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On the quantificational force of Negative Sensitive Items in Turkish*

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Abstract Negative Sensitive Items (NSIs) in natural languages can manifest in either existential or universal forms. The equivalence in truth conditions between $\neg\exists$ and $\forall\neg$ obscures their underlying semantic import, complicating efforts to determine the true nature of NSIs. This paper addresses this issue within the context of Turkish - an agglutinative head-final language - where surface syntactic cues are insufficient to directly diagnose scopal relations. Through a series of controlled configurations, I distinguish between the two interpretations by (i) constructing non-anti-additive contexts where existential and universal analyses make different predictions, (ii) isolating the semantic locus of negation, and (iii) examining NSIs in conjunction with other neg-sensitive expressions. The empirical findings indicate that Turkish NSIs are best analyzed as wide-scope universal quantifiers, rather than narrow-scope existentials. Additional support comes from their complementary distribution with ordinary universal quantifiers, a pattern that not only reinforces the wide-scope universal analysis but also sheds light on the distributional constraints affecting ordinary universals in Turkish.

Keywords: quantificational force, negative dependency, polarity, concord, Turkish

1 Introduction

Due to the logical equivalence of the formulae (1a) and (1b), there has been considerable debate in the literature as to what quantificational force Negative Sensitive Items (NSIs) contribute, i.e. whether they are a kind of universal quantifier outscoping negation, or they are existential quantifiers (or indefinites with the requirement that existential closure applies under negation) that need to be in the immediate scope of negation.

(1) a. $\forall x\ [P(x) \rightarrow \neg\ Q(x)]$ Universal negation
b. $\neg\exists x\ [P(x) \wedge Q(x)]$ Existential negation

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English *any*, for example, is a textbook example of the latter formula, and it has been known as existential since seminal works by Klima (1964), Ladusaw (1979), and Linebarger (1980).[1] The existential import of *any* can be exemplified by the sentence in (2). On the assumption that *rarely* is semantically decomposed as *usually* + *not*, there are two possible readings of (2) that have distinct truth conditions: usually $>$ $\neg$ $>$ $\exists$ or $\forall$ $>$ usually $>$ $\neg$. Since only the former interpretation is available, *anyone* must be existential (Ladusaw 1979).

(2) The IRS rarely audits anyone.
✓'It is usually not the case that there is someone whom the IRS audits. (usually $>$ $\neg$ $>$ $\exists$)
*Everyone is such that it is usually the case that the IRS doesn't audit him. ($\forall$ $>$ usually $>$ $\neg$)

However, narrow-scope existential analysis of English *any* does not carry over to its counterparts in some other languages such as Hungarian, Greek, Japanese, and Korean, which have been argued to have wide-scope universal NSIs at their disposal (Szabolcsi 1981; Giannakidou 2000; Sells & Kim 2006; Shimoyama 2011). This paper addresses this issue in the context of Turkish. Given that determining the quantificational force of NSIs is particularly challenging in the context of head-final agglutinative languages where the negative marker is contained in the verb complex, a number of controlled testing grounds are constructed to reveal the locus of negation and thus to tease apart $\neg\exists$ and $\forall\neg$ readings. The diagnostics converge on the conclusion that Turkish NSIs must outscope negation, thus are best analyzed as wide-scope universal quantifiers, rather than narrow-scope existentials.

This paper is laid out as follows. In Section 2, I provide some background on the expressions at stake, including their internal make-up, licensing conditions, and the type of negative dependency that they are subject to. In Section 3, I briefly discuss how cross-linguistic diagnostics fare with Turkish facts. In Section 4, I examine them in non-anti-additive context where existential and universal analyses make different predictions. In Section 5, I consider NSIs in specific LF configurations where certain regions or positions are inside or outside of the scope of negation, and I substantiate my analysis by emphasizing the complementary distribution of ordinary universal quantifiers and NSIs in Turkish. Section 6 concludes the paper.

1 To be more precise, *any* is lexically ambiguous: it functions as an existential Negative Polarity Item (NPI) under downward entailing (scale-reversing) operators, whereas it is a universal quantifier ranging over individuals scoping over triggers such as $\Diamond$ and GEN in its Free Choice (FC) incarnation (Klima 1964; Carlson 1980; Dayal 1998). See, however, Kadmon & Landman 1993 and Chierchia 2013 for analyses that reconcile different usages of *any*, arguing that the wide scope effects are only apparent and *any* is indefinite across the board.

2 Turkish NSIs

Expressions that require licensing by negation in Turkish (excluding adverbs and minimizers) are mostly formed with the adverb *hiç*, which means *at all* in negative contexts, and *ever* in isolation and non-negative contexts. One set of NSIs is basically formed with the combination of this morpheme and indefinites, as shown in (3).

(3)	a.	bir 'one'	hiçbir 'any'
	b. şey 'thing'	birşey 'something'	hiçbir şey 'anything'
	c. yer 'place'	biryer 'somewhere'	hiçbir yer 'anywhere'

The Turkish counterpart of *anyone*, *kimse*, on the other hand, is presumably not part of this paradigm, though the morpheme *hiç* can be attached to it without a change in the meaning (Kelepir 2001). *Kimse* used to be some sort of indefinite functioning similar to *-body* in English, but its usage now is largely confined to negative contexts, though it can still mean 'person' in certain contexts (Görgülü 2020). *Kimse* and *hiç*-NSIs exhibit parallel behavior with respect to their licensing conditions: they are licensed by only anti-additive operators (e.g., sentential negation) and in certain non-veridical environments such as polar questions and the protasis of conditionals.[2]

(4) (Hiç)kimse gel-*(me)-di.
anybody come-NEG-PST
'Nobody came.'

