

Hybrid and Optional Negative Concord in Turkish: a unified analysis¹

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Abstract

This paper provides a unified analysis for the hybridity and optionality observed in the Turkish negative concord system. The hybridity is found in a difference in negative concord behavior between two classes of n-words: one class – existential n-words – behaves in a traditionally strict way; a second class – *neither..nor* phrases – displays optional negative concord. These phenomena are explained by the difference in semantic type between these two classes: *neither..nor* phrases are type-flexible, while existential n-words have a rigid generalized quantifier type.

1 Introduction

1.1 Turkish as a hybrid negative concord system, displaying strict and optional negative concord

The negative concord system of a language is characterized by looking at how morphologically negative elements interact with each other. In Turkish, negative quantifiers such as *hiç kimse* (nobody), as shown in (1), must co-occur with a sentential negation marker, yielding one logical negation, while *ne..ne* (*neither..nor*) phrases, shown in (2), only optionally appear with it, and when they do, a double negation reading is available.

- (1) Hiç kimse gel-*(me)-di.
nobody come-*(NEG)-PAST
Nobody came. / *Nobody didn't come.
- (2) a. Ne Ali ne Beste gel-di.
NE Ali NE Beste come-PAST
Neither Ali nor Beste came.
- b. Ne Ali ne Beste gel-me-di.
NE Ali NE Beste come-NEG-PAST
Neither Ali nor Beste came. / Neither Ali nor Beste didn't come.

Data resembling the sentence in (1), in which morphologically negative quantifiers obligatorily co-occur with a sentential negation marker is what made linguists such as Kelepir 1999 and Zeijlstra 2004 identify Turkish as a strict NC language, which can be defined as the following:

- (3) A *strict NC language* is one in which all "n-words" must co-occur with sentential negation.

"N-words" (Laka 1990) are expressions – typically morphologically negative quantifiers – that can engage in NC. Below is a working definition (from Giannakidou 2006):

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- (4) An *n-word* is an element that:
- can be used in structures containing sentential negation or another *n-word* yielding a reading equivalent to one logical negation;
 - can be used in a negative fragment answer.

Using this definition, we identify two classes of *n-words* in Turkish: *ne..ne* phrases on the one hand, and on the other, words like *hiç kimse* ("nobody"), *hiç birşey* ("nothing"), *hiçbir zaman* ("never"), for any noun *X*, *hiçbir X* ("no *X*"), *asla* (never)... (see Kelepir 1999, Özyıldız 2017). I will call this class "existential *n-words*" (since I later analyze them as existential quantifiers).

The status of Turkish as a strict NC language is questioned as the NC behavior of *ne..ne* phrases is not characterized as strict, but instead as "optional", based on the following definition.

- (5) An element engages in *optional NC* if it a) can provide a semantic negation of its own b) can also engage in NC with a negation marker or an "n-word" (see definition in (4)).

We therefore observe a difference in NC behavior between the two classes of *n-words*: optional NC with *ne..ne* phrases, and strict NC with existential *n-words*. This makes Turkish a "hybrid" NC system,² defined as the following:

- (6) A *hybrid NC* language is in which not all *n-words* behave in the same way with respect to NC.

To summarize, the puzzle I address in this paper is twofold. I propose to explain:

- the **hybridity** of the Turkish NC system, displaying a split between existential *n-words* and *ne..ne* phrases;
- the **optionality** in the NC behavior of *ne..ne* phrases.

1.2 Proposal

I argue that the hybridity and optionality of the Turkish NC system depend on the *n-words*' semantic types, that then determine the position of the operators that form *n-words* relative to the possible syntactic position of negation. I argue that NC is present when the semantic type of the *n-word* is non-propositional (non-clausal *ne..ne* phrases and existential *n-words*), and absent when the semantic type of the *n-word* (clausal *ne..ne* phrases) is propositional. Therefore, the optionality of *ne..ne* comes from its type flexibility, while hybridity of the system comes from the difference of semantic type between *ne..ne* and existential *n-words*.

This paper is organized as follows. In section 2, I present a background on optionality and hybridity in NC. In section 3, I argue for a generalization of the distribution of NC with respect to *ne..ne* phrases. In section 4, I propose an analysis that explains this generalization.

² The term "hybrid" was coined by Surányi 2006 to describe the Hungarian NC system. While Surányi used it to describe his analysis of the underlying nature of Hungarian *n-words*, I will use it in a purely descriptive way, which is how Szabolcsi 2016/2017 re-uses the term to describe Hungarian NC.

2 Background on hybrid and optional NC

The general phenomenon of NC is well studied in the literature (Ladusaw 1992; Haegeman and Zanuttini 1991, 1996; Acquaviva 1993; Giannakidou 1997, 2000; De Swart and Sag 2002; Zeijlstra 2004, 2008). Phenomena such as strict NC, non-strict NC and negative spread, are well-represented typologically, and are considered in cross-linguistic accounts of NC. On the other hand, more rare NC phenomena like hybridity and optionality are sparsely discussed in the literature, and there is no general understanding of how they fit in the big picture of NC as of yet. In this section I lay out the existing literature on hybridity and optionality in NC, as well as some information of the typology of these phenomena, which will set the stage for the possibilities of analyses for the Turkish data.

2.1 Hybridity

This section gives a background on hybridity by: 1) presenting Hungarian hybrid NC, and in particular, Szabolcsi's (2016/2017) analysis for it, and comparing it to Turkish; 2) discussing the typology of hybridity in the world's NC systems, and noting in what way this picture is relevant to our puzzle.

2.1.1 Hungarian vs. Turkish hybrid NC

The hybridity in Hungarian is observed in the existence of two versions of each n-word, creating two classes, the "*sem X*" type behaving strictly, the "*X sem*" type non-strictly. Arguing against Surányi's (2006) analysis for this pattern, Szabolcsi 2016/2017 proposes a difference in the syntactic status of each class of the "nor" (*sem*) particle that composes n-words: a head on the clausal spine (in non-strict NC); a clause-internal particle (in strict NC). This analysis is important to consider in this paper, because of the similarity in the Turkish and Hungarian data, that is summarized in the following tables, that show which n-words display which NC behavior.

(7) Hungarian:

	strict NC	non-strict NC
existential n-words	x	x
neither..nor	x	x

(8) Turkish:

	strict NC	no NC
existential n-words	x	
neither..nor	x	x

Note that where Hungarian is "non-strict NC", Turkish is "no NC". These are not necessarily different phenomena, given that Turkish has SOV word order, and therefore n-words are always pre-verbal, which in a non-strict NC system corresponds to "no NC." Given this similarity in the data, Turkish *ne..ne* phrases may be given the same analysis as its Hungarian counterpart. However, as we will see in section 3, the generalization for Turkish that drives the analysis presented in this paper does not hold for the corresponding Hungarian facts.

2.1.2 Other hybrid systems

As far as I know, the literature does not discuss any other hybrid systems. While many NC languages don't display hybridity, there seem to be a number of such languages, that I present in this section.³ Turkish, Farsi, and Kurmanji Kurdish⁴ seem to function almost exactly in the same way, in which existential n-words behave strictly, and *neither..nor* phrases have optional NC. Another class of hybrids includes Cairene Arabic, Greek and Hebrew,⁵ that have NC systems that separate existential n-words and *neither..nor* phrases, where the latter behave strictly, and the former non-strictly. Here are sentences from Greek that exemplify this paradigm:

(9) Post-verbal existential n-word
I Maria ***(den)** ide **kanenan**.
the Maria ***(neg)** saw **no-one**
Maria saw no-one.

(10) Post-verbal *ute..ute* (*neither..nor*)
O Pavlos ***(den)** ide **ute** ti Maria **ute** to Jani.
the Pavlos ***(neg)** saw **ne** the Maria **ne** the Jani
Pavlos saw neither Maria nor Jani.

