

Expletive Negation beyond Romance.
Clausal Complementation and Epistemic Modality.

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Abstract

This thesis examines whether Expletive Negation (EN) in attitude contexts is indeed semantically vacuous and which are its licensing conditions. By examining the crosslinguistic distribution of EN, I show that EN is not dependent on the mood specification of the embedded clause contra what has been previously argued (e.g. Abels 2005, Espinal 2000, Yoon 2011) but rather it is only licensed in tensed clauses. I show that EN complements are selected by predicates that also select for questions. I present new asymmetries between EN and that complements: more specifically, I show that epistemic modals are not licensed in EN complements, an attitude with an EN-complement cannot function as a felicitous answer, matrix negation has different scope in EN and non-EN clauses and that EN can be used instead of an epistemic in counterfactuals. Based on these asymmetries and the previously established necessary condition for tense, I propose that EN is an epistemic modal. EN actually indicates that the doxastic alternatives of the attitude holder are equally probable and thus the semantics of EN complements are very similar to that of embedded questions. Even though the distributions of embedded questions and EN complements largely overlap and the two constructions can be changed without any difference in the meaning I demonstrate that their distribution is not identical and thus further investigation is necessary.

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Author's Declaration

I declare that this thesis was composed by myself, that the work contained herein is my own except where explicitly stated in the text, and that this work has not been submitted for any other degree or professional qualification.

*To my grandmother
Margarita.*

Chapter 1

Introduction

The aim of this thesis is to examine the crosslinguistic distribution of semantically vacuous negative markers and identify their licensing conditions and their semantic contribution. Based on existing but also new empirical data, drawn from Modern Greek, Classical Greek, Latin, Spanish, French, Hebrew and Russian I propose that EN is an epistemic modal and that EN-complements introduce sets of equally probable doxastic alternatives. For that reason their tense is never anaphoric to the tense operator of the matrix predicate, they are not licensed in attitudes of acceptance, like *believe*, and their interpretation is very similar to that of embedded questions.

The following chapters of this thesis provide empirical grounding to semantically vacuous or Expletive Negation. Chapter 2 presents the different environments that expletive negation is licensed and shows its distribution in the languages that are examined in this thesis. In the next chapter, I discuss previous approaches to the phenomenon and in chapter 4, I focus on its relation to Negative Concord. Chapters 5 and 6 argue for two licensing conditions of expletive Negation: In chapter 5, I show that EN is only licensed in tensed clauses and in chapter 6, that the predicates embedding EN-complements have existential force and select for questions. In the next chapter, I propose that EN is an epistemic modal and discuss how EN complements correlate with embedded questions. In chapter 8, I conclude and point towards potential extensions of this research.

Chapter 2

The empirical Picture: Environments that License Expletive Negation

It is rather uncontroversial that, in a system with two truth values $\{0,1\}$, negation is a function with domain and range the set of truth values, which takes the truth value of a proposition p as its argument and gives the opposite truth value. So, Negation (\neg) could be described as in 1

$$(1) \quad \neg = \begin{bmatrix} 1 & \rightarrow & 0 \\ 0 & \rightarrow & 1 \end{bmatrix}$$

The meaning of (2-a) and (2-b) would be (2-c) and (2-d) respectively:

- (2) a. Mary cries
b. Mary doesn't cry.
c. $\llbracket \text{Mary cries} \rrbracket = M \in D_e. \text{CRY}(M)=1$
d. $\llbracket \text{Mary does not cry} \rrbracket = \llbracket \text{not} \rrbracket (\llbracket \text{Mary cries} \rrbracket) = \neg[\text{CRY}(M)=1] = \text{CRY}(M)=0$

However incontestable this might seem, negation does not always reverse the polarity of a proposition. This phenomenon, where a negative operator (sentential negation or negative complementizer) does not contribute logical negation to the meaning of the sentence, namely it does not change the truth value of a proposition, has been described in the literature as EXPLETIVE or (semantically) VACUOUS NEGATION (from now on simply referred to as EN). An occurrence of such 'meaningless' negative operator is illustrated in 3.

- (3) Fovame min espasa to podhi mu. [Modern Greek (MG)]
Fear NEG break the leg mine.CL
I am afraid that I might have broken my leg.

In 3 what the subject actually fears is not not having broken their leg but exactly the opposite: they are afraid of the possibility that they have broken their leg —the opposite would have been awkward. This is not a peculiarity of the meaning of the Greek verb *fovame* (fear), and this is evident from two facts: firstly, *fovame* (fear) in Greek can also select factive or subjunctive complements and noun phrases. In these cases it differs in nothing from its English counterparts, cf. the Greek sentences with their English translations in 4:

- (4) a. Fovame pos espasa to podhi mu. [MG]
 Fear that break the leg mine.CL
 I am afraid that I have broken my leg.
- b. Fovame na anevo sti skala. [MG]
 Fear SBJ/to climb to-the ladder
 I am afraid of going up the ladder.
- c. Fovame to skotadhi. [MG]
 Fear the darkness
 I am afraid of darkness.

The second piece of evidence that EN is not a peculiarity of the Modern Greek verb *fovame* (fear) comes from the wide crosslinguistic occurrence of the phenomenon. As will be shown below, EN is found in many languages and in similar environments (for a summary of the distribution of EN crosslinguistically see Table 2.1 below or the Appendix). Actually, EN is even found in English dialects:

- (5) He is richer **nor** you'll ever be. (Yoon 2012)

In the rest of this section sentences illustrating the different environments of EN will be given. EN under verbs meaning *fear* and in degree comparatives were shown in 3 and 5 above respectively. Table 2.1 summarizes the environments where EN is licit in a set of languages including Greek (Modern and Classical), Latin, Romance, Hebrew, German, Russian. The cells marked in bold refer to data that have not been discussed in the linguistic literature before. A comprehensive list of examples of EN across the languages discussed in this thesis is given in the Appendix.

Hope-complements . Yoon (2011) was the first to mark that EN is not found only after 'negative' verbs, namely in the complements of 'adversative' predicates and fear complements. She considers that Korean is the only language amongst the languages she studies that licenses EN in the complement of the verb *hope*. In that case, EN marks the low-likelihood of the complement clause to be true. Even though her intuitions are on the right track, Korean is not the only language that licenses EN under *hope*: so does Classical and Modern Greek, as shown in 6 and 7 respectively:

- (6) oudama elpizas me: kote ara ago:nisamenos houto:
 never hope NEG ever PCL(improbability) fight.Pcpl so
 parable:sio:s Ku:ros elase:i epi Sardeis. [ClGr]
 equally Kyros march.V against Sardis
 Never thinking that after a contest so equal Cyrus would march against
 Sardis. *Hdt.* 1:77,4
- (7) a. Ilpiza min/mi-pos ine kati aplo. [MG]
 Hope.Pst. NEG/lest.NEG-that is something simple.
 I hoped that it would be something simple.
- b. Elpizo %min/ mi-pos ine kati aplo. [MG]
 Hope.Prs NEG/ lest.NEG-that is something simple
 with *min*: I hope that it is not something simple.
 with *mipos* I hope that it is something simple.

Even though *elpizo* is the cognate of *hope* both in Modern and Classical Greek, in Classical Greek whenever it licenses EN it only has the meaning of 'expecting

evils, look for, fear’ (Liddell-Scott-Jones online dictionary). On the other hand, in Modern Greek, if the Tense of the matrix predicate is Present only *mipos* (lest) can be used expletively. *Min* (NEG), if grammatical, is interpreted as a subjunctive complement with Real Negation and dropped subjunctive marker.

Dubitatives . In complements of verbs expressing doubt we face the following asymmetry: there are languages like Classical Greek or Russian that license EN regardless of the polarity of the matrix predicate (8-a), whereas in other languages like French ¹ or Latin, EN is licit only after a negated matrix predicate (8-b):

- (8) a. apisteis me: ouk episte:me: e:i he: arete: [ClGr]
 doubt.Prs.Pcpl NEG NEG knowledge is.3SG.SBJ the virtue
 ...you feel a doubt as to virtue being knowledge. Pl. *Meno* 89d
- b. Non dubitabat quin ei crederemus [Latin]
 NEG doubt lest.that-NEG him believe
 He did not doubt whether we believed him. Cic. *Att.* 6.2.3

Negative Predicates . The sentential complements of negative or non-entailing verbs are usually environments where EN is licit. These verbs will be discussed in detail in section 6.4—a comprehensive list of them in the languages discussed in this thesis is given in Appendix.

- (9) me: thigganein apeirge. [ClGr]
 NEG touch.inf. prevent
 [The bull] prevented [us] from touching [him]. Eur. *Hel* 1559.

Latin, has two different expletive negative complementizers used in the sentential complements of these verbs, *ne* (NEG) and *quin* (that-NEG). Examples of both of them are given in 10 and 11 respectively:

- (10) non possumus, quin alii a nobis dissentiant, recusare.
 NEG can that-NEG others ABL. us disagree refuse
 We can’t refuse others disagree with us. Cic. *Ac.* 2, 3, 7 [Latin]
- (11) ...sententiam ne diceret, recusavit ...
 opinion NEG say refuse
 ...he refused to give his own vote ... Cic. *Ver.* 3.27

(Biased) Questions . A negative marker in a question can express the speaker’s expectation of the confirmation of the non-negative proposition—this will be referred to as “positive bias”. In English this is the cliticized *n’t* (NEG) that attaches to the verb like in 12.

- (12) Isn’t it true? (Expected answer: ‘Yes, it is true.’) [English]

Positive bias can be marked either with special negative question particles, as in Latin 13 or negative particles that are not used exclusively in questions like Ancient Greek *oukoun* (NEG-so) 14. The most common structure though, is the use of the subjunctive sentential negator, like in English, as shown above.

¹In Rowlett (1998, 28) *doubt* does not have to be negative to license EN.

- (13) nonne ego possum, furcifer, te perdere? [Latin]
 QuP(NEG-NEG) I can, scoundrel, you destroy
 Can't I, you scoundrel, make an end of you? Pl. *Am.* 1.3.41
- (14) palin ho Kuros e:ro:ta' oukoun husteron ... kako:s epoieis te:n
 again the Kuros asked NEG-so afterwards ... badly do the
 eme:n cho:ran? [ClGr]
 mine country
 and then Kuros asked again: didn't you afterwards harm my country?
 Xen, *Anab.* I, 6.7

Another way of expressing negative bias is the use of double negation as in 15

- (15) oukoun ouk an eie: to me: lupeisthai pote tauton to:i
 NEG-so NEG PCL is the NEG grieve ever the.same the
 chairein? [Cl. Greek]
 being.happy
 Would freedom from grief not be identical with pleasure? Plat. *Phil.*
 43d

Rhetorical Questions . As in ordinary questions, some languages, like Latin 16 and Classical Greek ref17, allow EN in questions that do not seek information. In a rhetorical question the answer is known both to the speaker and the addressee and the question, actually, corresponds to an assertion (cf. Bhatt 1998, Caponigro & Sprouse 2007, Han 2002).

- (16) Egone tu interpellem? [Latin]
 I-NEG you interrupt
 What ! I interrupt you? Cic. *Tusc.* ii. 42
- (17) oukoun dikaion ton sebont' euergetein, ...? [ClGr]
 NEG-so right the pious help
 Isn't it right to help the pious? Aesch. *Eum.* 725

Interrogative Complements . Interrogative complements can be introduced by expletive negative complementizers as in 18:

- (18) a. Kitakse min to eleghe charitologhontas. [MG]
 look NEG it.CL said joking
 Check, if he said (that) joking.
- b. hora me: paizo:n elege [ClGr]
 look NEG playing said
 Check, if he said (that) joking. Plat. *Theaet.* 145b

Exclamatives . Exclamatives in many languages are very similar to questions and in some languages the only means to distinguish one from another superficially is punctuation and/or intonation. However, exclamatives differ from questions in that they carry a factual presupposition (Grimshaw 1979) ². In some languages, like Spanish below, EN is licit in exclamatives, too:

²For a detailed discussion of the differences between exclamatives and questions cf. Portner & Zanuttini (2000), Zanuttini and Portner (2000, 2003) a.o.

- (19) ¡Cuántas veces no lo había sonado en los últimos tiempos!
 How-many times NEG it.CL have dreamt in the last times
 How often he had dreamt of it lately! (Butt & Benjamin 2011)

Free Relatives . Hebrew has a special kind of free relatives that have EN. The effect on the interpretation is similar to that of English *-ever* (Eilam 2009):

- (20) ma she-lo ta'ase, ata tikashel babxina.
 what that-NEG you.will.do you will.fail in.the.test
 Whatever you do, you'll fail the test. (Eilam 2009)

Degree Comparatives . Degree comparatives, namely comparisons of the degree to which individuals rank on the natural scale associated with a gradable expression, can also license EN. In languages where EN is grammatical in degree comparatives, it is grammatical in inequality degree comparatives but not equality ones. Compare the sentences in 21 below:

- (21) a. Ta voiture est moins coûteuse que je ne le pensais.
 Your car is less costly than I NEG it thought
 Your car is less costly than I thought.
 b. Ta voiture est aussi coûteuse que je le pensais.
 Your car is less costly than I it thought
 Your car is as costly as I thought. (Batchelor & Chebli-Saadi 2011, 542)

Metalinguistic Comparatives . EN is not only licensed in degree comparatives but also in metalinguistic comparatives. Metalinguistic comparatives differ from degree comparatives in that they compare the degree of appropriateness of two propositions (Giannakidou & Stavrou 2009) or degrees of imprecision (Morzycki 2011). 22 below gives an example of EN in Classical Greek metalinguistic comparatives:

- (22) ... polin hole:n diaphtheirai mallon e: ou tous aitious.
 city whole destroy more than NEG the guilty
 ...to destroy the whole city instead of the guilty. Thuc. III 36,4

Before-clauses . EN is also licensed in *before*-clauses. It has been suggested in the literature (a.o. Espinal 2000) that *before*-clauses with EN do not entail that the event in the main clause is true, in other words, *before*-clauses with EN are non-veridical.

- (23) Avant qu' elle ne sorte, elle doit prendre son repas.
 Before that she NEG go-out, she must take her meal
 Before she goes out, she must eat. [French]

Until-clauses . *Until*-clauses is another temporal adjunct where EN is licensed. There is a lively debate in the literature whether, especially in languages with EN after *until*, there is only one lexical entry for *until* with a stable meaning or it has a different meaning if with EN (cf. Espinal 2000, Eilam 2009, Giannakidou 2002, Brown & Franks 1995)

- (24) lo hifsakti lenakot ad she-ha-orxim lo higi'u. [Hebrew]
 NEG I.stopped to.clean until that-the-guests NEG arrived
 I didn't stop cleaning until the guests arrived. (Eilam 2009)

Unless-clauses . In Spanish and French EN is also licensed in *unless*-conditionals, as in 25 below:

- (25) Me casaré contigo [a no ser que]/ [como no sea que]/ [a
 Me.CL marry with-you at NEG being that as NEG is that/ at
 menos que hayas] cambiado de idea [Spanish]
 less that have changed of opinion
 I'll marry you unless you've changed your mind. (Butt & Benjamin 2011)

All Romance languages examined in this thesis allow an optional EN marker in *unless*-clauses.

Without-clauses . Finally, EN is also grammatical in Classical Greek and French clauses introduced by *without*, e.g. 26:

- (26) Je l' a fait sans qu' il ne me voie. [French]
 I it.CL have done without that he NEG me.CL see
 I did it without him seeing me.

Table 2.1: Crosslinguistic distribution of EN

	MGr.	ClGr.	Latin	Span.	French	Hebr.	Rus.
<i>fear</i> compl.	+	+	+	+	+		+
<i>hope</i> compl.	[+]	[+]	-	-	-		-
dubitatives	[+]	[+]	+ *	+	+*		+
<i>hinder, resist, refuse, delay</i> **	-	[+]	[+*]	-	+	+	-
questions	[+]	[+]	[+]	+			+
rhetorical questions	[+]	[+]	[+]		+	+	+
interrogative complements	[+]	[+]	[+]	-	-		-
exclamatives	+	-	[+]	+	+	+	-
free relatives	-	-	-	-	-	+	-
degree comparatives	-	-	-	+	+		-
metalinguistic comparatives	-	[+]	-	+		-	-
<i>before</i> -clause	-	-	-	-	+	-	-
<i>until</i> -clause	-	-	-	+	-	+	+
<i>unless</i> -clause	-	-	-	+	+		-
<i>without</i>	-	[+]	-	-	+	-	-

* EN is licensed on condition that the matrix predicate is negated.

** The negative verbs that license EN may vary across languages. For presentational purposes the categories of these verbs are collapsed in this table. In chapter 5 the crosslinguistic differences will be presented in detail.

Chapter 3

Background on Expletive Negation

Occurrences of negation that is not interpreted as such have been identified in the literature as early as the beginnings of western linguistics. Apollonius Dyscolus (2nd cent. AD), while discussing how the Classical Greek compound word *oukoun* (οὐκ-ουν or οὐκ-οῦν (NEG-so)) is stressed properly, notes that whether the word is stressed on the first or the second syllable depends on whether the word has a negative meaning or not. He actually notes explicitly that there are occurrences of *oukoun* where it does not have a negative meaning ³:

... ἔστι γε ἐπ' αὐτοῦ τοῦτο τηρῆσαι, ὡς ὅτε μὲν ἔχει τὴν οὐ ἀπόφασιν ἐγκειμένην καὶ κατὰ τὸ δηλούμενον, παραπληρωματικῶς κέχρηται τῷ οὔν ὅτε δὲ τὸ οὔν ἔχει καὶ ἐν δηλουμένῳ, οὐκέτι τὴν οὐ ἀπόφασιν ἔχει... ⁴

Apoll. Dyscol. *De conjunctionibus*, Shn. p. 257, 18.

... as far as this is concerned, it is possible to note this: when *oukoun* bears the meaning of the *ou* (NEG) negation according to what is manifested [= the negation *ouk* is stressed], *oun* (so) is used as expletive; when *oukoun* has the meaning of *oun* (so) and in what is manifested [= the particle *oun* is stressed] **it does not have any more the [meaning of] the *ou* negation.** ...

In the generative tradition EN constitutes a challenge for the syntax-semantics mapping. So far, there have been mainly two classes of approaches: the first one assumes that EN is, indeed, semantically 'vacuous' and it has no contribution at all to the meaning of the sentence. Being semantically empty, EN was examined in relation to Negative Concord ⁵ phenomena and licensing conditions of Negative Polarity Items (from now on simply referred to as NPIs).

