KAZAKH *ESH*-WORDS AND NEGATIVE CONCORD

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2021

KAZAKH *ESH*-WORDS AND NEGATIVE CONCORD

Thesis submitted to the

Institute for Graduate Studies in Social Sciences

in partial fulfillment of the requirements for the degree of

Master of Arts

in

Linguistics

by

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Bogaziçi University

2021

DECLARATION OF ORIGINALITY

I, Assem Amirzhanova, certify that

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ABSTRACT

Kazakh *Esh*-words and Negative Concord

The goal of this thesis is twofold. First, I present compelling evidence that Esh-words in Kazakh pattern with Strict Negative Concord Items (SNCIs) of the variety found in Slavic languages (e.g. Russian) rather than alleged Negative Polarity Items in Altaic languages like Turkish. Secondly, I propose a novel perspective on SNC which presents significant advantages over existing ones (c.f. Zeijlstra 2004). The most explicit account of SNC languages (Zeijlstra 2004), makes the undesirable assumption that the sentential negative markers in them are just another SNCI licensed by a silent negative operator, thus failing to explain why its presence is obligatory to license all other SNCI. This proposal, instead, focusing on the absence of negative quantifiers (like *no NP*) in these languages, argues that syntactically local combinations of SNCI phrases with sentential negation is a device to express *no NP*.

The proposal explains why Esh-words must occur with negation: Combining an existential determiner with a non-antimorphic function does not result in a negative determiner. Similarly, intervening quantifiers of any sort disrupt the equivalence with *no*, therefore the proposal makes two additional desirable predictions:

i) Strict NC items are sensitive to intervention effects.

ii) Strict NC items must occur in the same clause as the negation licensing them.

ÖZET

Kazakça'daki Esh-kelimeleri ve Olumsuz Uyum

Bu tezin amacı iki yönlüdür. İlk olarak, Kazakça'daki Esh-kelimelerinin, Türkçe'deki Olumsuz Kutuplanma İfadeleri gibi davranmadığını ve daha çok Slav dillerindeki (örneğin Rusça) Katı Olumsuz Uyum (KOU) İfadeleri gibi davrandığını gösteriyorum. İkinci olarak, KOU için mevcut analizlere göre önemli avantajlar sunan yeni bir perspektif öneriyorum. Zeilstra'ya (2004) göre olumsuz cümledeki tümcesel olumsuzlamaya soyut olumsuz bir işlemci tarafından izin veriliyor. Dolayısıyla, cümlede tümcesel olumsuzlamanın gerektiğini açıklayamıyor. Ben ise, KOU dillerinde olumsuz belirleyicinin (İngilizce'deki *no* gibi) olmamasına dayanarak, KOU ifadesinin ve tümcesel olumsuzlamanın sözdizimsel yerel kombinasyonunun olumsuz belirleyicileri ifade etmek için bir cihaz olduğunu öneriyorum.

Bu öneri Esh-kelimelerinin ve tümcesel olumsuzlamanın birlikte meydana gelmeleri gerektiğini açıklıyor: Varoluşsal belirleyicinin ve antimorfik (olumsuz) olmayan bir fonksiyonun kombinasyonu olumsuz belirleyici oluşumuna yol açmıyor. Aynı şekilde, araya giren herhangi bir niceleyici, KOU ifadesinin ve tümcesel olumsuzlamanın kombinasyonunun olumsuz belirleyiciyle eşdeğerliğini bozuyor. Bu nedenle, bu tezdeki öneri iki tahminde bulunuyor:

i) Katı Olumsuz Uyum İfadeleri araya girme etkilerine bağlıdır.

ii) Katı Olumsuz Uyum İfadeleri, onlara izin veren tümcesel olumsuzlamayla aynı cümlecikte bulunmak zorundadır.

ACKNOWLEDGEMENTS

First and foremost, my deep gratitude goes to my thesis supervisor, Professor Elena Guerzoni. Since my first semantics class taken from her till the last feedback I got from her for my thesis she had been the most thoughtful, caring and considerate supervisor. I was not a perfect student, but she never made me feel that I was not good enough. After every appointment I felt enthusiastic and motivated. She contributed a lot to the thesis, and without her I would not have been able to finish. I cannot express how thankful I am to her. Even in her hardest days she was able to support me. Having chosen her as my supervisor was one of the best decisions in my academic path.

I also would like to thank professors Ömer Demirok and Serkan Şener for being in my thesis committee and for their insightful feedbacks.

I spent almost five years in Bogaziçi, and it became my home. Thanks to all professors in my department, I gained invaluable knowledge and fell in love with linguistics even more. Specifically, I would like to thank Pavel Logacev, Ergin Öpengin, Mine Nakipoğlu, Aslı Göksel, Balkiz Öztürk, Eser Erguvanlı Taylan and Didar Akar. Their help and guidance made me believe in myself.

I would like to thank my friends and classmates. Fatma Belgin Dinç was the first person I met in Bogaziçi. We were inseparable since then. I will never forget our pre-exam sleepless nights in our department library and midnight sandwiches at Teras Kantin. Of course, it would not have been fun without Uğurcan Vurgun, who was always cheering us up with his jokes. Our 'Ling library ekibi' was the best thing that happened to me during my remedial year.

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ABBREVIATIONS

1:	First person
2:	Second person
3:	Third person
AA:	Anti-additive
AM:	Antimorphic
COND:	Conditional
DAT:	Dative case
DE:	Downward Entailing
F:	Feminine
FUT:	Future
GEN:	Genitive
LF:	Locative
LOC:	Logical Form
M:	Masculine
NC:	Negative Concord
NCI:	Negative Concord Item
NEG:	Negation
NF:	Non-finite
NPI:	Negative Polarity Item
NR:	Neg-Raising

PL: Plural

POSS: Possessive

PROG: Progressive

PRS: Present

PST: Past

Q: Question marker

SG: Singular

SNC: Strict Negative Concord

SNCI: Strict Negative Concord Item

SS: Surface Structure

CHAPTER 1

INTRODUCTION

1.1 The aim of the thesis

The aim of this thesis is to investigate the nature of Kazakh Esh-words (listed in (1)) in terms of their distributional and semantic properties from the perspective of Zeilstra(2001)'s Negative Concord (NC) analysis and Ladusaw (1979)'s Negative Polarity (NP) analysis.

    (1) Esh-tene – anything

        Esh-narse - anything

        Esh-deme - anything

        Esh-kim – anyone

        Esh-qandaj - any

        Esh-bir - any

        Esh-qashan – never/ anytime

        Capitalizing on the fact that among the Turkic languages Kazakh also presents many aspects in common with Slavic Languages, I will start with providing a detailed comparison between these items and their apparent counterparts on the one hand, in Turkish, on the other, in Slavic Languages. In doing so I will offer compelling evidence that, these items are Strict Negative Concord Items (SNCIs). Then, I will take Kazakh as a case study to offer a new perspective on Strict Negative Concord. Since there is no existing research on Esh-words and negation in Kazakh, this thesis is the first study providing a detailed structural and semantic description of the distribution of these items.

1.2 Data. Distribution of Esh-words. Affirmative and negative contexts

A preliminary observation about Esh-words (listed in (1)) is that they can be used in negative sentences, but they are ungrammatical in affirmative contexts. The following contrasts in (2) and (3) illustrate this fact:

(2) a. Mariam   esh-tene   degen   zhoq

    Mariam   ESH-thing   say.pst   neg.3sg

  "Mary didn't say anything"

  b. *Mariam   esh-tene   de-di

    Mariam   ESH-thing   say.pst.3sg

(3) a. Esh-qandaj   zhumis zhoq

    ESH-which   job   neg

  "There isn't any job"

  b. *Esh-qandaj zhumis bar

    ESH-which job   have

Esh-words are also grammatical in the argument of the negative preposition *without* (suffix *–sIz*) (see 4) while the combination of the Esh-word and the non-negative suffix *–men* that corresponds to English *with* is ungrammatical.

(4) a. Men keshege   esh-narseSIZ   keldim

    I   party.dat   ESH-thing.without   come.pst.1sg

  "I came to party with nothing."

  b. *Men keshege   Esh-narse-MEN   keldim

    I   party.dat   ESH-thing.with   come.pst.1sg

  Intended meaning: "I came to the party with something."

Being dependent on negation, it is plausible to wonder whether Esh-words may appear to be well-known Negative Polarity Items (NPIs), like English *any*. To address this question, one needs to evaluate their acceptability in other typical NPI licensing environments such as Downward Entailing ones. In the next section I will discuss it.

1.3 Downward entailing (DE) contexts

Other expressions that have semantic commonalities with negation are Downward Entailing (DE) expressions and these expressions are typical environments where Negative Polarity Items like *any* are licensed (Ladusaw 1979). Interestingly, these expressions do not suffice to make Esh-words grammatical. Let us see how they differ from negation. Roughly speaking, DE expressions are expressions that support entailments from sets to subsets. An example of DE expression is the determiner *every*, because it supports entailments from sets to subsets, as the following example shows:

(5) a. Every newspaper reported this event.

b. Every German newspaper reported this event.

c. {x: x is a German newspaper} $\subseteq$ {x: x is a newspaper}

Notice that, *every* is DE only in its restrictor and not in its scope.

Other examples of DE expression licensing *any* are the determiners *at most n* and less *than n.* (6a) and (6b) show that these expressions are DE in their restrictors and (7a) and (7b) show that they are DE in their scope.

(6) a. At most 3/less than 3 dogs are running in the park.

b. At most 3/less than 3 black dogs are running in the park.

c. {x: x is a black dog} $\subseteq$ {x: x is a dog}

(7) a. At most 3/less than 3 dogs are running in the park.

3

b. At most 3/less than 3 dogs are running fast in the park.

c. {x: x runs fast} ⊆ {x: x runs}

(8a) and (8b) illustrate that they license *any*.

(8) a. At most/less than 3 students handed in *any* homeworks.

b. At most/less than 3 students who handed in *any* homeworks passed the class.

Other environments that are DE are *if*-clauses (von Fintel 1998). This follows from Kratzer (1986)'s analysis of *if*-clauses as overt restrictors of (covert) universal determiners over possible worlds.

(9) a. If Mary sees a dog she gets scared.

b. If Mary sees a black dog she gets scared.

Unlike *every*, *at most 3 students* and other DE expressions, *some* cannot license NPIs since it is upward entailing. (10a) does not entail (10b), it is (10b) that entails (10a) and since the argument of *some* in (10a) is a superset (professors) of the argument of *some* in (10b) (Italian professors), the entailment is upward:

(10)   a. Some professors left.

b. Some Italian professors left.

c. {x: x is an Italian professor}⊆ {x: x is a professor}

In (11), (b) entails (a), since the set of "early leavers" is the subset of "leavers", the entailment is upward. *Some* is upward entailing in its scope as well.

(11)   a. Some professors left.

b. Some professor left early.

c. {x: x left early} ⊆ {x: x left}

Lacking the property of DE-ness, *some*, therefore, is not capable of licensing *any* or other NPIs in both its restrictor and scope, as Ladusaw (1979) has it:

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(12)   a. *Some professors taught *any* classes.

         b. *Some professor who taught *any* classes was on campus.

Turning now to Kazakh Esh-words, notice that they are not grammatical in the argument of the universal quantificational determiner *arbir (every)*:

(13)   *Eshqandaj kıtaptı   oqıgan arbir   bala emtihan tapsırad.

         ESH-which book.acc   read.nf every   child exam   pass.fut.3

         Intended meaning: "Every student who reads any book will pass the

         exam."

Moreover, Esh-words are not licensed in the antecedent of conditionals, and the arguments of *at most n* and *less then n* either.

(14)   a. If you hear from any students, let me know.

         b. *Esh-kım-di   korsen   magan habar ber.

            ESH-who.acc   see.cond.2   I.dat   news give

            Intended meaning: "If you see anyone, let me know."

         c. *3ten kem   oqushı   Esh-qanday   uy zhumisin   tapsirdi.

