On the quantificational force of Negative Sensitive Items in Turkish

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Introduction

- This study investigates scopal properties of Negative Sensitive Items (NSIs) in Turkish.
- NSIs under scrutiny ⇒ Generalized quantifier (GQ) NSIs *kimse* 'anyone' and *hiçbir* 'any'.
- Licensing environments ⇒ anti-morphic & polar questions
- Syntactic vs. semantic negative dependency
  ⇒ Negative Condord Items (Şener 2007, Görgülü 2020, Jeretič 2023, Gračanin-Yüksek 2023)
  ⇒ Negative Polarity Items (Zidani-Eroğlu 1997; Kelepir 2001)
- Goal ⇒ To determine the quantificational force contributed by the GQ-NSIs in negative contexts.
- Previously ⇒ Cross-linguistic diagnostics (Giannakidou 2000; Giannakidou & Zeijlstra 2017) produce mixed results for Turkish (see Görgülü 2020).

Diagnostics	∃	∀	Turkish
Long-distance licensing	✓	×	×
Can be licensed in syntactic islands	✓	×	×
Almost-modification	×	✓	✓
Donkey-pronoun	✓	×	%✓
Predicate nominals	✓	×	✓/ ×
Existential commitment	×	✓	✓
One-morphology	✓	×	✓

Table 1: Existential vs. Universal diagnostics

Anti-reconstruction

- In order to locate the sentential negation marker relative to other elements in the clause structure, one may observe relative scopal relations between negation and the arguments in both canonical and scrambled sentences.
- In Turkish, scope ambiguity arises once quantified arguments co-occur with negation.

(1) Cem 5'ten fazla öğrenci'yle konuş-ma-dı.
Cem 5-ABL more student-with talk-NEG-PAST
Available: 'More than five students such that Cem did not talk to them.' ⇒ Q ⟩ ¬
Available: 'Cem did not talk to more than 5 five students.' ⇒ ¬ ⟩ Q

- Once the object quantifier is scrambled to the clause-initial position, the result is still ambiguous.

(2) %5'ten fazla öğrenci'yle [Cem *t* konuşmadı].
Available: 'More than five students such that Cem did not talk to them.' ⇒ Q ⟩ ¬
Available: 'Cem did not talk to more than 5 five students.' ⇒ ¬ ⟩ Q

- Due to reconstruction possibilities, scrambling does not yield wide-scope-only interpretation for the quantifiers.
- However, there is (at least) one configuration where quantifiers are blocked from reconstructing: Scrambled quantifiers binding a variable cannot reconstruct.

(3) [5'ten fazla öğrenci-yi$_i$]$_j$ [[*pro*$_i$ hoca-sı] ödül-e t_j aday göster-me-di].
5-ABL more student-ACC teacher-3SG.POSS award-DAT nominate-NEG-PAST
'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 (3), the quantified object binds the variable embedded in the subject position, which in turn forces the direct object to be interpreted in its derived position, which is above negation.
- In the context of NSIS, this results in a controlled testing ground for the purposes here: If GQ-NSIs are narrow-scope existentials, they should be barred from this environment, if they are wide-scope universals, the result is predicted to be grammatical.
- The grammaticality of (4) indicates that the second prediction is borne out.

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

Non-anti-additive contexts

- Negation is a gradable property:
  ⇒ <DE, anti-additive, antimorphic>
- De Morgan's laws (Zwarts 1998):

(5) Anti-morphic (negation, without)
a. f (x ∨ y) ↔ f(x) ∧ f(y)
b. f (x ∧ y) ↔ f(x) ∨ f(y)

(6) Anti-additive (nobody, nothing)
a. f (x ∨ y) ↔ f(x) ∧ f(y)
b. f(x) ∨ f(y) → f (x ∧ y)

(7) Minimal negation (Downward Entailing)
a. f (x ∨ y) → f(x) ∧ f(y)
b. f(x) ∨ f(y) → f (x ∧ y)

- Of particular relevance here is (6), which by itself characterizes what is called anti-additive functions (Zwarts 1998).
  ⇒ narrow- scope disjunction with respect to function f is equivalent to wide-scope conjunction with respect to f.
- In the context of GQ-NSIs, this amounts to saying that narrow-scope existential with respect to negation is equivalent to wide-scope universal with respect to negation.

(8) $\neg\exists.P(x) \leftrightarrow \forall x.\ \neg P(x)$

- Shimoyama (2011) constructs cases in which an additional quantificational element in conjunction with sentential negation creates a non-anti-additive context.