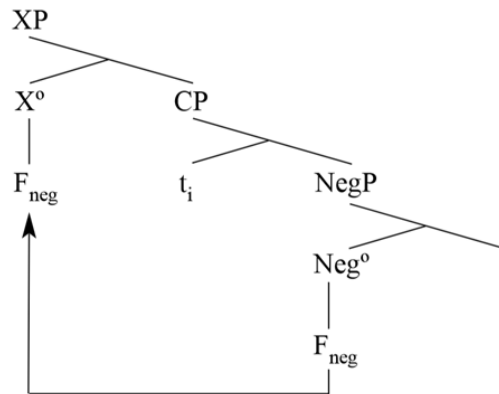
Espinal (1992) introduced an operation of negative absorption where the meaning of the negative operator is absorbed by a c-commanding negative predicate, in other words, the meaning of the negation is fused with the meaning of the superordinate negative predicate. This operation is triggered by the lexical semantics of the predicate (e.g. *temia* (fear), *abans que* (before)) but it is also subject to specific locality

³Accent symbols were introduced in Classical Greek by Aristophanes of Byzantium (3rd – 2nd cent. B.C.) in a period where stress had replaced pitch accent. Therefore, it is not surprising that the correct pronunciation of the word *oukoun* (NEG-so) is debated by a grammarian of the Hellenistic period, like Apoll. Dyscolus.

⁴emphasis is mine M.M.M.

⁵Negative Concord: negation is interpreted just once although it seems to be expressed more than once in the clause (Giannakidou 2000, 458).

conditions. Espinal (2000) reformulates the locality conditions in minimalist terms, so negative absorption applies, if in a configuration like 27 below, F_{Neg} is nonveridical. The F_{Neg} of the Neg^0 moves covertly to check the non-veridical feature of the superordinate predicate.



(27)

(Espinal 2000: 55, (13))

The limitations of such an analysis are both semantic and syntactic. Firstly, it does not account for the semantic contribution of EN. Espinal (2000, 60, fn.17) only notes that EN in *abans* (*before*)-complements is illicit if it is inferred that q is true/veridical. However, EN can be licensed in veridical, actually episodic, contexts, like 28

- (28) Cuántuas veces no lo había soñado en los últimos
 How-many times NEG it.CL have.Imp dream.Pst.Prtc in the last
 tiempos
 times
 How often he had dreamt of it lately. (Butt & Benjamin 2011)

Secondly, the syntactic configuration does not explain why *hasta* (until) licenses EN only if the matrix clause is negative, as in 29. If we assume that the negation of the matrix clause is the X^0 in 27 above that licenses the EN, then it is hard to avoid overgeneration. Any negative clause could license EN in its complement. Compare (29-a) and (29-b):

- (29) a. No recibirá el dinero hasta que (no) encuentre trabajo [Spanish]
 NEG get back the money until that NEG find job
 You will not get the money until (s)he finds a job. (Butt & Benjamin 2011)
 b. Me quedaré aquí hasta que (*no) se ponga el sol
 me stay here until that NEG Refl.Cl. set the sun
 I will stay here until the sun sets. (Butt & Benjamin 2011)

The second class of approaches assume that EN is actually not semantically vacuous. This class can be further subdivided in two other classes depending on whether the semantic contribution of EN is a negative operator (\neg) or not. One of the analyses of the former class is that by Abels (2002, 2005) where EN is defined purely on structural terms: EN is the sentential negation that can license Genitive of Negation (in Russian) but not negative words. Under this definition, Abels assumes that sentences with Genitive of Negation like 30 are also instances of EN. ⁶

⁶In this thesis, sentences like 30 are assumed to be sentences with real negation.

- (30) Nataša ne xotela čitat' knig [Russian]
 Natasa NEG wanted to-read books.GoN.PL
 Natasa didn't want to read books. (Abels 2005, (40))

According to Abels (2002, 2005), the reason why negation is interpreted as semantically vacuous is that the NegP occupies an unusually high position in the tree, and this makes the negative operator seem as lacking negative force. One of the high positions that EN occupies according to Abels (2002, 2005) is $C_{Evaluative}$, the second highest amongst C-projections. In that case, its contribution is to cancel/ negate the positive evaluation of the proposition p that is invoked by subjunctive mood. However, in Russian, adverbials of temporal extent, spatial extent and number of times can also be marked with Genitive of Negation apart from the internal argument of the verb (Erschler 2007), as in 31.

- (31) ona by i dnja ne terpe-l-a vozle sebya
 she MOD and day-GEN NEGsuffer-PST-F near self-GEN this-GEN.F
 et-oy zdorovenn-oy babishch-i.
 huge-GEN.F female-GEN
 She would not suffer this huge female near her even for a day. (Erschler 2007, 34)

Leaving aside the problems on explaining double case assignment (both an argument and an adjunct are marked with Genitive by a single NegP), Abels' analysis faces the following problem: one of the semantic conditions for Genitive case assignment on the adjuncts is that 'semantically the verb is beyond the scope of negation, and it is only the duration adverbial that is negated' (Erschler 2007). If negation is as high in the tree as Abels argues, negation scopes above the verb.

Yoon (2011) analyses EN as an evaluative mood marker. Contrary to Abels (2002, 2005) she does not assume that EN consistently contributes a negative operator as 'real' negation does. EN marks the unwillingness of the speaker/subject to commit to the truth of the proposition. Therefore, EN is a notional mood marker licensed by non-veridicality exactly like subjunctive. Evaluative negation is a 'subspecies' of subjunctive as it expresses the negative part of what subjunctive may express, namely negative anticipation, undesirability or low likelihood. Based on Potts' (2005) theory of multidimensionality of conventional implicatures, Yoon argues that evaluative semantics of evaluative negation exists on a separate dimension of the semantic core of the utterance. Even though Yoon captures significant insights regarding the semantic contribution of EN this dependency to non-veridicality is hard to maintain, as was already mentioned for Espinal (2000). EN appears also in contexts that are morphologically marked for indicative, episodic contexts like 32 or French inequality comparatives 33 where the connection between of the assumed rhetorical effect of EN and non-veridicality is rather obscure.

- (32) (San) posi dhen skotohikan ston 2o pagkosmio polemo!
 Like.P how-many. NEG.ind. kill.V.Past.Prf in-the 2nd world war
 So many people died in the 2nd World War! [MG]
- (33) Marc mange plus de bonbons que Marie ne mange. [French]
 Marc eats.ind more of candies than Marie NEG eats.ind
 Mark eats more candies than Mary does.

Chatzopoulou (2012), while discussing the use and distribution of $\mu\eta$ ⁷ in the history of Greek, identifies two stably non-negative uses of it: in *fear*-complements and in root or embedded polar questions. Chatzopoulou (2012), following Yoon (2011), analyses EN in *fear*-complements as Negation in $C_{Evaluative}$. Finally, Chatzopoulou (2012) assumes that EN in unbiased questions occupies the $Mood_{SpeechAct}^0$ and the $Mod_{Epistemic}^0$ in 'dubitative' questions, as in 34

- (34) ipe oti tha telefonisi ala min/ mipos ksehase?
 said.PP.3SG that FUT call.PNP.3SG but NEG2/ QP forget.PP.3SG
 (S)he said (s)he will call, but maybe (s)he forgot? (Chatzopoulou 2012, 54)

The common property linking all the expletive uses of the negator $\mu\eta$ is their dependency on non-veridicality.

An interesting approach is that of Eilam (2009), who considers that the negative marker *-lo* in Hebrew free relatives has the same contribution as English *-ever*. Eilam adapts von Stechow's (2000) semantics for *whatever* to Hebrew EN data and formalizes the semantic contribution of *-lo* (NEG) in Hebrew indifference Free Relatives, *until*-clauses and exclamatives. Under this account, EN triggers a presupposition of variation over a modal base. In the case of Free Relatives this modal base can be epistemic (the doxastic alternatives of the epistemic subject) or counterfactual (all the worlds that are minimally different from the real world). Like *-ever* in English Free Relatives, depending on what the modal base is (epistemic or counterfactual) EN triggers an ignorance or an indifference presupposition (cf. also the analysis of Free Relatives by Tredinnick 2005).

⁷Chatzopoulou 2012 argues that Classical Greek *me:* and Modern Greek *min* is the same negator that went through the phonological changes shown below:

Homeric Greek: *me:*
 Koine: *mi*
 Late Medieval: *mi* and *midhen*
 Modern Greek: *min*

According to Chatzopoulou (2012) these negators are not simply etymologically related: they have the same function as they are negators and NPIs licensed by non-veridicality at the same time. In this thesis, Classical Greek and Modern Greek are simply considered as two distinct synchronies without any further assumptions about the history of Greek.

Chapter 4

Expletive Negation and Negative Concord

In this section I will discuss the interaction of EN with negative words. In section 4.1 I will introduce some basic terminology and in section 4.2 I will present previous approaches to the relation between EN and Negative Concord. While I will reject theories that analyse EN as an instance of Negative Concord (Espinal 2000, Espinal 1992, Wouden 1994), I will extend Yoon's observation about the asymmetry between Real Negation and EN with respect to NPI licensing.

4.1 Background on Negative Concord and Negative words

In chapter 3 (footnote 5) I introduced the term of Negative Concord (NC), the phenomenon where multiple occurrences of negation in the clause are interpreted as only one. NC languages, depending on whether the presence of sentential negation is obligatory or not, can be subdivided into two categories. In Strict NC languages, like Greek and Russian, sentential negation is obligatorily present in sentences containing negative words. Negative words are interpreted as universal quantifiers that take scope over negation (Giannakidou 2005, Abels 2005 for Russian; Tsimpli & Roussou 1996 for Greek ⁸, amongst others). In non-Strict NC Languages, like Spanish, postverbal negative words are licensed if sentential negation (or a second negative word) appears preverbally. If a negative word appears preverbally then sentential negation is not required and, if present, it renders 'double negation' effects, namely the negative word and the sentential negation marker will cancel each other out resulting in a positive sentence, similar to what would have happened in a non-NC language. These differences are illustrated in 35-37

(35) I saw nobody. [English] (non-NC)

(36) Dhen idha KANENA ⁹. [MG] (strict NC)
NEG saw nobody

⁸Tsimpli & Roussou (1996) actually argue that Greek NPI licensing is subject to two conditions:

- (i) Licensing of Negative Polarity Items (NPIs): An NPI is licensed iff
 - a. it is in mutual m-command with negation (at LF), and
 - b. it is specified for the $< +f >$ feature.

Mutual m-command with negation actually implies that the negative word takes scope over negation.

I didn't see anybody

- (37) a. Non ha visto a nadie [Spanish] (non-Strict NC)
NEG have seen at nobody
I haven't seen anybody.
b. Nadie ha visto a nadie
nobody have seen at nobody
Nobody saw anyone.
c. Nadie non ha visto a nadie
Nobody NEG have seen at nobody
Nobody saw noone.

For reasons that will become evident below, it is important to highlight that under the term 'negative word' I refer to strong NPIs in NC Languages (like Greek *KANENAS* (nobody) as opposed to *kanenas* (anybody)) and Negative Words in non-NC languages, like English nobody or latin *nullus* (nobody). This means, that weak NPIs like anybody are not included.

4.2 Expletive Negation as Negative Concord

EN has been treated as an instance of NC (Espinal 1992, Espinal 2000, Wouden 1994). Van der Wouden argues that EN, there referred to as 'paratactic negation' should be explained under a semantic analysis along with polarity items for four reasons:

- In the environments that license EN, negative polarity items may occur as well;
- All the environments that license EN are downward entailing, just like the environments licensing polarity items;
- Crosslinguistically similar environments license EN;
- Effects similar to double negation: words that are able to license paratactic negation lose that property under negation, whereas verbs such as doubt that do not trigger EN, may do so if negativized.

Van der Wouden's analysis of EN in terms of NC has already been criticized in the literature for that EN is not licensed only in downward entailing contexts (Eilam 2009, Portner & Zanuttini 2000, Yoon 2011). What is more, Portner and Zanuttini (2000) note that not all downward entailing contexts can license EN. It is evident, therefore, that the environments that license EN only partially overlap with the environments that license negative polarity items, contrary to van der Wouden (1994).

4.3 Expletive Negation and Negative Words

Espinal (2007), while discussing EN and NC in Catalan and Spanish, argues that EN does not license strong Negative Polarity Items (NPIs) (cited by Yoon 2011). This asymmetry between real and EN in licensing negative words is used by Yoon as a diagnostic for identifying EN and differentiating it from real negation. What has not

⁹For expository purposes I follow Giannakidou's (1997, 1998, 2005) view that Greek n-words (*KANENAS* (nobody) etc.) belong to a different paradigm than Negative Polarity Items (*kanenas* (anybody) etc.). However, the pursued analysis is not incompatible with analyses where the former paradigm is derived by the latter by focus (cf. Tsimpli & Roussou 1996).

		EN	Real Neg
NC	does it license negative words (strong NPIs)	No	Yes
non-NC	does it invoke double Negation effects?	No	Yes

Table 4.1: N-word licensing in EN contexts: NC and non-NC Languages

been noticed though, is that EN can co-occur with negative words in non-NC languages. In that case, the two negations do not cancel each other.

Latin is such an example of a non-NC language. Whenever a negative word co-occurs with sentential negation its negative force is 'cancelled' like in 38¹⁰:

- (38) ... , non nulla in Hirtio. [Latin]
 NEG nothing in Hirtius
 ... some few points in Hirtius. Cic. *Ad Brut.* 1.10

However, if negation is expletive, as it is in questions, the negative word continues to convey a negative meaning without the effects of 'double negation' as in 38 above. This is illustrated in 39 below:

- (39) Nullum-ne interea nactu 's, qui posset tibi remissum
 noone-NEG meanwhile found.PCPL are, that can you.ABL disbanded
 quem dixti imperare exercitum? [Latin]
 which said command army
 Meanwhile, have you found no one to command for you the army that you
 mentioned as disbanded? Plaut. *Capt.* 154-155

Having shown that EN in non-NC languages does not cancel negative words, the previously noticed asymmetry between EN and real negation with respect to negative words should be extended and 'relativized' to the NC parameter setting of a language. The asymmetries between EN and Real Negation are summarized in table 4.1.

Therefore, the new generalization could be stated as in 40:

- (40) **EN and Negative words:** In the absence of a second negator, EN can co-occur with a negative word and both of them can be interpreted as a single instance of negation if and only if the negative word does not need to be licensed by clausemate negation.

For 40 to be true we have to show that two statements are valid: Firstly, that if EN can co-occur with a negative word and be interpreted as a single instance of negation, then the negative word does not need to be licensed by clausemate negation. Indeed, EN can only co-occur with negative words in non-NC languages, and in that case we do not have 'double negation' effects. In a NC language, n-words need to be licensed by sentential negation and they are ungrammatical in sentences containing only EN. The second part of this generalisation to be shown is that if a negative word does not need to be licensed by clausemate negation then EN can co-occur with it and in that case both of them are interpreted as single instance of negation. Indeed, in non-NC languages negative words are not licensed by negation and they can co-occur with EN

¹⁰If the negative word precedes negation then the result is a universal (and not existential) quantifier.

without the negation being cancelled. On the other hand, negative words in non-NC languages need to be licensed by clausemate negation, and cannot co-occur with EN.¹¹

This asymmetry points towards a common property of EN across NC and non-NC languages: it is not the same as 'real' negation. Assuming a system like the one proposed by Giannakidou (1998 *et seq.*) where NPI licensing is dependent to non-veridicality, this actually means that EN is a non-veridical operator whereas 'real negation' is an antiveridical operator. Being a non-veridical operator EN negation can license weak NPIs in NC languages whereas it cannot trigger double negation effects in non-NC languages.

Giannakidou's insight of NPI licensing being dependent on an A' operator valued for veridicality is recast in AGREE terms by Biberauer and Roberts (2011). This approach has a very significant insight as it correlates double negation with intervention of a focus shell between matrix negation and the negative word. In other words, As Yoon (2011) EN is prosodically distinct from 'real negation' as it is never prosodically emphasised and might emerge in a shorter form. This might indicate that the difference between EN and negation lies on that Real Negation can or has to be associated with the focus operator (depending on the concord parameter setting of the language) whereas EN cannot.

¹¹Notice that if in the set of n-words we included also weak NPIs the generalization in 40 would be reformulated as

- (ii) **EN and N-words (including weak NPIs):** EN can co-occur with n-words if and only if these do not need to be licensed by clausemate negation.

This is also true, as weak NPIs, in contrast with strong NPIs, do not need to be licensed by clausemate negation but they can be licensed by any non-veridical operator. This is the reason why they are licensed in questions or conditionals (for a correlation of weak NPI licensing and non-veridicality cf. (Giannakidou 1998) *et seq.*) or by superordinate negation. Therefore, the generalization in (ii) captures that EN can co-occur with negative words in non-NC languages and weak NPIs in NC languages, but not strong NPIs. However, it fails to capture that EN does not trigger double negation readings in non-NC languages.

Chapter 5

Expletive Negation under Attitudes: Crosslinguistic Data

As shown in chapter 2, EN may be licit in clauses embedded under predicates which can be divided into five different semantic classes: emotive doxastics (*fear, hope*), dubitatives (*doubt, suspect, etc.*), negative entailing verbs (*hinder, resist, refuse, etc.*) and interrogatives (*wonder, examine, etc.*). Aim of this chapter is to present one of the semantic conditions under which EN is licensed in embedded clauses, namely Tense specification of the embedded clause.

In sections 5.1 and 5.2 I present the distribution of EN. In 5.1 I present the tense and mood properties of the predicates that embed EN complements and draw two preliminary conclusions. The first one is that the so far assumed direct positive correlation between EN and Subjunctive mood is not valid. The Modern Greek, the Hebrew and especially some, examined for first time, Classical Greek data provide evidence that, apart from Subjunctive Complements, EN can be licensed in indicative, optative or even infinitival clauses. In 5.2 I present the empirical generalization that underlies the distribution of Expletive Negation in embedded clauses: EN is only licensed in CPs (not TPs) with their own tense domain. In other words, EN is not licensed in sentences with anaphoric Tense. In that respect, I show the empirical and the theoretical advantages of this generalisation: firstly, we can capture the difference between Hebrew and Classical Greek infinitives on the one hand and Romance infinitives on the other. Secondly, two so far considered unrelated phenomena, namely EN and control, are reduced to a single module of language: tense specification of the embedded clause.

5.1 Tense and Mood Properties of Embedded Clauses with EN

In this section I present the Tense and Mood properties of EN embedded clauses. By bringing into light new data from Classical Greek, I show that EN is not directly linked to Subjunctive as proposed by Yoon (2011). Rather its distribution correlates with the Tense specification of the embedded clause. In that respect, I adopt the notion of (in)dependent and anaphoric Tense (e.g. Picallo 1984, Iatridou 1993, Landau 2004). In such a system the Semantic Tense of an embedded clause can be

free or **independent**, if the embedded clause can have any Tense specification, e.g. indicative clauses,

dependent , if the embedded Tense alternations are constrained by the matrix predicate and reflect aspectual (not temporal) alternations and

anaphoric or **empty** Tense, if the event of the embedded clause is not distinct from the event of the matrix predicate, e.g. started to play.