(11) Pre-verbal existential n-word
Kanenas ***(den)** ide ti Maria.
No-one ***(neg)** saw the Maria
No-one saw Maria.

(12) Pre-verbal *ute..ute* (*neither..nor*)
Ute i Maria **ute** o Janis ***(den)** idan ton Pavlo.
ne the Maria **ne** the Janis ***(neg)** saw the Pavlos
Neither Maria nor Janis saw Pavlos.

Importantly, in all of these languages, the split in n-words happens along the existential/*neither..nor* line. It never happens between different types of existential n-words (e.g. presenting different morphological structures, or different syntactic categories, like nominal vs. adverbial). The analysis presented in this paper provides an explanation for this tendency.

2.2 Optionality

One type of optionality involves two negative elements interpreted as one or two semantic negations; another type has n-words that have the option of appearing without or with a sentential negation marker. The second type resembles that encountered with Turkish *ne..ne* phrases. However, the first type has given rise to more prominent analyses, that are important to consider while looking at the Turkish data.

2.2.1 Optionality between NC and double negation readings in the presence of two negative elements

Optional NC between two negative elements has been discussed in a variety of contexts: double negation readings in NC languages (e.g. between n-words in French, see (13), and other Romance languages), and vice versa: NC readings in non-NC languages (e.g. between negative quantifiers in English, see (14)).

³ The data I summarize here comes from my own fieldwork; note, however, that this is only preliminary research, and that my fieldwork was biased towards comparing typical n-words and *neither..nor* phrases, and that an exhaustive study of the behavior of *ne..ne* phrases has not been done. This is left for further research.

⁴ Thanks to Heval Batu for Kurdish, and Zahra Mirazi and Amir Anvari for Farsi.

⁵ Thanks to Maria Kouneli for Greek and Suhail Matar for Cairene Arabic and Hebrew.

- (13) *Personne aime personne.* (French)
 nobody loves nobody
 a. Nobody loves anybody. (default)
 b. Everybody loves somebody. (marked)

- (14) *Nobody loves nobody.* (English)
 a. Nobody loves anybody.
 b. Everybody loves somebody.

To account for the English facts, May 1989 and Van Benthem 1989 develop a polyadic quantifier approach in which negative markers may be interpreted as resumptive, and a sequence of negative indefinites can optionally be interpreted as a complex negative quantifier. For French sentences like (13), De Swart & Sag 2002 propose an analysis of optional "negative absorption", involving polyadic quantification. In looking at West Flemish, Zanuttini 1991 defines an operation of factorization which reinterprets a sequence of quantifiers $\forall x_1 \neg \dots \forall x_n \neg$ as a new sequence $\forall x_1 \dots x_n \neg$. These approaches are all based on the assumption that n-words are semantically negative to start with. In section 4, I will argue that it is preferable not to adopt such an analysis.

2.2.2 Optionality of the presence of a sentential negation marker

In Bavarian, Catalan, and West Flemish, n-words optionally co-occur with sentential negation markers and engage in NC with them. This is the type of optionality observed with Turkish *ne..ne* phrases. While there is almost no analysis proposed for this type of phenomenon, there have been a number of recent psycholinguistic studies on the availability of NC and double negation readings in Catalan (Déprez et al. 2015, Espinal and Tubau 2016, and Espinal, Borràs-Comes, and Prieto 2014). Espinal et al. 2014 propose a semantic ambiguity between negative and non-negative n-words and negative markers. While this analysis could be extended to Turkish optionality, this paper proposes an analysis that avoids ambiguity, that in turn could be extended to Catalan.

3 The distribution of NC with Turkish *ne..ne* phrases

3.1 Proposed generalization

The availability of NC between *ne..ne* phrases and a sentential negation marker is constrained in the following way:

- (15) **Generalization:**
 a. no NC \leftrightarrow *ne..ne* coordinates full clauses or, equivalently,
 b. NC \leftrightarrow *ne..ne* coordinates constituents that are not full clauses

This generalization for Turkish *ne..ne* phrases is novel. The phenomenon of optional NC with *ne..ne* phrases has been observed by several, including Gencan 1979, Göksel 1987, and Şener & İşsever 2003. Only the latter have proposed an analysis for it. Şener & İşsever's generalization (presented in 3.2) is crucially different from the one proposed in (15), and part of this section will be dedicated to argue against it.

3.2 Turkish optional NC as interaction with focus: Şener & İşsever's generalization

Şener & İşsever 2003 explain the optionality of sentential negation co-occurring with *ne..ne* by arguing for a dependency of focal and negative features, where semantic negation is realized only when both of these features are checked. Their analysis crucially relies on the following generalization:

- (16) **Şener & İşsever's generalization:** (reworded)
For sentences with subject and object *ne..ne* phrases:
a. no NC \leftrightarrow [_F *ne..ne*] or, equivalently,
b. NC \leftrightarrow no [_F *ne..ne*]

The following sentences, taken from Şener & İşsever 2003, exemplify these conditions:

- (17) a. [_F Ne anne-m ne baba-m] ev-e gel-di.
 ne mother-1sg ne father-1sg house-dat come-past.3sg
 Neither my mother nor my father came home.
 b. *Ne anne-m ne baba-m ev-e [_F gel-di].
 ne mother-1sg ne father-1sg house-dat come-past.3sg
- (18) a. Ne anne-m ne baba-m ev-e [_F gel-me-di].
 ne mother-1sg ne father-1sg house-dat come-neg-past.3sg
 b. #[_F Ne anne-m ne baba-m] ev-e gel-me-di.
 ne mother-1sg ne father-1sg house-dat come-neg-past.3sg
 intended: Neither my mother nor my father came home.
 actual: Neither my mother nor my father didn't come home.

Put against a background of optional NC, this generalization looks quite plausible. As noticed by Zeijlstra 2004, St-Amour 2009 among others, prosodic emphasis can disambiguate between negative concord and double negation readings, as in the following French example:

- (19) *Personne aime personne.*
Neutral with respect to stress: NC or double negation readings available.
Stress on the first "nobody": double negation only.

In addition, many authors claim a tight relationship between negation and focus, eg. Laka 1990, Kural 1992, Piñón 1993, Büring 1998. For example, Laka's work bringing negation and focus together in one syntactic category, in which there is a Σ P that hosts both negation and focus. In the remainder of this section, I argue for the generalization in (15), and discuss how it captures the data more accurately than Şener & İşsever's generalization.

3.3 Arguing for the new generalization

3.3.1 Clausal coordination \rightarrow no NC

Şener & İşsever's generalization in (16) is incomplete, focussing on subject and object *ne..ne* phrases only. This is problematic for the development of a correct generalization for this data. Clausal *ne..ne* coordination is revealing

in that it is incompatible with NC, as shown in the following sentence.

- (20) Ne Ali dans et-(#me)-di ne Beste şarkı söyle-(#me)-di.
Ne Ali dance do-(#neg)-past ne Beste song say-(#neg)-past
Neither Ali danced nor Beste sang.

If the verbs in the coordinated constituents are negated, only a double negation reading is available (indicated by the "#" symbol), i.e. there is no NC reading. Similarly, when the first member of the coordination is a full clause, and there is ellipsis in the second member, NC is again unavailable.

- (21) Ne Ali dans et-(#me)-di, ne Beste.
Ne Ali dance do-(#neg)-past ne Beste
Neither Ali didn't dance, nor did Beste.

Example (21) tells us that there can be ellipsis in the second member of a *ne..ne* coordination. Now we want to check whether there can be ellipsis in the first. We can do this by looking at gapping structures, which force the presence of verbal ellipsis, cf. Ross 1970, i.a. These are available, as shown below.

- (22) Ne Ali okul-a ne Beste ev-e git-(#me)-di.
Ne Ali school-dat ne Beste home-dat go-(#neg)-past
Neither Ali went to school nor Beste home.