            Less than 3   students esh-which   home work   hand.pst

            Intended meaning: "Less than 3 students handed in any homeworks."

In fact, among all DE expressions only negation licenses Esh-words (see section 1.3).

In the following sections, I will show that this is also the case for similar items in Turkish and Russian. The reason why I look into Turkish data is that, among Turkic languages, Turkish is the one where similar items were investigated (see Kelepir 2011and Kornfilt 1997); I will refer to them as Hiç-words.

1.4 Turkish data

Since Kazakh being a Turkic language also shows a striking similarity with Turkish, where similar items were observed, that is, Hiç-words, this section presents a comparison between Esh-words and Hiç-words, and a discussion of the applicability to the current views on Hiç-words to Esh words. Like Esh-words, also Turkish Hiç-words are ungrammatical in affirmative sentences but are rescued by negation. This contrast led Turkish scholars to classify them as NPIs (see Kelepir 2001, Görgülü 2018, Şener & İşsever 2003 and others).

(15)   John   (hiç)kimseyi   görmedi.

            John   anybody.acc   see.neg.past.3sg

            "John didn't see anybody."

(16)   *John (hiç)kimse-yi gördü.

            John anybody.acc   see.past.3sg

            Intended meaning: "John didn't see anybody."

                         (Turkish)

                    (from Kelepir, 2001: 123)

Moreover, in both Turkish and Kazakh these words contain the counterpart of the English adverbial *ever*, that is, *Hiç* and *Esh* respectively. These adverbials also require negation.

(17)   Onu   hiç   sevmiyorum.

            S(he).acc   at all   like.neg.prog.1sg

            "I don't like her/him at all."

                         (Turkish)

                    (from Kelepir, 2001: 122)

(18)   Bu-nu   esh   kut-pe-gen edim.

This.acc at all   expect.neg.past

"I didn't expect this at all."

Like Esh-words, Hiç-words are also ungrammatical in the DE environments

discussed in the previous section (for details see Kelepir 2001). There is, however, one

difference between Kazakh and Turkish. Turkish adverb *hiç* can be used in yes/no

questions where it is grammatical without an overt negation. Since questions are typical

licensing environments for NPIs, this, I suppose, is the reason why Turkish scholars

classified them as NPIs.

(19)   Ali   hiç   sinemaya   gitti   mi?

          Ali   ever   cinema.dat   go.pst3 q.marker

          "Has Ali ever gone to the cinema?"

However, it is worth noticing that only *hiç* meaning *ever* can be used in genuine

information questions. Other Hiç-words generate negatively biased readings when used

in questions. The example below has a negatively biased reading[1] (for similar effects

with even-NPIs, see Guerzoni 2003).

(20)   Ali   hiçbiryere seni cağırdı   mi?

          Ali   hiç-place   you invite.pst3 q.marker

          "Has Ali invited you anywere?"

1.5 Russian data

---

[1] The reason why NPIs are acceptable in interrogatives is still under debate (see Guerzoni & Sharvit 2014).

Kazakh also shows a striking similarity with Russian. In particular, Kazakh Esh-words pattern very closely with Russian n-words[2]. Russian is considered to be a Strict Negative Concord language (Giannakidou 1997, 2002, Zeilstra 2001). N-words in such languages require the presence of an overt sentential negation and they are referred as Strict Negative Concord Items (SNCI) (see section 2.5). Even though morphologically they look like negative items, they do not contribute a negative meaning to sentences in which they occur.

(21)   Natasha   nichego   *(ne)   znaet

         Natasha   n-thing   neg   knows

         "Natasha doesn't know anything"

(22)   Nichego   *(ne)   rabotaet

          N-thing   neg   works

          "Nothing works"

                                                          (Russian)

                                          (from Zeijlstra, 2001: 123)

While N-words in these languages are grammatical in the presence of a sentential negation, they are not acceptable in any other DE context. For example, Russian n-words are unacceptable in the restrictor of the universal quantifier *kazhdiy*:

(23)   a. *Kazhdiy   student kotoriy   nichego prochital,

            Every   student who   N-what   read.pst

            zavalit   ekzamen

---

[2] The term "n-word" was first introduced by Laka (1990).

     fail.3fut exam

    b. Kazhdiy student kotoriy nichego NE prochital,

     Every   student who   N-what Neg read.pst

     zavalit   ekzamen

     fail.3fut exam

    "Every student who read nothing will fail the exam."

Notice that, when the verb *prochital (read)* is negated, the sentence becomes

grammatical (the negative marker is preverbal *ne*).

  Even though Esh-words morphologically do not contain any overt negative

markers while Slavic n-words do, the similarity in their distributions is striking.

Moreover, unlike Hiç-words but like Esh-words, Slavic n-words are not acceptable in

questions without an overt negation.

  (24)   *Ti videl   nikogo   na vecherinke?

      you see.past.2masc.pl n-who.acc on party.loc

      Intended meaning: "Haven't you seen anyone at the party?"

1.6 Fragmentary answers

One feature that Kazakh Esh-words, Turkish Hiç-words and Russian n-words share is

that all of them can be used as answers to wh-questions and receive a negative

interpretation.

  (25)   A: Kimdi kordin?

      Who.acc see.pst2

      "Who did you see?"

     B: Eshkimdi

Esh-who.acc

"No one."

(26)   A: Kimi   gördün?

        Who.acc   see.pst2

        "Who did you see?"

     B: Hiçkimseyi

       Hiç-kimse.acc

       "No one."

(Turkish)

(27)   A: Kogo   ti   videl?

        Who.acc you see.pst2.msc

        "Who did you see?"

     B: Nikogo.

       N-who.acc

       "No one."

(Russian)

Since all these items including Esh-words do not appear to be inherently negative in any other environments the negative interpretation of the answers in the above examples is puzzling. Giannakidou (2002) offers an explanation to this puzzle. She suggests that the negative meaning arises not due to the negativity of n-words, but due to ellipsis. Fragment answers are elliptical constructions where negation licenses these items first and then gets deleted. This explanation is somehow ad hoc, since the English NPI *anyone* cannot be used a fragmentary answer. Only a negative quantifier is grammatical in a negative fragment answer to a wh-question.

(28)   A: Who did you see?

           B: *Anyone / Nobody.

1.7 Negation in Kazakh

Since Esh-words are not inherently negative and are dependent from sentential negation, one needs to look at how sentential negation is realized in the language. In Russian, for example, it is a preverbal clitic (*ne*) as shown in section 1.5. In Kazakh, negation can be expressed as a suffix *-pA,* and negative particles *yemes* and *joq.* Their distribution is dependent on the predicate they negate. When the predicate is verbal, the negation is suffixal as in (29):

(29)   Men Astanaga barMAdim.

           I   Astana.dat go.neg.pst1

           "I didn't go to Astana."

The same meaning can be expressed by using *yemes* and *joq* except that the tense morpheme -GAn should precede the negation.

(30)   Men Astanaga   barGan joqpin/yemespin.

           I   Astana.dat go.Gan neg.1sg

           "I didn't go to Astana."

If the predicate is nominal, only *yemes* can be used as the following example shows:

(31)   Men student yemespin (*joqpin).

            I   student neg.1sg

           "I am not a student."

                                                                (from Mukhamedova (2015):3)

Being realized in different ways morphologically, sentential negation in Kazakh is always overt and contribute its own negative meaning. Two negative markers in one sentence lead to a double negation interpretation as (33) shows (a similar effect is observed in Turkish, Russian and other Slavic languages).

(32)   Men Astanaga barMAgan yemespin.

     I   Astana.dat go.neg.gan neg.1sg

     "It is not the case that I did not go to Astana."

      Meaning: "I went to Astana."

This fact will be relevant in my further discussion on the interpretation of sentential negation.

1.8 Summary

Based on the observations on their distribution discussed in the previous sections, one must conclude that Esh-words pattern with Strict Negative Concord Items (SNCI) found in Slavic languages (e.g. Russian, Polish, and Ukrainian).

In the following chapter, I illustrate three main existing theoretical perspectives on n-words and similar items, the Negative Polarity view, the Negative Concord view, and the view that these items can be both (the ambiguity view), in a more detailed way.

CHAPTER 2

NEGATIVE CONCORD

2.1 Negative Concord

The term Negative Concord was originally coined precisely to indicate that in some

languages, multiple morphological markers of negation (negation and n-words) in the

same sentence result in one single semantically interpreted negation, unlike in, say,

English where each negative marker contributes its own negation (Baker 1970, Labov

1972). Whether n-words must be seen as semantically negative or not is still an open

question (Haegeman & Zanuttini 1991, Giannakidou 1997, 2001, Zeijlstra 2001). Most

Romance languages like Italian are considered to be Negative Concord languages. The

Negative Concord phenomenon is illustrated below.

(1) Maria non   ha detto   niente   a nessuno.

   Maria NEG   has said   n-thing to n-person

  "Maria has not said anything to anyone."

(Italian)

(from Penka 2011: 49)

NC constructions are also observed in West Flemish (Haegeman & Zanuttini

1991)

(2) … da Valere niemand nie   kent

    that Valere nobody   not   know

  " … that Valere does not know anybody"

(West Flemish)

(Haegeman & Zanuttini 1991: 235)

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2.2 Different approaches to Negative Concord

In the literature, there is still no consensus on how to analyze Negative Concord. There are different approaches, which I am going to discuss in the following sections.

2.3 Negative Concord Items are ambiguous between Negative Indefinites and Negative Polarity Items

In Romance languages, preverbal n-words do not require the presence of an overt negative marker and appear to introduce their own negation, which lead some scholars to conclude that they are inherently negative. On the other hand, when they are post verbal, the sentential negation must be present, and their interpretation is non-negative. In such constructions negation and an n-word do not cancel each other out. Following Longobardi (1991), Herburger (2001) proposes that this asymmetry can be explained if we assume that n-words are ambiguous between negative indefinites and Negative Polarity Items, that is, they are negative quantifiers in preverbal position, and mere non-negative indefinites in post verbal position. She presents data from Spanish to demonstrate this claim. In (3) *nadie* has a negative force by itself, while in (4) when it is postverbal, a negation must be present, and the sentence does not receive a double negation reading. It is equivalent to (3).

    (3) Nadie vino.

        n-body came

        "Nobody came."

    (4) No vino   nadie.

        not came   n-body

"Nobody came."

According to Herburger (2001), since NPIs are not acceptable in preverbal position, in a sentence with two n-words (like the one in (5)), the one in a preverbal position must be a negative quantifier and the other must be an NPI.

(5) Nadie   comio nada

    n-body ate   n-thing

   "No one ate anything."

Herburger (2001) argues that evidence that n-words can be ambiguous between two readings in one sentence comes from the interpretation of sentences where an n-word is preverbal but in an embedded sentence, and the embedding verb is negative (e.g. *doubt*).

(6) Dudo   que   nadie   lo   sepa

   doubt.1S   that   n-body   it   knows.subj.

  "I doubt that nobody knows it,' or 'I doubt that anybody knows it."

She reports that most Spanish speakers find this sentence ambiguous between the two readings as illustrated above. In contrast, when *nadie* is postverbal, the sentence is no longer ambiguous as illustrated by (7).

(7) Dudo   que   lo   sepa   nadie.

    doubt.1sg   that it   knows.3sg   n-body

    "I doubt that anybody knows it."

(Spanish)

(from Herburger 2001: 307)

2.4 Negative Concord Items are Negative Polarity Items

In the first chapter, I started talking about Negative Polarity Items, in particular, the environments where these items are grammatical. These are DE expressions. Notice that classical negation is also DE, but much stronger, in a sense that it can license items which other only DE expressions cannot (see Chapter 1). Negative Concord items do not behave like English NPI *any*. However, Negative Polarity Items with a more restricted distribution than *any* or *ever* have been widely observed and analyzed in the literature. Specifically, Zwarts (1998) observes these cases and suggests that that there are different varieties of NPIs, which differ regarding the degrees of similarity with negation of the environments that can license them. He analyzes this diversity in licensing environments of NPIs by dividing them into three groups: weak, strong and super-strong NPIs. These three types are licensed by different expressions with different "strength" of negation. He notices that one can logically define a hierarchy of negative expressions, where "strength" of negativity increases proportionally with the number of logical properties an expression has in common with negation:

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(8) a. Expressions of minimal negation: *Few N, at most N* (only DE)

b. Expressions of regular negation: *No N, none of the N and no one* (also Anti-additive (AA))

c. Expressions of classical negation: *It is not the case that, not* (also Antimorphic (AM)).

