$

We can demonstrate the unavailability of covert raising past negation more directly, using the scope of *every* w.r.t. negation:²⁷ in (63), there is a scope ambiguity, and presumably *every* scrambles overtly past NEG under the EVERY \gg NEG reading; in (64) on the other hand, overt scrambling past negation doesn’t obtain (the NPI subject delimits the scope of negation), and accordingly the sentence lacks a wide scope reading of *every* over negation:

- (63) har laṛke=ne yeh kitaab nahī: paṛhi:
 every boy=ERG this book.F NEG read.PFV.F
 ‘Every boy didn’t read this book.’ EVERY \gg NEG; NEG \gg EVERY
- (64) ek=bhi: laṛke=ne har kitaab nahī: paṛhi:
 one=even boy=ERG every book.F NEG read.PFV.F
 ‘Not a single boy read every book.’ NEG \gg NPI \gg EVERY; *EVERY \gg NEG \gg NPI

²⁷ We thank an anonymous NALS reviewer for suggesting this mode of presentation and these examples to us.

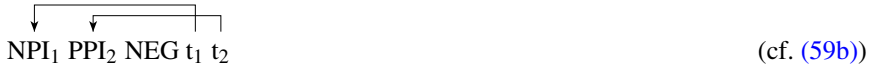
The unavailability of covert raising to high positions removes the possibility of undoing the trapping configuration by covertly moving the PPI past negation in (59a).

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:

(65) Derivation:

1. On the surface, both items have moved:



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 (Sect. 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 (cf. (32)) 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:

- (66) *NPI_{obj}1 PPI_{subj} t₁ nahī: V
 *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 (57), repeated below):

- (67) 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 (55)):

(68) \checkmark PPI_{obj} I NPI_{subj} t₁ nahī: V

(69) *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 (66) cannot be explained by a putative ban against scrambling of NPIs, as scrambled NPIs can in fact be licensed, as shown in (71), where scrambling is past a non-polarized subject:

(70) SOV:

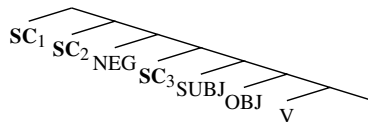
Ram=ne ek=bhi: laṛki:=se baat nahī: ki:
 Ram=ERG one=even girl=with talk NEG do.PFV.F
 'Ram didn't talk to any girl.'

(71) 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 subsection, scrambled NPIs are unable to reconstruct in general (not just out of trapping configurations like (66)), this means, for the grammatical cases with a non-polarized subject, e.g., (71), 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:

(72)



3.2.2 No reconstruction of scrambled NPIs 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:

(73) 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 $\text{NEG} \gg \text{EVERY} \gg \text{ANY}$, is ruled out because of the intervention effect of *every* and is not considered further here. In addition, the $\text{NEG} \gg \text{ANY} \gg \text{EVERY}$ 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 (Sect. 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 (73) has scrambled past it in the only available LF.

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

(74) NPI object is scrambled:

ek=bhi: kitaab har laṛke=ne nahī: paṛhi:
 one=even book every boy=ERG NEG read.PFV.F
 ‘No book is such that every boy read it.’

$\text{NEG} \gg \text{ANY} \gg \text{EVERY}$
 $*\text{EVERY} \gg \text{NEG} \gg \text{ANY}$

Here the $\text{NEG} \gg \text{ANY} \gg \text{EVERY}$ interpretation is the only one available.²⁸ If it was in fact possible to reconstruct the NPI, we would expect (74) to share the $\text{EVERY} \gg \text{NEG} \gg \text{ANY}$ reading with (73). 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 $\text{EVERY} \gg \text{NEG} \gg \text{ANY}$ reading entails the $\text{NEG} \gg \text{ANY} \gg \text{EVERY}$ reading. So, as we did previously in a similar situation (Sect. 2.1.1, ex. (25a)), we use a dialogue where an unambiguous paraphrase of the stronger reading is offered as a possible restatement of the sentence:

(75) a. A: ek=bhi: kitaab har laṛke=ne nahī: paṛhi: (= (74))
 b. B: #aap=ne bilkul sahi: kaha ki kisi=bhi: laṛke=ne
 you.HON=ERG exactly correct say.PFV that some=ever boy=ERG
 koi=bhi: kitaab nahī: paṛhi:
 some=EVER book.F NEG read.PFV.F
 ‘#You said it exactly right that 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 just scrambled NPIs: for example, a sentence where a *koi* ‘some’ quantifier phrase is scrambled past a subject only has a surface scope reading (see also Kidwai 2000: 52, ex. (61)).²⁹

(76) koi kitaab har laṛke=ne paṛhi:
 some book.F every boy=ERG read.PFV.F

²⁸ An anonymous *NALS* reviewer notes that they find the $\text{EVERY} \gg \text{NEG} \gg \text{ANY}$ reading, which we claim to be unacceptable, to be ‘more or less acceptable’ with focal stress on *har laṛke* ‘every boy’. We agree with their judgment but we disagree with their suggestion that this is due to reconstruction of the NPI. The fact that focal stress is needed on the universal quantifier suggests to us that focus might be making it possible for the universal quantifier to covertly take wide scope over the NPI. This is, of course, a speculation, as the current understanding of the interaction of prosody and scope in Hindi-Urdu is quite limited.

²⁹ Hindi-Urdu seems to differ from Japanese with regard to the reconstruction of local scrambling. In Japanese, scrambling a direct object (DO) past a subject (S) results in a scopally ambiguous sentence (Kuno 1973; Hoji 1985; Nakanishi 2001):

'Every boy read some book.'

only: SOME>>EVERY

There is, however, no blanket ban on reconstruction of scrambled elements: Mahajan (1997: 199–200) notes that scrambled numerically quantified existential quantifiers can reconstruct.³⁰ Unlike the above example with *koi* 'some', in (77b) the reconstructed interpretation is easily accessible.

(77) a. sab tiin ciizē khariidēge
all three books.F buy.FUT.3MPL
'Everyone will buy three things.'

b. [tiin ciizē]_i sab t_i khariidēge
three books.F all buy.FUT.3MPL
'Everyone will buy three things.'

EVERY>>3; 3>>EVERY

There is one domain, though, where the literature on scrambling has uncontroversially taken reconstruction to be available—the licensing of scrambled reflexives. It is well known that reflexives are grammatical under scrambling (Mahajan 1990a; Dayal 1994; Kidwai 2000):

(78) [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.'

Therefore we turn next to an examination of the trapping configuration with scrambled reflexives.³¹

Footnote 29 continued

- (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

³⁰ We thank an anonymous *NALS* reviewer for pointing out these facts to us.

³¹ Curiously, variable binding does not pattern with the binding of reflexives under scrambling. Reflexives remain grammatical under binding for all speakers, but scrambling disrupts variable binding for many though not all speakers (see also Pandit 1985, for examples involving locally scrambled gerunds).

- (i) a. [[har aadmi:]_i=ki: mehbuub:] [us=ki:_i beṭi:] =ko pasand karti: he
every man=GEN.F girlfriend he=GEN.F daughter=DAT like do.HAB.F be.PRS.SG
'Every man_i's girlfriend likes his_i daughter.'
- b. %[us=ki:_i beṭi:] =ko [[har aadmi:]_i=ki: mehbuub:] pasand karti: he
he=GEN.F daughter=DAT every man=GEN.F girlfriend like do.HAB.F be.PRS.SG
Intended: 'Every man_i's girlfriend likes his_i daughter.' (the sentence is fine without binding)

We don't know what governs this variation.

3.2.3 Forcing reconstruction with reflexives

Reconstruction is one way to handle the acceptability of reflexives under local scrambling. Moreover, if it is in fact how reflexives under local scrambling are licensed, then we make a prediction: if we put an NPI in the scrambled constituent that contains a reflexive, the trapping effect will go away, as in (65), schema 2. This is indeed what happens: observe the difference between (79) and (80):

- (79) 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.’ (=(66))
- (80) 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:

- (81) *[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 arises when the scrambled constituent contains a reflexive. The fact that the trapping effect disappears precisely when reconstruction is required supports our overall proposal, which relies on the unavailability of reconstruction of scrambled NPIs.³²

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:

- (82) 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
 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 (82) 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:

³² The 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.