(5) (Hiç)kimse gel-di mi?
anybody come-PST Q
'Did anyone come?'

(6) (%Hiç)kimse-yle konuş-ur-sa-n bana haber ver.[3]
anyone-with talk-AOR-COND-2SG me inform
'Let me know if you talk to anyone.'

Downward-entailing operators (e.g., *few*, *every*) are not appropriate licensors for Turkish NSIs, suggesting that their distribution is much more limited than that of (English) weak NPIs. At the same time, however, they have a wider distribution than strong/strict NSIs (e.g., Japanese and Korean NSIs), which are licensed only by sentential negation. This state of affairs has conceivably led previous accounts

2 The formal definitions of non-veridical, anti-additive, and downward-entailing functions are given below (Zwarts 1995, 1998).

(i) a. A function f is anti-additive if and only if for all x,y in its domain: $f(x \vee y) \leftrightarrow f(x) \wedge f(y)$.
b. A function f is non-veridical if and only iff f(p) does not entail p, for all propositions p.
c. A function f is downward entailing iff for all A, B in the domain of f such that $A \rightarrow B$, $f(B) \rightarrow f(A)$.

3 As the translations suggest, Turkish NSIs are plain indefinites in non-negative contexts. I will not consider such environments in this paper - see section 6 for the relevant discussion.

to charactarize Turkish NSIs in different ways: earlier works argued that they are NPIs (Zidani-Eroğlu 1997; Kelepir 2001; Kayabaşı & Özgen 2018), while recently, they have been treated as Negative Concord Items (NCIs) (Şener 2007; Görgülü 2020; Jeretič 2023; Gračanin-Yüksek 2023). Even though the current analysis does not hinge on either of these choices, I will briefly discuss the state of affairs in the language, and elucidate why I do not take a stance in this paper. The fundamental difference between these two categories is that the former is characterized by semantic negative dependency which imposes a specific element (i.e., an NPI) and its putative licensor to be in a particular configuration (presumably at LF), whereas the latter is subject to syntactic negative dependency where the negation-sensitivity of NCIs is handled via syntactic Agree (Zeijlstra 2004, cf. Giannakidou 1998).[4] There are two distributional differences between these two categories: NCIs, but not NPIs, (i) may self-license negation in elliptical contexts and (ii) must interact with negation in a very local manner. Considering these characteristics in the context of Turkish, we are faced with a puzzle: while Turkish NSIs are able to occur in isolation - i.e. they can constitute a fragment answer or utterance (e.g., *Kim geldi* 'Who came?' *Kimse*.), they are not subject to strict locality conditions as NCIs typically are - they can be licensed in the complement clauses of the neg-raising, perception, and attitude verbs (but not factive verbs), as Kelepir (2001) shows (p. 148-149). Additionally, even certain syntactic islands (e.g., adverbial clauses) do not disrupt their licensing.[5]

(7) Kimse vur-du diye ağla-ma-dı-m.[6]
anyone hit-PST because cry-NEG-PST-1SG
'I did not cry because anyone hit me.'

The space considerations preclude me from discussing the status of Turkish NSIs further. What I would like to emphasize is that as of this writing, the cross-linguistic diagnostics do not seem to provide conclusive results for Turkish NSIs, thus the jury is still out regarding their correct categorization. On the basis of this, I will remain neutral w.r.t. their classification, and continue using the term NSI as a cover term for the rest of the article.

4 There is also another matter of controversy in the context of NC: whether NCIs are inherently negative or not. Three types of strategies have been developed: (i) NCIs are inherently negative quantifiers (Haegeman & Zanuttini 1991; Zanuttini 1991; Watanabe 2004), (ii) NCIs are not negative (Zeijlstra 2004; Penka 2011; Deal 2021), and (iii) NCIs are ambiguous between negative quantifier and NPI interpretation (Herburger 2001). See Giannakidou & Zeijlstra 2017 for a detailed overview.

5 Long-distance licensing is not only a problem for the NCI camp, but also for the current analysis. See section 6 for a brief discussion.

6 To avoid clutter, I will use *kimse* for the rest of the article. Unless otherwise indicated, all NSIs have parallel behaviors.

This brief overview of Turkish NSIs will suffice for our purposes. In what follows, I focus on the issue of quantificational force and commence my discussion with the well-known cross-linguistic diagnostics.

3 Existential vs. Universal Negation

In the early stages of research on negative dependency, due to the influence of the work on NPIs and English *any*, the standard wisdom was to treat NSIs as indefinites/existentials that need to be in the scope of their licensor, yielding the existential negation reading in (1b) (cf. Reichenbach 1947; Quine 1960). Soon after the research on negative concord started to flourish, this prevalent existential approach has been questioned and challenged in the context of a vast range of languages (largely due to the absence of surface c-command requirement for NCIs). Such developments consequently led to a range of diagnostics aimed at uncovering the underlying semantics of NSIs across languages (Giannakidou 1998 and sequel). Chief among these are the following: (i) universal quantifiers, being "absolute" and non-endpoint expressions, can be modified by *almost*, while low-scale and endpoint expressions existentials cannot (Horn 1972; Zanuttini 1991; Giannakidou 1998). From this contrast, the ill-formedness of *John talked to almost someone* and the acceptability of *John talked to almost everyone* follows. (ii) Existentials, but not universals, can be used in predicate nominal positions because type lowering from $\langle\langle e,t\rangle, t\rangle$ to $\langle e,t\rangle$ is available for the former, but not for the latter (Partee 1987). As a result, *Mary is a doctor* is acceptable, while *Mary is every doctor* is not. (iii) Universals, having a non-empty restriction, are rich in their descriptive content and express existential commitment. As a result, they are usually interpreted presuppositionally and good candidates for topics - unlike existentials. Even though the validity of these tests has been questioned on several grounds, to the extent that they are valid, these diagnostics indicate that Turkish NSIs have universal characteristics. Görgülü (2020) shows that Turkish NSIs can (i) be modified by *almost*, (ii) cannot appear in predicate nominals, and (iii) express existential commitment and can be topicalized (examples have been omitted in the interest of space; see Görgülü (2020) for comprehensive discussion and additional examples). Additionally, I provide in passing one more diagnostic that has been overlooked in the literature. In negated imperatives (or directives), anaphoric links can be established between existentials and pronouns dynamically, whereas it can only be static between universals and pronouns. For instance, *any* can be the antecedent of a pronoun via dynamic binding (e.g., *Don't buy any game$_1$ from this store; playing it$_1$ might give you a headache*), but this is not possible for universals. Applying this to Turkish, we see that Turkish NSIs do not license donkey anaphora (at least in negative directives), behaving again