Following Landau (2004), in independent tense complements the Tense node bears a [+T] feature, in dependent tense complements both T^0 and C^0 are specified for [+T], and in anaphoric tense complements the T^0 and C^0 are specified for [-T]¹². In the following sections I will show that in EN complements the Tense node always bears a [+T] feature. In terms of events, anaphoric tense complements refer to the same event as their matrix predicate, whereas independent and dependent tense complements have their own tense operator/domain with their own argument structure. Independent tense complements refer to events that are not related to the matrix predicate (e.g. after *verba dicendi et sentiendi*) and their morphological tense is also their semantic tense whereas in dependent clauses the semantic tense is future oriented/irrealis and the alternation of morphological tenses is constrained by the matrix predicate and reflects aspect alternations.

It should be highlighted that in Landau's system which is also the system adopted in this thesis, the existence of positively valued Tense features/a Tense operator in the embedded clause is dissociated from finiteness. Therefore, Balkan Subjunctives (which are finite) can bear [+/-Tense] features on their Tense¹³ and Complementizer heads and split in those Subjunctives with dependent tense and those with anaphoric. On the other hand, as will be shown in 5.1.2, e.g. Classical Greek infinitives do not agree with their subject but inflect for Tense. Therefore, there is morphological evidence that non-finiteness is not mutually exclusive with an active Tense operator. However, morphological Tense alternations are not the only piece of evidence for the existence of semantic Tense, even in non-finite clauses. The availability of an overt, case marked, embedded subject and the possibility to modify the embedded and the matrix predicates with two distinct temporal adverbs with distinct reference (e.g. yesterday, tomorrow) at the same sentence are the criteria used in this thesis for identifying whether an embedded clause is Tensed or not. Even though the availability morphological Tense alternations (of the embedded finite verb or the infinitive) indicate that the embedded predicate has (in)dependent Tense the opposite (lack of morphological Tense) is not enough for classifying a clause as bearing anaphoric (semantic) Tense.

5.1.1 Modern Greek (MG)

As shown in chapter 2, Greek allows EN in complements of emotive doxastics, such as verbs that denote fear, apprehension or hope. These embedded clauses are introduced by two complementizers *mi(n)* (NEG) and *mipos* (NEG-that) *lest*. The former complementizer is the same as the sentential negator *min*_[-Indicative] (as opposed to the indicative negator *dhen*_[+Indicative]). In embedded contexts that are the focus of this thesis, *mi(n)* (NEG) can be used as a sentential negator in SBJ complements or as a complementizer. As a complementizer it can introduce negative purpose clauses like (41-a) or it can be expletive if selected by the classes of predicates discussed in this thesis, like 42.

¹²Landau (2004) originally assumes an Inflection head (I^0) instead of a Tense T^0 .

¹³Inflection for Landau.

- (41) a. Simiose to min to ksehasis.
 Note it.CL NEG it.CL forget.
 Take a note of it so that you do not forget it.
 b. Simiose to na to thimithis.
 Note it.CL SBJ it.CL remember.
 Take a note of it so that you remember it.
- (42) Anisiho min tu simvi tipota [EN]
 worry NEG him.CL happen anything.
 I am worried that something might happen to him.

Min when expletive can always alternated with *mipos* (lest. NEG-that). *Mipos* (lest. NEG-that) is a morphologically complex element consisting of *mi* (NEG) and *pos* (how). *Pos* (how) is used as a declarative complementizer like *oti* (that). It is always expletive and it has a broader distribution than *mi* (NEG): *Mipos* can be combined with *elpizo* without any tense restrictions (cf. 7 in p.13) and, as will be shown below, *mipos* is also grammatical (for some speakers) with a verbal form introduced by *tha* (will).

After predicates like *proseho* (beware, be careful, pay attention to) and *koito* (look, be careful), *min* (NEG) is ambiguous between a negative purpose and an EN complement clause whereas *mipos* can only be expletive:

- (43) Prosekse min/ mipos (tihon) pesis.
 be-careful NEG lest.NEG-that by-any-chance fall-down
 Negative Purpose clause: Be careful not to fall down. EN complement clause:
 Beware that you may fall.

As shown in table 2.1 and the Appendix, the same complementizers may introduce embedded questions. In the following sections I will show that these clauses bear indicative mood and they have independent tense.

5.1.1.1 Mood

The fact that the expletive complementizers are related to the subjunctive sentential negator *min* (NEG), along with the fact that the embedded clause introduced by *min/mipos* is non-veridical lead Yoon (2011) to include *min/mipos*-clauses in Subjunctive clauses. However, Modern Greek complements of emotive doxastics with EN are actually Indicative Clauses, because:

- they are negated by the sentential negator *dhen* (*min dhen/mipos dhen*) which is used (almost) exclusively ¹⁴for indicative clauses;
- Greek subjunctive is incompatible with the Future marker *tha* (FUT) (cf. Roussou 2000) for an overview of their distinct mood properties and other asymmetries). Hence 44 with a *tha* (will) is ungrammatical.

¹⁴*Dhen* (NEG) can also be used in imperatives with double negation such as 3-6

- (iii) Min dhen erhis!
 NEG NEG come
 Don't dare to not come!

Identifying whether this construction involves ellipsis 4 or feature inheritance, lies beyond the scope of this thesis.

- (44) Fovate_i na (*tha) agapai_i/ *j tus alus
 Fear.Prs.Imp.3SG SBJ FUT love.Prs.Imp.3SG the others
 He is afraid of loving other people.

On the contrary, *min/mipos*-clauses do accept future tense both in emotive doxastic complements and in embedded questions:

- (45) %Fovame mipos tha aghapai tus allus perissotero ¹⁵
 Fear.Prs.Imp.1SG lest FUT love.Prs.Imp.3SG the others more
 I fear that he might love other people more.
- (46) Anarotieme mipos tha prepi na paro pio
 Wonder.Prs.Imp.1SG whether FUT must SBJ take.Prs.Imp.1SG more
 drastika metra.
 radical measures
 I wonder whether I should take more radical measures.

Based on the aforementioned facts, I assume that *mipos/min*-complementizers are not marked for subjunctive (or –indicative) and thus they differ from the homophonous sentential negation *min* (NEG). In that respect, I agree with Holton, Mackridge & Philippaki-Warburton (1999) and Chatzopoulou (2012) that complement clauses of verbs denoting fear or apprehension which are introduced by *min/mipos* are in indicative mood. What is more, I adopt the thesis of Philippaki-Warburton & Spyropoulos (2004) that in Modern Greek a verb form is marked for Subjunctive mood in the affirmative if and only if the subjunctive marker *na* (SBJ) is present.

5.1.1.2 Tense

Complement clauses introduced with *min/mipos* (EN) accept both present and past tense forms (47-a) ¹⁶. In that respect they differ both from the minimally different *that*-complements introduced by *pos* (that) in (47-b) which do not allow the dependent form [-Pst, +Pfv]. This indicates that *mipos* introduces modality, as [-Pst, +Pfv] verb forms are only grammatical in modal contexts. On the other hand the EN-clauses differ from Subjunctive complements introduced by *na* (SBJ) (47-c) as they do not accept Past Tense. This shows that, contra Landau (2004: 822) the featural specification of the embedded Tense is not exclusively dependent on the semantic class of the matrix predicate but also on the complementizer. In contrast with (47-c), (47-a) and (47-b)

-
- (iv) Min <tichon ke> dhen erthis!
 NEG by-any-chance and NEG come.Prs.Prf
 Don't dare not to come!

What is of interest here is that it is not possible to use *dhen* (NEG) in any embedded subjunctive clause.

- (v) Tu apagorepsa na min/ *dhen erthi
 Him.IO.CL forbade.1SG SBJ NEG.[-Ind]/ NEG.[+Ind.] come.Prs.Prf.3SG
 I forbade him to be absent. (literally: I forbade him to not come)
- (vi) *Ton dietaksa (na) min dhen erthi
 Him.IO.CL ordered.1SG (SBJ) NEG.[-Ind] NEG.[+Ind.] come.Prs.Prf.3SG
 Intended meaning: I ordered him not to be absent. (Literally: I ordered him not to not come)

¹⁵<http://www.parents.gr/forum/showthread.php?t=47160>

bear independent Tense.

- (47) a. Fovame mipos fenome/ fano/ fenomun/ fanika
 Fear.Prs.Imp. lest seem.NPst.Impfv/ NPst.Pfv/ Pst.Impfv/ Pst.Pfv
 epipoleos.
 thoughtless.
 I fear that I might seem/ seemed thoughtless.
- b. Fovame pos fenome/ *fano/ fenomun/ fanika
 Fear that seem.NPst.Impfv/ *NPst.Pfv/ Pst.Impfv/ Pst.Pfv
 epipoleos.
 thoughtless
 I fear that I seem/ seemed thoughtless.
- c. Fovame na fenome/ fano/ *fenomun/ *fanika
 Fear SBJ seem.NPst.Impfv/ NPst.Pfv/ Pst.Impfv/ Pst.Pfv
 epipoleos.
 thoughtless
 I am afraid of seeming thoughtless.

As we can see, sentential complements of emotive doxastics do not present a uniform pattern. When the EN complementizer *mipos* or *pos* (that) are used both *fear* and *hope* have independent tense. Subjunctive *fear*-complements bare anaphoric tense, and only nonpast forms are grammatical. Furthermore, the subjects of the matrix and the embedded clause must be coreferential:

- (48) O Nikos_i fovate na fani $\emptyset_{i/*j}$ (*o Mihalis) afstiros
 The Nikos fear SBJ appear.NPst.Pfv the Michail austere
 Nick is afraid of seeming austere.

On the other hand, Subjunctive Complements of *elpizo* (hope) bear independent Tense and accept both nonpast and past complements.

- (49) a. Elpizo mipos fenome/ fano/ fenomun/ fanika
 Hope lest seem.NPst.Impfv/ NPst.Pfv/ Pst.Impfv/ Pst.Pfv
 omorfos.
 handsome
 I hope that I might look/looked handsome.
- b. Elpizo pos fenome/ *fano/ fenomun/ fanika omorfos.
 Hope that seem.NPst.Impfv/ NPst.Pfv/ Pst.Impfv/ Pst.Pfv handsome
 I hope that I look/ looked handsome.
- c. Elpizo na fenome/ fano/ fenomun/ fanika omorfos.
 Hope SBJ seem.NPst.Impfv/ NPst.Pfv/ Pst.Impfv/ Pst.Pfv handsome
 I hoped to look/have looked handsome.

¹⁶As shown by Philippaki-Warburton & Spyropoulos (2006), Greek non-imperative verbs can be +/-Past, +/-Perfective. For the formation of future, subjunctive, counterfactual etc. these forms are combined with particles *na* (SBJ), *tha* (FUT), *as* (let).

Aspect	Non Imperative		Imperative
	Past	Non Past	
Perfective	elina	lino	line
Imperfective	elisa	liso	lise
Perfect	icha lisi	echo lisi	(eche lisi)

Greek verbal system (Philippaki-Warburton & Spyropoulos 2006)

Tense	Infinitival Form
Present	luein
Past Impfv.	–
Future	lusein
Past Prfv	lusai
Present Perfect	lelukenai
Past Perfect	–

Table 5.1: Inflection of Classical Greek Infinitives

In sum, Modern Greek EN complements of emotive doxastics (i) are indicative, and (ii) bear independent tense.

5.1.2 Classical Greek (ClGr)

In ClGr EN is found under emotive doxastics (meaning mainly *fear*), dubitatives, and negative predicates like *hinder*, *refuse*, *forbid*, etc (for a detailed list of the predicates cf. Appendix. Similarly to Modern Greek, an expletive *me:* (NEG) is also found in interrogative complements. The examination of the complements of these verbs in ClGr will be very illuminating with respect to the 'mood' hypothesis, namely the hypothesis that EN is connected to Subjunctive and non-veridicality (Yoon 2011; Espinal 2000) as ClGr is a language that marks tense, aspect and mood morphologically on the verb.

In this section I will examine whether EN is restricted to Subjunctive Complements, and if there are any tense restrictions on these complements. For expository reasons, I will present four different tables (one for each class of verbs) marking with a (+) the attested verb forms in EN complements. With a (–) are marked only cells of verb-forms that are explicitly mentioned in descriptive grammars that are ungrammatical (for more data the reader is referred to the Appendix. The lack of a +/- specification in the following tables indicates that the form was not found in the corpora and it will rest in the theoretical discussion to decide whether these forms are ungrammatical or simply unattested. By the end of this section it will be evident that EN complements have Free or Dependent Tense and that their licensing is not dependent on Subjunctive mood.

Before proceeding to the discussion of the ClGr data it will be useful to present some basic background on ClGr infinitives. As far as morphological tense marking is concerned, ClGr infinitives inflect for tense ¹⁷, as shown in the table below (for an overview of the issues related to ClGr verbal morphology cf. Sevdali (2006, esp. chp. 2)).

Spyropoulos (2005) points out that ClGr infinitives may be divided in three classes according to their morphological and semantic tense: independent infinitives, dependent infinitives and anaphoric infinitives. Independent infinitives have a full temporal morphology and their morphological tense reflects their semantic tense. On the other hand, morphological tense of dependent infinitives reflects aspect and anaphoric infinitives are always morphologically present but they do not have a tense value or they have a tense value anaphoric to the matrix tense. At this point it should be evident that the three infinitival classes are parallel to the finite complements' classes presented at the beginning of chapter 5.

¹⁷As will be shown below, the morphological tense alternations may reflect tense or aspectual alternations depending on the embedding predicate.

	IND/VE	SUBJ/VE	OPTATIVE	INF/VE
PRESENT	+	+	+	
IMPERF/VE PAST	+			
AORIST/ PERFECTIVE PAST	+	+	+	+
FUTURE	+		+	+
PRESENT PERFECT	+	+	+	
PAST PERFECT				

Table 5.2: Tense and Mood Marking of EN-Complements of Emotive Doxastics (ClGr)

This similarity of finite complements with ClGr infinitives is not irrelevant to their categorial status: ClGr infinitives are CPs. As shown by Spyropoulos (2005, 304), ClGr infinitives can be clausal associates of *pro_{Expl}*, and, following Chomsky (1981, 2001), this indicates that they are CPs. What is more, Sevdali (2006) extensively argues for the CP-hood of infinitives with a great array of evidence: infinitives can be coordinated with finite clauses, there are adjunct infinitival clauses with overt complementizers and infinitival clauses can denote mood distinctions exactly like the finite ones: infinitives can denote realis mood (negation *ou*), irrealis mood (negation *me:*), counterfactual (particle *an*¹⁸), and imperative (use of the infinitive instead of the imperative). Finally, she adopts the thesis of Arad & Roussou (1997) that ClGr focus particles are placed on the C domain (the latter as defined in Rizzi’s (1997) articulation of the left periphery) and, thus, she takes the co-occurrence of infinitives with focus particles as evidence corroborating their CP-status.

In sum, ClGr infinitives are CPs and their semantic Tense parallels that of finite clauses. As I will show below, these are related to two necessary conditions of EN licensing: the embedded clause must be a CP and must define its own tense domain, in other words it must have free or dependent but not anaphoric tense.

In the following tables 5.2- 5.5, shadowed cells are for non-existing forms.

The data of the Classical Greek EN were drawn from Classical Greek grammars (Schwyzer 2002, Asonitis & Anagnostopoulos n.d., Mpaxarakis 2003, Moumtzakis 2007) dictionaries Liddell & Scott (1940). More data were collected from corpus searches at Perseus Digital Library¹⁹ and Thesaurus Linguae Graecae²⁰.

5.1.2.1 Tense and mood marking of the complements of emotive doxastics with EN

As we can see from table 5.2 below, the sentential complements of emotive doxastics can be marked for any mood (Indicative, Subjunctive, Optative) and for any Tense (Present, Past, Future).

So far, the literature of EN was focused on Romance languages and, therefore, two explicit or implicit assumptions were made: EN is not available with infinitives (as it is with Romance languages) and was only available in Subjunctive Complements.

¹⁸The counterfactual particle *an* is the particle that traditionally is called "potential" *an*.

¹⁹perseus.tufts.edu

²⁰tlg.uci.edu

The Classical Greek data, as summarized in Table 5.2, provide evidence against both of these assumptions: EN is compatible with any mood marking and infinitives. Actually, infinitives may be articulated 50 or not 51.

- (50) phobeisthai to me:te epenegkein
 fear.V.Inf.Prs.MP the.D.n.Acc. NEG.[-Ind]-and bring-upon.Pst.Prfv.Inf
 pseude: timo:rian
 wrongful punishment.
 ...to dread bringing upon him a wrongful punishment Plat. *L.* 12.943d
- (51) oute he: parousa eudhaimonia pareschen oknon me:
 NEG.[+Ind]-and the present happiness provide fear NEG.[-Ind]
 elthein es ta deina
 come.Pst.Prfv.Inf to the danger
 nor the existing prosperity could dissuade them from affronting danger Thuc.
 III 39,3

In the above examples, both infinitives bear past tense however they have a future/irrealis perfective interpretation. Their tense is dependent therefore.

What is more, the classical Greek data are important for one more reason: EN has been thought so far as connected (or licensed) by non-veridicality (Yoon 2011, Espinal 2000). Indeed, in Classical Greek, if EN appears in Subjunctive complements (any Tense) or —more rarely— in Future indicative complements, the thing feared is assumed to be future: in other words non veridical. However, Present or Past Indicative complements in classical Greek are used after emotive doxastics, too, and in that case the complement of the emotive doxastic predicate refers to an existing situation, namely a veridical situation. Actually, this past interpretation of the morphological past corroborates that the Tense of these clauses is independent.

To summarize the data above, ClGr complements of emotive doxastics bear either dependent or independent tense and can have any mood specification. The examination of the Classical Greek data, therefore, provides evidence against the previously thought direct links between EN and non-veridicality on the one hand, and EN and Subjunctive on the other.

5.1.2.2 Tense and mood marking of the complements of dubitatives

Similarly to the complements of Classical Greek emotive doxastics, dubitatives, namely verbs that denote epistemological doubt like *doubt*, *suspect*, etc., allow EN in their complements. The following table summarizes the tense and mood properties of the sentential complements of these verbs.

Again, EN is not licensed exclusively in Subjunctive clauses, and can be marked for Present, Past or Future.

- (52) ...an tis ...apistoie: me: genesthai ton stolon tosouton hoson
 if somebody disbelieve NEG be.Pst.Pfv.Inf the navy that-big as-big
 hoi poie:tai eire:kasi
 the poets say.Prs.Prf
 If somebody disbelieved that the navy was as big as the poets have said.
 Th.1.10
- (53) apistountes auton me: he:ksein
 disbelieve.Prs.Partcpl.PL him.Pr. NEG come.Fut.Inf.
 not believing that he would come. Th. 2.101

	IND/VE	SUBJ/VE	OPTATIVE	INF/VE
PRESENT		+	+	+
IMPERF/VE PAST				
AORIST/ PERFECTIVE PAST				+
FUTURE				+
PRESENT PERFECT				+
PAST PERFECT				

Table 5.3: Tense and Mood Marking of EN-Complements of Dubitatives (ClGr)

	IND/VE	SUBJ/VE	OPTATIVE	INF/VE
PRESENT	+	+		
IMPERF/VE PAST	+			
AORIST/ PERFECTIVE PAST				
FUTURE	+			
PRESENT PERFECT	+			
PAST PERFECT				

Table 5.4: Tense and Mood Marking of EN-Complements of Interrogatives (ClGr)

In the above sentences the morphological tense of the infinitive corresponds to its semantic tense. Taking also into account the free tense alternation (all possible tense forms of the infinitive are attested) it is evident that the sentential complements of dubitatives in ClGr are not exclusively in Subjunctive and bear independent tense.