These "expressions" denote different types of functions: downward entailing (DE) functions (minimal negation), anti-additive (AA) functions (regular negation), and antimorphic (AM) functions (classical negation and *without*) (Zwarts 1998, von der Wouden 1997). Here is how Zwarts showed that DE expressions have the fewest number of properties in common with classical sentential negation, and AA expressions have more. He starts observing that the two equivalences stated in the De Morgan Laws, which define classical negation, may be unpacked in the following four entailments as illustrated in (9):

(9) a. not(A) or not(B) => not(A and B)

b. not(A or B) => not(A) and not(B)

c. not(A) and not(B) => not(A or B)

d. not(A and B) => not(A) or not(B)

Merely DE expressions support fewer of the above entailments of De Morgan's Laws than AA ones and AM ones, in turn. Let us see what these expressions have in common with the classical negation. While negation (AM) is subject to all parts of the De Morgan's Laws in (9), anti-additive functions, like *no* and *every,* share only the first three properties with classical sentential negation (AM function), but not the fourth:

(10)   F is Anti-Additive (AA) iff

a.F(A) or F(B)=>F(A and B)

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b.F(A or b) =>F(A) and F(B)

c.F(A) and F(B)=>F(A or B)

The following examples show that *every* is anti-additive but not AM:

a. EVERY one who works or EVERY one who studies was invited => EVERY one who works and studies was invited.

c. EVERY one who works or who studies was invited => EVERY one who works and EVERY one who studies was invited.

d. EVERY one who works and EVERY one who studies was invited => EVERY one who works or who studies was invited.

but

e. EVERY one who works and studies was invited =/=> EVERY one who works or EVERY one who studies was invite.

Merely DE functions, unlike AM and AA functions, are subject to only the first two parts of De Morgan's Laws:

(11)   F is Downward Entailing (DE) iff

a.F(A) or F(B)=>F(A and B)

b.F(A or b) =>F(A) and F(B)

The following shows that *at most 3 students* is DE but not AA or AM:

a. AT MOST 3 STUDENTS who work or AT MOST 3 STUDENTS who study were invited => AT MOST 3 STUDENTS who work and who study were invited.

c. AT MOST 3 STUDENTS who work or who study were invited => AT MOST 3 STUDENTS who work and AT MOST 3 STUDENTS who study were invited.

but

d. AT MOST 3 STUDENTS who work and AT MOST 3 STUDENTS who study were invited =/=> AT MOST 3 STUDENTS who work or who study were invited.

e. AT MOST 3 STUDENTS who work and study were invited =/=>AT MOST 3 STUDENTS who work or AT MOST 3 STUDENTS who study were invited.

Notice that, based on the above definitions, AM functions are also AA and DE, and AA functions are also DE.

Given this hierarchy, Zwarts shows that the three varieties of NPIs mentioned above fit the following generalizations:

(12)   Only sentences in which an expression of at least minimal negation occurs, can contain a negative polarity item of the weak type (i.e. AM, AA and DE functions can license weak NPIs).

(13)   Only sentences, in which an expression of at least regular negation (i.e. AM or AA) occurs, can contain a negative polarity item of the strong type.

(14)   Only sentences, in which an expression of at least classical negation occurs (that is only AM), can contain a negative polarity item of the super-strong type.

Given the above classification, without considering n-words and Esh-words completely different from NPIs, we can just suggest that they are, in fact, NPIs but of a stronger type than *any*. Since contexts that are only DE are not "negative" enough for those items, the latter are not weak NPIs, but they are either strong or super-strong NPIs. In fact, since Esh-words are ungrammatical also in the argument of AA expressions such

as *every*, and only sentential negation can license them, one can conclude that if these items are to be considered NPIs, they are NPIs of a super-strong type.

This analysis would predict their distribution and interpretation in postverbal positions but require the stipulation of a silent negative operator to account for the distribution of n-words in non-strict Negative Concord. As I will show, an account of Strict Negative Concord does not need such a stipulation.

2.5 Negative Concord Items are Negative Quantifiers

Opposite to the NPI-like analysis of NCIs, the view that these items are true negative quantifiers has been entertained in the literature. In the negative quantifier approach, n-words and negation are not treated differently in the sense that n-words are treated as being negative as well. However, if they were negative, two n-words would cancel each other's negative meanings out. This is not what happens. This process is explained by an operation that has come to be known as Neg-Absorption (Haegeman and Zanuttini 1991, Higginbotham and May 1981, Penka 2011).

Negative Absorbtion is illustrated below:

(15) $[\forall x^-][\forall y^-][\forall z^-]=[\forall x, y, ,z]^-$

Penka (2011) shows how it works with multiple n-words in Italian.

(16)   Nessuno   ha   parlato con   nessuno.

       n-person   has   spoken with   n-person

       "Nobody talked to anybody."

(17) $\forall x, y[person(x)\&person(y) => \neg(x$ spoke to $y)]$

Two or more negative quantifiers and the sentential negation are interpreted as a single negative quantifier, thus, resulting in one semantic negation.

Similarly, the Neg-Absorption rule can be applied to the following sentence from Catalan, as was exemplified in Giannakidou (2002).

(18)   No   he   dit   res   a   ningu.

         not   have.1sg   said   n-thing to n-person

         "I didn't say anything to anybody."

(19)   No x, y [thing (x) ∧person (y)] [said (I, x,y)]

                                                    (from Giannakidou 2002: 7)

The weakness of this account is twofold: first, stipulating an ad hoc semantic rule does not explain the Negative Concord puzzle but simply describes it. Secondly, the rule needs to be appropriately contained to prevent its application to the combination of preverbal n-words and sentential negation which leads to double negation readings as shown below:

(20)   Nessuno non   e' venuto.

         n-person neg   come

         "Nobody did not come" = "Everyone came" .

Most Romance languages exhibit the phenomenon described in the last three sections. Given this, they are referred to as non-strict Negative concord languages as opposite to the strict Negative Concord languages like Russian and other Slavic languages (Giannakidou 1997). I will illustrate the difference between these two varieties in the next section.

2.6 Strict vs non-Strict Negative Concord: Facts and Theories

To the best of my knowledge, Giannakidou (1997, 2001) is the first study on NC to make a distinction between Strict and non-Strict Negative Concord. According to Giannakidou (1997)'s terminology, Strict Negative Concord languages are languages

where in one sentence one or several negatively marked elements must co-occur with an overt sentential negation, but the sentence is interpreted as having one negation only. Slavic languages are known to be the prototypical example of such phenomena. The main difference between these two types of negative concords is that in the strict variety of NC the negative marker is always obligatory regardless of the position of an n-word. An example from Russian is given below.

(21)   Nikto nikomu   nichego   *(ne)   skazal

         N-who n-who.dat   n-what   NEG   say.pst

          "No one said anything to anyone."

Notice that, the preverbal marker *ne* is obligatory in such sentences (for more data see section 1.6).

2.7 Zeijlstra(2001)'s analysis

The only existing approach to SNC is Zeijlstra (2001). In this section, I will illustrate his view and discuss its problems. Importantly, Zeijlstra's main goal is to provide a unified account of both varieties of NC illustrated above. Therefore, I will start by illustrating his proposal for non-Strict Negative Concord and then move on to how he extends it to Strict Negative Concord, which I argue below to be a more problematic part.

        According to Zeijlstra, the relation between n-words and sentential negation is a form of syntactic agreement, which is achieved via feature checking as proposed in the Minimalist Program (Chomsky 1995). In the non-strict variety of NC, semantic negation can be realized phonologically or can be phonologically null and n-words are non-negative indefinites.

According to this view, since the preverbal n-word is non-negative semantically, and carries an uninterpretable negative feature [uNEG], it is licensed by an abstract negative operator Op¬[iNEG] as shown by (22). The presence of the abstract operator is triggered by *nessuno*. It must check its uninterpretable feature for syntactic and semantic reasons.

(22)   Nessuno   ha   mangiato

         n-person   has   eaten

         Op¬[iNEG] Nobody[uNEG]] has eaten

In contrast, in (23) an n-word is in the scope of an overt sentential negation which carries an interpretable negative feature [iNEG] and therefore agreement can take place by feature checking in the scope of it. Therefore, there is no need for an additional abstract negative operator and due to an economy condition, such an operator cannot be inserted.

(23)   Maria *(non) ha detto   niente.

         Maria NEG   has said   n-thing

         Maria non[iNEG] ha detto niente[uNEG].

Finally, the sentence (24) is predicted to receive a double negation reading. Since the n-word is not in the c-command domain of the interpretable feature of the overt negation, its feature cannot be checked by it. Given this, there must be a covert Op¬ above the n-word to check its feature. This abstract operator together with the overt negation results in a double negative reading.

(24)   ??Nessuno   non   ha mangiato.

           n-person   NEG   has eaten

           Op¬[iNEG] nessuno[uNEG] non[iNEG] ha mangiato.

23

Spanish is also a non-Strict negative concord language; notice that the same patterns are observed. The negative marker is not always obligatory, namely when the n-word is in the subject position or preposed, a sentential negation is not allowed (or double negation readings are generated (see (25) and (26)) (see Herburger 2001, Ovalle & Guerzoni 2004, Giannakidou 2002):

(25)   Pedro *(no) ha visto   a nadie.

              Peter   not   has seen   n-person

              "Peter didn't see anybody."

(26)   Nadie.   *(no) ha visto   a Pedro.

              n-person   not   has seen   Peter

              "Nobody saw Pedro."

                                                `(Spanish)

                                (from Giannakidou 2002:23)

Zeijlstra extends this analysis to Strict Negative Concord languages as follows. According to him, in these languages the negative features on both negative markers (e.g. *ne* clitic in Russain) and n-words are uninterpretable negative features, [uNEG]. He does not treat *ne* as a semantic sentential negation. Therefore, all negative items (*ne* and n-words) should be in the scope of an abstract negative operator Op⌐ to have their features checked. This is how he applies this idea to an example from Polish (see (27)).

(27)   NIkt   nie   prsyszedl.

              n-person   NEG   came

              "Nobody came."

                                (from Zeijlstra 2001: 123)

              Op⌐$_{[iNEG]}$ NIkt$_{[uNEG]}$ nie$_{[uNEG]}$ prsyszedl.

This analysis explains why in SNC languages preverbal n-words can cooccur with sentential negative marker without leading to a double negation reading because *nie* is not semantically negative and along with *nikt* it is licensed by single abstract sentential negation.

2.8 Zeijstra's analysis. Problems

Undoubtedly, this way of looking at SNC has problems. One of them is that this analysis does not explain why n-words in these languages need negative markers with N-words at all. If negative markers do not carry an interpretable negative feature, why do they always have to be present whenever n-words are in the sentence?

The second wrong prediction that comes from this analysis is the absence of double negation readings when two negative markers appear in the same sentence contrary to facts:

(28)   Natasha   ne   ne   znaet.

          Natasha   neg   neg   knows

          "It is not the case that Natasha doesn't know."

If both negative markers in (28) carry an uninterpretable feature checked by a single silent negative operator, as Zeijlstra has it, the sentence should receive a single negation reading, but it does not. Just like all double negation sentences this sentence is acceptable only in special contexts, for example when used as a denial of a negative sentence. However, when acceptable, the two preverbal negative markers *ne* cancel each other out, which shows that they both contribute a semantic negation. Remember, it is

also the case in Kazakh (see section 1.7). Noticeably, this does not happen with two n-words. Therefore, treating sentential negation like another n-word is not plausible.