Again, gapping structures, which are clausal coordination structures with ellipsis, are incompatible with NC. Furthermore, these sentences show that ellipsis of the predicate is possible in the first member of the coordination. This suggests that non-gapping sentences can have ellipsis in the first member of the coordination as well.

The above data supports the condition for lack of NC stated in (15), which is clausal *ne..ne* coordination. Şener & İşsever's generalization states a different condition for the lack of NC. Namely, that the *ne..ne* phrase should be focused. In the following section, I show that this condition is incorrect.

Remark. There is precedence in the literature in claiming that coordination structures are a result of clausal coordination and ellipsis. While foundational work proposes type multiplicity in the semantics of coordination (Partee and Rooth 1983), some more recent work discusses the possibility for underlying clauses. In particular, the notion of "conjunction reduction" is taken up for conjunction structures (see Schein 2017, Hirsch 2017), which assumes obligatory clausal coordination associated with ellipsis and ATB movements. For English *either..or* disjunction, Schwarz 1999 argues for a similar case of reduction.

3.3.2 Focus on *ne..ne* is not a condition for the absence of NC

Şener & İşsever's generalization states that information-structural focus entails the absence of NC. Focus as a general semantic phenomenon corresponds to an alternative-generation mechanism (cf. Rooth 1985, 1992). In Turkish, the

phonological manifestation of information-structural focus corresponds to prosodic prominence, as well as optional fronting strategies (Vallduví and Engdahl, 1996; İşsever 2001). In addition, there are several constructions that make focus explicit, in particular, in question-answer pairs and contrastive focus constructions. In what follows, I run tests for focus on *ne..ne* phrases that rely on cues other than prosodic prominence. This is something that Şener & İşsever do not do when arguing for the presence or absence of focus. I show that these configurations are in fact compatible with both NC and no NC *ne..ne* sentences, and refute Şener & İşsever's claim that $[_F \text{ ne..ne }] \rightarrow \text{no NC}$.

Question-answer focus. In the following example, the *ne..ne* sentence is an answer to a wh-question. Both options, with and without negative concord, are possible.

- (23) *Ali and Beste were expected at the party. I didn't go and want to know who was there.*
- a. – Kim gel-di?
 who come-past
 Who came?
- b. – Ne Ali ne Beste gel-(me)-di, maalesef.
 _{NE} Ali _{NE} Beste come-neg-past unfortunately
 Neither Ali nor Beste came, unfortunately.

Change in word order. The position immediately before the verb is a focus position in Turkish. The *ne..ne* phrase in that position is compatible with both presence and absence of negative concord.

- (24) Elma-yı ne Ali ne Beste ye-(me)-di.
 apple-acc ne Ali ne Beste eat-(neg)-past
 Neither Ali nor Beste ate the apple.

Contrastive focus. The *ne..ne* phrase is in a contrastive focus position, and the negation *-mE* is optional.

- (25) Beste ödev yap-tı, ama ne Ayşe ne Can yap-(ma)-dı.
 Beste homework do-past, but ne Ayşe ne Can do-(neg)-past
 Beste did her homework, but neither Ayşe nor Can did.

In all three tests, a focused *ne..ne* phrase is compatible with both the absence of the negation marker *-mE*, and its presence with NC. This refutes Şener & İşsever's claim that focused *ne..ne* phrases entail no negative concord.

3.3.3 Non-clausal coordination → NC

Constituency test for non-clausal coordination. In this paragraph I show that the only test of information-structural focus that Şener & İşsever use – right-dislocation – can be accounted for just as well by the new generalization. Right-dislocated elements are backgrounded, and therefore cannot be focused. Şener & İşsever observe that this position can be occupied by a *ne..ne* phrase only when in a sentence with NC:

- (26) Gel-*(me)-di, ne Ali ne Beste.
 come-*(neg)-past, ne Ali ne Beste
 They didn't come, neither Ali nor Beste. (no double negation reading)

However, this data is also explainable under the new generalization, serving as a constituency test: only constituents may be right-dislocated, and it is only in NC *ne..ne* sentences that the *ne..ne* phrase is a constituent.

Note that there are no other reliable constituency tests for *ne..ne* phrases. In particular, other types of movement of constituents are leftwards, which, as I show below, are compatible with ellipsis. Sentence (27) shows an object *ne..ne* phrase that has moved above the subject, and sentence (28) coordinates clauses whose contrastive constituents are moved, and that is, in addition, compatible with ellipsis.

- (27) Ne elma-y1 ne portakal-1 Ali ye-di.
 ne apple-acc ne orange-acc Ali eat-past
 Ali ate neither the apple nor the orange.
- (28) Ne elma-y1 Ali ye-di ne portakal-1.
 ne apple-acc Ali eat-past ne orange-acc
 Ali ate neither the apple nor the orange.

Similarly, pseudo-cleft constructions, usually tests for constituency, don't show anything for *ne..ne* phrases. In the following example, the optional copula and tense marker on the first coordinate of the *ne..ne* phrase shows that clausal coordination is always available.

- (29) Gel-en-ler ne Ali-(y-d1) ne Beste-y-di.
 come-gerund-pl ne Ali-(cop-past) ne Beste-cop-past.
 Those who came were neither Ali nor Beste.

Focus on non-contrastive constituents entails no clausal coordination. In this section I show that the data Şener & İşsever provide to support their condition for NC – no focus on the *ne..ne* phrase – in fact also supports our condition for NC – non-clausal coordination. In other words, our claim "non-clausal coordination → NC" entails Şener & İşsever's claim "no focus on the *ne..ne* phrase entails NC". Given Şener & İşsever's assumption that negated sentences always involve a focused element, if the *ne..ne* phrase is not focused, than something else is. In the following, we have examples involving the predicate that is focused, as well as an adverbial.

- (30) *Ne Ali ne Beste [gel-di]_F.
 Ne Ali ne Beste come-past
- (31) *Ne Ali ne Beste [ev-e]_F gel-di.
 Ne Ali ne Beste [house-dat]_F come-past

The examples show that focusing an element outside the overt scope of the *ne..ne* phrase is ungrammatical when there is no NC. In contrast, focus on these elements is possible when there is negation on the verb.

- (32) Ne Ali ne Beste [gel-me-di]_F.
 Ne Ali ne Beste come-neg-past
 Neither Ali nor Beste came.
- (33) Ne Ali ne Beste [ev-e]_F gel-me-di.
 Ne Ali ne Beste [house-dat]_F come-neg-past
 Neither Ali nor Beste came home.

This suggests that Şener & İşsever's claim that no focus on the *ne..ne* phrase entails NC is right. However, I argue that it follows from the generalization provided in this paper. This is based on the fact that if a coordination structure is clausal, then the elided non-contrastive constituents may not be focused. This comes from the more general fact that focused constituents may not be elided. Coordinated elliptical constructions are contrastive focus constructions subject to a parallelism condition, in which a constituent may be elided if it is semantically identical to an antecedent constituent (Sag 1976, Williams 1977). This means that if a constituent is focused in the antecedent constituent, it must also be focused in the elided constituent. This implies that a focused constituent is repeated, violating the assumption that a focused constituent is new information.

So far, we have shown that "non-clausal coordination → NC" entails Şener & İşsever's claim "no focus on the *ne..ne* phrase entails NC". Non-clausal coordination therefore provides a more general condition for the presence of NC, and we saw in the previous section that there are indeed cases of NC in which the *ne..ne* phrase is focused, therefore, Şener & İşsever's condition for NC is not sufficient and therefore misleading.

3.3.4 Prosodic cues to syntactic constituency support our generalization

We have seen that Şener & İşsever's claim that focus on the *ne..ne* phrase entails no negative concord is incorrect. In this section, I identify the prosodic phenomenon that Şener & İşsever mistake for information-structural focus, and show that there is a particular prosody that does correspond to *ne..ne* phrases without NC, and that appears to be compatible with the new generalization.