5.1.2.3 Tense and mood marking of the complements of interrogative predicates

Interrogative Verbs take also complements with EN.

The free alternation of the indicative forms indicates that the embedded clauses have independent tense. This is also verified by the temporal interpretation of the morphological alternations:

- (54) hora ... , me: katthano:n
 see...NEG dying.Pcp.Aor.II.SG.Nom you brother.SG.Nom.
 se suggonos lele:th' hode
 escape-notice.3SG this.Nom.SG
 see whether your brother has not died without your knowing it; Eur. *Or.* 209
- (55) phrontizo: me: ariston e:i eksandrapodisasthai
 examine.Prs.1SG NEG best is.SBJ.3SG.Prs enslave.Pst.Psv.Inf.

	IND/VE	SUBJ/VE	OPTATIVE	INF/VE
PRESENT	+	+	+	+
IMPERF/VE PAST	+			
AORIST/ PERFECTIVE PAST		+		+
FUTURE				(+) ²¹
PRESENT PERFECT				+
PAST PERFECT				

Table 5.5: Tense and Mood Marking of EN-Complements of Negative Predicates (ClGr)

spheas

them.Acc.

I examine whether it is better to enslave them. Hdt. 1.155

- (56) skopeite me: doke:sin eichet' ek theo:n
 consider NEG fancy have.Ind.Pst.Imp.2PL by gods.Gen.
 Consider whether you had some fancy, sent by the gods Eur. Hel. 119

5.1.2.4 Tense and mood marking of the complements of negative predicates

Again, EN is licensed in complements of Negative Entailing verbs like refuse, prevent, etc. (for a detailed list of the predicates the reader is referred to Appendix.

Again, infinitives might be articulated like in 57-58 or not.

- (57) e: 'ksomei to me: eidenai?
 or forswear the NEG know.Inf.Prf.Act.
 will you forswear all knowledge of it? Soph. Antig. 537
- (58) pas gar askos du' andras heksei tou me:
 every PCL.because skin two men keep the.Gen.SG.neut NEG
 katadunai
 sink.Inf.Aor
 for every skin will keep two men from sinking Xen.Anab. 3.5.11

If it is not an infinitival clause, the embedded clause may be introduced by me: or hopo:s me, as in ref51

- (59) emoige ape:goreues hopo:s me: apokrinoime:n
 me.Dat forbade.Pst.Imp.2SG (so-)that NEG reply.Opt.Prs.1SG
 you forbade me to give that answer. Plat. R. 339a

²¹In 7 *ktanein* (kill.INF) is the form both of the future and the past infinitive.

- (vii) ei eschon me: ktanein
 if forebore.Pst.Pfv.1SG NEG kill.Inf.
 If I forebore to kill her... Eur. *Andr.* 686

Without a more extended corpus study it is unsound to decide whether this form is a dependent past infinitive that denotes perfective aspect or an independent future infinitive. However, the non-occurrence of other future infinitives might indicate that it is a past(aorist) one.

What it should also be noted is that it is not only *me*: (NEG,[-Indicative]) that can be used expletively, but also *ouk* (NEG, [+Indicative]):

- (60) Ho:s ouk ekeinos egeo:rgei te:n ge:n, ouk e:dunato
 that NEG.+Ind. him cultivate the land NEG.+Ind. can
 arne:the:nai
 deny.Inf.Psv.Aor.
 as to his tilling the land, the fact was too plain to be denied. . . Dem. 30,27

Again, EN complements of negative predicates pattern similarly to the sentential complements of the other three verb classes: EN is not necessarily licensed in Subjunctive complements and it can also be licensed in non-finite embedded CPs.

In sum, in this section I showed that ClGr allows EN in the complements of four different verb classes. In none of these verb classes does the complement have to be specified for Subjunctive. Even EN itself does not need to be the negative marker that is marked for [-Indicative], i.e. *me*: (NEG[-Ind.]). A more striking difference of ClGr if compared to Romance or other languages that have been discussed in the past with respect to EN is that in ClGr EN is also grammatical in infinitival CPs. In all these cases, the tense of the embedded clause is either independent or dependent, but never anaphoric.

5.1.3 Latin

As shown in section 2 (Table 2.1) Latin is also a language that EN is licensed in embedded clauses. Similarly to Modern Greek *min*, the non-indicative negation *ne* (NEG), apart from being used in negative imperatives, it is a complementizer that can introduce an embedded clause. After certain semantic classes of predicates (emotive doxastics, dubitatives and negative predicates) the *ne*-clause does not convey a negative meaning. In addition to *ne* (NEG.SBJ), Latin has a second negative complementizer that can be used expletively *quin* ((lest)>that-NEG). A clause introduced by expletive *quin* (lest) is selected by certain classes of predicates, largely overlapping with those selecting *ne*: emotive doxastics, interrogative predicates, negated dubitatives and negated negative entailing verbs.

In order to express a "negative" fear Latin uses a negated embedded clause introduced by *ne non* (EN NEG). The pairs in (53) and (54) with embedded clauses introduced by *ne* (NEG) and *quin* (lest) show why these complementizers should be classified as negative in the first place and that they are expletive if the embedded clause is selected by the aforementioned predicates.

- (61) a. Moneo ne faciatis
 urge.1SG.Prs NEG do.SBJ.PRS.2PL
 I urge you not to do it. Cic. *Rab. Post.* 18
 b. Vereor etiam ne durior sim
 fear.1SG. too NEG hard.Adj.Compar. am.Prs.Sbj.
 I am afraid of being too demanding Cic. *Ad. Q. fr.* 1.1.17
- (62) a. numquam tam male est Siculis quin aliquid facete et
 never so bad is Sicilian so-that-not something politely and
 commode dicant.
 appropriately speak
 There is nothing so bad for Sicilians, so that they do not say something
 with politeness and appropriateness. Cic. *Ver.*2.4.95

- b. Non possumus quin alii a nobis dissentiant recusare
 NEG can lest other to us disagree refuse
 We cannot deny that others are in disagreement with us... Cic. *ac.* 2.7

In contrast with (61-b) and (62-b), in (61-a) and (62-a) the complementizers introduce a negative operator in the embedded clause. These minimal pairs show that *ne* and *quin* in the (61-b) and (62-b) examples are instances of EN.

In the following sections, I present the selectional properties of four semantic classes that select apart from interrogative clauses, EN finite clauses introduced by *ne* (NEG) and *quin* ('lest' that-NEG). EN sentential complements have always dependent Tense.

5.1.3.1 Tense and mood marking of the complements of emotive doxastics with EN

Verbs that denote *fear* in Latin may take as their complements clauses introduced by *textitne*+Subjunctive if there is fear that something might happen and *ut/ne non*+Sbj if there is fear that something might not happen (the latter form is preferred if the matrix predicate is negative). Under some verbs, e.g. *metuo* (fear) we can also find sentential complements introduced by *quin* or interrogative complements introduced by interrogative pronouns (e.g. *quid* what).

Between Latin and ClGr there is a significant difference: even though, both languages allow infinitives as complements of emotive doxastics, EN is incompatible with Latin infinitives. Infinitival complements differ in their interpretation in a similar way that MG EN complements differ from the Subjunctive *na*-complements: the EN sentences denote fear for the possibility that something might happen whereas infinitival complements in Latin and Subjunctive Complements in Modern Greek denote a fear *to do* something ²².

With respect to Tense, EN clauses obey the Latin Sequence of Tenses as shown in table 5.6, below:

As it is evident from table 5.6, the SoT in Latin actually denotes aspectual distinctions. It is evident therefore, that Latin EN clauses bear dependent Tense.

²²The infinitival complements of these predicates are always in Present Tense and do not allow EN. This lack of tense variability could indicate that these untensed infinitival forms are VPs, as was proposed by Cecchetto & Oniga (2002) (C&O) for untensed controlled infinitives. Yet, there are impersonal expressions like *metus est*, *timore est* (there is fear) which can take as their complements, apart from EN and interrogative finite clauses, Accusativus cum Infinitivo (AcI) infinitives.

Given that licensing of AcI both in Latin and Classical Greek has been connected to an active semantic Tense (C&O 2002 for Latin; Spyropoulos 2005 for ClGr a.o.) and the CP status of the infinitival clauses (cf. C&O 2002 for Latin; Spyropoulos 2005, Sevdali 2006 for Classical Greek). More specifically, C&O (2002) argue against a uniform treatment of Latin Infinitival clauses as CPs and divide them into two classes: the CP-infinitives, that inflect for tense and can have an overt subject (AcI) and the VP-infinitives, that they are always in present tense and have PRO subjects. The question whether Latin infinitives are uniformly CPs or not, even though it would give us a better view of why EN is not licensed in infinitival complements but only in embedded clauses, is a thorny issue and dealing with it lies far beyond the scope of this thesis.

These facts seem to undermine the generalisation put forward in this thesis, namely that EN is licensed in CPs with (in)dependent Tense. The prediction of this generalisation would be that Latin should have infinitival clauses with EN, like ClGr. Yet, it is important to note here that (a) Latin does not have infinitival complementizers at all (ClGr does) and (b) that the infinitival complements of the predicates we are discussing are never negated (even with a 'Real' Negation).

These facts might indicate that CP-status and non-anaphoric Tense are necessary but not sufficient conditions for EN licensing. It is also possible, however, that the lack of EN infinitives to be related to the selectional properties of the EN complementizers and the general lack of infinitival complementizers in Latin. I leave to future research further investigation of these constructions.

Matrix Tense	Tense of the Embedded SBJ Clause		
	CONTEMPORANEOUS	PRAETERITE	
-PAST	Praesens [-Pst, -Pfv]	Perfectum [-Pst, Pft]	Futurum (Fut. Pcpl + be.[-Pst.-Pfv]) <i>amem</i> <i>ameverim</i> <i>amaturus sim</i>
	Imperfectum [+Pst, -Pfv]	Plusquam- perfectum [+Pst, Pft]	Imperfectum Conjugatio Periphrastica (Fut. Pcpl + be.[+Pst.-Pfv]) <i>amarem</i> <i>amavissem</i> <i>amaturus essem</i>

Table 5.6: Latin Sequence of Tenses

5.1.3.2 Tense and mood marking of the complements of dubitatives

Predicates that denote doubt take as their complements either embedded interrogatives (introduced by interrogative pronouns or interrogative particles) or infinitival complements²³. Only if dubitatives are negated then they can embed an EN clause introduced by *quin*. Again, these clauses are in subjunctive and follow Latin SoT as illustrated in Table 5.6 above.

5.1.3.3 Tense and mood marking of the complements of interrogative predicates

Questions embedded under interrogative predicates may be introduced by the EN particles that introduce direct questions (*-ne, nonne*) or sometimes (after *quaero* (ask)) by *quin*. These embedded clauses are also in the Subjunctive and follow the Latin SoT, exemplified in Table 5.6 above.

5.1.3.4 Tense and mood marking of the complements of negative predicates

As in dubitatives, a clause introduced by *quin* with Subjunctive can be the complement of negated verbs denoting *refuse, hinder, etc.* However, if the verb is not negated, they may take a complement clause introduced by Expletive *ne*. Again, they are in Subjunctive and follow SoT as the rest of Latin Subjunctive embedded clauses:

- (63) *plura ne dicam tuae me lacrimae impediunt.*
 more NEG say.SUBJ your me tears hinder
 your tears prevent me from speaking further. Cic. *Planc* 104

To sum up, in this section I showed that Latin has two EN complementizers that select for a Subjunctive Finite Clause with Dependent Tense. In that respect, Latin data pattern with Romance languages, such as French and Spanish that are presented in the following sections. Table 5.7 below summarizes the environments where each complementizer is selected.

²³Similarly to emotive doxastics, in impersonal expressions like *(non) est dubium* (there is no doubt) infinitives are always in Present Tense, AcI is allowed but EN is ungrammatical.

ne	quin
emotive doxastics	emotive doxastics
dubitatives	negated dubitatives
negative predicates	negated negative predicates
	interrogative predicates

Table 5.7: EN complementizers under attitudes in Latin

5.1.4 French

In French only three classes of predicates license EN: emotive doxastics (especially those predicates meaning *fear*), negated dubitatives and negative verbs. These verbs select for an infinitive in cases of subject control and a subordinate clause with Subjunctive in obviative cases. EN can only appear in the Subjunctive Complements and that was one of the reasons why Subjunctive mood was so far thought as a prerequisite for EN licensing. In the light of the data examined above, I propose that the positive correlation between Subjunctive and EN is an epiphenomenon of the common dependency on non-anaphoric tense.

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Iatridou (2000) claims that French used to have a Past Subjunctive that was lost from the language. As a result, the language was left with two choices, namely Past Indicative and 'plain' Subjunctive. Therefore, in the two environments where French used to employ Past Subjunctive it now employs either the surviving untensed Subjunctive or Past indicative. Under dubitatives, therefore, French retains *dubitative Subjunctive*, which according to Iatridou is an agreement phenomenon as it only reflects that the predicate has placed that proposition outside of the beliefs of the speaker. On the other hand, in Counterfactuals French retained the Past Feature, namely past indicative²⁴. However, if this is the case, how can the generalisation that EN is dependent on non-anaphoric Tense be retained? Does this mean that French does not conform to the pattern consistently observed so far in Modern Greek, Classical Greek and Latin?

The answer is simple. EN after dubitatives is only found in very formal registers of French. In that variety of French, Subjunctive is also marked for Tense. If this is the case, we predict that in earlier stages of the language, when French had Past Subjunctive, EN would also be used. Indeed, this prediction is borne out²⁵:

- (64) Oui, je ne doute point que l' hymen ne vous plaise.
 Yes I NEG doubt NEG that the hymen NEG you forbid
 Yes, I have no doubt that the hymen forbid you. (Molière 1662, *l'École des femmes*, Acte II, scène 5)²⁶.

²⁴Iatridou (2000) argues that Past is actually an ExclF.

²⁵Data taken from: www.etudes-litteraires.com/grammaire/indicatif-subjonctif.phpixzz2jbZUb521
 Last accessed 3/11/2013

²⁶<http://clicnet.swarthmore.edu/litterature/classique/moliere/ef/ef.II.5.html>

- (65) je ne doutais point que vous n' y répondissiez honnêtement.
I NEG doubt point(NEG) that you NEG CL reply.Pst.SBJ honestly
- I did not doubt at all that you would reply honestly. Manon Lescaut, 1731
- (66) Je ne doute point que mes visites fréquentes vers ce puits n'
I NEG doubt point.NEG that my visits frequent to that well NEG
aient été remarquées.
have.SBJ.PST be.Pcpl spotted
I have no doubt that my frequent visits to this well have been noticed, (Diderot, 1780 *La religieuse* :46) ²⁷
- (67) Je ne doute pas qu' il ne m' ait entendu
I NEG doubt NEG that he NEG me have.SBJ heard.Pcpl
I have no doubt that he has heard me (Choderlos de Laclos 1782, *Les Liaisons dangereuses*, lettre 74)
- (68) je ne doutais pas que s' il les eût soupçonnés il ne se
I NEG doubt NEG that if he them had suspected he NEG RFX
fût repenti de son jugement à mon égard comme d' une
be.PST.SUB repented of his judgement at my respect as of one
erreur judiciaire!
error judiciary
I do not doubt as if He Had it Would Have Suspected repented of His judgment against me as an error judicial (Proust : 1919, *À l'ombre des jeunes filles en fleurs*).
- (69) Il est probable que le Roi voulait temporiser avec l' Assembly et
it is probable that the King wanted temporize with the Assembly and
avec Paris jusqu' à ce que les armées étrangères fussent
with Paris until at that that the troops foreign be.PST.SBJ
arrivées dans la capitale, car personne ne doutait à la Cour qu'
arrive.PCPL in the capital as nobody NEG doubt in the Court that
elles n' y arrivassent aisément.
they NEG there arrive easily
It is likely that the King wanted to temporize with the Assembly and Paris until foreign troops were arriving in the capital, because nobody doubted in the Court that they should arrive there easily (Sallier 1813, *Annales françaises*, livre 5, page 99)²⁸

In this section, I examined whether French actually conforms to the generalisation put forward in this chapter, namely that EN is only licensed in clauses with non-anaphoric Tense. Indeed, French could challenge this generalisation as it licenses EN in subjunctive complements but its Subjunctive has lost its Tense specification in modern language. I argued however, that EN is actually a construction that is only found in high registers, exactly the variety of language that we can still find tensed Subjunctive Clauses. Corroborating evidence to this correlation was provided by diachronic data, where EN constructions were still (more) productive and so it was tensed Subjunctive.

²⁷<http://fr.wikisource.org/wiki/Page:Diderot—%C5%92uvres-compl%C3%A8tes,-%C3%A9d.-Ass%C3%A9nat,-V.djvu/56>

²⁸<http://www.etudes-litteraires.com/grammaire/subjonctif-plus-que-parfait.phpixzz2jc22XDJn>
last accessed 3/11/2013

5.1.5 Spanish

Spanish is a non-strict negative concord language. Spanish is special amongst the languages examined so far, as it is not only sentential negation that can be interpreted expletively: a preverbal n-word can also be interpreted as a weak NPI, a phenomenon named by Espinal (2007) as Extended Expletive Negation (EEN); this will be discussed in 5.1.5.2. What should be highlighted at this point is that a preverbal n-word is equivalent of English *nobody, nothing*, etc. For example in an embedded clause complement of *know* the n-word contributes sentential negation as it would be expected:

- (70) Sé que nadie sabe la solución
know that nobody knows the solution
I know that nobody knows the solution.

As we will see in the following sections Spanish allows EN under emotive doxastics and EEN under dubitatives and negative predicates.

5.1.5.1 Tense and mood marking of the complements of emotive doxastics with EN

The complement clauses embedded under predicates meaning fear can be introduced either by the declarative marker *que* (that) or the expletive marker *no* (NEG).

- (71) Temo no le haya sucedido alguna desgracia
fear NEG CL have.SBJ happen.PCL some misfortune
I am worried (s) he may have suffered some misfortune (Butt & Benjamin 2011)
- (72) Temia miedo no le/lo vieran desde arriba
have fear NEG CL see.Imp.Sbj.3Pl from above
He was afraid that they would see him from above. (Butt & Benjamin 2011)

The *fear*-complements are in Subjunctive but not necessarily present Subjunctive. As it is evident from the perfect subjunctive in 71 and the imperfect subjunctive in 72, *fear*-complements in Spanish bear dependent Tense.