To sum up, while Zeijlstra's analysis might work for non-strict NC languages, for strict NC we need a more satisfactory analysis. So far, in the literature no such an analysis has been proposed. I will attempt to offer such an analysis in the next chapter analysis using Kazakh as a case study.

2.9 Summary

So far, I have concluded that Kazakh Esh-words can be attributed to the class of Negative Concord Items, in particular, Strict Negative Concord Items. Since Negative Concord has been thoroughly studied in the literature, in this chapter, I have discussed different approaches to it. I have discussed Zwarts(1998)'s analysis and entertained the idea that Esh-words might be super-strong NPIs.

I also discussed Neg-Absorbtion (Haegeman and Zanuttini 1991, Higginbotham and May 1981, Penka 2011), and the possibility of NCIs to be ambiguous between Negative Indefinites and NPIs (Longobardi 1991, Herburger 2001).

I looked into the difference between two types of NC (Giannakidou 1997, 2001) and Zeijlstra(2001)'s attempted unified analysis of strict and non-strict NC. As I argued in the last section, although this approach elegantly works for non-strict NC, it makes incorrect predictions for SNC, such as that negative markers in SNC are uninterpretable and are licensed by a silent negative operator. The presence of DN reading with two *ne,* but its absence with two n-words proves that sentential negation should be interpretable.

Given this, in the next chapter I will present an alternative view on SNC.

CHAPTER 3

PROPOSAL

3.1 Negative determiner analysis

Since the nature of Strict Negative Concord is currently poorly understood, especially from a semantic viewpoint, this chapter attempts to offer a novel perspective on this phenomenon, which presents some advantages over the only existing and merely syntactic proposals (Zeijlstra 2001). The grounds of my proposal are my observations regarding scope properties, quantificational import of Esh-words, the kind of dependence they have from sentential negation, and the fact that all Strict Negative Concord languages appear to lack "genuine" negative determiners. I will then suggest that Strict Negative Concord Items (in our case, Esh-words) may be seen as a device languages of this sort resort to in order to obtain negative quantifier readings via their "syntactic" combination with sentential negation.

Whereas the discussion in this thesis is limited to Strict Negative Concord in Kazakh, facts from other languages will lend support to the analysis presented here.

I propose that the negative marker in Kazakh is interpreted as sentential negation (unlike in Zeijlstra analysis) and that the combination of an Esh-word and sentential negation is another way to express negative quantifier *no NP*.

(1) $[[no]]$ (f) (g) = 1 iff $\vdash \exists$x such that f(x)=1 and g(x)=1

The language uses *Esh-word+negation* to express the negative quantifier.

(2) $[[\text{ not }]] + [[Esh]]$ (f) (g) =1 iff $\vdash \exists$x such that f(x)=1 and g(x)=1   (see Figure 1)

```
                              t
              ┌───────────────┴───────────────┐
           <e,t>                            <et,t>
        ┌────┴────┐                    ┌──────┴──────┐
       λ1         t              <t,t><et,t>      <t,t>
              ┌───┴───┐                │            │
              e      <e,t>        Esh-student1     emes
              │      ┌─┴─┐
          (Mariam)   e  <e,et>
                     │    │
                    t1  korgen
```
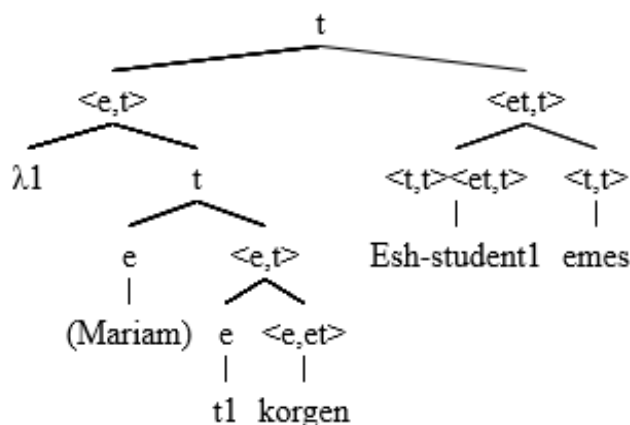
Figure 1. The formation of a negative determiner

  So, according to my proposal, Esh-word moves closer to negation to form a negative quantifier *no student.* As is shown by Figure 1, in order to form a negative quantifier of type <et,t> an Esh-word must be of type of <tt, et,t>.

  As I will show in this and the coming chapters, this view helps answering a lot of questions about locality and licensing constraints of Esh-words. In particular, this approach makes it easier to account for the dependency from an AM function, intervention effects these words are subject to and the requirement that the negation be in the same clause as I will illustrate in detail in the following sections.

3.2 Antimorphicity requirement explained

In the first chapter, I discussed the logical strength of negation and illustrated the hierarchy of "negative expressions" proposed by Zwarts (1998) repeated below (for more detailed explanation see 2.4).

  a.Expressions of minimal negation: *Few N, at most N* (only DE).

  b.Expressions of regular negation: *No N, none of the N and no one* (also anti-additive (AA)).

c.Expressions of classical negation: *It is not the case that, not* (also antimorphic (AM)).

Classical negation, that is, the only antimorphic function, is the only environment where Esh-words can be licensed. Other functions, which are considered to be weaker than negation, like DE and AA functions, are not strong enough to license them. This follows from my proposal above. In fact, the proposal explains why DE-ness and AA-ness are not sufficient to license them: A non-antimorphic function together with an existential determiner will not result in a function semantically equivalent to a negative determiner. Only negation plus an existential is. For example, recall that the restrictor of universal quantifier is not AM (see Ladusaw 1980) and the reason why it cannot license an Esh-word is that its combination with an existential determiner fails to generate a negative determiner reading, therefore the following construction is ill-formed.

(3)   *ESHqandaj kitapti   oqigan   arbir student   yemtihan tapsirad.

        ESH-which book.acc read.nf   every student   exam   pass.fut.3

        "Every student who read any book passed."

Exactly like *every,* Kazakh *arbir* is DE. In the section 2.4 I demonstrated logically that *every* is anti-additive but not antimorphic, therefore it is not strong enough to license Esh-words.

Another important aspect of my proposal is that Esh-words need to be syntactically "close" to negation at LF for a negative determiner to be formed, specifically a negative determiner reading can only result if an existential NC item occurs in the immediate scope of an antimorphic function. Given this, the proposal makes two additional desirable predictions:

a) Strict NC items are sensitive to intervention effects.

b) Strict NC items must occur in the same clause as the negation licensing them, if the language is scope rigid (a constraint that so far has not received a satisfactory explanation).

In the sequel, I will illustrate these predictions.

3.3 Intervention effects

It is well-known that NPIs and n-words are subject to intervention effects. Specifically, as Linebarger (1981) observed that no other operators can intervene between NPIs and their licensors at LF. This phenomenon is attested also in Strict Negative Concord languages

Esh-words, like NPIs in English and other Strict Negative Concord Items are sensitive to intervention effects as well.

Let me first illustrate intervention effects with a well-known case of NPI *any* in English. In the example below, a universal quantifier intervenes between negation and the NPI, that is why the sentence is ungrammatical.

(4) *Mary did not give every student any book. *NOT>∀>∃

Being an LF phenomenon, intervention effect can be overcome by an NPI moving in the immediate scope of its licensor (Guerzoni 2006). In English, double object constructions like in (4) are scope frozen, that is why the NPI cannot move higher to be in the scope of the negation.

*

```
        /\
   not
            /\
     every   NPI
```
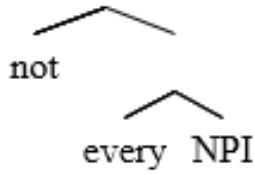
Figure 2. Intervention effect

However, when intervention can be overcome (see (5)) by *any* moving to the scope of

the negation, the sentence is perfectly grammatical and only the intervention reading

(5c) is ruled out.

(5) Mary didn't give every book to any student.

a) Reading 1: $\forall > \text{NOT} > \exists$

b) Reading 2: $\text{NOT} > \exists > \forall$

c) Reading 3: *$\text{NOT} > \forall > \exists$

Given that Kazakh is a scope-frozen language, the universal quantifier in (6) cannot

move outside of the scope of negation nor can the Esh-word move above it to be in the

immediate scope of negation, hence the ungrammaticality of (6) is the violation of

Linebarger's Immediate Scope Constraint.

(6) *Arkim   ESH-kimdi   korgen   emes.

  Everybody   ESH-person.acc   see.past   neg

  Intended meaning: "Not everybody saw any body." $\text{NOT} > \forall > \exists$

As Figure 3 shows, the universal quantifier intervenes between negation and an Esh-

word.

*

```
                              _____
                             /        \
                            /          Emes
                           /           NOT
              _____
             /           \
          Arkim           /\
        EVERYBODY        /  \
                        /    \
                       /\
                      /  \
               ESHkimdi  korgen
               ESH-person  SAW
```
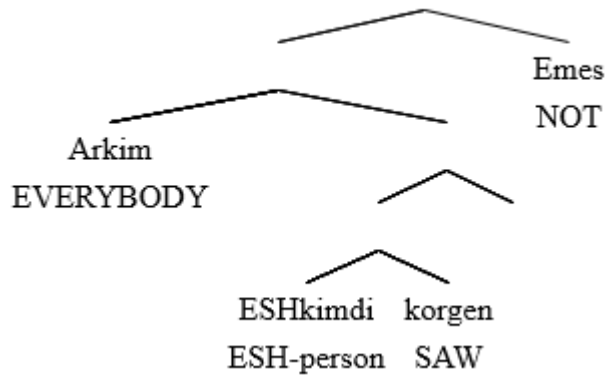
Figure 3. Intervention effect in Kazakh

My proposal predicts that intervening quantifiers will lead to ungrammaticality straightforwardly, because interveners block the generation of a semantic negative determiner as (7) shows:

(7) not∀∃ ≠ not∃

3.4 Summary

In this chapter, I proposed an alternative view on SNC, as it would apply to Kazakh Esh-words. In particular, I argued that their dependence from sentential negation can be looked at as a formation of the negative determiner. Given that genuine negative determiners are not observed in language like Kazakh and Russian, I assume that this is a linguistic device to express them.

Analyzing Esh-words and sentential negation as one unit shed some light on why among all the DE functions only the antimorphic function can license them. In addition, intervention effects are predicted straightforwardly. One more prediction is the

requirement that negation be clausemate to Esh-words. The following chapter discusses this point.

CHAPTER 4

LOCALITY. CLAUSEMATE LICENSING

4.1 De-dicto

According to the proposal I introduced in the previous chapter, a negative determiner in

Kazakh is the result of the syntactic combination an Esh-word and negation, and due to

scope rigidity of the language, which prevents the Esh-word from moving at LF, the

reading of such combination in (2) should be equivalent to the narrow scope reading of

the English sentence with the embedded negative determiner *no* in (1).

(1) John thinks that Mary met no student.

(2) John   Marinin   Esh-qanday   studenti   korgenin   oylaMAdi.

    John   Mary.gen   Esh-which   student.acc see.gen   think.not

    "John thinks that no student came."

Even though the negation in (2) is on the embedding verb *oyla (think),* I need to make

sure that it is in the lower clause at LF since the interpretation of an embedded negative

quantifier under *think* is not equivalent to the interpretation of an embedded existential

quantifier under the negation of *think*.

(3) Think NOT ∃ ≠ NOT Think ∃

        This can be achieved only if at LF negation is syntactically in the embedded

clause.

        Before addressing the issue of the position of negation in sentences like (2), I

will provide semantic evidence that an Esh-word can be interpreted in the embedded

clause, a fact that I have so far attributed to scope rigidity, but it makes a semantic

prediction that must be checked at this point. Specifically, if embedded Esh-words can be interpreted in-situ, a De-dicto reading of its restrictor should be available. According to the following test, I obtained De-dicto reading, which indicates that the Esh-word may stay inside the embedded clause at LF.