on a par with universals.[7] In (8), the sentence can only mean that 'talking to people might be upsetting', and crucially, it lacks the interpretation 'the people you talk might upset you', which is what the indexing indicates. As a result, this furnishes another piece of evidence in favor of universal analysis.

(8) a. *O sınıf-tan kimse-yle$_1$ konuş-ma.
that class-ABL anyone-with talk-NEG
b. (*O/pro$_{*1}$) seni üz-ebil-ir.
3sg you upset-may-AOR
"Don't talk to anyone from that class; it may upset you (if you talk)."

While these diagnostics clearly lend support to the wide-scope universal analysis, as hinted above, these tests are not without problems. For instance, *almost/absolutely* test has been criticized on the grounds that *almost* can modify numerals, and *any* allows *almost/absolutely* modification once they are licensed by a non-local negation (Horn 2000; Penka 2011). Similarly, although *any* is a prime example of an indefinite, it cannot be used as a predicate nominal (e.g., **He is any doctor*). Additionally, as Görgülü (2020) points out, presuppositional readings of Turkish NSIs disappear in certain constructions (e.g., negative existential constructions). On the basis of these complications, to draw more solid conclusions, I investigate these expressions by considering configurations that allow either the $\forall > \neg$ or $\neg > \exists$ constellation.

4 Non-anti-additive contexts

Recall that Turkish NSIs are licensed in anti-additive contexts. However, such environments are not particularly useful for our purposes since neither reading ($\neg\exists$ and $\forall\neg$) is distinguishable from one another. Shimoyama (2011) shows in Japanese that this equivalence can be broken down by relying on intervention with an additional scope-taking element in the LF configuration. The additional quantificational element in conjunction with sentential negation creates **non-anti-additive** functions Q$\neg$ or $\neg$Q that yield different truth conditions depending on the quantificational force of the NSIs. To illustrate, the main goal is to create a configuration that yields (9b) or (10a) which have different truth conditions from (9a) and (10b), respectively.

7 In non-negative contexts (e.g., conditionals) where Turkish NSIs are inexorably indefinites in their own right, they can license donkey anaphora dynamically.

(i) Eğer kimse-yi$_1$ gör-ür-se-n, ona$_1$ gel-me-si-ni söyle.
if anybody-ACC see-AOR-COND-2SG him come-NOM-3POSS-ACC tell
'If you see anyone, tell him to come.'

(9) a. $Q\neg > \exists = Q > \forall > \neg$
b. $\forall > Q\neg$

(10) a. $\neg Q > \exists$
b. $\forall > \neg Q = \neg > \exists > Q$

Even though $\neg > \exists$ is equivalent to $\forall > \neg$, $\neg Q > \exists$ does not have the same truth condition as $\forall > \neg Q$. By the same token, $Q\neg > \exists$ and $\forall > Q\neg$ are not equivalent. Therefore, the presence or absence of one of these readings in these non-anti-additive contexts would construct a decisive case regarding the quantificational force of the NSIs. Non-anti-additive functions of the form $Q\neg$ are *mostly not, rarely*, and *many not*, and non-anti-additive expressions of the form $\neg Q$ include *not mostly, not always*, and *not many*. In the context of Turkish, the quantificational adverbs yielding non-anti-additive contexts of the form $Q\neg$ are *genellikle*, *genelde* 'usually', *çoğu zaman* 'most of the time', *çoğunlukla* 'mostly', *neredeyse her zaman* 'almost always'. As the following example illustrates for *çoğunlukla*, such adverbs always take wide scope over negation.

(11) Kuzey çoğunlukla toplantı-ya katıl-maz.
Kuzey mostly meeting-DAT attend-NEG.AOR
✓'In most cases, Kuzey does not attend the meeting.' $(Q > \neg)$
*'It is not the case that Kuzey attends the meeting in most cases.' $(\neg > Q)$

Utilizing these wide-scope quantificational adverbs ensures that a non-anti-additive context is created by $Q\neg$. With this in mind, consider the following sentence.[8]

(12) ?Kimse çoğunlukla toplantı-ya katıl-maz.
anybody mostly meeting-DAT attend-NEG.AOR
✓'For every x, it is mostly the case that x does not attend the meeting.'
$(\forall > Q\neg)$
??'It is mostly the case that nobody attends the meeting.'
$(Q\neg > \exists = Q > \forall > \neg)$

Imagine a context where there are six meetings in a week, and there are three employees. Suppose each employee did not attend four out of six meetings, as depicted in (13).