As far as the interpretation of expletive *no* (NEG) in Spanish is concerned, Butt & Benjamin (2011:259) note that “the use of the redundant *no* (NEG) instead of *que* (that) after *temer(se)* changes the meaning: the subjunctive is then obligatory”. The triplet they provide to illustrate the above point is reproduced in 73:

- (73) a. Temo que no te va a gustar [que + Real Negation + Sbj]
Fear that NEG you go at like
I am afraid you are not going to like it
- b. Temo no te vaua a gustar demasiado [EN + Sbj]
fear NEG you go.SBJ at like too-much
I am afraid in case/lest you are going to like it too much.
- c. Temo no te vauas a enfadar [EN + Sbj]
fear NEG you go.SBJ at annoy
I am afraid in case/lest you get cross.

The difference in meaning between the EN complementizer *no* and the declarative complementizer *que* (that) in Spanish is parallel to the difference in meaning between the EN and the non-EN complementizer we observed in Modern Greek (5.1.1). This corroborates that EN negation should have a uniform treatment not only within but also out of the Romance family, contra the speculations by Abels (2005:66).

5.1.5.2 Tense and mood marking of the complements of dubitatives and negative predicates

As already mentioned in the beginning of 5.1.5 Spanish exhibits EEN. Even though the complementizer *no* is not used as in fear-complements, a negative word in preverbal position is interpreted as a weak-NPI (compare with 70 above, where the n-word also negates the clause). Given that Spanish is a non strict negative concord language this is not expected:

- (74) a. Dudo que nadie sepa la solución.
 Doubt that nobody knows the solution
 I doubt that anybody knows the solution. (Espinal 2007:50)
- b. Dudo que sepa nadie la solución.
 Doubt that knows nobody the solution
 I doubt that anybody knows the solution. (Espinal 2007:50)

The same holds with expressions that involve denial, abstention, or impossibility, namely predicates that we had so far included in the class of negative entailing predicates:

- (75) Se negó siquiera a hablar a nadie de la emisora.
 he refused even to talk to noone of the radio-station
 He even refused to talk to anyone from the radio station. (G. Cabrera Infante, Cu. cited by Butt & Benjamins 2011)

Even though this might seem unexpected, especially if we compare 70 with 74 above, it is actually predicted if we assume Biberauer & Roberts's (2011) analysis of Negative Concord. They assume that, in a non Strict NC language like Italian, in case an n-word is in preverbal position, the nonveridical features of C that would otherwise be donated to the sentential negator are finally realised by the D of the n-word which contains a negative existential. What is of interest here is that an n-word can have the same semantic contribution as sentential negation if it is in the appropriate syntactic configuration. Therefore, we actually expect that in a non-strict NC language with EN, like Spanish, a preverbal n-word to be interpreted 'expletively' in EN contexts, as the sentential negator would do ²⁹

In sum, Spanish *fear*-complements have EN whereas dubitatives and negative entailing verbs (E)EN. The complements are always in subjunctive mood and bear dependent Tense.

²⁹Biberauer and Roberts (2011) also highlight that italian n-words can have a non-negative interpretation in other polarity-licensing contexts (Rizzi 1982, 122) even in preverbal position:

- (viii) Mi chiedo se nessuno abbia contattato Gianni.
 Myself I-ask if anyone have.SBJ contacted Gianni
 I wonder whether anyone has contacted John.

N1-verbs		N2-verbs	
<i>hitnazer</i>	(abstain)	<i>nizhar</i>	(careful)
<i>nimna</i>	(refrain)	<i>nismar</i>	(watchful)
<i>acar</i>	(stop)	<i>hit'apek</i>	(restrain oneself)
<i>mana</i>	(prevent)		
<i>manua</i> [adj.]	(prevented)		
<i>hitxamek</i>	(avoid)		
<i>nirta</i>	(flinch)		
<i>heni</i>	(dissuade)		
<i>xadal</i>	(stop, cease)		
<i>histamet</i>	(shirk)		

Table 5.8: N1 and N2 verbs (Landau 2002)

	N1	N2
Alternation of <i>me-/lo/∅</i> ³⁰	<i>me-/lo/∅</i>	<i>me-/lo/*∅</i>
Does it have positive entailments?	No	Yes, only if without <i>me</i>
Can it take finite complements?	No	Yes
Can a negated complement be introduced by the complementizer <i>se-</i>?	No	Yes

Table 5.9: Asymmetries between N1 and N2 verbs (Landau 2002)

5.1.6 Hebrew

Landau (2002) identifies two classes of Negative Verbs in Hebrew that can select clauses introduced by the infinitival negative complementizer *me-* as their complements. The two classes of verbs (an indicative list of each is given in table 5.8) present the asymmetries summarized in table 5.9 below:

Landau proposes that N1-verbs select for a complement with a valued Neg feature on the embedded C whereas N2-verbs select for a complement with an unvalued Neg feature. In the system he assumes "the term *unvalued* does not necessarily imply a potential multiplicity of values (as in φ -features) but merely a formal feature 'stripped' of its semantic content" (Landau 2002, 479). However, as I will show below, the empirical picture does not verify his proposal: the complementizer *me-*, if selected by an N1 verb, is stripped of its content (in other words it is expletive) whereas, if selected by an N2 verb, it changes the polarity of the complement. Examples (76-a) and (76-b) (Landau's (25-a) and (25-b) respectively) show that *me*-clause under an N1 verb has the same polarity as a 'bare' infinitival clause, whereas under N2 verb it has the same polarity with a negated clause³¹

³⁰*lo-* (NEG) in Hebrew

³¹*Me* is glossed by Landau as "from" as the equivalent of the English infinitival complementizer and like the homophonous Hebrew preposition. However, Landau (2002) states clearly that *me* is a negative complementizer 9. This is also evident from the free alternation with sentential negation *lo* under N-verbs as well as from the fact that under N2 verbs *me* "from" invokes negative entailments.

(ix) Lexical entry for the complementizer *me-*:
Phonology: /me/, /mi/
Morphology: bound morpheme

- (76) a. Gil nimna me-/∅ leha'aliv et Rina. (N1-verb)
 Gil refrained from/∅ to-insult ACC Rina
 Gill refrained from insulting Rina.
 b. Gil nizhar me-/lo leha'aliv et Rina. (N2-verb)
 Gil was-careful from/NEG to-insult acc Rina
 Gill was careful not to insult Rina.

Even with a negated infinitive, the pattern is the same consider sentences in 77 (Landau's (29)):

- (77) a. Gil nimna (me-) lo le'exol kašer. (N1-verb)
 Gil refrained (from-) not to-eat kosher
 Gil refrained from not eating kosher → Gil ate kosher
 b. Gil nizhar me-lo le'exol kašer. (N2-verb)
 Gil was-careful from-not to-eat kosher.
 → Gil ate kosher.
 c. Gil nizhar lo le'exol kašer. (N2-verb)
 Gil was-careful not to-eat kosher
 → Gil did not eat kosher

As we can see, in (77-a) with the N1 verb, the polarity of the embedded clause is not affected by the presence of *me-*. We draw the same conclusion if we also compare (76-a) and (77-a). On the other hand, under an N2 verb, *me-* changes the polarity of the embedded clause. This is shown both with the free alternation with sentential negation in (76-b) but also with the 'cancelling' of the negation in (77-b).

A possible explanation to this pattern would be that N1 verbs do not select a clause introduced by the negative complementizer *me-* but the homophonous preposition *me-* (from). As Landau convincingly shows, however, *me-* clauses present distinct properties from *me-* prepositional phrases³². Therefore, since *me-* under N-verbs is not a preposition but a complementizer, we are actually facing another instance of Expletive Negation.

Hebrew is the second language we have seen so far that allows EN in infinitival clauses. As was shown before, ClGr infinitives allow EN whereas Romance and Latin infinitives do not. Hebrew infinitives are similar to ClGr infinitives in that they allow EN but they are different from them in that they do not morphologically inflect for Tense. The question that arises therefore is whether we can maintain the generalisation that Tense has a key role in EN licensing. The answer is yes.

Hebrew infinitives, and particularly if complements of N1 verbs, can license their own subject. As Landau points out, the fact that the DP following *me* (EN) is not a complement of the preposition but a subject in [Spec,TP] is evident from the fact that the *me*-DP sequence cannot be moved. Landau's (2002: 469) examples are copied in 78 and 79 below:

- (78) a. Ha-bikus ha-acum mana me-ha-mexirim laredet.
 the-demand the-huge prevented from-the-prices to-fall
 The huge demand prevented the prices from falling.

Syntax: C⁰

Semantics: propositional negation ($\lambda p. \neg p$) (Landau 2002, 474,(22))

³²For the full discussion of the asymmetries between *me-* complements of N(1/2)-words and *me-* prepositional phrases the reader is referred to the original paper, especially section 2.

- b. Ha-kaba'im man'u me-ha-es le'hitpaset.
 the-firemen prevented from-the-fire to-spread
 The firemen prevented the fire from spreading.
- (79) a. *Mi-ma ha-bikus ha-acum mana laredet?
 from-what the-demand the-huge prevent to-fall
 What did the huge demand prevent from falling?
- b. *Mi-ma ha-kaba'im man'u le'hitpaset?
 from-what the-firemen prevent to-spread
 What did the firemen prevent from spreading?

Therefore, the *me*-infinitival clauses are parallel to English ECM constructions which have dependent tense (cf. Landau 2004, especially the discussion on pp. 860-862).

Taking also into consideration that ECM clauses are assumed to have dependent Tense we can conclude that Hebrew *me*-infinitival clauses do not have anaphoric tense, in spite of their morphological invariability. This is consistent with the analysis assumed so far, as the proposed correlation between Tense and EN refers to semantic tense, not morphological one. Variability in the morphological Tense can be an indication of an active tense operator however its absence is not absence of a tense operator. Taken the aforementioned facts into account, Hebrew EN embedded clauses conform with the rest of the existing EN embedded clauses in that their semantic tense is non-anaphoric.

5.1.7 Russian

Russian allows EN in complements of predicates that denote fear or scarcely doubt. In that case the subjunctive marker *-by* (MOD/SBJ) follows the complementizers *kak* (*how*) / *čto* (*that*) and the verb is always perfective.

- (80) ja bojus' kak by on ne razbil mašinu
 I fear how MOD he NEG break.Past.Prf car.Acc
 I fear that he might break the car. (N. Radkevic p.c.)

In obviative environments the verb is in the past, otherwise the perfective infinitive is used. It should also be mentioned that in Russian if the Subjunctive marker is absent then negation cannot be interpreted expletively, in that case it would be a 'real' negation.

5.1.7.1 Tense and mood marking of the complements of emotive doxastics(fear) with EN

The fact that an invariable verb form (PAST.PERFECTIVE) is used in Expletive Negation embedded clauses could be a potential challenge for the generalization proposed in this thesis, that EN is licensed only in embedded clauses with non-anaphoric Tense. However, the fact that the matrix and the embedded clause can have disjoint time reference and be modified by past and nonpast temporal adverbials indicates that the embedded clause has its own tense domain which is distinct from that of the matrix clause. Therefore, EN embedded clauses in Russian, regardless of their morphological Tense invariability, have independent Tense.

- (81) Včera oni bojalis'.PST kak by mafija ix zavtra ne
 Yesterday they feared how MOD mafia them tomorrow NEG
 našla.
 find.PSt.PRF
 Yesterday they feared that tomorrow he might find them (N. Radkevic p.c.)
- (82) Včera ja bojalas' kak by zavtra ne opozdal na poezd.
 yesterday I fear how MOD tomorrow NEG be.late.PST.PRF on train
 Yesterday I feared that tomorrow I will be late for the train (N. Radkevic p.c.)
- (83) Včera oni bojalis' kak by im zavtra ne
 yesterday they fear how MOD them tomorrow NEG be-late.inf.perf.
 opzdat' na poezd.
 on train
 Yesterday they feared that they might miss the train. (N.Radkevic p.c.)

5.1.7.2 Tense and mood marking of the complements of dubitatives

Even though not with *doubt* itself, predicates that bear some kind of uncertainty about the truth of their propositional complement can also have an EN complement. Again, the two different temporal adverbials in the matrix and the embedded clause (present, future) indicate that the sentences bare non anaphoric tense:

- (84) Teper' oni podozrevajut kak by on ix zavtra ne
 now they suspect that MOD he them tomorrow NEG
 obmanul.
 deceive.PST.PERF
 Now they suspect that he might deceive them tomorrow. (N. Radkevic p.c.)
- (85) Ja dumaju kak by Ivan ne okazalsja ubijcej.
 I think how MOD Ivan NEG turn.out.PST.PRF murderer
 I think that Ivan may turn out to be a killer. (N. Radkevic p.c.)

To summarize the Russian data, EN is licensed in sentential complements of emotive doxastics and dubitatives. The embedded clause is finite (Subjunctive) in cases of obviation or infinitival if the embedded subject is coreferential with the matrix subject. Modification of the matrix and the embedded clause by distinct temporal adverbials that the embedded clause defines its own Tense domain and it has Free Tense.

5.2 Licensing Conditions of EN I: EN is licensed in CPs with non-anaphoric Tense

In 5.1 I presented data from Modern Greek, Classical Greek, Latin, French, Spanish, Hebrew and Russian and showed that EN is licensed in a variety of clauses which have a common property: they have a tense domain separate from that of the matrix predicates, in other words they do not have anaphoric Tense. The data are summarized in the following tables: Table 5.10 summarizes the temporal properties of the examined embedded clauses and Table 5.11 their mood. Again, shadowed cells indicate the EN is ungrammatical in these environments.

Previous analyses which connect EN with Mood and especially Subjunctive would have several problems to explain the above data. First of all, by examining languages

	Emotive Doxastics	Dubitatives	Interrogatives	Negative Predicates
Modern Greek	Free	Free	Free	
Classical Greek	Free Dependent	Free	Free	Free Dependent
Latin	Dependent	Dependent	Dependent	Dependent
French	Dependent	Dependent		Dependent
Spanish	Dependent			
Hebrew				Free
Russian	Free	Free		

Table 5.10: Tense Distribution of EN complements

	Emotive Doxastics	Dubitatives	Interrogatives	Negative Predicates
Modern Greek	Indicative	Indicative	Indicative	
Classical Greek	Indicative Subj/ve Optative Infinitive	Subjunctive Optative Infinitive	Indicative Subjunctive	Indicative Subjunctive Optative Infinitive
Latin	Subj/ve	Subjunctive	Subjunctive	Subjunctive
French	Subj/ve	Subjunctive		Subjunctive
Spanish	Subj/ve			
Hebrew				Infinitive
Russian	Subj/ve Infinitive	Subjunctive		

Table 5.11: Mood Distribution of EN complements

	ClGr	Hebrew	Russian	Latin	French	Spanish
Does the language have infinitival Cs?	Yes	Yes	Yes	No	No	No
Is the EN infinitive introduced by an overt C?	No	Yes	Yes	N/A	N/A	N/A
Categorial Status of the EN infinitival clause	CP	CP	CP	N/A	N/A	N/A
Categorial status of the infinitives in the language	CP	TP	TP	CP/VP	CP	CP
Can the infinitives license their own subject?	Yes	Yes	Yes ³³	(Yes)	No	No
Do the infinitives have their own tense domain?	Yes	Yes	Yes	(Yes)	No	No

Table 5.12: Comparative Table of infinitival complements

other than Latin and Romance, it is evident that EN is licensed not only in non-Subjunctive finite clauses but also in infinitives. This fact was circumvented by Yoon (2011) who argued for the connection of EN with notional (not morphological) mood: She argues that EN is a notional Subjunctive marker licensed by non-veridicality. However, as was shown in section 5.1.2.1, the previously unstudied ClGr data provide evidence against that as well: an EN sentential complement of a predicate denoting *fear* refers to a veridical situation if the embedded verb is in Indicative, especially Past. In the light of these new data, resorting to notional mood for to explain EN licensing is not tenable either.

So EN licensing has to be explained by capturing facts in two axes: the first one is intralinguistic variation: why EN is licensed for instance in Spanish Subjunctive clauses but not Spanish infinitives. The second one is crosslinguistic variation: why EN is grammatical with ClGr, Hebrew and Russian infinitives but not with Latin, French and Spanish infinitives. I will begin with the latter question because explaining crosslinguistic variation will give us an insight to intralinguistic variation too. So first, let us examine the properties of the different infinitives, summarized in Table 5.12:

The data as presented in Table 5.12 provide a clear-cut distinction between Romance infinitives on the one hand and ClGr, Hebrew and Russian on the other: while the former are obligatorily controlled CPs without a distinct Tense domain the latter are CPs that can license their own subject and have their own tense domain, i.e. free or dependent Tense. Even though this generalisation successfully captures almost all the languages examined in this thesis, it may not explain why EN is ungrammatical with Latin infinitives. The reason why this happens is related to the highly controversial structure of Latin infinitival clauses (cf. C&O 2002; Sevdali 2006 for an overview of the issues). Even though Latin infinitives are tensed and can license their own subject, as ClGr infinitives, their distributional properties are not identical with their ClGr

³³In 83 there is an overt infinitival subject that is coreferential with the matrix subject.

(non-EN) counterparts (cf. Sevdali 2006, esp. ch.5). So, if Latin infinitives which are complements of expressions licensing EN prove to be Tensed CPs, the prediction would be that they should be grammatical with EN. This prediction is not borne out, and there are two possible reasons for that: either the condition put forward in this thesis for non-anaphoric Tense is a necessary but not sufficient condition for licensing EN or this gap in the distribution is related to the selectional properties of Latin complementizers: all Latin complementizers, including the EN ones, select for finite clauses.

Having explained the EN licensing pattern observed across infinitival complements, the intralinguistic variation is predicted by the same condition: French, Spanish and Latin EN complements are CPs that define their own tense domain as they bear dependent tense (cf. Table 5.10 above). In 6 I will further argue that EN licensing is only indirectly related to mood selection: the reason why it correlates with Subjunctive in some languages is that the predicates that select for Subjunctive also select for EN.

5.3 Interim Summary

In this chapter I examined the distribution of EN in sentential complements in six languages: Modern Greek, Classical Greek, Latin, French, Spanish, Russian and Hebrew. New data drawn from ClGr and other languages provided evidence against the so far assumed causal link between EN and Subjunctive on the one hand, and EN and non-veridicality on the other. What is more, the consideration of the Classical Greek and Russian data along with the revised Hebrew EN demonstrated that EN licensing is not conditioned by finiteness either: ClGr, Hebrew and Russian EN is licit in infinitival clauses. The distinction between the infinitives that license EN and those that they do not lies on whether these infinitives have an active Tense operator or not. Infinitives with anaphoric Tense [-T] feature in Landau's system adopted here, are not licensed in EN complements, e.g. Romance infinitives. On the other hand, infinitives with a [+T] feature —i.e. infinitives with dependent or independent semantic tense— can license EN. The most robust case was Classical Greek, where semantic Tense has a morphological exponent (as ClGr infinitives inflect for Tense) but this was also evident in Russian and Hebrew infinitives. Russian and Hebrew infinitives, even though they are morphologically invariant, do not have anaphoric Tense as they can license an overt DP subject and they can be modified by temporal adverbs distinct from those modifying the matrix predicate. This asymmetry between the two classes of infinitives revealed a new correlation: EN cannot be licensed in sentences with anaphoric semantic Tense. This generalisation, apart from describing adequately the distribution of EN in sentential complements, will also function as an argument for the main proposal of this thesis, namely that EN is an epistemic modal.