Test 1

De-dicto or De-re?

(4)	John	Esh-qanday	studentin	kelgenin	oylaMAdi
	John	Esh-which	student.gen	come.gen	think.not

"John thinks that no student came."

Scenario: *Feyza, Assem and Belgin are all the students according to John's beliefs. All of them are indeed students but also Duygu is. In fact, John believes Feyza and Assem and Belgin did not come but Duygu did.*

Under this scenario, the sentence (4) is true, which means that the Esh-word does not move out of the embedded clause. This implies that Esh-words and negation should be physically local.

To summarize, the availability of De-dicto readings indicates Esh-words can be licensed in-situ. This observation, together with my proposal predicts that at LF the negation on the matrix verb should lower syntactically to the embedded clause. The formation of the negative determiner is possible only in this case. The following sections show that this prediction is correct.

4.2 Embedded occurrences of Esh-words

In the previous section I argued that Esh-words embedded under negated predicates do not have to move out of the embedded clause. This section shows that, in addition, the

licensing negation must be local to Esh-words at LF. To illustrate this point, I start by providing the following sentence with an embedded Esh-word:

(5) [*Bolat ESHkimdi   su'iedi]   dep   oilaMAim.

     [bolat   ESH-person.acc   love.pres.3sg] that   think.neg.pres.1sg

      Intended meaning: "I don't think Bolat loves anyone."

Interestingly, even though negation is present in (5), the sentence is not grammatical. From this observation, one could conclude that, for an Esh-word to be grammatical the negation should be clausemate to it. However, based on the examples discussed in the previous section and (6) below, this claim needs to be immediately weakened. In fact, when the embedded sentence is non-finite the negation in the matrix clause can license the Esh-word.

(6) [Bolatin   ESHkimdi   su'ietinin]   oilaMAim.

     [bolat.gen   ESH-person.acc love.nf.poss3]   think.neg.pres.1sg

    "I don't think that Bolat likes anyone."

Notice that, in (6) like in (4) above, the Esh-word in the embedded clauses can receive a De-dicto reading.

The main difference between (5) on the one hand, and (4) and (6) on the other is that in the latter the embedded clause is non-finite whereas in the former it is finite. Given this, a finiteness vs non-finiteness distinction appears to play an important role in long distance licensing of Esh-words. Both sentences (5) and (6) are intended to have the same meaning, however, the finiteness of the one in (5) makes it ungrammatical.

Granted the relevance of finiteness of the embedded sentence, further scrutiny indicates that it is not the only factor affecting embedded licensing of Esh-words. It is important to notice that, *not think* in (6) must receive a neg-raising interpretation *(think*

not) for the Esh-words to be acceptable in its complement. In other words, the matrix

negation must be interpreted in the embedded sentence. Thus, the meaning of (6) is the

following:

(7)   I think that Bolat does not like anyone.

The availability of this interpretation is due to the neg-raising nature of the verb *think*

(see Horn 1978). In fact, *think* is one instance of a large class of such predicates,

including *want, seem, expect, be likely* etc., which has been discussed extensively in

Gajewski (2007), Fillmore (1963), Ross (1973), Prince (1976), Horn(1978), Bartsch

(1973) and others. All these predicates support the following inference:

(8) Not [Pred [S] => Pred [Not [S]]   (Gajewski (2007))

Going back to the Kazakh data, also the verb *ojla (think),* falls in the class of

neg-raisers. The following inferences illustrate this fact. (9a) enatils (9b):

(9) a. Bolat   keledi   dep   ojlamajm.

Bolat   come.fut3   that   think.not.pres1sg

"I don't think that Bolat will come."

b.   I think that Bolat will not come.

Importantly, verbs that do not support the entailment in (8) do not allow long-

distant licensing of Esh-words, regardless of the finiteness of their complement. For

example, *know* does not support (8) as (10) shows. Regardless of the finiteness of

embedded clauses, neither (10a) nor (10b) have an interpretation entailing (10c), which

indicates that *know* is not neg-raising.

(10)   a.   Bolat   keldi   dep   bilmejmin

Bolat   come.pst3   that   know.not.pres1

"I don't know that Bolat came."

b. Bolatin   kelgenin   bilmejmin

   Bolat.gen come.gen.poss know.not.pres1

   "I don't know that Bolat came."

c. I know that Bolat did not come.

Being non-neg-raising, *know* cannot license Esh-words in either finite (11a) or non-finite (11b) embedded clauses.

(11)   a. *[ol kitapti oquga ESHkimnin   shamasinan   keletini]

       [that book.acc read   ESH-person   ability.2.abl   come]

       bilmejmin.

       know.neg.1sg

       Intended meaning: "I don't know that anyone can read that book."

     b. *[ol   kitapti   oquga   ESHkimnin shamasinan keledi]

       [that book.acc   read.dat   ESH-person ability.2.abl come]

       dep bilmejmin

       that know.neg.1

       Intended meaning: "I don't know that anyone can read that book."

In order to understand the role of the two apparently unrelated factors (finiteness and neg-raising) affecting long-distance licensing, it is worth looking into the nature of neg-raising in a little more detail. In the next section, I am going to do so.

4.3 Neg-raising. Different views

There are two main views on NR: syntactic approaches (Fillmore 1963, Ross 1973, Prince 1976) and semantic/pragmatic ones (Horn 1978, 1989, Bartsch 1973, Heim 2000, Abusch 2005).

According to the syntactic view, in the relevant constructions, negation originates in the embedded clause at Deep Structure and then raises to the matrix verb at Surface Structure, hence the label neg-raising. At Logical Form, though, negation returns to its base position. Figure 4 is the representation of structural (syntactic) neg-raising, notice that negation is interpreted in the embedded clause:

I

not

believe

Mary

<not> come

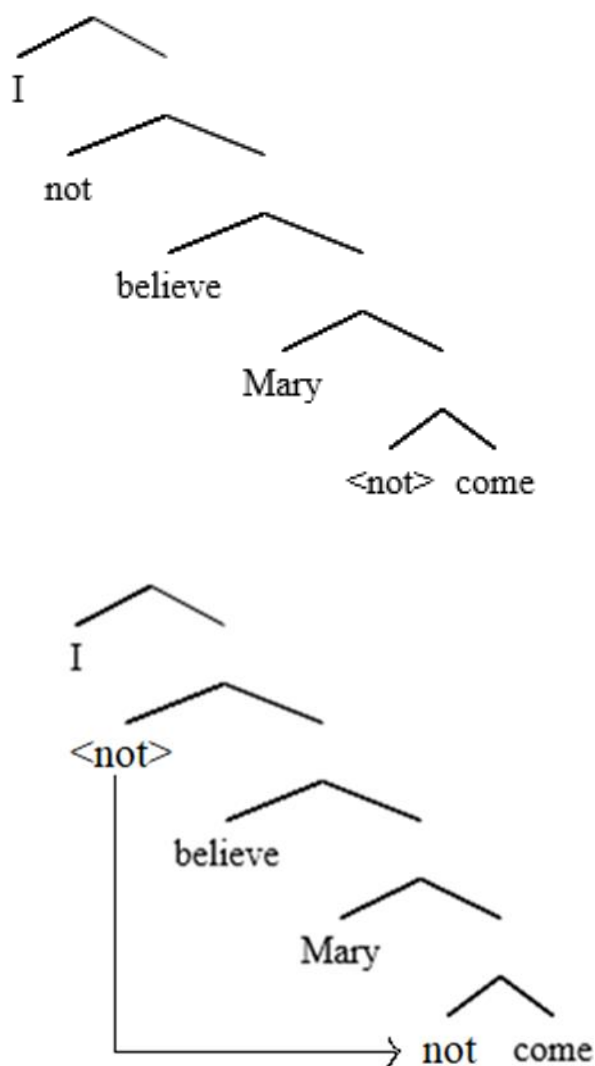I

<not>

believe

Mary

not come

Figure 4. Syntactic neg-raising

Gajewski (2005) defends the second view. According to him, the neg-raising predicates show variation across languages: what might be a neg-raiser in one language

might appear to be a non-neg-raiser in another. He concluded that the neg-raising effect

originates as a consequence of the lexical entries of the relevant predicates. Given this,

he presents a theory that supports the latter view on neg-raising based on

semantics/pragmatics. Along with Bartsch (1973) and many others, he proposes that

neg-raising interpretations arise from a lexical presupposition of the embedding verb.

To illustrate this, Gajewski's lexical entry of the Neg-Raising predicate *believe* is

given below:

(12)   a believes that p

   a. Truth conditions: $\forall w(w \in Ba \rightarrow w \in p)$

   b. Presupposition: $\forall w(w \in Ba \rightarrow w \in p) \lor \forall w(w \in Ba \rightarrow w \notin p)$

(from Gajewski 2005:2)

When this neg-raising predicate is negated, the Excluded Middle Presupposition

amounts to its negated disjunct because the positive one is incompatible with the

assertion. This presupposition corresponds to the neg-raising interpretation (Bartsch

1973).

(13)   a doesn't believe that p

   a. Truth conditions: $\neg\forall w(w \in Ba \rightarrow w \in p)$

   b. Presupposition: $\forall w(w \in Ba \rightarrow w \notin p)$

(from Gajewski 2005:2)

(14)   *a believes that not p*

Gajewski (2005) further observes that negated NR predicates are anti-additive,

therefore strong NPIs are licensed in such constructions. On the other hand, syntactic

neg-raising predicts that the environment of the embedded clause is antimorphic. Recall

from the previous section that Esh-words under negated neg-raising predicates are ungrammatical if the embedded clause is finite and grammatical if it is non-finite. In addition, in the section 3.2, I observed that these words can only be licensed by an antimorphic function. These two observations together lead me to conclude that only syntactic neg-raising may license these words and only non-finite structures allow for it. In the next section I provide more data on Kazakh neg-raising.

4.4 Neg-Raising in Kazakh

Ojla (think) is a neg-raising predicate as I mentioned in the previous section. Regardless of the finiteness of the embedded clause, a neg-raising interpretation is available. Both (15a) and (15b) shows have the same interpretation (15c).

(15)   a. Bolat   keledi   dep   ojlamajm

          Bolat   come.fut3   that   think.not.pres1

       "I don't think that Bolat will come."

     b. Bolatin   kelgenin   ojlamajm

       Bolat.gen come.nf.poss think.not.pres1

       "I don't think that Bolat will come"

     c. Interpretation: "I think that Bolat will not come."

Let us assume that the source of neg-raising is syntactic in both sentences. In this case we get the following LFs:
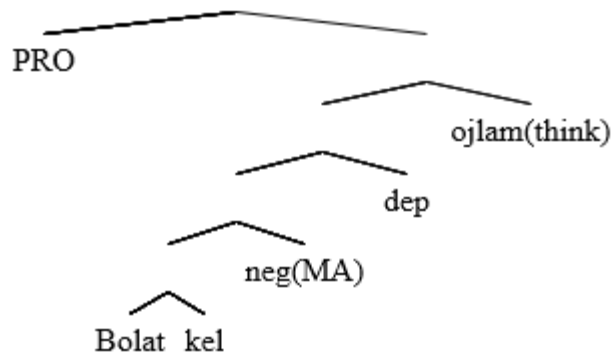
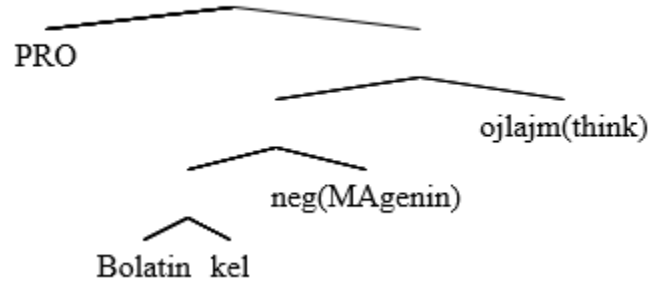Figure 5. Syntactic NR. LF of a finite embedded clause

Figure 6. Syntactic NR. LF of a non-finite embedded clause

In both cases, negation is in the embedded clauses. When the complement clause is non-finite, the sentence is grammatical as the following example shows:

(16)   a. [Bolatin   ESHkimdi   su'ietinin]   oilaMAim

    [bolat.gen   ESH-person.acc   love.nf.poss3]   think.neg.pres.1sg

    "I don't think that Bolat likes anyone."