- (83) [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 (55), repeated below (with the words ‘NPI’ and ‘PPI’ replaced with ‘NPI DP’ and ‘PPI DP’), needs to be revised:

- (84) *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 (80) and (82) tell us that the generalization is more abstract and can only be stated in terms of LF configurations, along the following lines:

- (85) *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. But overt movement (scrambling) saves the day ((69) repeated below):

- (86) ✓PPI_{obj}1 NPI_{subj} t₁ nahī: V
 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

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 (Sect. 2.1.4): in (51a), 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’, cf. (51b)). Strikingly, shielding doesn’t take place in Hindi-Urdu:

- (87) 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* (Sect. 2.1.1), and scope-shifting movement can be covert (Sect. 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 (88a), in contrast with (88b)) is an instantiation of the first possibility (Larson 1990, attributed to D. Lebeaux):

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

Both the indirect object (IO) and the direct object (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 (see fn. 12). 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.

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

We observe that there is a contrast in acceptability between the ungrammatical (89), where the PPI is trapped, and (90), where the relative scope of the quantifiers is not frozen (*some* can take wide scope w.r.t. negation):

- (90) John didn't show anything to someone. ✓SOME>>NEG

(91) is a control indicating that the order 'NEG ... PPI ... NPI' in a double object construction, which is not a trapping configuration despite being a scope freezing configuration, is grammatical, with wide scope of the PPI indefinite over negation:

- (91) *Control:*
 John didn't show someone any student. \checkmark SOME \gg NEG \gg ANY

Now, scope freezing is a limitation on QR and 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 (92), 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):

- (92) A: John showed every boy some book. \checkmark SOME \gg 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 (89), 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 (93), 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, and therefore nothing special (either QR or some semantic scope-taking mechanism) is needed to ensure that it is licensed:

- (93) There is no one who read something. \checkmark NO \gg SOME

There is still a way to create the desired configuration, which involves a disjunctive coordinate structure (hence not a clausal island).³³ This is illustrated in (94): 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):

- (94) 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.
 b. Unavailable reading: $\exists X[\text{professors}'(X) \wedge \neg \text{greet}'(\text{he}', X)] \wedge \neg \exists Y[\text{students}'(Y) \wedge \text{greet}'(\text{he}', Y)]$

³³ We cannot use the conjunction *and* in our constructed examples as it is a PPI shielder (Chierchia 2004, a.o.).

- 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 (94b) is unavailable, as shown by the continuation in (94a); 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 (94c) and represented in (94d): 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

In this section, we address the 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* (Sect. 5.1). The second one is about the very nature of indefinites (Sect. 5.2): the novel facts presented in this article lend support to a view of indefinites as generalized quantifiers (GQs), and are less straightforwardly compatible with the view that they are or can be interpreted as choice function variables. We show this by considering the predictions of the choice function analysis and the singleton indefinite analysis, two accounts of pseudoscope of indefinites, using two different 'licensing' conditions (Homer's in Sects. 5.2.1 and 5.2.2, and Nicolae's (2012a, b) in Sect. 5.2.3): with either of the conditions, only the singleton indefinite analysis, which treats indefinites as GQs uniformly, correctly predicts the interpretation pattern of PPI indefinites.

5.1 On pseudoscope

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

5.1.1 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:

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

This sets *some*-type PPIs apart from other PPIs, like *would rather* (see (1b)). 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 movement). So these are, *a priori*, two properties that could help explain the exemption from anti-licensing in (95) 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:

- (96) *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 .³⁴

This rule is in essence a rule of competition between *some* and *any*. It has some *a priori* plausibility, as *any* and *some* have 'symmetric needs', i.e., they are both sensitive to mere DE-ness, albeit with opposite effects.³⁵ The licensing condition (96) 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 (97), and the fact that they can both be interpreted with narrow scope under *impossible*, are at first sight problematic for (96):

- (97) 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 hypothetical licensing condition of *some* stated in (96) ('...there is a constituent γ of *S* in which replacing *some* with *any*. . .'), combined with the availability of many

³⁴ In its wording, this rule bears some resemblance to Büring'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.