Chapter 6

The Semantic Properties of Predicates Selecting EN

In the previous chapter I showed that EN is not licensed either by morphological or by notional Subjunctive and that it is only licensed in CPs which define their own Tense domain. Aim of this chapter is to examine the properties of the predicates that select for an EN complement. In the past, these predicates have been described as "verbs of fear . . . and verbs of doubt, which are all non-veridical with respect to the proposition expressed in the subordinate clause" (Espinal 2000, 61) "verbs or other lexical elements with 'negative import'" (Wouden 1994), "negative entailing . . . and weak implicatives in the sense of Pesetsky (1991)" (Landau 2002, 476, fn.11), "adversative predicates/fear-complements", "hope" and "dubitatives", "negative predicates licensing a negative implicature" (Yoon 2011). In chapter 5 I adopted this observationally adequate classification of the predicates without identifying further the common property underlying these predicates. In this chapter, I will demonstrate that what these predicates have in common is that they introduce propositional alternatives. Based on this I will further argue that the positive correlation between EN and Subjunctive observed so far does not involve a causal link between the two, but an epiphenomenon of their common selection by predicates that introduce sets (ordered) propositional alternatives.

In the next sections I will examine the semantics of each semantic class selecting EN complements by building on existing analyses: more specifically, in 6.1 I will slightly modify Anand & Hacquard's (2013) analysis of emotive doxastics and adopt that of dubitatives. In the next section I will show that what so far had been called as "interrogative predicates" actually split into two classes of question embedding predicates: the first one is rogative predicates and the second one are negated veridical responsive predicates. The former presuppose and the latter assert that the doxastic alternatives of the subject are both p and $\neg p$. Finally, based on evidence provided by White, Dudley, Hacquard & Lidz (n.d.) I propose that the rest of EN selecting predicates indeed form a single semantic class of 'negative predicates' that presuppose that the possible doxastic alternatives of the subject are both p and $\neg p$ but the predicate also asserts that p and $\neg p$.

6.1 Emotive Doxastics

In this section I will examine the semantics of predicates meaning *fear* or *hope*. These predicates fall into the class Anand & Hacquard (2013; A&H 2013 hereafter) call emotive doxastics. They are classified as such because of their hybrid nature: they present

doxastic alternatives of an attitude holder like doxastics do (e.g. *believe*) but they also involve a preference component like *desideratives/directives*, etc. Their hybrid nature is also reflected in epistemic modal licensing: emotive doxastics license possibility epistemics as doxastics do but they do not license necessity epistemics similarly to subjunctive selecting predicates.

A&H (2013) propose that the epistemic modal licensing can be explained by the hybrid semantics of emotive doxastics: they involve a representational component/doxastic assertion and an ordered set of doxastic possibilities/preference assertion. In that respect, they pattern with doxastics because of their doxastic assertion and with desideratives because of their preference component. *Fear* and *hope* only differ in the ordering of the doxastic alternatives. Necessity epistemics are not licensed in the scope of these verbs because of their incompatibility with the verbs' uncertainty presupposition.

The semantic formula of *fear*, following A&H's (2013) analysis, is illustrated below in 86

$$\begin{aligned}
 (86) \quad & \llbracket \text{fear}_C \text{ that } \varphi \rrbracket^{c,w,S,g} \\
 & \lambda x: \varphi\text{-verifiers in } S' \neq \emptyset \ \& \ \varphi\text{-falsifiers in } S' \neq \emptyset \quad \text{uncertainty cond.} \\
 & \text{If defined } = 1 \text{ iff} \\
 & \exists w' \in S' : \llbracket \varphi \rrbracket^{c,w',S',g} = 1 \wedge \quad \text{doxastic assertion} \\
 & \varphi\text{-verifiers } <_{Des_{\alpha,w}} \varphi\text{-falsifiers} \quad \text{preference assertion} \\
 & \text{where } S' = \text{DOX}_{\alpha,w} \text{ and} \\
 & \varphi\text{-verifiers in } S' = \lambda S'' . S'' \subset S' \ \& \ \forall S''' \subset S'' : [\forall w' \in S''' \llbracket \varphi \rrbracket^{c,w',S''',g} = 1] = \\
 & \text{Pow}(S' \cap p) \\
 & \varphi\text{-verifiers in } S' = \neg \varphi\text{-falsifiers in } S'
 \end{aligned}$$

In 86 above, S stands for an information state (Yalcin 2007), namely a body of knowledge or evidence of type $\langle s, w \rangle$. According to Yalcin, an attitude verb quantifies over a set of possibilities compatible with the attitude state and shifts the value of the information state parameter s to that set of possibilities. An embedded epistemic, then, quantifies over the shifted information state, namely the set of worlds provided by the attitude predicate. φ -verifiers and φ -falsifiers are information states settled about the content of φ . Therefore, A&H (2013) define an information state S' as a φ -verifier iff φ is true relative to S and all of its subsets. As is also shown in the formula 86 above, φ -verifiers and φ -falsifiers are in complementary distribution in S' .

So a sentence like $[\alpha \text{ fears that } \varphi]$ following A&H's (2013) in order to be felicitous it has to be the case that there is a non-trivial subset of α 's belief worlds that φ and a non-trivial subset where φ is false. This sentence asserts that in α 's beliefs there is a world w' that φ is true (doxastic assertion) and that the worlds that φ is verified are less desirable than the worlds that φ is not verified. A necessity epistemic modal is ungrammatical since it is in conflict with the uncertainty presupposition: the uncertainty condition requires that both the sets of the φ -verifiers and the φ -falsifiers are non empty, whereas an epistemic must would require that there are only φ -verifiers in the set of the doxastic alternatives of the attitude holder.

In this thesis I would like to slightly modify A&H (2013) proposal and propose that there is also a second scalar assertion in the meaning of a clause of the form $[\text{fear that } \varphi]$. More specifically, I propose that a likelihood scale is also asserted: the φ -verifiers are considered more likely than φ -falsifiers.

$$(87) \quad \textbf{Likelihood Assertion: } \varphi\text{-verifiers } >_{\text{LIKELY}} \varphi\text{-falsifiers}$$

One could argue that this is a scalar implicature derived by the presupposition of the bipartition of the doxastic domain of the attitude holder and the assertion of the existential that there are some worlds in the attitude holder's doxastic alternatives where φ is verified. However, we would expect to be possible to cancel this implicature, however it is not:

- (88) a. #Fovame pos i Maria ekapse to faghito. Ghia tin akrivia
 Fear.1SG that the Mary burn.PST the food. for the preciseness
 to pio pithano ine na to ekapse o Nikos.
 the more probable is SBJ it.CL burn.PST the Nikos
 I fear that Mary burnt the food. In fact it is more probable that Nikos
 burnt it.
- b. #Fovame pos i Maria ekapse to faghito. Ghia tin akrivia
 Fear.1SG that the Mary burn.PST the food for the preciseness
 dhen ime sighuri an kaike.
 NEG be.1SG sure if burnt
 I am afraid that Mary burnt the food. In fact, I am not sure whether it
 was burnt.

The examples (88-a) and (88-b) above show that the likelihood ordering between φ -verifiers and φ -falsifiers is encoded in the meaning of [fear that φ]. Especially (99-b) is totally compatible with the uncertainty presupposition and the weak assertion that in some (not all) doxastics alternatives of the attitude holder Mary burnt the food, however the sentences are contradictory. The reason for the contradiction lies in this probability assertion which is also made with the utterance [α fears that φ]. Assuming that *because* is an implicature suspender as proposed by A&H (2013) the infelicity of 89 would not be expected if the ordering of alternatives with respect to their likelihood was nonexistent or just a scalar implicature.

- (89) #Fovame pos i Maria ekapse to faghito ghiati ime sighuri post to ekapse ekini.
 Fear.1SG that the Mary burn.PST the food because be.1SG sure that it.CL
 burn.PST she.Prn
 I am afraid that Mary burnt the food, because I am sure she burnt it.

To sum up, the meaning of $\llbracket \alpha \text{ fear}_C \text{ that } \varphi \rrbracket$ is that

- (90) $\llbracket \text{fear}_C \text{ that } \varphi \rrbracket^{c,w,S,g}$
 $\lambda x: \varphi\text{-verifiers in } S' \neq \emptyset \ \& \ \varphi\text{-falsifiers in } S' \neq \emptyset$ uncertainty cond.
 If defined =1 iff
 $\exists w' \in S' : \llbracket \varphi \rrbracket^{c,w',S',g} = 1 \wedge$ doxastic assertion
 $\varphi\text{-verifiers} <_{Des_{x,w}} \varphi\text{-falsifiers} \wedge$ preference assertion
 $\varphi\text{-verifiers} >_{Prob_{x,w}} \varphi\text{-falsifiers}$ preference assertion ³⁴
 where $S' = \text{DOX}_{x,w}$ and
 $\varphi\text{-verifiers in } S' = \lambda S'' . S'' \subset S' \ \& \ \forall S''' \subset S'' : [\forall w' \in S''' [\llbracket \varphi \rrbracket^{c,w',S''',g} = 1]] =$
 $\text{Pow}(S' \cap p)$
 $\varphi\text{-verifiers in } S' = \neg \varphi\text{-falsifiers in } S'$

³⁴The addition of the likelihood assertion in the meaning of emotive doxastics in combination with the uncertainty presupposition renders the doxastic assertion redundant. In that case, the asymmetry between subjunctive and *that*-complements with respect to epistemic modal licensing might have to be attributed to other factors.

6.2 Dubitatives

A&H (2013) based on epistemic modal licensing propose that the meaning of dubitatives is very similar to the meaning they propose for emotive doxastics: [doubt that φ] has a representational component and a scalar component. The only difference between the A&H's analysis of dubitatives and that of emotive doxastics is that in a construction with a dubitative verifiers and falsifiers are ordered with respect to how likely they are not with respect to how desirable they are. The proposed meaning is given in 91:

$$\begin{aligned}
 (91) \quad & \llbracket \text{doubt}_C \text{ that } \varphi \rrbracket^{c,w,S,g} && \text{uncertainty cond.} \\
 & \lambda x: \varphi\text{-verifiers in } S' \neq \emptyset \ \& \ \varphi\text{-falsifiers in } S' \neq \emptyset \\
 & \text{If defined } = 1 \text{ iff} \\
 & \exists w' \in S' : [\llbracket \varphi \rrbracket^{c,w',S',g} = 1] \wedge && \text{doxastic assertion} \\
 & \varphi\text{-verifiers } <_{\text{Prob}_{x,w}} \varphi\text{-falsifiers} && \text{preference assertion} \\
 & \text{where } S' = \text{DOX}_{x,w} \text{ and} \\
 & \varphi\text{-verifiers in } S' = \lambda S'' . S'' \subset S' \ \& \ \forall S''' \subset S'' : [\forall w' \in S''' [\llbracket \varphi \rrbracket^{c,w',S''',g} = 1]] = \\
 & \text{Pow}(S' \cap p) \\
 & \varphi\text{-verifiers in } S' = \neg \varphi\text{-falsifiers in } S'
 \end{aligned}$$

A&H (2013) provide evidence against an analysis of doubt as a negative entailing verb by showing that the uncertainty inference of doubt cannot be cancelled in a similar way it can suspend the exhaustivity of *some*:

- (92) a. #John doubts that she is the murderer because he is certain she is innocent.
 b. Some of them left because all of them did. (A&H 2013: 8:35)

Given the analysis of emotive doxastics proposed above, dubitatives differ from emotive doxastics not in the kind of scale they assert (as we showed that emotive doxastics also assert a probability scale) but in that they do not assert a desirability scale. Therefore, these two verb classes continue to have very similar semantics (uncertainty presupposition, probability scale, weak doxastic assertion) and they are still expected to present similar patterns with respect to their meaning, epistemic modal licensing and complementation.

6.3 Interrogative Predicates

In the previous chapters I used in a pretheoretical sense the term 'interrogative predicates' in order to describe question embedding predicates that also allow EN complements. In this section I will show that this class is not uniform and that, assuming Lahiri's (2002, 287) typology, we can identify two subclasses of question embedding predicates that can select for EN: rogative predicates and negated veridical responsive predicates. Lahiri's (2002 :287) typology of question embedding predicates is copied in Figure 6.1 below:

Rogative Predicates are those embedding only questions (and not propositions) and Responsive predicates are defined as predicates fundamentally proposition-taking.

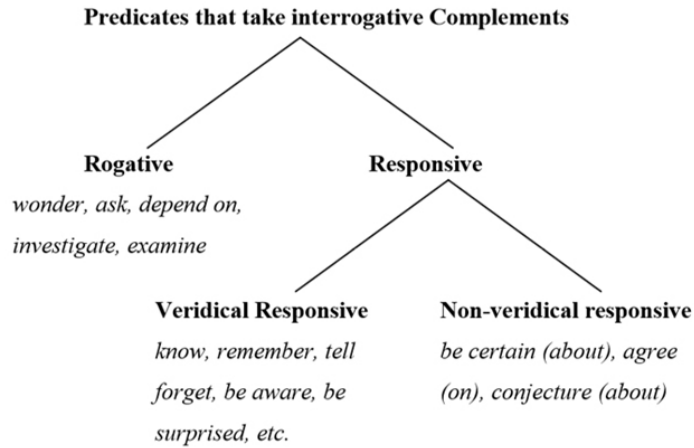


Figure 6.1: Lahiri's (2002) typology of Question Embedding Predicates

6.3.1 Rogative Predicates

Rogative Predicates are actually the "inquisitive verbs" identified by Karttunen (1977) *ask, wonder, investigate* are some verbs exemplifying this class. As was mentioned before, these verbs, apart from naturally constituting a semantic class, they pattern together with respect to the complements they select: they all select for questions. Moreover, in Latin, Classical Greek and Modern Greek these verbs may also select an EN declarative clause:

- (93) Rotisa ean/mipos/*pos/*na hriazosun tipota.
 Asked if/lest/that/SBJ need anything
 I asked if/whether/*that/*to you needed anything.

6.3.2 Negated Veridical Responsive Predicates

The second subclass of "interrogative" predicates is Veridical Responsive Predicates that they can embed either questions or declaratives. However, In Latin, ClGr and Modern Greek these predicates can also embed EN complements on the condition that they are negated. Such predicates are for instance *thimame* (remember - MG), *oida*³⁵ (know ClGr) and *ignoro* (be ignorant - Latin). (The following examples are taken from Modern Greek—for more data taken from other languages cf. Appendix)

- (94) a. Thimame oti/an/*mipos itan i Maria pu eklise tin porta.
 remember that/if/*lest was the Mary that closed the door
 I remember that/whether it was Mary that shut the door.
 b. Dhen thimame oti/an itan i Maria pu eklise tin porta.
 NEG remember that/if was the Mary that closed the door
 I don't recall that/whether it was Mary who shut the door.
 c. Dhen thimame mipos itan i Maria pu eklise tin porta.
 NEG remember lest was the Mary that closed the door

³⁵If *oida* (know) is not negated and selects for EN then it has the meaning of "observe". (cf. Appendix)

I don't remember if it was the case that it was Mary who shut the door.

In the example (94-a) above *thimame* (remember, recall) can select both the proposition introduced by *oti* (that) and the question introduced by *an* (if, whether). The two sentences differ in their meaning similarly to how their English translations do: *thimame* (remember) is an implicative with a *that*-complement whereas with whether it is not ³⁶

In sentence (94-b) with the declarative complementizer, repeated below as 95, the embedded clause can scope over or below negation —readings (95-a) and (95-b) respectively:

- (95) Dhen thimame oti itan i Maria pu eklise tin porta.
 NEG remember that was the Mary that closed the door
 I don't recall that it was Mary who shut the door.
- a. ... Helen told me that Mary was the one who closed the door. (that>NEG)
 b. ... I clearly remember that it was Helen. (NEG>that)

With the interrogative complementizer sentence (94-b) does not entail or presuppose or deliver any bias of the speaker regarding the identity of *x* in '*it was x that closed the door*'. Quite similar to the embedded interrogative is the meaning of the EN clause where the speaker considers as a possibility Mary to be the person who closed the door but (s)he does not have any kind of evidence in order to confirm or reject this possibility.

6.3.3 Selecting Complements

The analysis of Responsive Predicates has triggered a lively debate in the literature whether questions or declarative clauses are more 'basic' complements. Following Uegaki (2012), I assume that both Veridical Responsive and Rogative predicates select for questions, namely sets of propositions of type $\langle\langle s, t \rangle, t \rangle$. The veridical responsive predicates can also select for *that*-complements because, as assumed in the framework of Alternative Semantics and Inquisitive Semantics, the semantic type of a clause is a set of propositions, i.e. it has the same semantic type as a question ³⁷.

The proposed by Uegaki (2012) meaning of a Responsive predicate such as *know* is given in 96:

$$(96) \quad \llbracket \text{know} \rrbracket^w = \lambda Q \in D_{\langle st, t \rangle} : [\exists p \in Q[p(w) = 1]] \lambda x. \forall p \in Q[p(w) = 1 \rightarrow DOX_{x,w} \subseteq p]$$

So *know* presupposes that in *w* there is some proposition *p* that is a true answer to the

³⁶I follow Karttunen (1971) in the classification of predicates as implicatives if they carry an entailment that their complement is true, negative implicatives if the entailment is that their complement is false and non implicatives if they do not carry an entailment about their complement. As Karttunen (2012) notes, the complementiser may affect whether a construction is (negative) implicative/non implicative. (A difference between Karttunen (1971) and (2012) is that in the earliest paper it is the predicates that are characterised as implicatives or not whereas in the (2012) it is the constructions.)

³⁷Actually Uegaki (2012) proposes that we can stipulate a special complementizer "that" which will turn the proposition denoted by the embedded clause into the singleton set containing it, as in 10:

$$(x) \quad \llbracket \text{that}^* \rrbracket = \lambda p.p.$$

Uegaki (2012: n.5) himself suggests that adopting an Alternative Semantics framework would be a preferable less stipulative alternative that is independently motivated in the analysis of *know* for reasons developed in Uegaki (to appear).

embedded question Q and that for all true propositions p in w , the doxastic alternatives of the attitude holder (matrix subject) are a subset of p . So the meaning of 97 would be the following:

- (97) John knows that Mary closed the door.
 Presupposition: Mary closed the door.
 Assertion: John believes only that Mary closed the door.

However, the meaning of know is different if it embeds a question:

- (98) John knows whether Mary closed the door.