8 Judgments on such configurations are notoriously unstable, as there are three scope-bearing elements at play. Nonetheless, speakers show greater ease in accessing the relevant reading in (12) once they compare it with the following example in which the quantificational adverb and the NSI swap places.

(i) Çoğunlukla kimse toplantıya katılmaz. $(?^*\forall > Q\neg; {}^{\checkmark}Q > \forall > \neg = Q\neg > \exists)$

The above sentence asserts the existence of empty meetings, a reading that is not readily available in (12).

(13)	a.		M1	M2	M3	M4	M5	M6
	b.	E1	×	×	×	×	✓	✓
	c.	E2	✓	✓	×	×	×	×
	d.	E3	×	×	✓	✓	×	×

In this scenario, the $\forall > Q\neg$ constellation is true since each employee missed more than three meetings (i.e., more than half), and the $Q\neg > \exists$ reading (= $Q > \forall > \neg$) is false since there is no meeting in which no employee showed up. (12) is judged true under this scenario, suggesting that *kimse* can contribute universal quantification.[9]

Extending the logic of this analysis, quantificational adverbs that always take narrow scope with respect to negation also yield telling configurations since the $\forall > \neg Q$ and $\neg Q > \exists$ interpretations are not synonymous. In Turkish, universal expressions are known to be always construed as taking narrow scope with respect to negation (which will be discussed more in the next section). As the following example shows, the quantificational adverb *her zaman* 'always' is obligatorily interpreted in the scope of negation, forming the non-anti-additive function $\neg Q$.

(14) Kuzey her zaman toplantı-ya katıl-maz.
Kuzey every time meeting-DAT attend-NEG.AOR
✓'It is not always the case that Kuzey attends the meeting.' ($\neg > Q$)
*'It is always the case that Kuzey does not attend the meeting.' ($Q > \neg$)

Once NSIs co-occur with such expressions, on the assumption that *kimse* is an existential quantifier, $\neg Q > \exists$ reading should, in principle, be available. As (15) illustrates, however, this reading is absent in such configurations.

(15) Kimse her zaman toplantı-ya katıl-maz.
anybody every time meeting-DAT attend-NEG.AOR
*'It is not always the case that someone (or other) attends the meeting.' ($\neg Q > \exists$)
✓'For every x, it is not always the case that x attends the meeting.' ($\forall > \neg Q = \neg > \exists > Q$)

(15) is true in situations where no meeting is entirely unattended, so it is compatible with the scenario in (13). The $\neg Q > \exists$ constellation, however, asserts the existence of at least one meeting that no one attends, rendering it incompatible with the scenario in (13). Given that the sentence is judged true, this reading is not available. It should be noted, however, that this does not constitute direct evidence in favor of

9 For some speakers, the wide-scope reading (i.e., $\forall > Q\neg$) appears to be less accessible if *hiçkimse* is used instead. Given that this is the only configuration where there is a potential asymmetry between different types of NSIs, it remains unclear whether this contrast reflects a genuine difference (at least for some speakers) in quantificational force - calling for further investigation.

the current analysis, since it may well be attributed to the well-known Immediate Scope Constraint (ISC) proposed by Linebarger (1980). Given that the adverbial quantifier intervenes between the negation and the NSI, this may be responsible for the unavailability of the $\neg Q > \exists$ constellation. However, the point here is that the presence of $\forall > Q\neg$ reading in (12) and the absence of $\neg Q > \exists$ interpretation in (15) receive a straightforward account under the universal analysis, rather than the existential analysis.[10]

5 Locus of negation

Having established that universal interpretation is available in non-anti-additive contexts, in what follows, I focus on particular LF configurations in which a designated syntactic region is obligatorily interpreted either below or above the scope of negation. A systematic asymmetry in NSI licensing across these positions would constitute strong evidence for the quantificational force associated with Turkish NSIs. In pursuing this inquiry, I will make use of some factual observations about the language at stake to ensure that the relevant configurations are empirically telling. The first is that like other OV languages, structural height among Quantifier Phrases (QPs) in Turkish transparently reflects the scope relation among them, thus the surface scope relations are preserved at LF (Özyıldız 2017).[11] As a result, Turkish does not allow inverse scope (i.e., no Quantifier Raising (QR)), as shown in (16).

(16) Bir öğrenci her ders-e gir-di.
a student every class-DAT enter-PST
✓$\exists$x student(x) & $\forall$y lecture(y) $\rightarrow$ attended(y)(x)
*$\forall$y lecture(y) $\rightarrow$ $\exists$x student(x) & attended(y)(x)

Second, even though multiple quantifiers do not give rise to ambiguity, the co-occurence of a quantifier and negation often does (with the exception of Positive Polarity Items (PPIs) and the universal quantifiers *her* 'every' and *herkes* 'everyone'). As shown in (17), the cardinality expression built by modified numeral *Beşten fazla öğrenci* 'more than five students' can be construed as taking broad scope, or they can be interpreted within the scope of negation irrespective of its structural position.

10 Considering (12) in light of the ISC, one might be wondering about the status of this constraint in the language at stake. While it is well-established that Turkish NSIs track the scope of negation (i.e., negation and NSIs scope together relative to other operators) (Kelepir 2001), adverbials appear to constitute a notable exception. Even though the precise mechanisms are not yet fully understood, adverbials have been argued to induce milder intervention effects (Shimoyama 2011).

11 Accusative-marked indefinites, which are (presumably) choice function variables (Reinhart 1997), can take broad scope in the presence of a c-commanding QP, hence they are an exception to this generalization (Kelepir 2001).