The only systematic difference we observe between NC and no NC *ne..ne* sentences, is the presence of breaks that delimit prosodic units. The prosodic constituency of the type [Ne A] [Ne B Verb] (brackets delimiting prosodic units) corresponds to sentences without NC; the presence of sentential negation in such a constituency structure yields double negation. On the other hand, a constituency of the type [Ne A Ne B] [Verb] or [Ne A] [Ne B] [Verb] is ungrammatical without NC.

(34) **Prosody on *ne..ne* phrases (generalization):**

- a. NC ↔ the second member of the *ne..ne* phrase forms a prosodic unit with the verb
- b. no NC ↔ the second member of the *ne..ne* phrase does not form a prosodic unit with the verb

Remarkably, this exactly corresponds to our generalization in (15), if we replace "prosodic unit" by "syntactic constituent." This is likely not accidental: there is evidence in the literature for a relationship between prosodic and syntactic constituents. In particular, Selkirk 2011 argues for an Optimality Theory constraint for a match between prosody and syntactic constituency. Assuming this constraint ranks high enough to be unviolated, the observed prosody is sufficient support for the generalization in (15).

3.4 Interim conclusion

In this section, I argued for the generalization in (15), that states a strict correlation between the presence of NC and non-clausal *ne..ne* coordination, and the absence of NC and clausal *ne..ne* coordination.

We can immediately hypothesize a likely cause for this correlation: NC is present only if the *ne..ne* scopes under the syntactic position of the sentential negation marker, and absent when it scopes above. Note that for existential n-words, they will always be outscoped by the syntactic position of negation (in their base position). NC is always present with n-words; the generalization thus extends to any kind of n-word in the following way:

(35) **Distribution of NC with n-words**

- a. no NC \leftrightarrow the n-word's semantic type is clausal;
- b. NC \leftrightarrow the n-word's semantic type is non-clausal.

This generalization is the crux of the paper. It explains in one go the optionality of NC with *ne..ne* phrases, as well as the hybridity in NC behavior observed along the *ne..ne* / existential split: disjunction is an operator that is generally assumed to be type-ambiguous (see Partee & Rooth 1983 for generalized conjunction), and is therefore able to select for constituents of different types; an existential quantifier, on the other hand, needs a restrictor and a nuclear scope, which is inapplicable at the clausal level.

A consequence of the generalization: Turkish is different from Hungarian. While Hungarian and Turkish look quite similar at first sight, as shown in section 2.1.1, they are less similar at second sight: Turkish NC has a clausal/non-clausal source for its hybridity, whereas the hybridity in Hungarian doesn't depend on that: both types of n-words are compatible with clausal coordination (A. Szabolcsi, p.c.), as shown below.

- (36) a. Sem Kati nem evett, sem Mari nem evett.
 nor Kati neg ate nor Mari neg ate
- b. Kati sem evett, Mari sem evett.
 Kati nor ate Mari nor ate
 Neither Kati ate, nor Mari ate.

The Hungarian sentence (36)a shows clausal *neither..nor* coordination and NC, which, as we saw, is unavailable in Turkish. We will take this difference to suggest that the analyses for the optionality in Turkish and the hybridity (or optionality for a given n-word) in Hungarian should be different. Indeed, we will see in the next section that the clausal/non-clausal distinction is enough to explain Turkish optionality and hybridity, without calling for an ambiguity, which adopting Surányi's (2006) or Szabolcsi's (2016/2017) analyses for Hungarian would make us do.

4 Analysis

This section proposes an analysis to explain the generalization uncovered in the previous section. I will embed it in Zeijlstra's NC framework, with an amendment to constrain the syntactic position of the negative operator, based on Haegeman and Zanuttini's (1991) Neg Criterion.

4.1 Which theory of NC to adopt

4.1.1 Turkish existential n-words as semantically non-negative existentials

As noted by Keleşir 1999, Turkish existential n-words never yield double negation readings:

- (37) Hiç kimse hiçbir şey-i gör-me-di.
Nobody nothing-acc see-neg-past
No-one saw anything. *Everyone saw something.

Other negative concord languages do display double negation readings (e.g. French, Romanian). If these n-words were semantically negative, we would have to explain these facts by having a language-specific parameter of obligatory polyadic quantification (or equivalent), instead of it being optional, as defined by de Swart and Sag 2002 for Romance. However, it appears that no strict negative concord language displays double negation readings in such configurations (see Fălăuş and Nicolae 2016). The link between a forced polyadic quantification parameter and strictness of negative concord is not obvious, which is why it is more plausible to treat n-words as non-negative. Furthermore, they are to be analyzed as existentials, as prominent theories of negative concord propose. Morphology supports this move: the element "hiçbir", combined with any noun, forms an n-word, and is composed of *hiç*, "ever", and *bir*, "one". I therefore choose to use Zeijlstra's 2004/2008 framework for NC that treats n-words as non-negative existentials.

4.1.2 Zeijlstra's theory

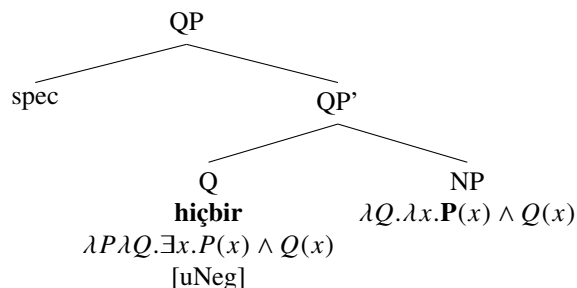
Zeijlstra 2004/2008 takes NC to be a syntactic Agree relation (based on Chomsky 1995, 2001) between a single interpretable negative feature [iNeg] and one or more uninterpretable negative features [uNeg], using Multiple

Agree (see Ura 1996, Hiraiwa 2001). In strict NC languages, n-words are analyzed as existential quantifiers bearing [uNeg], and sentential negation also bears [uNeg]. These uninterpretable negative features must be checked off by a covert negation operator Op_{\neg} that has [iNeg]. Semantic negation is only interpreted once, where Op_{\neg} is located. Below is Zeijlstra's proposal applied to example (1):

- (38) Op_{\neg} hiç kimse gel - me - di
 [iNeg] [uNeg] [uNeg]

The internal syntax of n-words. I assume, with a slight departure from Zeijlstra, that n-words are formed by a [uNeg]-carrying existential quantifier that combines with a NP. I adopt a standard syntax for quantifier phrases, in which the logical operator sits in its head, taking an NP in its complement.

- (39) The internal syntax of an existential n-word ⁶



where **P** is the denotation of any property, e.g. **person, place, time, student ...**

4.1.3 Amendment to Zeijlstra: constraining the position of the negative operator

Zeijlstra leaves the syntactic position of his negative operator relatively underdetermined. In his 2004 dissertation, he assumes it originates in the vP, and moves up, c-commanding the highest position of [uNeg]. This non-constrained nature of the syntactic position of the negative operator gives Zeijlstra over-generation problems. In particular, he is unable to predict the obligatoriness of the presence of a sentential negation marker when an n-word is present in the sentence. For example, he predicts the following sentence to be grammatical:

- (40) *Hiç kimse gel-di.
 nobody come-past
 intended: Nobody came.