(9) a. Q¬ ⟩ ∃ = Q ⟩ ∀ ⟩ ¬
b. ∀ ⟩ Q¬
c. ¬Q ⟩ ∃
d. ∀ ⟩ ¬Q = ¬ ⟩ ∃ ⟩ Q

- The quantificational adverbs yielding non-anti-additive contexts of the form Q¬ are *genellikle*, *genelde* 'usually', *çoğu zaman* 'most of the time', çoğ*unlukla* 'mostly', *neredeyse her zaman* 'almost always'.
- They always take wide scope over negation.

(10) Cem çoğunlukla ders-e katıl-maz.
Cem mostly class-DAT participate-NEG
Available: 'In most cases, Cem does not participate.' ⇒ Q ⟩ ¬
Unavailable: 'Cem does not participate in most cases.' ⇒ ¬ ⟩ Q

- Once GQ-NSIs co-occur with these wide-scope quantificational adverbs, there are two possible interpretations: ∀ > Q¬ or Q¬ > ∃.

(11) Kimse çoğunlukla ders-e katıl-maz.
anybody mostly class-DAT participate-NEG
Available: 'For every x, it is mostly the case that x does not participate in the class.'
∀ ⟩ Q ⟩ ¬
Unavailable: 'It is usually not the case that someone participates in the class.'
Q ⟩ ¬ ⟩ ∃

- Imagine a context where there are three students and five lectures. Suppose each student did not participate at all in 3 out of 5 lectures.

(12) a.	L1	L2	L3	L4	L5
b. s1	×	×	×	✓	✓
c. s2	✓	✓	×	×	×
d. s3	×	✓	✓	×	×

- In this scenario, ∀ > Q¬ reading in (11) is true, and Q¬ > ∃ reading is false since there is no lecture in which no student participated.
- Given that (11) is judged true in this scenario, GQ-NSI only contributes universal quantification.

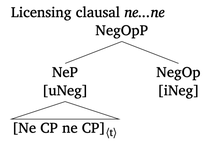
Interaction of *ne…ne* & GQ-NSIs

- Among Turkish NSIs, *ne…ne*-constructions, which roughly corresponds to the meaning of the *neither…nor* constructions in English, are the only type where negation is optional.

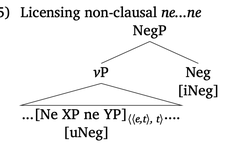
(13) **Ne** anne-m **ne** baba-m ev-e gel-(me)-di.
neither mother-1.SG.POSS nor father-1.SG.POSS home-DAT come-PAST-NEG
'Neither my mother nor my father came home.'

- **Jeretič (2023)** ⇒ the optionality of negation is due to the structural ambiguity arising from the type-flexibility of coordination operators: ne operator can coordinate XPs of type <<e,t>, t>, or propositions of type t.

(14) Licensing clausal *ne…ne*



(15) Licensing non-clausal *ne…ne*



(16) a. No negative concord ↔ *ne…ne* coordinates full clauses (full CPs)
b. Negative Concord ↔ *ne…ne* coordinates phrases (DPs), not full clauses.

- In the absence of negation, direct objects are contained in coordinated CPs, and c-commanded by the covert negation introduced by ne-head.
- Once GQ-NSIs appear in the object position, the result is ungrammatical.

(17) *Bu yılki toplantı-ya ne Ali ne Ayşe **kimse-yi** davet et-miş.
this year's meeting-DAT NE Ali NE Ayşe anybody-ACC invite LV-EP.PAST
Neither Ali nor Ayşe invited anybody to this year's meeting.'

- In cases where the syntactic positions are reversed, that is, GQ-NSIs occupy the subject position and ne…ne-phrases appear in the direct object position, the sentence is well-formed.

(18) Bu yılki toplantı-ya **kimse** ne Ali ne Ayşe'yi davet et-miş.
this year's meeting-DAT anybody NE Ali NE Ayşe-ACC invite do-EP.PAST
'Nobody invited neither Ali nor Ayşe to this year's meeting'.

- In (17), GQ-NSIs are trapped in the scope of negation, yielding ungrammaticality. On the other hand, in (18), they move ATB from CPs to a higher position where they outscope negation, resulting in a well-formed sentence.
- This indicates that GQ-NSIs in Turkish contribute universal quantification in negative contexts, hence must scope over negation to be interpreted.

Exploiting Scope Rigidity

- In scope-rigid languages, surface scope relations must be preserved at LF, therefore operations such as covert QR are not available, possibly due to the availability of scrambling.
- It is possible to take advantage of this by considering expressions which obligatorily take wide or narrow scope w.r.t negation.