(17) a. Beş-ten fazla öğrenci gel-me-di.
five-ABL more student come-NEG-PST
✓More than five students s.t. they did not come. (QP > ¬)
✓It is not the case that more than 5 students came. (¬ > QP)

b. Kuzey beş-ten fazla öğrenci'yle konuş-ma-dı.
Kuzey five-ABL more student-with talk-NEG-PST
✓'More than five students s.t. Kuzey did not talk to them.' (QP > ¬)
✓'Kuzey did not talk to more than five students.' (¬ > QP)

As traditionally assumed, this is presumably due to the fact that the thematic domain lies within the scope of negation whereas the case positions fall outside of it, as schematized in (18). Since each argument has a syntactic copy below negation, they can reconstruct at LF for scope, and thus the ambiguity follows.

(18) $[_{TP}$ Subj Obj $[_{NegP}$ $[_{VP}$ t_{Subj} t_{Obj} V] Neg] T]

There is one type of quantifier in Turkish whose scope is not determined by its structural position: distributive universal quantifiers such as *her* 'every' and *herkes* 'everyone'. Regardless of their syntactic position, they are always construed as taking narrow scope with respect to negation (Kelepir 2001).[12]

(19) Herkes gel-me-di.
everybody come-NEG-PST
✓$\neg\forall$x [person(x) $\rightarrow$ came(x)]
*$\forall$x [person(x) $\rightarrow$ $\neg$came(x)]

(20) Herkes-i gör-me-di.
everyone-ACC see-NEG-PST
✓$\neg\forall$x [person(x) $\rightarrow$ saw(he,x)]
*$\forall$x [person(x) $\rightarrow$ $\neg$saw(he,x)]

For the rest of the article, the scope-rigid property of the language will be manipulated to determine the height of sentential negation in the clause structure. Additionally, in order to test the validity of the 'experimental designs', the intrinsic property of universal quantifiers will serve as a testing tool: the (un)acceptability of universal quantifiers will indicate their position relative to negation at LF (e.g., if a negative sentence with a universal quantifier is grammatical, then the universal must be inside of the scope of negation). Notice also that this particular property of universals creates another controlled testing ground for our purposes: if Turkish NSIs are narrow-scope existentials, they should be in free variation with

12 There is one exception to this generalization. As Kelepir (2001) notes, such quantifiers can scope over negation if there is an intervener indefinite/existential over which they can distribute.

(i) Her öğrenci bir ödev-i yap-ma-dı.
every student one homework-ACC do-NEG-PST
✓'For each student there is an exam that they didn't take.' ($\forall > \exists > \neg$)

ordinary universal quantifiers since both types of quantifiers must occur within the scope of negation. If they are wide-scope universals, they are predicted to be in complementary distribution. It will be shown that the latter prediction is borne out.

5.1 The interaction of NSIs

Turkish lacks negative quantifiers like English *nobody* that express negation independently and result in a Double Negation (DN) interpretation when combined with sentential negation. The closest equivalent in Turkish, in terms of inherent negativity, is the *ne...ne*-phrases, which serves as the counterpart to the English *neither...nor*. These expressions have optional NC behavior: they can provide a semantic negation on their own with an affirmative predicate, but unlike *nobody*, they seem to be subsidiary to a negative operator in negative constructions. As the following example illustrates, the Negative Coordination Constructions (NCCs) derived through *neither...nor* with and without negation are synonymous.

(21) **Ne** Kuzey **ne** Güney gel-(me)-di.
neither Kuzey nor Güney come-NEG-PST
'Neither Kuzey nor Güney came.'

Before I explicate how Turkish NCCs serve as a decisive case for our purposes here, a few notes regarding their syntactic and semantic make-up are in order. The recent body of work converged on the conclusion that the optionality of negation is due to the difference in the size of NCCs. Jeretič (2023), along the lines of Zeijlstra (2004), takes these NCIs as (syntactically) deficient, i.e., in need of a licensor, and attributes the optionality to the structural ambiguity arising from the type-flexibility of coordination operators: NE operator is an inherently non-negative generalized disjunction with the semantics in (22), and can coordinate XPs of type $\langle\langle e,t\rangle, t\rangle$, or propositions of type t.[13]

(22) $[\![\text{NE}]\!] = \lambda\alpha\lambda\beta.\ \alpha \cup \beta$
where:
— α and β are elements of the same type τ, where τ is t-reducible i.e. $\tau{=}t$ or $\tau{=}\langle\tau_1,\tau_2\rangle$, where τ_1 is any type and τ_2 is a t-reducible type.
- $\cup$ is a generalized disjunction.

Setting technical details aside, the standard assumption regarding NCCs is that the NE-operator coordinates expressions of type $\langle\langle e,t\rangle, t\rangle$ once the verb is marked for negation, and coordinates propositions of type t if the verb is affirmative (with

13 As is typically assumed for coordination structures, e type individuals type-shift to a generalized quantifier type $\langle\langle e,t\rangle, t\rangle$ when combining with NE operator (Jeretič 2023).

backward gapping applying to the first coordinand). Consequently, (21) has different structures contingent on the presence/absence of negation.

(23) a. [Ne Kuzey ne Güney] gel**me**di.
b. Ne [Kuzey <geldi>] ne [Güney geldi]

Notice that the NE-operator in the latter configuration winds up denoting an anti-additive function in the absence of sentential negation, either by itself by virtue of its inherent negativity (Şener & İşsever 2003; Gračanin-Yüksek 2023), or via the covert negative operator that it introduces (Jeretič 2023), which renders it a potential licensor for Turkish NSIs.[14] Indeed, such expressions seem to be licit in NCCs, in a way that substantiates the current venture. As first noted by Şener & İşsever (2003), and discussed more in depth in Jeretič 2023 and Gračanin-Yüksek 2023, NSIs are ungrammatical in the scope of *ne...ne*-phrases unless the verb is marked for negation.