(repeated from section 4.1)

    b. LF: I think [Bolat like NOT anyone]

If we adopt the LF given in Figure 6, we will predict that (17) is also grammatical, but it is not.

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(17)   [*Bolat   ESHkimdi   su'iedi]   dep   oilaMAim

        [bolat   ESH-person.acc love.pres.3sg] that   think.neg.pres.1sg

        Intended meaning: "I don't think Bolat loves anyone."

                                                        (repeated from section 4.1)

If the only source of neg-raising were syntactic, one would predict that the sentences

with finite complements not containing Esh-words and the NR embedding predicate

would not have the NR interpretations, which they have (see 15).

        Let us see what happens when we adopt only semantic/pragmatic view.

According to this view, negation is never in the embedded clause. Therefore, the LFs of
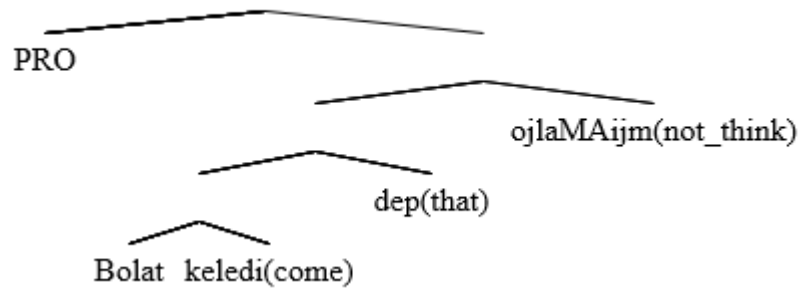
(15a) and (15b) are as follows:

Figure 7. Semantic NR. LF of a finite embedded clause
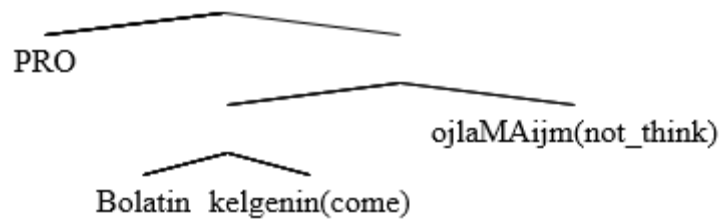

Figure 8. Sematic NR. LF of a non-finite embedded clause

        If we adopted this view only, we would predict that both sentences with Esh-

words in finite complements and non-finite complements would be ungrammatical,

because the negation is on the higher verb. But (15) is acceptable, which means that at LF negation is in the embedded clause unlike in Figure 8. While (16) shows the negation cannot move to the finite embedded clause to license Esh-words, so the LF for the finite embedded clause in Figure 7 is the correct one.

Going back to our facts in (15), we observed that a neg-raising reading is present in both finite and non-finite clauses. But Kazakh Esh-words are grammatical in embedded sentences only when the embedded predicate is neg-raising, and the embedded sentence is non-finite. According to my proposal, Esh-words require a clausemate negation, therefore, the relevant source of Neg-Raising reading in this case must be structural: the negation must have originated in the lower clause, raised at s-structure but then syntactically reconstructed at LF in its base position (see Figure 9).
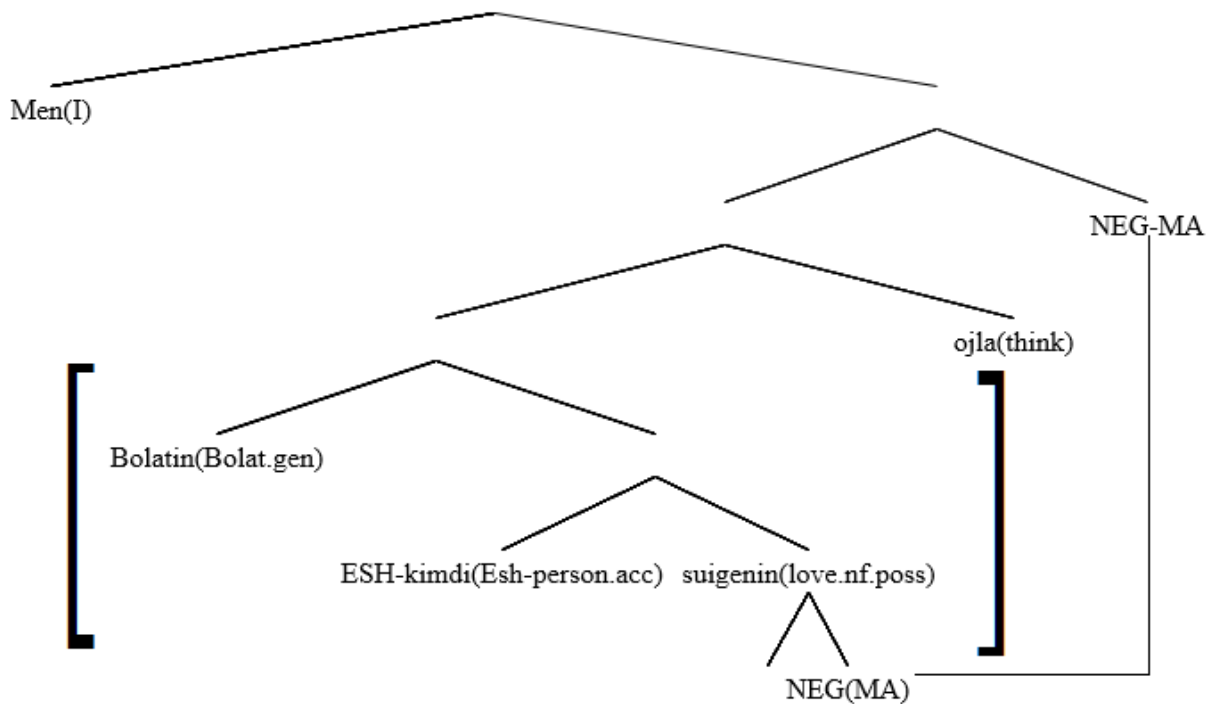

Figure 9. Syntactic Neg-Raising and Esh-word licensing

For some reasons, syntactic neg-raising is blocked when the embedded clause is finite, that is why Esh-words are bad in such cases. But the availability of a neg-raising reading in (15) is a problem. And the only way to get neg-raising interpretation where negation is not lowered syntactically is to suggest that its source is pragmatic. Being always available, however, pragmatic neg-raising is not sufficient to license Esh-words.

Given these observations, I am arguing that both sources of neg-raising are available in the language, however syntactic neg-raising is limited to non-finite complements, whereas pragmatic neg-raising is always available. This view explains why

- an Esh-word in finite embedded clauses is ungrammatical even under a neg-raising reading of the sentence because that reading can only be achieved pragmatically, and Esh-words need syntactic negation.

- *Oila (think)* in Kazakh supports neg-raising readings regardless of the finiteness of embedded clause.

Crucially, this analysis makes an immediate prediction: A sentence with an Esh-word in the matrix clause of a neg-raising predicate and one in the embedded clause should not be acceptable, because the matrix Esh-word requires a matrix negation, and the embedded Esh-word requires syntactic reconstruction of negation. This prediction is indeed borne out, as shown below:

(18)   ??ESH-kim   [ESH-kimnin kelgenin]   ojlaMAdi.

        Esh-who   Esh-who.gen come.nf.poss think.not.pst

        Intended meaning: "No one thought that anyone had come."

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Interestingly, in the similar sentence with an Esh-word in the matrix clause and the matrix negation on the embedding NR predicate but without an Esh-word in the embedded clause, the NR reading is absent as the following example shows:

(19)   Esh-kim [Alinin kelgenin]   ojlamadi.

          Esh-who Ali.gen come.nf.poss   think.not.pst

          "No one thought that Ali had come."

Being perfectly grammatical, the sentence does not have an NR interpretation, which is interesting, because the embedded clause is non-finite. It appears that syntactic neg-raising is available only for Esh-words licensing in non-finite embedded clauses.

One more argument to support a syntactic NR in finite embedded clauses is the absence of intervention effects in the following sentence:

(20)   Arkim   [eshkimdi   korgenin]   ojlamajdi

          Everyone   Esh-who.acc   see.nf.poss   think.not.3sg

          "Everyone thought that no one had come."

Remember, in the section 3.3, when I discussed intervention effects, I claimed that they can be predicted straightforwardly if we analyze SNC as a negative determiner. In (20) if negation stayed in the matrix clause, the sentence would be predicted as ungrammatical, but it is not, which implies that sentence is in the lower clause at LF as my analysis argues.

Table 1. Neg-Raising. Predictions

Only Syntactic NR	Fails to explain why Esh-words are not acceptable in (1) (finite embedded clause), given that (5)(finite embedded clause with neg-raising predicate) has a neg-raising interpretation

Only Semantic NR	Fails to explain why Esh-words can be licensed in in a non-finite embedded clause, but cannot be licensed in its finite counterpart

If my proposal is on the right track, then we are discovering that there might be languages with two sources of neg-raising.

4.5 Factivity

So far, I have come to conclusion that for Esh-words to be licensed the embedded clause should be non-finite and the embedding predicate should be neg-raising like *think*.

However, there is another factor that should be taken care of. It is the factivity of the embedding predicate. Kelepir(2001) and Kornfilt(1984) accounted for long-distant licensing of Hiç-words in Turkish in terms of factivity. Their observation was that factive verbs like *know* cannot license Hiç-words. Factive predicates are predicates that presuppose the truth of the complement clause. *Bilmek (know)* in Turkish is factive. Let me illustrate it with the following example:

(21)   a. Duygu Utku'nun geldigini biliyor/bilmiyor.

    "Duygu knows/doesn't know that Utku came"

    b. Utku came.

(21a) presupposes that (21b) is true.

Sanmak (think) is non-factive, therefore, (22a) does not presuppose the truth of (22b):

(22)   a. Duygu Utku'nun geldigini saniyor/sanmiyor.

    "Duygu knows/doesn't know that Utku came"

    b. Utku came.

Bilmek (know), being factive, blocks the licensing of Hiç-words while *sanmak (think)* does not as (23) and (24) show.

(23)   ***Hiç**kimsenin geldigini   bilmiyorum.

Anybody-3gen come-DIK-3poss-acc   know-neg-prog-lsg "

Intended meaning: "I don't know that anybody came."

(from Kelepir 2001: 150)

(24)   Ahmet'in   **hiç**kimseyi   sevdigini   sanmiyorum.

Ahmet.poss anybody.acc   love.DIK.gen.acc   think.not.1sg

"I don't think Ahmet loves anybody."

(from Kelepir 2001: 148)

In Kazakh, as I have already observed that syntactic neg-raising is important in licensing of Esh-words. However, one needs to check whether the factivity also plays a role in licensing of Esh-words.

As (11a) and (11b) in the section 4.3 show, the factive verb *bilu, to know,* cannot license Esh-words in both finite and non-finite complement clauses. Noticeably, *bilu* is also non-neg-raising. This is not surprising since factive verbs cannot be neg-raising (Kiparsky & Kiparsky 1968). However, one still needs to check whether non-neg-raising and non-factive predicates allow Esh-words in their complement clauses. If they do not allow licensing, the neg-raising factor is still necessary and non-factivity is not sufficient.

Test 1

Aitu (claim) is not factive and not neg-raising. (25a) does not have a reading equivalent to (25b) and it does not presuppose the truth of (25c) either.

(25)   a. Mariam Bolatin   ketip jatqanin   aitqan joq.

Mariam   Bolat.gen leave.nf.prog.nf.gen   claim.past.3sgneg

"Mariam doesn't claim that Bolat is leaving."

b. Mariam claims that Bolat is not leaving.

c. Bolat is leaving.