I therefore introduce a constraint on the position of the negative operator that will be one of the two ingredients that will solve the over-generation problem predicted by Zeijlstra, the second is the nature of the negative operator, discussed in section 4.2.1. The constraint I propose is a version of the Neg Criterion, proposed by Haegeman

⁶ Note the head-initial structure. While Turkish is considered a head-final language, all quantifier expressions appear to the left of the DP they select (see, e.g., Kornfilt 1997, Göksel & Kerslake 2005). There seems to be no analysis in the literature for this phenomenon. I thus make the assumption that this means that while Turkish is head-final in the verbal domain, it is head-initial in the nominal domain.

and Zanuttini 1991, based on Rizzi's (1991) *wh*-criterion, that specifies a spec-head requirement at LF between a negative head and a negative operator:

- (41) The Neg Criterion (Haegeman and Zanuttini 1991)
- a. Each Neg head must be in a Spec-Head relation with a Negative operator;
 - b. Each Negative operator must be in a Spec-Head relation with a Neg head.

I reformulate this criterion within Zeijlstra's agreement framework. I assume the "Neg Head" corresponds to a head that carries [uNeg] (just as the *wh*-head in Rizzi's *wh*-criterion that carries a [+wh] feature; in other words, calling for a semantically interpretable *wh* operator). The "negative operator" corresponds to Zeijlstra's null operator that carries [iNeg] and is semantically negative. Given these correspondences, I reformulate the Neg Criterion within a framework of syntactic agreement. Requirement (b) of the Neg Criterion is a direct translation, while requirement (a) incorporates the possibility for Multiple Agree.

- (42) The *New* Neg Criterion
- a. Each [uNeg] must agree with an [iNeg] in the appropriate checking domain (see section 4.3);
 - b. Each [iNeg] must be in a Spec-Head relation with a [uNeg].

In addition, I assume this criterion is a requirement on narrow syntax, instead of LF, as Haegeman and Zanuttini have it. The reason for this is the following: *n*-words that raise to information structural positions that are higher than negation are licensed. The relevant data supporting this argument is as follows. The post-verbal position in Turkish is considered to be above the negation (see Erguvanlı-Taylan, 1984; Kural, 1992; Göksel, 1998), given the wide scope of non-negative quantifiers like "many" in post-verbal position, as seen in (43) that usually scope below negation in their neutral position, as in (44).

- (43) Ye-me-di, çok insan.
 eat-NEG-PAST, many people
 Many people didn't eat. (çok > ¬)
 *Not many people ate. (¬ > çok)
- (44) Çok insan ye-me-di.
 many people eat-NEG-PAST
 Not many people ate. (¬ > çok)
available for some speakers: Many people didn't eat. (çok > ¬)

However, *n*-words are licensed in post-verbal positions, despite it being a position above negation. It also seems like negation stays in its original position in such configurations; this entails that the existential quantifier is reconstructed below negation. This is shown in (45), where a possibility modal that scopes above negation in its original position stays above negation when the *n*-word is right-dislocated.

- (45) Ye-me-yebil-di, hiç kimse.
 eat-NEG-◇-PAST nobody
 It could be the case that nobody ate. (◇ > ¬)
 *Nobody could eat / might have eaten. (* ¬ > ◇)

(The possibility modal is glossed as its common modal logic symbol "◇"; The modal flavor of the possibility suffix *-Abil* is ambiguous between epistemic and root modals.)

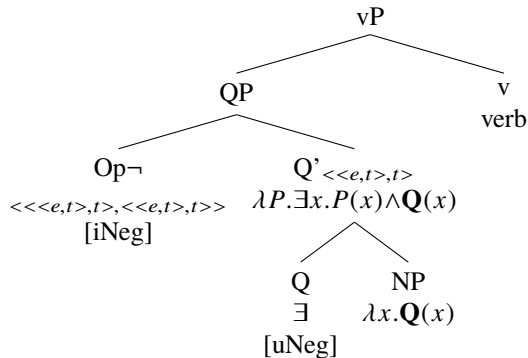
I take this evidence as showing that n-words are licensed and interpreted at their narrow syntax position.

4.2 Defining the syntax and semantics of the operators involved

4.2.1 The negation operator: a non-shiftable propositional type

I propose that the negation operator in Turkish is strictly of type $\langle t, t \rangle$, i.e. it applies to propositions only, and cannot be type-shifted. The reason I propose this type restriction is, in the first place, to solve Zeijlstra's overgeneration problems. If the negation operator could apply to a quantifier type, we would predict that an ungrammatical sentence of the form "n-word verb" could be grammatical:

- (46) Without the type restriction on Op_{\neg} : an ungrammatical sentence



To prevent such a structure from occurring, I impose the semantic type restriction on the negative operator, which, associated with the New Neg Criterion, predicts the Turkish facts, and removes Zeijlstra's overgeneration problem: a type restriction on Op_{\neg} prevents it to appear in the position in which it finds itself in (46). Moreover, given the New Neg Criterion, it can appear nowhere else. Therefore the [uNeg] is left unchecked and the sentence is ungrammatical, as it should be.

Importantly, there are Turkish-specific empirical reasons to propose this type restriction: there is no constituent negation, i.e. there is no way of composing a negation marker with a DP to form a DP:

- (47) *{Herkes / çok / Ayşe} {değil / yok / -mE} (geldi.)
 {Everyone / many / Ayşe} {cop.neg / ex.neg / neg} (came.)
intended: not everyone / not many / not Ayşe (came.)

We could argue that there still is the possibility for constituent negation to be null. However, we would then expect sentences of the form [QP VP] to have a negative reading; or [QP VP-NEG] to have a double negative reading, which is not the case. I therefore make the strong assumption that the Turkish negation operator may not be type-shifted, e.g. using the Geach rule (Geach 1972), that converts operators of type $\langle a, b \rangle$ to type $\langle \langle c, a \rangle \langle c, b \rangle \rangle$ for an arbitrary type c . I remain agnostic to why this is in Turkish: whether it an arbitrary constraint that is Turkish-specific or $\text{Op}\neg$ -specific, or there are syntactic constraints on when type-shifting can apply.

4.2.2 The semantics of the NE operator

I propose that *ne..ne* phrases are the result of applying a generalized disjunction operator to 2 or more arguments of the same t -reducible type.

$$(48) \quad \llbracket \text{NE} \rrbracket = \lambda \alpha_1 \dots \lambda \alpha_n. \sqcup_{i=1}^n \alpha_i$$

where: – $\alpha_1, \dots, \alpha_n$ are elements of the same t -reducible type, and $n > 1$

$$- \text{"}\sqcup\text{" is generalized disjunction, defined as: } \sqcup_{\langle \tau, \langle \tau, \tau \rangle \rangle} = \begin{cases} \lambda x_t. \lambda y_t. x \vee y & \tau = t \\ \lambda x_\tau. \lambda y_\tau. \lambda z_{\tau_1}. x(z) \sqcup y(z) & \tau = \langle \tau_1, \tau_2 \rangle \end{cases}$$

There are two important elements in this proposal for the NE operator that require some discussion: disjunctive semantics, and non-negative semantics. I provide support for these two elements below.

***ne..ne* : A disjunction scoping under a negation.** The surface semantics of *neither..nor* phrases may correspond to two different (logically equivalent) LFs:

$$(49) \quad \neg(A \vee B)$$

$$(50) \quad (\neg A) \wedge (\neg B)$$

I will argue for a disjunctive semantics for Turkish *ne..ne* phrases, as in (49). Distinguishing between these two LFs is significant, because it distinguishes between different analyses of n-words. The first point concerns how *ne..ne* phrases compare to existential n-words. Existentials and disjunctions are semantically similar, and crucially, they both scope *under* negation in order to convey the relevant meaning. If *ne..ne* phrases corresponded to (50), a conjunctive semantics, they would need to scope *over* negation; this would entail a different syntactic behavior from the existential n-words, which could in fact be the source of the difference in behavior (there is precedence for such an analysis: a split in existential/universal force of the n-words is proposed by Surányi 2006 as the source of Hungarian hybrid NC). Furthermore, a conjunctive semantics would favor an analysis for *ne..ne* similar to the one proposed by Giannakidou (1997, 2000), who distinguishes plain NPIs from n-words by their quantificational force: NPIs are existentials scoping under negation, while n-words are universals scoping over negation (other universal analyses of n-words are proposed by Szabolcsi 1981 for Hungarian (but which is argued against in Szabolcsi 2017),

and Japanese and Korean n-words, see, e.g., Sells 2006, Yoon 2008, Shimoyama 2011). Finally, *neither..nor* phrases have been described to be conjunctive in other languages: French *ni..ni* by Gonzalez & Demirdache 2015, and English and German *neither..nor* by Wurmbrand 2008 (surprisingly, given the disjunctive-looking morphology of English "neither-nor"). Given these possible consequences, it is important to provide evidence for the disjunctive semantics for *ne..ne* phrases.