In that case, John knows the correct answer of the question Q , however there is no presupposition that $p(w)$ is true. For that reason I will assume that the presupposition in 96 is actually an assertion triggered by the complementizer *that*. In that case the semantics of *know* are modified as 99 below:

- (99) a. $\llbracket \text{know that } p \rrbracket^w = \lambda Q \in D_{\langle st, t \rangle} : [\exists p \in Q[p(w) = 1]] \wedge \lambda x. \forall p \in Q[p(w) = 1 \rightarrow DOX_{x,w} \subseteq p]$.
 b. $\llbracket \text{know whether } p \rrbracket^w = \lambda Q \in D_{\langle st, t \rangle} : \lambda x. \forall p \in Q[p(w) = 1 \rightarrow DOX_{x,w} \subseteq p]$.

Further motivation for this split in the meaning of $\llbracket \text{know } Q \rrbracket$ is given if we negate the matrix clause:

- (100) a. John doesn't know that Mary closed the door.
 Presupposition: Mary closed the door.
 Assertion: John believes only that Mary closed the door.
 b. John doesn't know whether Mary closed the door.

In sentence (100-b) there is not either a presupposition that Mary closed the door nor an assertion that John knows the correct answer in the question whether Mary closed the door.

There is a second complication of this account, however: assuming that both rogatives and responsive predicates select for sets of propositions predicts that rogative predicates can also embed *that*-clauses; yet, this prediction is not borne out. Uegaki (2012) argues that this unwelcome result is ruled out by the "non-triviality presupposition" that rogative predicates carry, expressed in 101:

- (101) $\llbracket \text{wonder} \rrbracket^w : (Q)(x)$ is defined iff x can believe both of the following:
 a. $\lambda w. \exists p \in Q[p(w) = 1]$ In prose, there is a true proposition in Q .
 b. $\lambda w. \exists p \in Q[p(w) = 0]$ In prose, there is a false proposition in Q .

Based on the semantics of *know* and the 'non-triviality presupposition' of rogative predicates proposed by Uegaki (2012) we could formulate the meaning of $\llbracket \text{wonder} \rrbracket$ as in 102

- (102) $\llbracket \text{wonder} \rrbracket^w : \lambda Q \in D_{\langle st, t \rangle} : p(w) = 1 \subset DOX_{x,w} \wedge p(w) = 0 \subset DOX_{x,w}. \lambda x. \exists p \in Q[p(w) = 1 \rightarrow DOX_{x,w} \subset p]$

This non-triviality presupposition ensures that there is a bipartition in the doxastic alternatives of the attitude holder, such that they include any possible answer of the question and not only the true one.

In the light of the above independently motivated analysis of question embedding complements it is evident that EN is only licensed in question embedding complements where it is presupposed or asserted that there is not only one doxastic possibility in the doxastic alternatives of the attitude holder. In rogative predicates it is presupposed that the attitude holder does not know the correct answer whereas in negated responsive veridical predicates it is asserted that the attitude holder does not know the correct answer ³⁸.

6.4 Negative Predicates

Lastly, EN is licensed in what we have so far called negative predicates in ClGr, French and Hebrew. In this class there is a variety of predicates meaning prevent, *hinder*, *refuse*, *deny*, *forbid*, *retract an opinion*, *oppose*, *alter one's plans*, *change one's mind*, etc. (for a quasi-exhaustive list of predicates in this class the reader is referred to Appendix). As is evident from the name of the class these predicates are what Karttunen (1971) called negative implicatives. The great variability of the meanings of these predicates, especially in ClGr, would prove any attempt of exhaustively describing their semantics superfluous. For that reason I will focus on two aspects of their meaning that are relevant to EN-licensing.

All of these predicates presuppose a bipartition of the doxastic possibilities of the attitude holder and a negative assertion against one of the two. In that sense, these predicates are the negative equivalent of *know* in that they embed a set of propositions and that they entail the falsity of the embedded proposition. This proposal, is actually in accordance with the experimental findings of White et al. (to appear) who identify that predicates with some kind of negative import form a semantic class and thus are distinct for the rest of attitude verbs. As they report the negative meaning had a very strong effect on participants' semantic judgements something which was not replicated in their syntactic judgements (the test was conducted in English). The results of White et al. (to appear) of the semantic clustering of predicates is shown in Figure 6.2. In that respect, the examination of EN predicates is important for one more reason: it provides further evidence that syntax and especially complementation is sensitive to semantic cues.

If syntax is also taken into account it is even more clear that negative verbs which license expletive negation form one class: in a different model where semantic and 'weighed' syntactic factors were jointly considered, it is clear that there is a class of 'negative verbs' which coincides with the class of 'negative verbs' we had identified based on EN licensing.

6.5 Expletive Negation and Subjunctive

Based on the Modern and Classical Greek Data presented in sections 5.1.1 and 5.1.2 I argued that EN licensing is not dependent on the Subjunctive mood of the embedded clause. It is remarkable however that Latin and Romance EN clauses are in the Subjunctive. As shown in chapter 3 in the past this uncontroversial correlation between Subjunctive and EN was assumed to indicate a causal link or even identity between the two: Yoon (2011) argues that EN is notional Subjunctive that indicates the low commitment of the Subject about the truth of the embedded clause. Abels (2005),

³⁸EN (complementizers) selection is not the only case where the polarity of the Matrix Predicate affects its selectional properties (c.f. Adger & Quer 2001, Roussou 2009b)

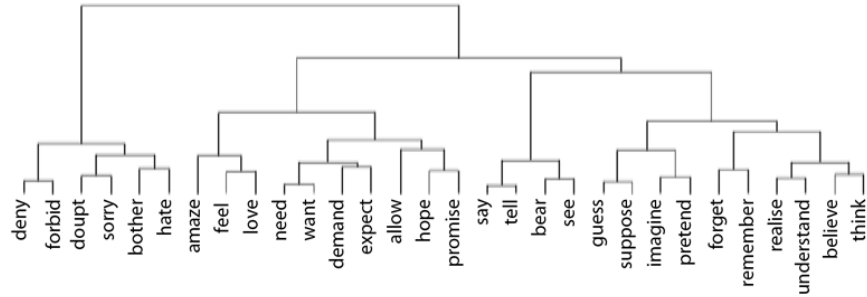


Figure 6.2: Semantic Classes of Attitudes (White et al. (in press: 6))

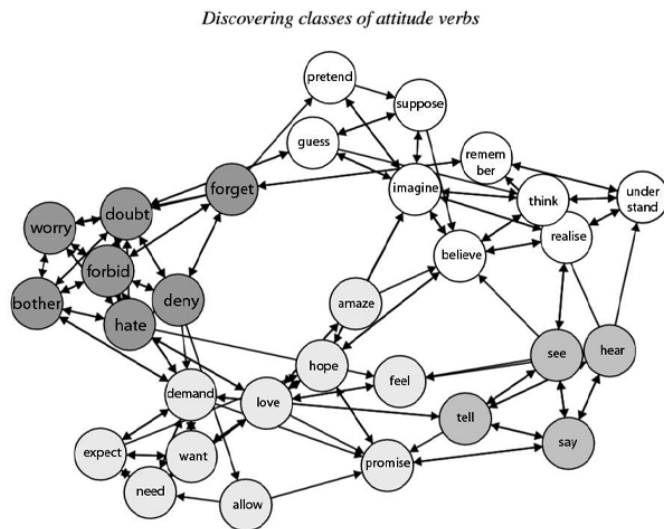


Figure 6.3: Model's most likely guesses for similar words; shading represents classes found (White et al.(in press)) [dark grey class (left to right): worry, doubt, forget (the more remote verb of the class), forbid (in the center), bother, hate, deny]



Figure 6.4: The Relation between Subjunctive and EN: previous analyses (a) and current proposal (b). [A: Subjunctive, B: EN, C:non-entailing predicates]

on the other hand, argues that EN in Russian is actually Real Negation in CMood that reverses the polarity of the positive evaluation presupposed by the Subjunctive. Therefore, the question is not whether there is a correlation between Subjunctive and EN (yes it is) but what kind of correlation it is.

Based on the Modern Greek data, where embedded clauses are indicatives and especially on Classical Greek data, where in a variety of EN-licensing environments expletive negation can co-occur with Subjunctive, but also Indicative, Optative and Infinitives I propose that the correlation between EN and Subjunctive does not imply a causal link between the two but it is a consequence of their common dependency on predicates selecting for (ordered) propositional alternatives. Figure 6.4 illustrates the two different approaches:

6.6 Interim Summary: Predicates licensing EN allow for (unordered) propositional alternatives

In the previous sections I examined the semantic properties of the predicates that license EN. To summarize them, I showed that emotive doxastics and dubitatives involve an uncertainty presupposition and a probability scale (emotive doxastics also a desirability scale). Interrogative predicates are actually split into two subclasses all select for questions but they can further be split into two subclasses: the first one is Lahiri's (2002) rogative predicates, which according to Uegaki involve a 'non-triviality presupposition' (which is actually similar to the uncertainty condition proposed by A&H (2013) for emotive doxastics and dubitatives) and negated responsive predicates which actually assert the same split of the attitude holder's doxastic domain as the split triggered by the presupposition in dubitatives, emotive doxastics and rogatives.

By this closer examination of the semantics of predicates that license EN I showed that EN is licensed after predicates that presuppose or assert the existence of more than one live doxastic possibility. The semantics of the predicates are summarized in Table 6.1 below:

In the next section, I will show that EN is actually an epistemic modality marker. In EN complements the doxastic alternatives of the attitude holder are equally probable.

	Presupposition	Modal Force	Selected Complements	Scalar Assert.
Desider/ves e.g. <i>want</i>			propositions $\langle t \rangle$	Yes ($>_{des}$)
Proposition Selecting Predicates e.g. <i>believe</i>		\forall	sets of propositions $\langle s, t \rangle$	No
Responsive Predicates e.g. <i>know</i>		\forall	functions from sets of propositions to truth values $\langle \langle s, t \rangle t \rangle$	No
Rogative Predicates e.g. <i>ask</i>	non-triviality pres. \Leftrightarrow uncertainty condition	\exists	functions from sets of propositions to truth values $\langle \langle s, t \rangle t \rangle$	No
Emotive Doxastics e.g. <i>fear, hope</i>	uncertainty condition	\exists	functions from sets of propositions to truth values $\langle \langle s, t \rangle t \rangle$	Yes ($>_{prob}$, $>_{des}$)
Dubitatives e.g. <i>doubt</i>	uncertainty condition	\exists	functions from sets of propositions to truth values $\langle \langle s, t \rangle t \rangle$	Yes ($>_{prob}$)
Negative Predicates e.g. <i>prevent</i>	non-triviality pres.		functions from sets of propositions to truth values $\langle \langle s, t \rangle t \rangle$	No

Table 6.1: Classes of attitude predicates – non-EN complements

Chapter 7

Semantic Contribution of EN

In the previous chapters I presented two conditions under which EN is licensed: In chapter 5 I showed that EN is not licensed in untensed embedded clauses and in chapter 6 that it is only licensed in complements of non-entailing predicates that introduce multiple doxastic possibilities. In the first section of this chapter I will present four new empirical puzzles that any account of EN should capture. Based on this facts I will propose that EN is actually an epistemic modal which denotes the attitude holder's/speaker's lack of evidence regarding the truth of the complement clause and I will provide further evidence that the proposed meaning of EN can be extended to other languages apart from Modern Greek. Finally, in the light of this analysis I will reexamine the correlation between EN and Subjunctive and I will propose that both EN and Subjunctive track the availability of multiple propositional alternatives but EN, being an epistemic modal, does not assert an ordering of alternatives as Subjunctive does and it is not licensed in clauses with anaphoric tense as Subjunctive is.

7.1 EN Sentential Complements: The puzzles

In this chapter I will present four new empirical puzzles that any account of EN should capture: (i) epistemics cannot be licensed in EN clauses (ii) an EN-complement does not contribute a doxastic assertion contrary to the minimally different *that*-complements (iii) matrix negation can target either the probability or the preference assertion in EN constructions and (iv) EN can be used to form counterfactuals.

7.1.1 Epistemics cannot be licensed in EN complements

Pertinent to our discussion of epistemic modals' licensing under different types of attitudes, is the observation of the following asymmetry: epistemics are not licensed in EN and Subjunctive sentential complements but they can be licensed in embedded *that*-clauses. The data in the rest of 7.1 will be drawn from modern Greek, but as I will show below there are reasons to assume that the same holds for the rest of languages that license EN in attitude complements.³⁹

- (103) a. Fovame pos mpori o Nikos na erthi simera.
fear that might the Nikos SBJ come today
I fear that Nikos might come today. (✓root interpretation, ✓epistemic interpretation)

³⁹Ambiguous or epistemic possibility modals are glossed as "might" whereas root modals as "can".

- b. Fovame mipos mpori na erthi o Nikos simera.
 fear NEG-that can SBJ come the Nikos simera
 I fear that Nikos might can come today. (✓root interpretation, *epistemic interpretation)
- c. Fovame na mpori o kathenas na ehi prosvasi sto ghrafio
 fear SBJ can the everybody SBJ have access into office
 mu.
 my.CL.
 I am afraid of everybody having access to my office. (✓root interpretation, *epistemic interpretation)

As was mentioned before, Yoon (2011) assumes that EN is a mood marker which, like Subjunctive, marks the low commitment of the speaker to the truth of the embedded proposition. However, the desirability scale introduced by EN is reversed from that introduced by Subjunctive (the proposition marked by EN is marked as undesirable). Thus, Yoon argues that EN is the negative counterpart of Subjunctive. The fact that epistemics are not licensed in 'real' Subjunctive complements either would advocate for such a hypothesis. However in order to explain this a further assumption should be made (contra A&H 2013): Subjunctive mood tracks non-representationality as was originally proposed by Bolinger (1968). Yet such an assumption would not capture the crosslinguistic variation of Subjunctive selection especially by emotive doxastics and dubitatives (cf. A&H 2013 for relevant discussion).

In this thesis I will examine another hypothesis that can dispense with this undesirable assumption. I propose that EN is an epistemic modal⁴⁰ that marks the lack of evidence on the part of the attitude holder about the probability of the different alternatives, rendering them to equally probable. Assuming that epistemic modals track representationality (as proposed by A&H 2013), an epistemic modal is licensed in (103-a) because of the representational component of emotive doxastics and the fact that it is not contradictory with the uncertainty presupposition. Under the proposal put forward in this thesis, that EN is an epistemic modal, *mpori* (can) cannot have an epistemic interpretation as this would result in a construction with two epistemic modals. Finally, the modal cannot have an epistemic interpretation in the subjunctive complement as the *na*-clause receives a dynamic modal reading, as it does when selected by knowledge predicates (Roussou 2009a).

7.1.2 No doxastic assertion in EN complements

In chapter 6.1 while presenting the semantics of emotive doxastics I assumed that in a sentence like [α fears that φ] there is a weak assertion, as proposed by A&H (2013) that in some of the doxastic worlds of the attitude holder φ is true. A diagnostic indicating that an emotive doxastic with a *that*-complement asserts that the proposition in the complement clause is more probable is indicated by the fact that the emotive doxastic clause can function as an answer in a question asking p :

- (104) Erhete o Nikos? —Fovame pos erhete.
 Come the Nikos? Fear that come.

⁴⁰The semantic contribution as well as the syntactic position of EN could also indicate that EN is an evidential marker. In this thesis, I adopt Mathewson's (in press; submitted) thesis that 'all evidentials contribute epistemic modal semantics, and all epistemic modals contribute evidential semantics.' I leave to future research an investigation of whether a finer distinction between epistemic modals and evidentials is necessary to account for the whole array of EN constructions.

Is Nikos coming? —I am afraid that he is coming

Notice, that the minimally different reply with EN would be an infelicitous answer:

- (105) Erhete o Nikos? —Fovame mipos erhete.
 Come the Nikos? Fear lest.EN.neg-that come.
 Is Nikos coming? —I am afraid that he is coming

So whereas 106 asserts that

- (106) $[[\text{fear}_C \text{ that } \varphi]]^{c,w,S,g}$
 $\lambda x: \varphi\text{-verifiers in } S' \neq \emptyset \ \& \ \varphi\text{-falsifiers in } S' \neq \emptyset$ uncertainty cond.
 If defined =1 iff
 $\exists w' \in S' : [[\varphi]]^{c,w',S',g} = 1 \wedge$ doxastic assertion
 $\varphi\text{-verifiers} <_{Des_{x,w}} \varphi\text{-falsifiers} \wedge$ preference assertion
 $\varphi\text{-verifiers} >_{Prob_{a,w}} \varphi\text{-falsifiers}$ **preference assertion**
 where $S' = DOX_{x,w}$ and
 $\varphi\text{-verifiers in } S' = \lambda S'' . S'' \subset S' \ \& \ \forall S''' \subset S'' : [\forall w' \in S''' [[\varphi]]^{c,w',S''',g} = 1]] =$
 $Pow(S' \cap p)$
 $\varphi\text{-verifiers in } S' = \neg \varphi\text{-falsifiers in } S'$

The EN sentence in 107 asserts that

- (107) $[[\text{fear}_C \text{ NEG-that } \varphi]]^{c,w,S,g}$
 $\lambda x: \varphi\text{-verifiers in } S' \neq \emptyset \ \& \ \varphi\text{-falsifiers in } S' \neq \emptyset$ uncertainty cond.
 If defined =1 iff
 $\exists w' \in S' : [[\varphi]]^{c,w',S',g} = 1 \wedge$ doxastic assertion
 $\varphi\text{-verifiers} <_{Des_{x,w}} \varphi\text{-falsifiers} \wedge$ preference assertion
 $\varphi\text{-verifiers} \geq_{Prob_{x,w}} \varphi\text{-falsifiers}$ **preference assertion**
 where $S' = DOX_{x,w}$ and
 $\varphi\text{-verifiers in } S' = \lambda S'' . S'' \subset S' \ \& \ \forall S''' \subset S'' : [\forall w' \in S''' [[\varphi]]^{c,w',S''',g} = 1]] =$
 $Pow(S' \cap p)$
 $\varphi\text{-verifiers in } S' = \neg \varphi\text{-falsifiers in } S'$

Given the minimal difference between the *that*-clause and the EN-clause in the probability scale, EN triggers an implicature that actually $\varphi\text{-verifiers} =_{Prob_{x,w}} \varphi\text{-falsifiers}$; otherwise the speaker would provide the more informative answer that $\varphi\text{-verifiers} >_{Prob_{x,w}} \varphi\text{-falsifiers}$.⁴¹ Thus, the EN sentence actually restates that *Nikos is coming and Nikos is not coming* are equally probable doxastic possibilities and hence it

⁴¹The fact that $\varphi\text{-verifiers} =_{Prob_{x,w}} \varphi\text{-falsifiers}$ is actually an implicature is evident from 11 below:

- (xi) Fovame mipos erhete avrio. Ghia tin akrivia ine pio pithano na erthi
 fear lest come tomorrow for the preciseness is more probable SBJ come
 avrio para opiadhipote alli mera.
 tomorrow than any other day
 I fear lest he is coming tomorrow. In fact, it is more likely that he comes tomorrow than any other day.