Noticeably, Esh-words are not grammatical when embedded under the negation of this predicate.

(26)   *Mariam Bolatin   ESHkimdi korgenin aitpadi.

Mariam Bolat.gen ESH-who   see.nf   claim.neg.past.3sg

Intended meaning: "Mariam does not claim that Bolat sees anyone."

Given this observation, it is clear now that neg-raising is responsible in the licensing of embedded Esh-words, whereas non-factivity is not.

4.6 Summary

In this section, I have discussed the locality constraints Esh-words are subject to, in particular, those governing the surface occurrence of Esh-words in embedded clauses.

First, I have shown that Esh-words can be interpreted in the embedded clauses. The availability of the de-dicto readings shows this. Since Esh-words may stay in embedded clauses and need negation to form a negative quantifier, negation must be in the embedded clause. This can be achieved only by a syntactic movement of negation to the embedded clause.

To get a better understanding of neg-raising, I have discussed two views provided in the literature: Syntactic and semantic/pragmatic neg-raising. Even though these two views are conflicting, I argue that the only way to explain why Esh-words can be licensed in non-finite clauses but not in finite ones and the availability of neg-raising

readings also with finite complements is to assume that both sources of neg-raising operate in the language. Rejecting one or the other leads to incorrect predictions.

Syntactic neg-raising is responsible for licensing of Esh-words in non-finite embedded clauses, while semantic neg-raising is responsible for the availability of neg-raising interpretations of sentences with finite embedded clauses.

I then turned to the question of whether factivity is a possible factor blocking embedded Esh-words. As it turned out, factivity or lack thereof does not play a role in the licensing of Esh-words.

If the proposal made here is on the right track, the peculiar distribution of embedded Esh-words provides indirect evidence for the existence of languages where neg-raising may have two distinct kinds of sources: syntactic movement and lexical presupposition.

CHAPTER 5

OPEN QUESTIONS

5.1 Problems

In this chapter, I discuss some potential problems for my proposal that I will leave open for my future research.

First, I will talk about intervening modals. Esh-words embedded under modals are grammatical, which is problematic, because modals intervene between Esh-words and negation blocking the formation of the negative determiner. I will suggest that this case can be seen as a version of split readings of negative determiners in languages where these determiners are lexically available.

Secondly, I will discuss the quantificational force of Esh-words. I will apply tests offered in the literature (Giannakidou 2002) to Esh-words to see whether they fit into the description of existential quantifiers. Even though some of the diagnostics do not work for Esh-words, the availability of intervening readings with modals will show that they are, in fact, existentials.

In the last section, I am presenting the most serious problem for my analysis, which is the multiple occurrences of Esh-words.

5.2 Modals are interveners. Split readings

It is well-known that modals are operators that can take scope between sentential negation and an indefinite.

In (1) an Esh-word and negation are separated by a modal on the surface and at LF as shown by the existence of reading (2) ("intervening" reading henceforth).

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(1) Nauqasqa   ESHqandaj   dariger   kerek emes

    Patient.dat   Esh-which   doctor   need not

   "The patient does not need any doctor."

(2) Intervening Reading: "The patient does not need any doctor." $\neg$ > need > $\exists$

(3) ???NQ Reading: "The patient needs no doctor." $\neg \exists$ > need

Intervening readings correspond to non-specific (narrow scope) readings of the indefinite. The following examples show that such reading is available.

(4) Alige ESH-bir medbikeni zhumistan shigaruga mindetti yemes.

    Ali.dat ESH-one nurse.acc   work.abl   fire.nf.dat   must   NOT

   "Ali does not have to fire any nurses."

(5) Specific Reading: There is no specific nurse Ali has to fire. $\neg$ > $\exists$ > must

(6) Non-specific Reading: Ali does not to fire any nurses. $\neg$ > must > $\exists$

(7) Scenario: If Ali fires no nurses at all, he satisfies the requirements.

According to the Scenario in (7) reading in (5) is false and reading in (6) is true which is an intervening reading of the sentence. Even though the modal intervenes, (4) is true in this scenario. Given this, Esh-words do not seem to be sensitive to the intervention of modals. This is a problem for my proposal that Esh-words should be analyzed as a part of a negative quantifier. It is obvious that *NOT+must* is not equivalent to a sentential negation, consequently the negative determiner cannot be formed. *NOT* and Existential want to form a negative determiner in the syntax and anything intervening will block it.

One solution to this problem is offered by the observation that examples like (8) can be interpreted as (8a), a reading that has come to be known as split scope reading (Penka 2011) because the negative indefinite in the logical form is split by a modal into negation and an indefinite part. The available LFs are illustrated below.

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(8) Bei der Prüfung muss kein   Professor anwesend   sein.

     at   the Exam   must   n-DET   professor present   be

   a.   "It is not required that there be a professor present." ¬ > must > ∃

   b.   "There is no professor who is required to be present." ¬ ∃ > must

   c.   ?? "It is required that there be no professor present." ?? must >¬ ∃

(German)

(from Penka 2011: 89)

The reading in (8a) is a split scope reading, and the most prominent reading of the sentence. The negative indefinite in the logical form is split by a modal into negation and an indefinite part. Even if on the surface *kein Professor* looks like the negative quantifier, the intervening modal shows that they have separate components in them. So, split scope effect happens to already formed negative determiners. At LF, they are actually "split", just like Kazakh Esh-words and negation which are already separated on the surface.

As we have seen, split readings are observed in German and English as well, which are not Negative Concord languages. All negative items are semantically negative in these languages, therefore Penka (2011) refers to such languages as Double Negation (DN) languages. Scope-splitting phenomenon in such languages has been widely discussed in Penka (2011) and by many others before (Jacobs 1991, Rullmann 1995).

As it is well-known, English is an DN Language too. Also, in English, modals may cause split readings of negative quantifiers as shown in (9) and (10). When we have a sentence like (9) the negation is above the modal as illustrated in (10).

(9) She must fire no students.

(10)   ¬>must>students

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The negative quantifier *no students* is split into two parts with distinct scopes, negation and an indefinite.

      If in German and English negative quantifiers can be split into sentential negation and an existential at LF, it is also expected in Kazakh, especially when negation and an existential are already split on surface. This parallelism between negative determiners in DN languages and the combination of negation and Esh-words in Kazakh indicates that intervening modals do not challenge the idea that the latter form together a negative determiner.

      (11)   Biz ESH-qandaj studentterdi zhumistan shigarWga mindetti emespiz

                WE ESH-which students   job.abl   fire.W.dat ought not.1pl

                "We must no fire students"

      (12)   Split Reading: "We do not have to fire any students." $\neg$ > must > ∃

      (13)   ???NQ Reading: "We must fire no students." $\neg$ ∃ > must

      Therefore, one can maintain that structurally the Esh-word and negation form negative determiner, and whatever explains the split scope in non-Negative Concord languages also explains the presence of the split reading in Kazakh as well.

5.3   Existentials or Universals

The question whether n-words in Negative Concord languages are universal quantifiers scoping above negation or existential quantifiers in the scope of negation has been raised in the literature (Giannakidou 2002). She provides diagnostics for existential n-words. Although, the intervening readings in the previous section prove that Esh-words are existentials in the scope of negation, in this section I will apply Giannakidou's tests to see how relevant they are in my case.

According to Giannakidou (2002), existential n-words have the following

characteristics:

      (i)   They can be licensed long-distance in embedded clauses.

      (ii)   They can be licensed in relative clauses.

      (iii)   They cannot be modified by modifiers corresponding to

                almost/absolutely.

      (iv)   They can bind donkey pronouns.

      (v)   They can be used as predicate nominals.

First two tests are nor relevant for my case. They can only be licensed locally at
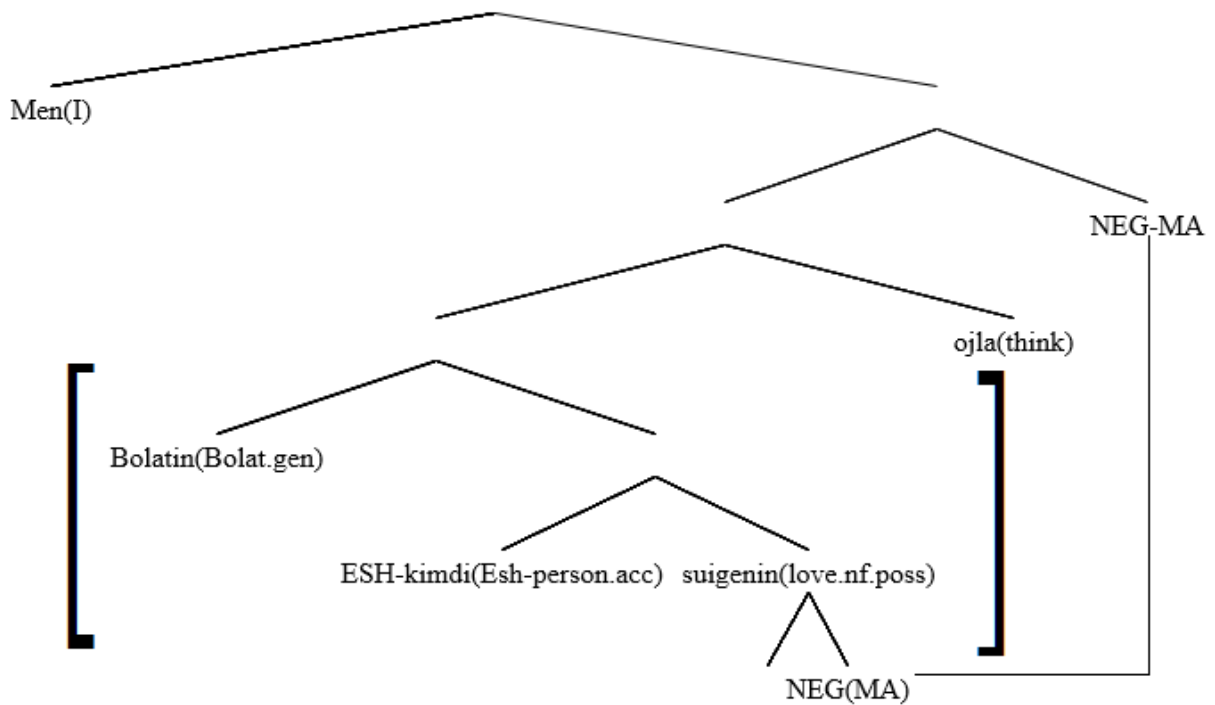
LF as I showed in the section 4.4.

Figure 9. Syntactic Neg-Raising and Esh-word licensing.

(repeated from section 4.4)

However, being licensed locally does not mean that they are universals above negation.

Secondly, they are ungrammatical in relative clauses, since they must be in the immediate scope of negation, as the following example shows:

(14)   [*Otken apta   eshqayda   ketken] mugalim   aurgan   zhoq

       [past   week esh-which.loc   go.gan] teacher   sick.gan   neg

       Intended meaning: "The teacher, who had gone anywhere last week, did

       not get sick."

These two tests show that they can move out of the embedded clauses and relative clauses. In the case of a scope-frozen language like Kazakh this type of movement is not possible, but it does not show that Esh-words are not existential. They still move to be in the scope of negation but within one clause.

Third test shows that they can be modified by *almost*. Esh-words in both subject (15) and object (16) positions can be modified by *derlik (almost).*

(15)   Esh-kim   derlik   kelmedi

        Esh-person almost came.not

        "Almost nobody came."

(16)   Ol   Esh-narse   derlik   bitirgen zhoq.

        He/she   esh-thing   almost   finished not

        "He did not finish almost anything."

Almost test has been used to identify the quantificational force of the indefinite based on the following contrast:

(17)   a. Almost every student passed the exam.

        b. *Almost a / some student passed the exam.