Many authors have provided evidence for distinguishing between conjunctive/universal and disjunctive/existential status of negative quantifiers and connectives. The most popular method is of using quantificational elements to split the scope of the negative element: Shimoyama 2011 (universals in Japanese); de Swart 2000; Potts 2000, Penka 2011, 2012, a.o. (existentials in German and English); Gonzalez & Demirdache 2015 (conjunction in French); Gajić 2016 (disjunction in BCS). Turkish appears to have no split scope readings with n-words (Kelepir 1999 argues that there are a select few with quantificational verbs, though I disagree with the validity of her argument).⁷ This has theoretical consequences, that involve problems with Zeijlstra's proposal; but this is the topic for another paper. However, it does make it impossible to reveal the nature of *ne..ne* by splitting its scope.

I therefore show it in a different way, by looking at the interaction of *ne..ne* phrases with the suffix *-sIz*, that means *without*. This suffix *-sIz* licenses the presence of n-words in its scope, in one of the only configurations in the language in which n-words appear without sentential negation:

- (51) Hiç kimse-siz parti-yi yap-tı-m.
 nobody-without party-acc do-past-1sg
 I organized this party without anyone.

Within Zeijlstra's system, this means that *-sIz* has interpretable negative features, able to agree with the uninterpretable negative features of the n-word. The suffix also is able to engage in NC with *ne..ne* phrases. The following sentence shows that NC is in fact the only possible reading:

- (52) Bu parti ne Ali ne Beste-siz yap-ıl-acak.
 this party ne Ali ne Beste-without do-pass-fut
 a. This party will be organized without Ali and (without) Beste.
 b. *This party will not be organized without Ali and (without) Beste.

Given NC, the phrase "ne Ali ne Beste-siz" may have one of the two following logical representations (decomposing "without" in "not with"):

- (53) *ne Ali ne Beste-siz*
 a. **conjunctive:** (NOT with Ali) AND (NOT with Beste)

⁷ This resembles St-Amour's (2008) observation for Canadian French, a NC language. St-Amour claims that split scope doesn't arise for n-words in NC languages, based her argument on intervention effects. However, this seems unlikely given the fact that in known cases, not all quantificational elements are interveners between negation and NPIs.

b. **disjunctive:** NOT with (Ali OR Beste)

If the correct logical form for (53) is (a), the meaning of "without" must have distributed over the two conjuncts, otherwise, applying "without" to the conjunction yields the wrong truth conditions. However, when *-sIz* is expressed overtly on the two members of the coordination of the *ne..ne* phrase, the NC reading is not recovered, and only a double negation reading is available:

- (54) Bu parti ne Ali-siz ne Beste-siz yap-ıl-acak.
this party ne Ali-without ne Beste-without do-pass-fut
a. *This party will be organized without Ali and (without) Beste.
b. This party will not be organized without Ali and (without) Beste.

This suggests that (53)a is not the logical form sought for (53). (53)b is more promising: *-sIz* scopes above the disjunction in (53), as overtly expressed, yielding the right truth conditions. In (54), it scopes under the disjunction, leaving the *ne..ne* phrase without *without*'s negation scoping over it, and therefore needing another one. Hence the double negation. I take this to be evidence for the semantics for *ne..ne* to be disjunctive. This result permits a unified analysis of *ne..ne* phrases and existential n-words, in which they can both scope under negation, allowing Zeijlstra's agreement theory to apply, as long as *ne..ne* is indeed non-negative.

***Ne..ne*: Non-negative.** Because we observe *ne..ne* phrases occurring without the usual sentential negation marker, we could be lead to believe that they are semantically negative. There are a few reasons to believe it is not so. First, if *ne..ne* phrases were semantically negative, we would have to understand how they engage in negative concord with other negative markers. The data presented in the previous section with the suffix meaning "without" is quite a clear reason to think that *ne..ne* is non-negative. In particular, it would be difficult to account for the obligatory negative concord in a sentence like (52). We will take this to be sufficient evidence for non-negative semantics of *ne..ne* phrases. Another reason to reject this analysis is the lack of explanatory adequacy for the difference between *ne..ne* phrases and existential n-words. Finally, a third reason is that this paper presents a simple solution in which *ne..ne* phrases are non-negative and unified with other n-words.

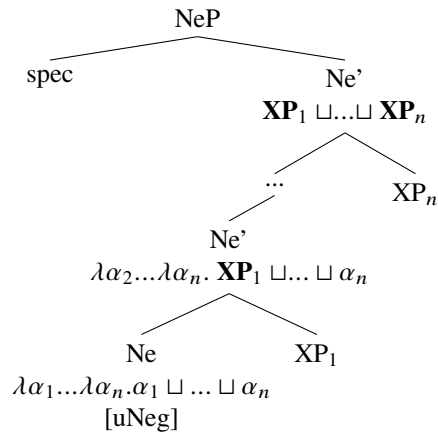
4.2.3 The syntax of NE

A [uNeg] carrier. I argued for a non-negative semantics for *ne..ne* phrases in the previous section. However, they still are associated with negative semantics. In the framework of Zeijlstra we are working in, this translates into them carrying uninterpretable negative features [uNeg].

The NeP. The NE operator sits in the head of a NeP, just as the existential operator forming n-words sits in the head of a QP. I will depart from a traditional syntax of coordination in order to allow for the specifier position to be

left open, in a way that mirrors the internal syntax of n-words, seen in section 4.1.2. The NE operator is in the head of the NeP. It selects an XP of conjoinable type in its complement, and further XPs of the same type are adjoined to the Ne' position, satiating the semantic arguments of the NE operator. The particule "ne" is the phonological realization of the left edge of each disjunct.

(55) The internal syntax of a NeP



4.3 Defining the checking domain of negative features.

There is no consensus as to what are proper checking domains, whether or not they correspond to phases, and whether they may in fact differ depending on certain parameters (Bobaljik & Wurmbrand 2005). We will stay theory-neutral and look at basic data that will give us an idea of what the boundaries of the checking domain of negative features in Turkish are. In order to do so, I will use examples involving the licensing of the n-word *hiç kimse* (nobody) by a sentential negation marker.

Tensed clauses block agreement:

- (56) *Hiç kimse gel-di diye gör-me-di-m.
nobody come-past comp see-neg-past-1sg
I didn't see that anybody came.
- (57) *Hiç kimse gel-di değil.
nobody come-past neg
It's not the case that anyone came.

Nominalizations and infinitival clauses don't block agreement:

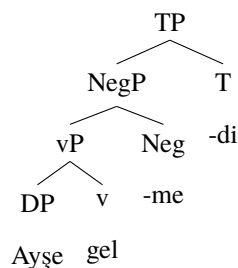
- (58) Hiç kimse-nin gel-diğ-in-i gör-me-di-m.
nobody-gen come-nmz-gen-acc see-neg-past-1sg
I didn't see that anybody came.
- (59) Hiç kimse gel-mek zorunda değil.
nobody come-inf need neg
No-one needs to come.

Agreement between two elements is therefore possible as long as it doesn't have to cross a TP boundary.