³⁵ As explained in Sect. 1, 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 DE-ness.

constituents where the acceptability of PIs can be assessed, makes it possible for the PPI to be acceptable with narrow scope in (97): we would say that narrow scope *some* is acceptable in embedded constituents of (97), e.g., the embedded TP, because in these constituents, *any* is not acceptable.³⁶ Thus the two items can be licensed with narrow scope, while sharing the same surface position in the sentence.

The facts that we have described about English in Sect. 4 lead us to rule out this type of hypothesis, which countenances pseudoscope, no matter how it is achieved, 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 (95) 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 (96) is too permissive, as it wrongly predicts that *some* is grammatical in this frame if it is interpreted with pseudoscope over negation. (96) should thus be discarded. Homer's condition (15) repeated below, on the other hand, does not countenance pseudoscope and only makes reference to the position of the PPI at LF:

- (98) *Licensing condition of 'some'* (from Homer 2011, 2019):
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*.
 This condition holds at LF.

It thus captures the facts correctly, including anti-licensing in trapping configurations.

5.1.2 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:

- (99) 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—we haven't shown that it is the same semantic property (e.g., DE-ness) which licenses *ek bhi*: and anti-licenses *kuch*—we can safely say that, *mutatis mutandis*, the above licensing condition (96) 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. However, anti-licensing can be avoided by movement (scrambling); cf. (69). One might wonder if the unavailability of pseudoscope in trapping configurations in Hindi-Urdu

³⁶ And we would add that 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).

is an effect of some economy principle, which mandates 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 wide (pseudo)scope out of a complex DP, an island for movement, and out of a tensed clause, as in (100) (wide scope is what supports the continuation *such as*. . .); but if we embed a trapping configuration in this frame, the ungrammaticality remains, as seen in (101):

- (100) mujhe yah baat pataa he [ki tum=ne kuch kitaabē
me.DAT this thing known be.PRS.SG that you=ERG some books.F
paṛhi: hē], jaise ki Amarbel aur Shekhar, ek jeevani
read.PFV.F be.PRS.PL like that Amarbel and Shekhar a life
'I know (the proposition) that you have read some books, such as Amarbel
and Shekhar, a life.' possible: SOME≫KNOW
- (101) *mujhe yeh baat pataa he [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

In this subsection, we test two accounts of the pseudoscope of PPI indefinites, namely the choice function analysis and the singleton indefinite analysis, against the background of two 'licensing' conditions (Homer's in Sects. 5.2.1 and 5.2.2, and Nicolae's (2012a, b) in Sect. 5.2.3), and show that the facts presented here support the latter account of pseudoscope, and hence a GQ analysis of indefinites, under either licensing condition.

As a preamble, we need to say a word about why we think that *some (kuch)* is always a PPI. 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 these 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

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.). 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:

$$(102) \quad \text{CH} := \{f_{\langle\langle e, t \rangle, e\rangle} : \forall P[\{x : P(x) = T\} \neq \emptyset \rightarrow f(P) \in \{x : P(x) = T\}]\}$$

The indefinite, treated as a variable, is equipped with an index (interpreted by an assignment function), and the existential closure operator \exists 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:

$$(103) \quad \llbracket \text{some}_i \rrbracket^g = g(i)$$

$$(104) \quad \textit{Existential Closure Rule} \text{ (modified after Heim 1982):} \\ \llbracket \exists_i \alpha \rrbracket^g = \exists f \in \text{CH}: \llbracket \alpha \rrbracket^{g[i \rightarrow f]}$$

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, (105) receives the truth conditions in (106):

$$(105) \quad \text{If John invites some philosopher to the party, Mary will be offended. (= (4))}$$

$$(106) \quad \exists f[\text{CH}(f) \wedge (\text{invite}'(f(\text{philosopher}'))(j) \rightarrow \text{offended}'(m))]$$

(106) 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 Sect. 2 (from Homer 2011, 2019), repeated once more below, 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.