(19) a. … XP_{narrow}…YP…. ¬
b. … YP … XP_{wide} … ¬

- Due to scope rigidity:
- In (19a), YP is trapped in the scope of negation because YP cannot QR.
- Likewise, in (19b), YP must be interpreted above negation since it cannot lower.
- Wide-scope expressions ⇒ ..de….de `both' ya…ya…. `either…or'
- Narrow-scope expressions ⇒ *herkes* `everyone'

(20) **NSI - XP_{wide}**
a. Kimse Ali'yle de Demet'le de konuş-ma-dı.
anyone Ali-with both Demet-with and talk-NEG-PAST
'Ali and Demet such that no one talked to them.'
b. Kimse ya Ali'yle ya Demet'le konuş-ma-dı.
Cem either Ali-with or Demet-with talk-NEG-PAST
'It is either Ali or Demet that no one talked to.'

(21) **XP_{narrow} - NSI**
*Herkes kimse-yi gör-me-di.
everybody anybody-ACC see-NEG-PAST
Intended meaning: 'Everybody didn't see anybody.'

Complementary distribution of universals

- In Turkish, universal quantifiers take narrow scope with respect to negation (Kelepir 2001; Özyıldız 2017).

(22) Bugün herkes gel-me-di.
today everybody come-NEG-PAST
'Not everyone came today.'

- Question ⇒ What blocks ordinary universal quantifiers from taking wide scope over negation?
- Complementary distribution of ordinary universals and GQ-NSIs
- (i) Pre-ne…ne-phrases

(23) a. ***Her mahkum** ne anne-si ne baba-sı-yla konuş-ur.
every convict NE mother-3SG.POSS NE father-3SG.POSS-with talk-AOR
Int. 'Every convict s.t. he talks to neither his mother nor his father.'
b. **Hiçbir mahkum** ne anne-si ne baba-sı-yla konuş-ur.
any convict NE mother-3SG.POSS NE father-3SG.POSS-with talk-AOR
'No convict talks to his mother or his father.'

- (ii) Pre-XP_{wide}

(24) a. ***?Herkes** ya Ali'yle ya Demet'le konuş-ma-dı.
everyone either Ali-with or Demet-with talk-NEG-PAST
'It is either Ali or Demet that no one talked to.'
b. **Kimse** ya Ali'yle ya Demet'le konuş-ma-dı.
anyone either Ali-with or Demet-with talk-NEG-PAST
'It is either Ali or Demet that no one talked to.'

- There is one particular configuration where ordinary universal quantifiers can scope over negation. Once these quantifiers appear with a proper argument that they can distribute over, they can be construed as taking the widest scope.

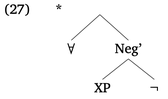
(25) ?Herkes bazı insan-lar-la konuş-ma-dı.
everybody some person-PL-WITH talk-NEG-PAST
(i) For every x, there are some people such that x did not talk to those people.
?∀ ⟩ ∃ ⟩ ¬
(ii) There are some people s.t. not everyone talked to them.
∃ ⟩ ¬ ⟩ ∀
(iii) *There are some people s.t. for every x, x did not talk to those people.
*∃ ⟩ ∀ ⟩ ¬

- In such examples, although universal quantifiers scope over negation, this is only possible if there is an intervening quantificational force. Consider GQ-NSIs in the same configuration.

(26) Kimse bazı insan-lar-la konuş-ma-dı.
anyone some person-PL-WITH talk-NEG-PAST
Available: 'Some people such that no one talked to them.' ⇒ ∃ ⟩ ∀ ⟩ ¬
Unavailable: 'For every x, there were some people whom x did not talk to.' ⇒
*∀ ⟩ ∃ ⟩ ¬

- Here, an opposite pattern emerges: the scope positions unavailable for universal quantifiers are the only available scope positions for NSIs.
- While *herkes* can take maximal scope distributing over indefinites, the scope of NSIs is confined to the immediately upper-neg position.

(27) *



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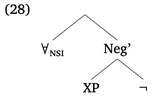

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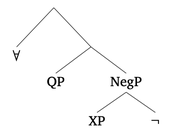

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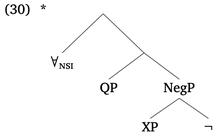

- Similar observations have been reported in other languages whose NSIs are known to contribute universal quantification, such as Greek (Giannakidou 2000) and Hungarian (Szabolcsi 1981).
- **Giannakidou (2000: 501) and Blocking effect:**
- *…it seems plausible to handle it by invoking a blocking effect…: 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 languages cannot take scope over negation because there is already a more specific universal quantifier that does exactly this.*

Contact and References

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Selected References

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