(24) *Ne Kuzey ne Güney **kimse-yi** davet et-miş.
neither Kuzey nor Güney anybody-ACC invite LV-EP.PST
'Neither Kuzey nor Güney invited anybody to the party.'

Once the syntactic positions are reversed and NSIs c-command the *ne...ne*-constituent as in (25), they are properly licensed and the sentence is deemed grammatical.

(25) **Kimse** ne Kuzey'i ne Güney'i davet et-miş.
anybody neither Kuzey-ACC nor Güney-ACC invite LV-EP.PST
'Nobody invited Kuzey or Güney to the party.'

Even when the NE-operator coordinates tensed proposotions, NSIs are licensed in this pre-*ne...ne* position.

(26) **Kimse** ne ye-di ne iç-ti.
anybody neither eat-PST nor drink-PST
'Nobody ate or drank. (Jeretič 2023: 1182)

The observed asymmetry in the distribution of NSIs in NCCs follows straightforwardly on the assumption that NSIs bear universal force: (25) and (26) are

14 According to Şener & İşsever (2003) *ne...ne*-phrases always coordinate XPs of type $\langle\langle e,t\rangle, t\rangle$ and have negative value in affirmative constructions. Gračanin-Yüksek (2023), on the other hand, treats NE-particles as inherently negative complementizers in constructions with affirmative predicates. Although this paper does not take a stance on what the correct structure of the NCCs in Turkish is, it should be noted that my analysis is consonant with other approaches as well since NSIs, in either case, must outscope the vehicle of the logical connective $\neg$, be it a covert negative operator, negative quantifier, or negative complementizer.

grammatical since *kimse* outscope the vehicle of negation, whereas in (24), the NSI is trapped within the scope of negation because it cannot QR due to scope rigidity. It should be noted, however, that the existential camp can also handle this asymmetry by appealing to locality constraints on NSI licensing. Assuming that the NE-head coordinates propositions with affirmative predicates, the NSI in (24) could be in a CP without a clause-mate negation, and once it is the subject as in (25) and (26), it raises Across-the-board to a position where it is locally c-commanded by a covert negative operator introduced by the NE-head (Jeretič 2023). Such an account, however, runs into two immediate problems. First, as already mentioned in section 2, CPs are not always barriers to NSI licensing in Turkish since long-distance licensing seems to be possible; second, there is no independent evidence indicating that subjects of NCCs are in the scope of negation. Indeed, it appears to be the other way around: as shown in (27), ordinary universals are not acceptable as a subject of the *ne...ne*-clause, suggesting that this region does not fall within the scope of negation.

(27) a. *Her mahkum ne anne-si-yle ne
every convict neither mother-3SG.POSS-with nor
baba-sı-yla konuş-tu.
father-3SG.POSS-with talk-PST
Int. 'Every convict s.t. he talked to neither his mother nor his father.'

b. *Herkes ne ye-di ne iç-ti.
everyone neither eat-PST nor drink-PST
Int: 'For all x, x neither ate nor drank.'

The fact that pre-*ne...ne* position is outside of the scope of negation and that NSIs are licensed in this position shows again that the wide-scope universal analysis is superior to its contender in the context of Turkish.

5.2 Anti-reconstruction

Another avenue in which the height of sentential negation can be identified involves observing relative scopal relations between negation and the arguments in both canonical and scrambled sentences (Kataoka 2006). Recall that QPs exhibit scope ambiguity in the presence of negation, an effect traditionally attributed to reconstruction. As a result, canonical surface configurations fail to offer a reliable diagnostic for isolating the semantic locus of negation. What we essentially need is a region that is external to the scope of negation and blocks reconstruction. Once we consider the left periphery of the clause, we again end up empty-handed since reconstruction is still possible. Similar to Japanese, once the quantified object is scrambled to the clause-initial position in Turkish, the sentence is still ambiguous (28).

(28) Beşten fazla öğrenci'yle [Kuzey *t* konuşmadı].
✓'More than five students such that Kuzey did not talk to them.' (QP > ¬)
?'Kuzey did not talk to more than 5 five students.' (¬ > QP)

Even though scrambling does not force scrambled objects to be interpreted in their surface position (outside negation), anti-reconstruction effects obtain once they bind a variable in this derived position. Consider the following.

(29) [Beşten fazla öğrenci-yi$_i$]$_j$ [[*pro*$_i$ hoca-sı] ödül-e t_j
five-ABL more student-ACC teacher-3SG.POSS award-DAT
aday göster-me-di].
nominate-NEG-PST
'More than five students$_i$ were not nominated as a candidate for the award by his$_i$ teacher.' (more than 5 > ¬ ; *¬ > more than 5)

In (29), the null pronoun embedded in the subject position is bound by its antecedent, the quantified cardinal expression. In such cases, the presence of binding forces the scrambled object to be interpreted in its derived position, and limits the otherwise ambiguous interpretation to narrow scope reading for negation. Therefore, from this example, it is reasonable to conclude that fronted arguments lie outside of the scope of negation so long as they bind a variable. This now yields a controlled configuration for the purposes here: by substituting the cardinal quantifier with an NSI, and making it bind a variable in the subject position, an appropriate testing ground is obtained. Given that the binder scrambled object will be above negation at LF, the ill-formedness would suggest that it is existential and must occur within the scope of the negation, while the grammaticality would indicate that it contributes universal quantification and can sit outside of negation. With this in mind, consider the example in (30).