4.4 What can be coordinated by NE

Our analysis depends on conditions on what $ne..ne$ can coordinate. We are concerned in particular by verbal complexes: whether or not proper parts of verbal complexes can be coordinated will have an effect on whether or not the sentential negation morpheme is present in a given structure, which in turn will have an effect on what the NC system with $ne..ne$ looks like. I assume that the morphemes attaching to the verbal complex are introduced by heads, that I choose to represent to the right. We can see this exemplified in the following structure.

- (60) Ayşe gel-me-di.
 Ayşe come-neg-past.
 Ayşe didn't come.



I argue that verbal complexes cannot be partly elided or non-adjacent. This condition disallows structures that coordinate proper parts of verbal complexes. In other words, if the coordination contains the verb, it also contains any morpheme that attaches to the verb. This, crucially, will apply to the sentential negation morpheme $-mE$, as well as tense markers. This assumption is supported by the following data:

- (61) Ali ne gel-*((me)-(di)) ne ara-ma-di.
 Ali ne come-*((neg)-(past)) ne call-neg-past.
 Ali neither came nor called.

A consequence of the ban on non-adjacency is that if the verb is inside the negation, the whole TP is inside it too (assuming the T head is always part of the verbal complex, even if null). In particular, the sentence "Ne Ali ne Beste geldi" cannot have ellipsis of the verb root only, like this:

- (62) [Ne Ali <gel> ne Beste gel]-di.

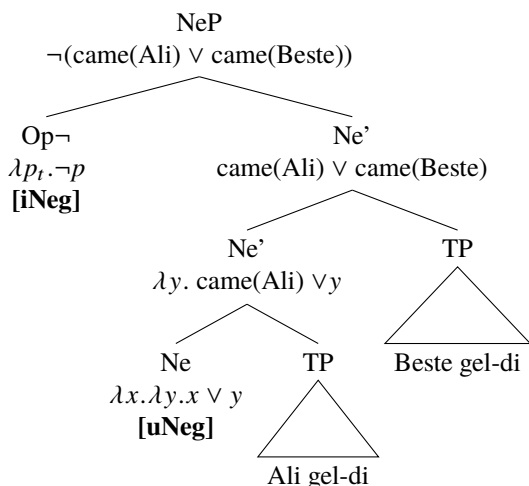
4.5 Combining the ingredients and deriving the facts

4.5.1 Derivations for clausal $ne..ne$ coordination structures

Clausal coordination and no NC: Grammatical. Below we show the derivation for a sentence with clausal coordination, and no sentential negation. It is formed by the NE operator selecting for a tuple of TPs, and its [uNeg]

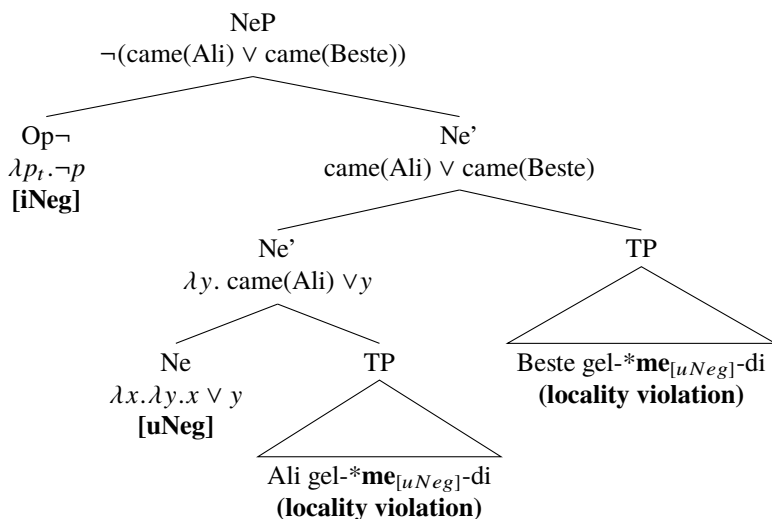
being checked off by the [iNeg] of an Op_{\neg} present in the specifier of the NeP, that can apply to the denotation in Ne' because of its appropriate $\langle t \rangle$ type. The sentence is thus grammatical, and the meaning is as intended.

- (63) Ne Ali *<gel-di>* ne Beste gel-di.
 ne Ali come-past ne Beste come-past



Clausal coordination and NC: Ungrammatical. The following derivation shows the ungrammaticality of clausal coordination with the presence of sentential negation.

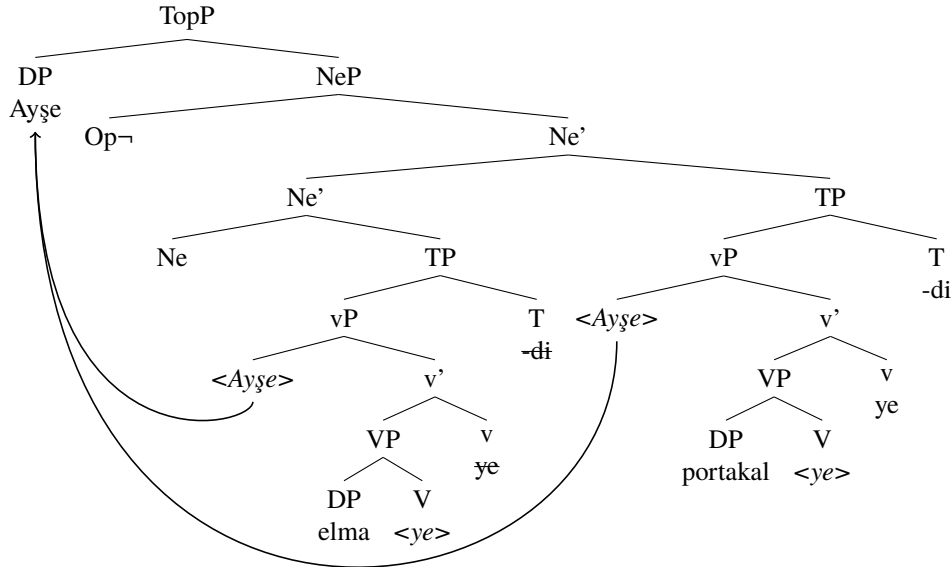
- (64) *Ne Ali *<gel-me-di>* ne Beste gel-me-di.
 ne Ali come-neg-past ne Beste come-neg-past



The ungrammaticality of this sentence arises from the fact that there is a TP boundary between the [iNeg] present in the specifier of the NeP and the [uNeg] of the sentential negation. The only way of making the corresponding string grammatical is for the sentential negation marker *-mE* of each disjunct to host a negation operator in its specifier. This yields a double negation reading, which is what we observe in the data.

For clausal *ne..ne* in which the contrastive elements don't come first in the clause, we assume across-the-board extraction to the specifier of a Topic Phrase of the pre-*ne..ne* elements. For example:

- (65) Ayşe ne elma ne portakal ye-di.
 Ayşe ne apple ne orange eat-past
 Ayşe ate neither an apple nor an orange.



Existential n-word licensing in these structures. Just as the sentential negation marker is ungrammatical in these structures, we predict that n-words are as well. This is indeed the case:

- (66) ?? Can ne hiç kimse-yi ne hiçbir şey-i gör-dü.
 Can ne nobody-acc ne nothing-acc see-past
intended: Can didn't see anyone or anything.
- (67) ?? Ne Ayşe ne Ali hiç kimse-yi gör-dü.
 ne Ayşe ne Ali nobody-acc see-past
intended: Neither Ayşe nor Ali saw anyone.
- (68) ?? Ne Ali hiçbir şey yapmak istiyor, ne Ayşe.
 ne Ali nothing do-inf want-ipf.3sg ne Ayşe
 Neither Ali wants to do anything, nor does Ayşe.