                                                          (from Penka 2006)

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As can be seen existentials cannot be modified by it, while universals can. Penka (2006), however, suggests that this test should not be relied on while trying to understand the nature n-words. She provides the lexical entry for *almost* (18), which needs an alternative proposition that is close to *p*. *Some* is not compatible with *almost* because denotes vague quantity, therefore it is not clear what quantity is close to it.

(18) $[[almost\approx]]=\lambda w.\lambda p<s,t>.\exists q\ [\ q\approx p\ \&\ q(w)]\ \&\neg p(w)$

However, n-words are compatible with *almost,* because existentials under negation are not vague anymore. That is the reason why it can modify existentials when they are under negation.

Given Penka(2006)'s semantics of *almost,* we cannot rely on this test anymore. Moreover, Slavic n-words can also be modified by *almost,* and as Giannakidou states, have existential meanings. Given the similarity of Esh-words and Slavic n-words, the former ones are existentials too.

Finally, one can conclude that Esh-words can bind donkey pronouns based on (19):

(19)   *ESH-tene$_1$ sojlegisi kelmegen   studentter,   oni$_1$ aitpasin

ESH-thing$_1$ say   want.not   students   it$_1$ say.not

Intended meaning: "The students who do not have anything$_1$ to say

should say it$_1$ now.

However, in directive sentences, existentials can bind donkey pronouns as Giannakidou (2002) has it:

(20)   Don't check any book$_1$ out from that library; reading it$_1$ might

warp your mind.

(from Giannakidou (2002): 38)

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In Kazakh, it is also the case as (21) shows:

(21)   ?Ol   kitaphanadan Esh-qandaj kitap$_1$ alma;   onin$_1$ oqui[3]

       That library.abl   Esh-which book$_1$ get.neg   it.gen$_1$ read.acc

       basini   qatiradi

       head.poss2.acc confuse.fut3

The test that Kazakh Esh-words also pass the "predicate nominals test". Esh-words can be used as predicate nominals:

(22)   Ol   ESH-qandai   dariger emes

       He   ESH-which   doctor not

       "He is no doctor."

Noticeably, Slavic n-words can also be used as predicate nominals (for more details see Giannakidou (2002), Richter and Sailer (1998), Blaszczak (1999)).

Being used as predicate nominals *Esh-words+negation* results in a pejorative meaning, which exactly what happens when negative determiner is used as a predicate nominal (see (16)), (for similar observation for Greek "n-word" *kanenas* see Giannakidou 2002: 39). This goes in line with my proposal about the equivalency of *NO* and *Esh-word+NOT*.

In the previous section in the discussion about intervening modals, I showed that they are interpreted under negation, which indicates that they are existentials. The narrow scope reading is available which means that they cannot be universals above negation (see section 5.2).

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[3] For some speakers the sentence is not acceptable.

5.4   Multiple Esh-words, one negative determiner

The fact that in a sentence there might be multiple Esh-words presents the main challenge to my theory. Other Strict Negative Concord languages also allow for more than one N-word in the same sentence. Below I am providing examples from Russian and Kazakh.

(23)   Nikto   nikomu   nichego   *(ne)   skazal

       N-who   n-who.dat   n-what   NEG   say.pst

       "No one said anything to anyone."

(24)   Eshkim   Eshkimge   Eshnarse   degen   *(zhoq)

       Esh-who   Esh-who.dat   Esh-what   say.pst   NEG

       "No one said anything to anyone."

As can be seen multiple Esh-words in Kazakh and multiple n-words in Russian are followed by one negation. The root of the problem lies in the fact that I am proposing the formation of one negative determiner using one negation and one Esh-word. So far, there is no satisfactory explanation to what happens to other Esh-words in a sentence.

If one negative determiner is formed in a sentence like (24), it means that other Esh-words appear to be in the anti-additive environment. One needs to check whether the combination of an Esh-word and negation create an anti-additive environment, because the negative determiner *no* is mere anti-additive and not antimorphic.

My observation was that Esh-words can only be licensed by an antimorphic function. I might weaken my claim, saying that Esh-words can be licensed by mere anti-additive functions. However, notice, that restrictor of a universal quantifier is anti-additive as well and Esh-words cannot be licensed there as I have shown in the section 1.3 (see (13)). Let me remind the reader what the anti-additive licensor is:

(25)   F is Anti-Additive (AA) iff

    a. F(A) or F(B)=>F(A and B)

    b. F(A or b) =>F(A) and F(B)

    c. F(A) and F(B)=>F(A or B)

An English negative determiner *no* is anti-additive as the following entailments show:

(26)   a. No student sings or no student dances => No student dances and sings

    b. No student dances or sings => No student dances and no student sings

    c. No student dances and no student sings => No student dances or sings

As I am showing below, the same entailments hold for Kazakh as well.

(27)   a. Esh-qanday oqushi olen aitpajdi   alde Esh-qanday oqushi

    Esh-which   student song say.NEG.3sg or   Esh-which   student

    bilemejdi

    dance.NEG.3sg

   "No student sings or no student dances."

    =>Esh-qanday oqushi olen aitpajdi   zhane bilemejdi

      Esh-which   student song say.NEG.3sg   and   dance.NEG.3sg

      "No student dances and sings."

   b. Esh-qanday oqushi olen aitpajdi   alde   bilemejdi

    Esh-which   student song say.NEG.3sg   or   dance.NEG.3sg

    "No student dances or sings."

    => Esh-qanday oqushi olen aitpajdi   zhane Esh-qanday oqushi

      Esh-which   student song say.NEG.3sg and   Esh-which   student

      bilemejdi

      dance.NEG.3sg

"No student sings and no student dances."

    c. Esh-qanday oqushi olen aitpajdi   zhane Esh-qanday oqushi

       Esh-which   student song say.NEG.3sg and Esh-which   student

       bilemejdi

       dance.NEG.3sg

       "No student sings and no student dances."

  => Esh-qanday oqushi olen aitpajdi   alde   bilemejdi

       Esh-which   student song say.NEG.3sg   or   dance.NEG.3sg

       "No student dances or sings."

The combination of an Esh-word and negation, however, does not create an antimorphic environment. The only entailment one needs to check is (28).

    (28)   F(A and B) => F(A) or F(B)

As (29) shows, Esh-word+negation does not support the entailment in (28).

    (29)   Esh-qanday oqushi olen aitpajdi   zhane bilemejdi

        Esh-which   student song say.NEG.3sg   and   dance.NEG.3sg

       "No student dances and sings."

     ≠> Esh-qanday oqushi olen aitpajdi   alde Esh-qanday oqushi

        Esh-which   student song say.NEG.3sg or   Esh-which   student

        bilemejdi

        dance.NEG.3sg

        "No student sings or no student dances."

Given the fact that negation is interpreted as a part of a negative quantifier, the environment is weaker now. Therefore, other Esh-words are not licensed by an antimorphic function.

Having showed that the combination of an Esh-word and negation creates an anti-additive environment, I am still not capable of solving the problem of multiple occurrences if these items because other mere anti-additive contexts fail to license them.

5.5 Summary

In this chapter, I discussed problems of my analysis.

The first problem is the availability of the split scope readings in Kazakh. The formation of negative determiner is blocked by modals. However, it appears to be not a serious issue, since in the languages where negative determiners are available, split readings are also observed. The facts from such languages suggest that intervening modals might not be blocking the formation of negative determiners.

Secondly, I discussed whether Esh-words are existential quantifiers under negation or not. I applied Giannakidou (2002)'s diagnostics for existential n-words to Esh-words. Esh-words appeared to fit into all of them, given that first three tests are not reliable. I suggest that they are existential in the scope of negation, which is supported by the availability of intervening readings with modals.

Finally, I presented the problem that I am not able to account for at this point. The multiple occurrences of Esh-words in one sentence with one sentential negation challenges my proposal on formation of negative determiner. To form a negative one Esh-word and one sentential negation are needed. The question of what happens with other Esh-words in a sentence remains open,

CHAPTER 6

CONCLUSION

The first chapter of the thesis starts with basic observations on the nature of Esh-words. Having showed that their distribution is limited to negative contexts only and that mere DE contexts do not suffice to license them, I proposed to analyze them as SNCIs rather than NPIs. Moreover, in terms of their distribution, they show the striking resemblance with n-words in Slavic languages, which are prototypical SNCIs. I also provided data from Turkish, where similar items (Hiç-words) were observed but were analyzed as NPIs. However, the only difference that I observed between Esh-words and Hiç-words is that the latter ones are grammatical in is yes/no questions. In this chapter, I also showed how sentential negation is realized in Kazakh and that double negation readings arise when two negative markers are used in a sentence in order to demonstrate that negative morphemes are always overt and contribute their own negative meanings.

Having established that Kazakh Esh-words are SNCIs, in the second chapter I discussed existing views on negative concord. First, I discussed Longobardi (1991) and Herburger (2001)'s ambiguity approach, where NCIs are analyzed as being ambiguous between NPIs and negative indefinites. Their proposal was based on the observations from Romance languages where preverbal n-words do not require sentential negation to be grammatical. However, this is not what happens in Kazakh, therefore this analysis cannot be applied to the data I presented here.

In the next section, based on Zwarts(1998)'s hierarchy of negative expressions and strength of NPIs, I entertained the idea that Kazakh Esh-words might be NPIs of

super-strong type, since among all DE expressions, only antimorphic function (sentential negation) can license them.

Finally, I discussed Negative Quantifier view (Haegeman and Zanuttini 1991, Higginbotham and May 1981, Penka 2011). The negative concord is accounted for by an operation which is called Neg-Absorption. This operation, however, fails to explain double negation readings in a sentence with a preverbal n-word and sentential negation in Romance languages.

Later in the chapter, I provided the difference between strict and non-strict negative concord (Giannakidou 1997, 2002) and discussed the only existing approach to the strict NC (Zeijlstra 2001). His analysis, attempting to make a unified analysis of both varieties of NC, views sentential negation in SNC languages as bearing uninterpretable negative features [uNEG], which makes them equivalent to n-words. The negative meaning comes from an abstract negative operator Op⌐. I discussed the drawbacks of this view by showing wrong predictions that came from it: the obligatory presence of negative markers with n-words and the presence of DN readings.

In chapter 3, I proposed an alternative analysis of Strict Negative Concord using Kazakh as a case study. I argued that the combination of sentential negation and an Esh-word was a linguistic device to express negative determiners, which are not observed in SNC languages. Having adopted this analysis, intervention effects, dependence on sentential negation and locality constraints can be predicted straightforwardly.

My further observation regarding the embedded occurrence of Esh-words were discussed in the Chapter 4. I observed that even though negation was in the matrix clause on the surface, it must be in the embedded clause at LF. The availability of De-dicto reading suggests that Esh-word can be licensed in-situ, and for the negative

determiner to be formed, the negation must syntactically move to the embedded clause. I observed that Esh-words can only be licensed when the embedded clause is non-finite, which led me to conclude that syntactic movement of negation is limited to non-finite embedded clauses. It is a new data for the theory of neg-raising. I discussed two existing views on neg-raising: Syntactic and semantic/pragmatic ones. It appeared that both sources of neg-raising are available in the language. Syntactic neg-raising is responsible for the licensing of Esh-words in non-finite embedded clauses and semantic neg-raising is always available, which is shown by the availability of the NR reading of sentences with finite embedded clauses.

In the last chapter, the quantification force of Esh-words was discussed. According to Giannnakidou(2002)'s diagnostics and my observations from split readings, I concluded that Kazakh Esh-words are existentials in the scope of negation.

The question that are left open are intervening modals and the multiple occurrences of Esh-words in one sentence. While the former one does not seem to be a serious issue, because splitting scope phenomenon has been observed in the languages where negative determiners exist, the latter one is a challenge for my proposal. The formation of one negative determiner requires one sentential negation and one Esh-word. One still needs to account for the question of what happens with other Esh-words in the sentence like below:

(1)   **Eshkim** Eshkimge   Eshnarse   degen   **zhoq**

        Esh-who   Esh-who.dat   Esh-what   say.pst   NEG

        "**No one** said anything to anyone."

I will address this issue in my further research.

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