- (107) *Licensing condition of ‘some’* (from Homer 2011, 2019):
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*.
 This condition holds at LF.
- (108) A constituent *A* is DE with respect to the position of α ($\llbracket \alpha \rrbracket \in D_\sigma$) iff the function $\lambda x_\sigma. \llbracket A[\alpha/\nu_{\sigma,i}] \rrbracket^{g[\nu_{(\sigma,i)} \rightarrow x]}$ 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 DE-ness. 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 DE-ness, 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 (108), one abstracts over such a variable, the resulting function is only defined for arguments whose type ends in *e* (choice function variables are of type $\langle\langle e, t \rangle, e\rangle$), which therefore cannot stand in a cross-categorical entailment relation. 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 DE-ness and cross-categorical entailment (repeated from fn. 7):

- (109) 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-categorical 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 (107), ‘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 (107) 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 (107), 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 as for 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, rendering it similar 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 (107) to it: the type of the indefinite ends in *t*, so we do not run into the definedness issue. We can compute the DE-ness of constituents with respect to the position of *some* (*kuch*), and we correctly predict the new facts described in this article: in all the examples 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 at LF.

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

a sentence with an occurrence of *some* (analyzed as a GQ) in the immediate scope of a clausemate negation.

(110) John didn't see someone_[+D_E]. *NEG≫SOME

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):

(111) 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. $\mathbf{E}(p) = p \wedge \forall q \in \text{ALT}(p): p \prec_c q$ (' \prec_c ' = less likely in context C)
 d. $p \prec_c q$ iff $p \Rightarrow q$ and $q \not\Rightarrow p$
 e. $\mathbf{E}_{[D_E]} \text{John didn't see someone}_{[+D_E]} =$
 $\neg\exists x \in D[\text{saw}'(j,x)] \wedge$
 $\forall D' \supset D [(\neg\exists x \in D[\text{saw}'(j,x)]) \prec_c (\neg\exists x \in D'[\text{saw}'(j,x)])]$

The exhaustification with **E** (111e) 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 (112), 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:

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

Unlike Homer's licensing condition then, Nicolae's procedure is not about the position of the PPI at LF, but really about the actual scope of the PPI w.r.t. negation. This means that it can in principle countenance pseudoscope.³⁷ Note that in order to apply Nicolae's procedure to *some* (*kuch*) interpreted as a choice function variable yielding wide pseudoscope, 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).

(113) $\mathbf{E}_{[D_E]} \exists_i \dots \text{NEG} \dots \text{some}_i_{[+D_E]}$

With an LF such as (113), we predict that exhaustification with **E** is coherent, since the existential closure operator scopes above negation. The interpretation is indeed as in (114):

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

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,

³⁷ Unlike the hypothetical licensing condition (96), it doesn't countenance *all* pseudoscope mechanisms, as we show below: it makes the right predictions regarding pseudoscope via the singleton indefinite route.

as we demonstrated.³⁸ It again seems that the interpretation of PPI indefinites as choice function variables is incompatible with a plausible condition on the acceptability of PPIs. 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 (111e) (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 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 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.

Acknowledgements This article has benefitted from feedback from audiences at UMass, FASAL 5 at Yale, the session on 'Varieties of Positive Polarity Items' at the 2015 DGfS in Leipzig, TbiLLC 2015, NELS 46 at Concordia University, SinFonIJA 9 in Brno, the 2017 GLOW in Asia at the National University of Singapore, the University of Edinburgh, the University of Ottawa, and MIT. We have specially benefitted from feedback by Ana Arregui, Simon Charlow, Veneeta Dayal, Ashwini Deo, Irene Heim, Caroline Heycock, Kyle Johnson, Stefan Keine, Dennis Ott, Ezer Rasin, and Roger Schwarzschild. Our thanks also go to the *NALS* anonymous reviewers and to our editor, Angelika Kratzer.

³⁸ In 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 with the two sets of alternatives conflict with each other (Homer 2011, 2019 evidenced the existence of 'entanglement' between *some* and *any*; see Sect. 1). But we can assume that in our coordinate structure configuration (94) 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.

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