(30) [Bu okul-da-ki kimse-yi$_i$]$_j$ [[*pro*$_i$ öğretmen-i] t_j
this school-LOC-ADJ anybody-ACC teacher-3SG.POSS
döv-me-z.]
beat-NEG-AOR
'Nobody$_i$ in this school is beaten by his$_i$ teacher.'

Kimse in (30) binds the pronominal element contained in the subject position, which prevents it from reconstructing. As a result, it is obligatorily interpreted outside of the negation, and crucially, the sentence is deemed grammatical. The fact that ordinary universals have a degraded status in this position, as in (31), validates the current design and furnishes evidence in favor of the wide-scope universal analysis.

(31) ??[Bu okul-da-ki herkes-i_i]$_j$ [[*pro*$_i$ öğretmen-i] t_j
this school-LOC-ADJ everyone-ACC teacher-3SG.POSS
döv-me-z.]
beat-NEG-AOR
Int: 'Nobody$_i$ in this school is beaten by his$_i$ teacher.'

5.3 Exploiting Scope Rigidity

The last relevant configurations that provide a controlled testing ground for our efforts to identify the scope of negation involve making use of the scope rigidity (à la Shimoyama 2011). In this 'experimental' design, the focus is on the interaction of NSIs and neg-sensitive expressions that take particular scope w.r.t. negation (e.g. PPIs). Given the scope rigidity, scope-bearing expressions that obligatorily take wide or narrow scope relative to negation mark the scope of negation (in a sense), and partition the clause into two, so to speak. For concreteness, let's call XPs that are obligatorily interpreted within the scope of negation XP_{narrow} and XPs that must scope over negation XP_{wide}.

(32) a. ... XP_{narrow}...YP.... V-neg
b. ... YP ... XP_{wide} ... V-neg

In a well-formed sentence, any expression that is c-commanded by XP_{narrow} must be trapped in the scope of negation because XP_{narrow} cannot QR at LF due to scope-rigidity, and must be construed as taking narrow scope. By the same token, anything that c-commands XP_{wide} in a grammatical sentence will be forced to sit outside of the scope of negation since surface c-command relations cannot be altered at LF. Therefore, it is plausible to assume that expressions obligatorily fall within the domain of negation in the post-XP_{narrow} region (e.g., YP in (32a)), and the pre-XP_{wide} region eschews being interpreted in the scope of negation (e.g., YP in (32b)). It follows from this reasoning that if NSIs are found (un)acceptable in either of these configurations (i.e., following XP_{narrow}, or preceding XP_{wide}), it would constitute direct evidence for the quantificational force associated with NSIs.

Let us first look at wide-scope expressions in the language. Turkish has two conjunctive constructions *...de ....de* and *hem... hem....* (reminiscent of Japanese *mo...mo*-constructions), which roughly correspond to 'both...and...' in English. As illustrated below, they obligatorily take scope over negation at the level of semantic interpretation (Geçkin, Crain & Thornton 2016).[15]

15 As pointed out by Geçkin et al. (2016), the particle *de* is optional in *hem...hem*-constructions, but once it is omitted, negation can take wide scope, yielding a 'not both' reading.

(33) a. Kuzey'le de Demet'le de konuş-ma-dı-m.
Kuzey-with both Demet-with both talk-NEG-PST-1SG
b. Hem Kuzey'le hem de Demet'le konuş-ma-dı-m.
both Kuzey-with both also Demet-with talk-NEG-PST-1SG
✓'It is both Kuzey and Demet that I did not talk to.' (& > ¬)
*It is not the case that I talked to both Kuzey and Demet. (¬ > &)

In accordance with our 'experimental' design, wide-scope NSIs in the pre-XP_{wide} area should yield grammaticality, whereas narrow-scope universals must be deemed ill-formed. As (34) shows, both predictions are borne out.

(34) a. Kimse Kuzey'le de Demet'le de konuş-ma-dı.
anyone Kuzey-with both Demet-with both talk-NEG-PST
b. Kimse hem Kuzey'le hem de Demet'le konuş-ma-dı.
Kuzey both Kuzey-with both also Demet-with talk-NEG-PST
'Nobody talked to Kuzey or Demet.' (∀ > & > ¬)[16]

(35) a. *Herkes Kuzey'le de Demet'le de konuş-ma-dı.
everyone Kuzey-with both Demet-with and talk-NEG-PST
b. *Herkes hem Kuzey'le hem de Demet'le konuş-ma-dı.
everyone both Kuzey-with both also Demet-with talk-NEG-PST
Int: 'It is not the case that everyone talked to both Kuzey and Demet.'[17]

As for configurations like (32a), we can consider NSIs in conjunction with ordinary universals. The current analysis predicts the ∀-NSI order to be ungrammatical since NSIs in this post-XP_{narrow} position are trapped under negation at LF. As Kelepir (2001) shows, this prediction is borne out.

(36) *Herkes kimse-yi gör-me-di.
everybody anybody-ACC see-NEG-PST
Int: 'Everybody didn't see anybody.' (Kelepir 2001: 125)

In line with the proposed account, scrambling *kimse* above the ordinary universal and negation rescues the sentence. Since it cannot reconstruct (again due to scope-rigidity), it is obligatorily interpreted in its derived position above negation.

16 It should be noted that NSIs are not always allowed to take maximal scope in the presence of another quantificational force (see footnote 10). On the contrary, they are mostly required to be in an immediate scope relation with negation. I do not have an explanation at this point as to why this restriction is relaxed in such configurations.

17 Examples in (35) are ruled out on the intended reading, indicating that the subject position is outside of the scope of negation. They can have maximal scope in such configurations (see footnote 12).