These judgments are judged similarly to the typical long-distance licensing cases, previously marked as ungrammatical (in (56) and (57)). (56) is repeated below in (69), emphasizing the "??"/"difficult" judgment.

- (69) ??Hiç kimse gel-di diye gör-me-di-m.
 nobody come-past comp see-neg-past-1sg
 I didn't see that anybody came.

According to the theory presented in this paper, this difficulty corresponds to the same phenomenon in both cases: agreement across a TP boundary.

Note: The weak NPIs *kimse* and *hiç* are fine in these same positions (this is contrary to the judgment in Şener & İşsever 2003; I checked these judgments with four native speakers, and they all agreed to the grammaticality of weak NPIs in these positions). This is expected, given that, for Zeijlstra and many others, NPI licensing is a purely semantic phenomenon. *ne..ne* phrases are downward-entailing environments, and therefore license weak NPIs.

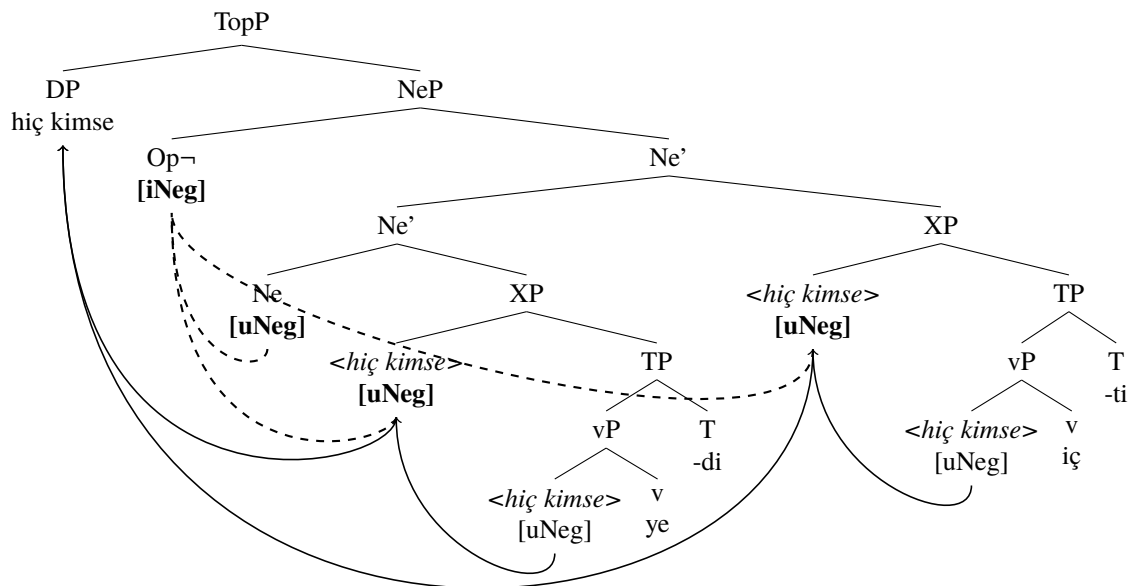
These facts in which n-words are in the scope of *ne..ne* starkly contrast with pre-*ne..ne* n-words, that are grammatical, for some speakers, without a sentential negation marker. Such examples are shown below.

- (70) Hiç kimse ne et ne balık ye-di.
 nobody NE meat NE fish eat-PAST
 Nobody ate meat or fish.
- (71) Ne Ali ne Beste ne et ne balık ye-di.
 NE Ali NE Beste NE meat NE fish eat-PAST
 Neither Ali nor Beste ate meat or fish.

In order to explain these facts, I assume that *hiç kimse* is licensed and interpreted at an intermediate position above tense and below the NeP, before it ATB moves out to a topic position. I don't specify what kind of position this is, and refer to it as its projection as XP in the following structure.

- (72) Licensing of pre-verbal n-words

Hiç kimse ne ye-di ne iç-ti.
 nobody ne eat-past ne drink-past



Full lines represent syntactic movement; dashed lines represent agreement relations.

The following sentence shows that the negation (and consequently, the existential) is indeed interpreted below a quantifier that is positioned in between the n-word and the *ne..ne* phrase.

- (73) Hiç kimse iki hayvan-ı ne gör-dü ne duy-du.
 Nobody two animal-acc en see-past ne hear-past
 There are two animals that nobody saw or heard. ($2 > \neg$)
 Nobody saw or heard two animals. ($\neg > 2$)

This judgment contrasts with a similar construction, replacing the verbal *ne..ne* with a negated verb:

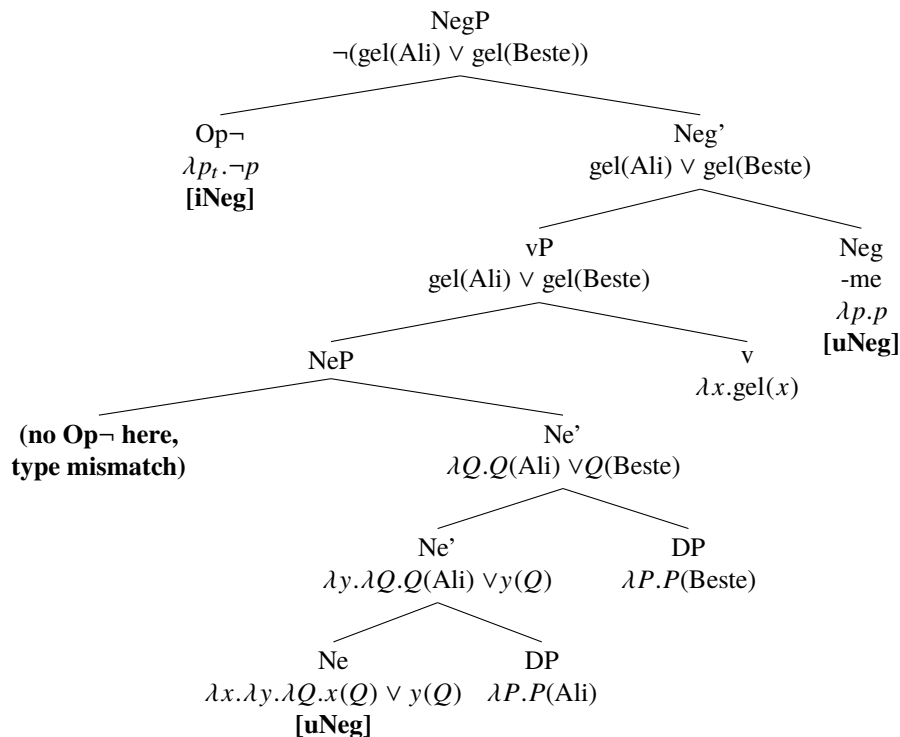
- (74) Hiç kimse iki hayvan-ı ne gör-me-di.
 Nobody two animal-acc en see-neg-past
 Nobody saw the two animals. ($\neg > 2$)
 *There are two animals that nobody saw. ($*2 > \neg$)

The difference between these two sentences can be simply explained by the possible positions "two" can take at LF: in (73), it moved out of the scope of negation after ATB movement. In (74), there is no operation that made it move out of the scope of negation (movement to a topic position is possible, but it must be overt, given Turkish scope transparency (see Keleşir 1999, a.o.) which is not the case in this sentence). We can conclude in (73), a further movement of the numeral quantifier "two" past the n-word *hiç kimse*, guaranteeing the observed wide scope, is not warranted. Therefore, negation is interpreted at the level of the *ne..ne* phrase, under which the existential from the n-word must scope. This provides support for the structure in (72).

4.5.2 Derivations for non-clausal *ne..ne* coordination structures

Non-clausal coordination and NC: Grammatical. Below is a grammatical sentence with DP coordination.

- (75) [Ne Ali ne Beste] gel-me-di.
 ne Ali ne Beste come-neg-past



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