(37) Kimseyi$_i$ [herkes t_i görmedi.] 'Nobody was seen by everyone'.

Note, however, that the ill-formedness of (36) is not in collision with a narrow-scope existential analysis since it can also be attributed to the ISC. This is, in fact, what Kelepir (2001) appealed to in her analysis of NSIs. Assuming these expressions as existential NPIs, she argues that the universal quantifier *herkes* between the NPI and its licensor acts as an intervener and disrupts NPI licensing. Even though the existential camp can handle cases like (36), it remains a challenge how the grammaticality of NSI-XP$_{wide}$ strings can be accommodated under this approach.

5.4 A short note on ordinary universals

We have so far established that NSIs and ordinary universals are in complementary distribution, and this falls out naturally from the current analysis: Turkish NSIs are wide-scope universals that need to outsope negation, while ordinary universals are narrow-scope expressions that must fall within the scope of negation, hence the complementary distribution. However, given that (most) quantifiers exhibit ambiguous scope in the presence of negation, a question immediately arises as to why ordinary universal QPs differ from other quantifiers in their scope-taking possibilities, and what blocks them outscoping negation.[18] Interestingly enough, Turkish is not alone in this regard, and languages that have universal NSIs at their disposal such as Greek (Giannakidou 2000) and Hungarian (Szabolcsi 1981) also bar ordinary universals from outscoping negation. These cross-linguistic parallels indicate that scope facts discussed so far are not coincidental, but rather reflect a correlation between the nature of NSIs and ordinary universals. More specifically, it appears that the universal force associated with NSIs has a direct bearing on the interpretation of ordinary universal quantifiers in these languages such that the former blocks the latter from outscoping negation, so to speak. To provide an account of this phenomenon, Giannakidou (2000: 501) offers a tentative explanation:

> ...it seems plausible to handle it by involing a blocking effect, reminiscent of corresponding cases in morphology and phonology (cf. the Elsewhere condition of Kiparsky 1973): a more specific rule or form blocks a more general one, the general one being the 'elsewhere' case. Given the Elsewhere condition with its concomitant blocking effect, we may say that 'ordinary' universal quantifier in the relevant

18 Note that similar observations were made in the context of English by Beghelli & Stowell (1997). However, English facts regarding the interpretation of *every* with negation are quite different from Turkish (and also from Greek and Hungarian as pointed out by Giannakidou (2000)) in that prosodic factors seem to be operative in the interpretation of *every* in English, which is not the case in Turkish.

> languages cannot take scope over negation because there is already a more specific universal quantifier that does exactly this.

On the basis of this, it is reasonable to speculate that obligatory narrow-scope construal of ordinary universal quantifiers might be a trademark property of languages with a wide-scope universal NSIs. In the interest of space, the investigation of this blocking effect will have to be left for a future occasion.

6 Final remarks

In this paper, I have argued that Turkish NSIs must be interpreted outside the scope of negation at LF, supporting an analysis in which they function as wide-scope universal quantifiers, rather than as narrow-scope existentials. If this analysis is on the right track, it has important repercussions for the typology of negative dependency. Should these items be analyzed as NPIs, the data would contribute to the strand of research positing the existence of NPIs that obligatorily outscope their licensors - a category that has been argued to include Japanese *dare-mo* 'who-MO', the exceptive *-sika* NPIs (Kataoka 2006; Shimoyama 2011; cf. Miyagawa, Nishioka & Zeijlstra 2016), and Korean *amwu-to* 'anyone' (Sells & Kim 2006). Alternatively, if Turkish NSIs are more accurately characterized as NCIs, the Turkish facts serve as a challenge to the standard analysis of NC, according to which NC is achieved via syntactic agreement between a higher negative operator bearing an interpretable [neg] feature and an indefinite with an uninterpretable [neg] feature (e.g., Zeijlstra 2004; Penka 2011; Deal 2021). In contrast, the Turkish data align more naturally with Giannakidou's (1998 and sequel) analysis of NC, where NCIs are treated as a subclass of NPIs that undergo QR to take scope over negation.

This analysis, though accounts for a range of facts, leaves some questions open. The first one is concerned with the apparent long-distance licensing of NSIs. Recall that they appear to be licensed across (at least some) complement clauses and syntactic islands. This is, however, not a typical characteristic of universal NSIs; on the contrary, they are predicted always to be in a local relation with negation because the scope of universals is known to be clause-bounded (e.g., there is no inverse scope in *Someone thought everyone left*). Even though I do not know how to resolve this issue at this point, one possible solution might lie in the fact that not all embedded clauses are transparent for NSI licensing in Turkish (as discussed in section 2). There is a recent body of work showing that the scope of universals is not as clause-bounded as it was thought, and it might depend on the predicate type (Barker 2022; Hoeks, Özyıldız, Pesetsky & Roberts 2022). Therefore, there might be an overlap between the predicates that allow exceptional wide-scope for universals and the ones that allow long-distance licensing. I leave a full investigation

of this possibility to future research. The second question is related to the fact that Turkish NSIs are admitted in polar questions and conditionals where they behave like existentials. This does not, in my view, pose a direct challenge to the current proposal, given that there are some NSIs in other languages that have been argued to exhibit context-dependent quantificational variability. This is indeed what Giannakidou (1998) concludes for Romance NCIs that can appear in non-negative contexts (e.g., Catalan, Spanis, Italian, etc.). This cross-linguistic variation suggests that NSIs may exhibit asymmetries in quantificational force depending on whether they occur in negative or non-negative environments - a possibility that the Turkish data appear to support.

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