In 11 above the second clause asserts that $\varphi\text{-verifiers} >_{Prob_{x,w}} \varphi\text{-falsifiers}$. This is not contradictory with the probability assertion of the EN clause and also cancels that $\varphi\text{-verifiers} =_{Prob_{x,w}} \varphi\text{-falsifiers}$.

- (xii) Scalar Implicature of EN: $\varphi\text{-verifiers} =_{Prob_{x,w}} \varphi\text{-falsifiers}$

is an infelicitous answer to a question that actually asserts the same set of possibilities. Note that the existential quantification in the doxastic assertion along with the presupposition for nontrivial sets of falsifiers and verifiers makes the equality relation totally compatible with the doxastic assertion.

As was shown in section 5.1.5.1 Spanish EN after emotive doxastics has a similar interpretation and the same pattern can be also spotted in Russian: sentence 108 is an infelicitous answer to a question like "*Will he break the car?*"

- (108) ja bojus' kak by on ne razbil mašinu.
 I fear how MOD he NEG break.PST.prf caracc
 I fear that he might break the car.

Furthermore, this effect is also observed if we alternate EN and that-clauses in responsive predicates:

- (109) a. Elegha pos chriazese voithia.
 said that need.2SG help
 I guessed that you need some help.
 b. Elegha mipos chriazese voithia.
 said lest need.2SG help.
 I wondered whether you need some help.

Assuming that EN introduces a set of equally probable (in other words not ordered with respect to probability) propositional alternatives the meaning of sentences (109-a) and (109-b) above is correctly predicted. In that way, it is unnecessary to posit a semantic ambiguity for *leo* (say). The stipulative nature of any analysis positing a semantic ambiguity for these kind of constructions is also shown by the fact that other verbs present a similar pattern, e.g. *skeftome* (think).

7.1.3 Matrix Negation

Corroborating evidence to the fact that an EN complement alters the probability ordering of verifiers and falsifiers is provided by the different effects that a matrix negation triggers in attitudes with *that*-complement and EN-complements. As sentences (110-a) and (110-b) below show a matrix negation in emotive doxastic with a *that*-complement always targets the doxastic assertion and (consequently reverses) the probability scale.

- (110) a. Dhen fovame pos kseri tin alithia. Ime sighuros pos ehi mavra
 NEG fear that know the truth am sure that has black
 mesanixta.
 midnight
 I do not fear that he knows the truth. I am sure he doesn't have an idea.
 b. #Dhen fovame pos kseri tin alithia. Ja tin akrivia to elpizo
 NEG fear that know the truth for the preciseness it.CL hope
 kiolas.
 even
 I do not fear that he knows the truth. In fact, I even hope it.

The meaning of (110-a) is 111 below:

- (111) $[[\text{not fear}_C \text{ that } \varphi]]^{c,w,S,g}$
 $\neg[\lambda x: \varphi\text{-verifiers in } S' \neq \emptyset \ \& \ \varphi\text{-falsifiers in } S' \neq \emptyset] \wedge$ uncertainty cond.
 $\neg\exists w' \in S' : [[\varphi]]^{c,w',S',g} = 1] \wedge$ doxastic assertion

φ -verifiers $<_{Des_{x,w}}$ φ -falsifiers \wedge	preference assertion
φ -verifiers $<_{Prob_{x,w}}$ φ -falsifiers	preference assertion
where $S' = DOX_{x,w}$ and	
φ -verifiers in $S' = \lambda S'' . S'' \subset S' \ \& \ \forall S''' \subset S'' : [\forall w' \in S''' [[\varphi]]^{c,w',S''}.g = 1]] = Pow(S' \cap p)$	
φ -verifiers in $S' = \neg\varphi$ -falsifiers in S'	

As a comparison between the minimally different (110-b) and (112-b) sentences shows, if the complement of *fear* is introduced by EN, the matrix negation can target either the doxastic or the preference assertion. The meaning of (112-a) and (112-b) EN constructions is given in 113 and 114 respectively:

- (112) a. Dhen fovame mipos kseri tin alithia. Ime sighuros pos ehi mavra
 NEG fear lest know the truth am sure that has black
 mesanixta.
 midnight
 I do not fear that he might know the truth. I am sure that he is in the
 darkness.
- b. Dhen fovame mipos kseri tin alithia. Ja tin akrivia to elpizo
 NEG fear lest know the truth for the preciseness it.CL hope
 kiolas.
 even.
 I do not fear that he might know the truth. In fact, I hope it.
- (113) $[[\text{not fear}_C \text{ NEG-that } \varphi]]^{c,w,S,g}$
 $\neg[\lambda x: \varphi\text{-verifiers in } S' \neq \emptyset \ \& \ \varphi\text{-falsifiers in } S' \neq \emptyset] \wedge$ uncertainty cond.⁴²
 $\neg\exists w' \in S' : [[\varphi]]^{c,w',S',g} = 1] \wedge$ doxastic assertion
 φ -verifiers $<_{Des_{x,w}}$ φ -falsifiers \wedge preference assertion
 φ -verifiers $\leq_{Prob_{x,w}}$ φ -falsifiers preference assertion
 where $S' = DOX_{x,w}$ and
 φ -verifiers in $S' = \lambda S'' . S'' \subset S' \ \& \ \forall S''' \subset S'' : [\forall w' \in S''' [[\varphi]]^{c,w',S''}.g = 1]] = Pow(S' \cap p)$
 φ -verifiers in $S' = \neg\varphi$ -falsifiers in S'
- (114) $[[\text{not fear}_C \text{ NEG-that } \varphi]]^{c,w,S,g}$
 $\lambda x: \varphi$ -verifiers in $S' \neq \emptyset \ \& \ \varphi$ -falsifiers in $S' \neq \emptyset$ uncertainty cond.
 If defined =1 iff
 $\exists w' \in S' : [[\varphi]]^{c,w',S',g} = 1] \wedge$ doxastic assertion
 φ -verifiers $>_{Des_{x,w}}$ φ -falsifiers \wedge preference assertion
 φ -**verifiers** $\geq_{Prob_{x,w}}$ φ -**falsifiers** **preference assertion**
 where $S' = DOX_{x,w}$ and
 φ -verifiers in $S' = \lambda S'' . S'' \subset S' \ \& \ \forall S''' \subset S'' : [\forall w' \in S''' [[\varphi]]^{c,w',S''}.g = 1]] = Pow(S' \cap p)$
 φ -verifiers in $S' = \neg\varphi$ -falsifiers in S'

⁴²Actually, the fact that NEG asserts that 'there are not possible worlds in the doxastic alternatives of the attitude holder such that φ is true' indicates that what we so far call as uncertainty condition is not a presupposition but an assertion. The fact that matrix negation targets simultaneously the uncertainty condition, the doxastic assertion and the probability assertion probably indicates that these three can actually be formalised in a more economical way. For expository reasons I maintain the semantic formula assumed so far.

This difference is actually predicted if we adopt the proposal that EN 'acts' on the probability scale introduced by the emotive doxastic. In case 113 matrix negation actually acts on the probability assertion and reverses the ordering of the alternatives whereas, if it is inferred that φ -verifiers =_{PROB_{x,w}} φ -falsifiers as in 114, it is possible for the matrix negation to reverse the desirability ordering. As was shown above, the latter possibility is not available in a construction with a *that*-complement.

7.1.4 Counterfactuals with EN

Another argument for the status of EN as an epistemic modal comes from counterfactual constructions. Roussou (2000) while discussing the structural position and meaning of *tha* (will) in Modern Greek points out that *tha* (will) is not a Tense particle but a modal, as in (115-a) it has an exclusively epistemic reading and in (115-b) where it is combined with past tense it forms a counterfactual.

- (115) a. *tha* *katharise* *to spiti* (katharise = +past, +perf.)
 part cleaned-3sg the house
 He must have cleaned the house
 b. *tha* *katharize* *to spiti* (katharise = +past, -perf.)
 part cleaned-3sg the house
 He was supposed to/would have cleaned the house.

Indeed, EN can be used in these context instead of *tha* (will) with a very similar meaning. Compare (115-a) and (115-b) above with the minimally different (116-a) and (116-b) below:

- (116) a. *mipos* *katharise* *to spiti* (katharise = +past, +perf.)
 lest cleaned-3sg the house
 He might have cleaned the house
 b. *might* *katharize* *to spiti* (katharise = +past, -perf.)
 lest cleaned-3sg the house
 He might have been cleaning the house

Comparing sentences (115-a) and (116-a) shows that both *tha* (will) and the EN complementizer receive an epistemic interpretation and they only differ with respect to the strength of this assertion: in (109) all the doxastic alternatives of the speaker are *p* whereas in (110) some of them are $\neg p$. Given that *tha* (will) has been analysed as an (epistemic) modal (Roussou 2000, Iatridou 2000 for Greek; Palmer 1986, Vlach 1993, Kamp & Uwe (1993) for English *woll* this alternation provides further evidence that EN is an epistemic modal.

Example (115-b) points also towards another environment that we would expect EN to be licensed if it is an epistemic modal: counterfactuals ⁴³ Indeed, Iatridou (Iatridou

⁴³ *Tha* (will) is also used in the consequent of epistemic conditionals, as in (xiii-a) below. In that respect we would expect that EN can appear in epistemic conditionals instead of *tha* (will). Indeed this prediction is borne out (xiii-b), however some speakers, e.g. D. Michelioudakis (p.c.), consider that the EN clause is actually embedded in an understood rogative predicate

- (xiii) a. *An ipie* *afto to siropi* (*tha/ prepi na*) *eyine* *kala*.
 if drink.Pst.Prf this the syrup (MOD/ must SBJ) become.Pst.Prf well
 If he drank the syrup, he must be better. (Iatridou 2000:237)
 b. *An ipie* *afto to siropi* <anarotieme> *mipos eyine* *kala*.
 if drink.Pst.Prf this the syrup <wonder.1SG> lest become.Pst.Prf well
 If he drank the syrup, he might have recovered.

2000:n. 4) points that a future morpheme (or might) is attested in many languages (though not all) in the consequent of the counterfactual, so we can have sentences like 117:

- (117) An epine afto to siropi, mimos ghinotan kala.
 If drank.Pst.Imp. that the syrup, lest be.Pst.Imp well.
 If he had drank that syrup, he might recover.

It should be highlighted at this point the the counterfactual reading does not result from the epistemic modal alone. Counterfactuality with *tha* (will) occurs due to the modal properties of *tha* and the verbal specification [+past]. If the analysis of EN as an epistemic modal is correct, we would expect that an EN-conditional with a [-past] predicate is not a counterfactual. Indeed, this prediction is borne out: the minimally different from 117 118 is not a counterfactual.

- (118) An pini afto to siropi, mimos ghini kala.
 If drink.Prs.Imp. that the syrup, lest be.Prs.Pfv. well.
 If he had drank that syrup, he might recover.

What is more, if, following Iatridou (2000) we assume that wishes use the same ingredients as counterfactuals we would also predict that EN can appear in wishes. Indeed, if an emotive doxastic embeds an imperfective past EN clause then it has a counterfactual reading 119-120:

- (119) ?Elpizi mimos tu edhinan mia defteri efkeria.
 Hopes.Prs.Imp.3SG lest him.CL give.Pst.Imp.3Pl a second chance
 He hopes that they might give him a second chance (but the speaker knows that they have not given him a second chance).
- (120) Ilpize mimos tu edhinan mia defteri efkeria.
 Hopes.Pst.Imp.3SG lest him.CL give.Pst.Imp.3Pl a second chance
 He hoped that they might give him a second chance (but they didn't).

In sum, in this section I showed that counterfactuals (and consequently wishes) and maybe conditionals provide further evidence for the status of EN as an epistemic modal.

7.2 EN is an epistemic modality marker

In this thesis I have proposed that EN is an epistemic modality marker that introduces a set of equally probable or anordered propositional alternatives. Evidence corroborating this proposal is drawn from the following facts:

- The meaning of EN. As was shown in 7.1, EN marks a set of doxastic alternatives as equally probable, indicating that the speaker does not have any kind of evidence about their ordering. Actually this is the semantic contribution of epistemic modals: 'epistemic modality (...) concerns what is possible or necessary given what is known and what the available evidence is.' (von Stechow 2006) a.o. [cf. Iatridou & von Stechow (2009) for a more elaborate discussion on the relation epistemic modality and evidentiality]. In Modern Greek, Classical Greek, Hebrew and Latin where EN is clearly in the C-domain, this might indicate that it has moved (or is merged) in $C_{Epistemic}$. However, I leave this issue to future research, as the syntax of EN lies beyond the scope of this thesis.

- As was extensively argued and demonstrated in chapter 5, EN is only licensed in Tensed clauses (finite or not). It is a well established fact that epistemic modals scope over tense and are only licensed in Tensed CPs (Iatridou 1990, Picallo 1990, Abusch 1997, Werner 2001, Stowell 2004, Hacquard 2006, Cinque 1999).
- Modals can only have a root interpretation in EN clauses. Given that EN clauses are Tensed CPs, and that Subjunctive is not inherently incompatible with epistemic modals, any approach that equates EN with subjunctive cannot capture why epistemic modals are incompatible with EN. On the contrary, if we assume that EN itself is an epistemic modal the ungrammaticality of epistemics in EN complements follows: EN and epistemic modals compete for the same structural position.
- EN can be used in counterfactuals and wishes instead of the epistemic modal/future marker *tha* (will). Assuming the Iatridou's (2000) analysis of the grammatical ingredients of counterfactuals and wishes, this complementary distribution between EN and *tha* (will) can be considered as additional evidence supporting that EN is an epistemic modal.

Finally, by comparing the EN and the non-EN attitude constructions it is evident that EN introduces a set of equally probable doxastic alternatives, rendering the meaning of the embedded clause equivalent to that of a question. As Table 7.1 shows, EN is selected by predicates that select for complements of type $\langle \langle s, t \rangle, t \rangle$ and assert existential modal force (either \exists or in case of negated responsive predicates $\neg\forall$). In other words, EN is incompatible with attitudes of acceptance e.g. *believe* that contribute a universal quantifier and entail that the attitude holder is certain about the truth of the embedded clause or with desideratives like *want* which select for propositions.

As is evident from Table 7.1, and from data extensively discussed in section 6.3 or from sentence (18) in chapter 2 repeated as 121 below, EN complements are very similar to (Unselected) Embedded Questions⁴⁴. Their distribution largely overlaps (in 121 below it could be alternated with *an* (if) without (an obvious) change in the meaning of the sentence. This correlation between EN-complements and Questions can also be traced in the subcategorization frames of the complements that select for EN: in Latin the verb classes that embed EN-sentences may select also for Questions (sometimes introduced also by *wh*-pronouns) and the same holds for many (if not all) of the ClGr predicates that license EN.

- (121) Kitakse min to eleghe charitologhontas [Modern Greek]
 look NEG it.CL said joking
 Examine whether he told that joking.

Adger & Quer (2001) point out that the predicates which signal the subject's epistemic commitment to the truth or falsity of the embedded proposition cannot embed a question even if negated or questioned. Verbs like *claim*, *assume*, *maintain* exemplify this predicate class. Roussou (2009b) points out that the same holds for Greek with verbs like *ipotheto* (assume), or *ipostirizo* (claim). Even this seems to be consistent with the 'uncertainty presupposition' or 'non-triviality' presupposition of EN predicates it seems that more fine grained distinctions need to be made: EN complements are not licensed by the exactly same predicates as interrogative complementizers are. Consider the following:

⁴⁴Unselected Embedded Questions are complements of proposition taking predicates that are in the scope of a sentential operator such as question operator and negation. (Adger & Quer 2001)

	Presupposition	Modal Force	Selected Complements	Scalar Assert.
Desider/ves e.g. <i>want</i>			$\langle t \rangle$	Yes ($>_{des}$)
Proposition Selecting Predicates e.g. <i>believe</i>		\forall	$\langle s, t \rangle$	No
Responsive Predicates e.g. <i>know</i>		\forall	$\langle \langle s, t \rangle t \rangle$	No
Negated Responsives +EN e.g. <i>know</i>		$\neg\forall$	$\langle \langle s, t \rangle t \rangle$	No
Rogative Predicates e.g. <i>ask</i>	non-triviality pr. \Leftrightarrow uncertainty c.	\exists	$\langle \langle s, t \rangle t \rangle$	No
Rogative Predicates +EN e.g. <i>ask</i>	non-triviality pres. \Leftrightarrow uncertainty condition	\exists	$\langle \langle s, t \rangle t \rangle$	No
Emotive Doxastics e.g. <i>fear</i>	uncertainty condition	\exists	$\langle \langle s, t \rangle t \rangle$	Yes ($>_{prob}, >_{des}$)
Emotive Doxastics +EN e.g. <i>fear</i>	uncertainty condition	\exists	$\langle \langle s, t \rangle t \rangle$	Yes ($\geq_{prob}, >_{des}$)
Dubitatives e.g. <i>doubt</i>	uncertainty condition	\exists	$\langle \langle s, t \rangle t \rangle$	Yes ($>_{prob}$)
Dubitatives +EN e.g. <i>doubt</i>	uncertainty condition	\exists	$\langle \langle s, t \rangle t \rangle$	Yes (\geq_{prob})
Negative Predicates e.g. <i>prevent</i>	non-triviality pres.		$\langle \langle s, t \rangle t \rangle$	
Negative Pr. +EN e.g. <i>prevent</i>	non-triviality pres.		$\langle \langle s, t \rangle t \rangle$	Yes ($\geq_{prob}, <_{des}$)

Table 7.1: Classes of attitude predicates – EN & non-EN complements

- (122) *Dhen ipethesa an ihe kati me tin kardhia tu.
 NEG assumed if had.3SG something with the heart his.
 Assumed if he had a problem with his heart.
- (123) (Dhen) ipethesa mipos ihe kati me tin kardhia tu ⁴⁵
 NEG assumed lest had something me tin kardhia tu
 Assumed that he might have a problem with his heart.

Apart from the —maybe minimal— empirical differences between EN-complements and embedded questions, there are theoretical reasons that also point towards a distinct approach to EN licensing. Licensing of unselected embedded questions has been considered to be a reflect of the polarity sensitivity of the complementizer itself (Roussou 2009*b*) or a functional category that takes the embedded clause as its complement (Adger and Quer 2001). EN-complementizers, however, are also found in non-NC languages like Latin. If a language does not have Polarity Sensitive Items, it is impossible to reduce EN-licensing to polarity licensing.

7.3 Interim Summary

In this chapter I presented four empirical puzzles that cannot be captured by existing theories of EN. I showed that, contrary to what any 'expletive' theory of EN might assume, EN alters the meaning of the embedded and consequently the matrix proposition. An EN construction cannot function as a reply to a question that asks about the truth of the embedded proposition, in contrast with the minimally different non EN counterparts. What is more, epistemic modals cannot be embedded in EN constructions, even though EN clauses are tensed clauses. Finally, a matrix Negation can take different scope in sentences with *that* or EN complements and EN can be used instead of epistemic *tha* (will) in counterfactual wishes. Based on these facts, along with the need for a tensed proposition in the complement clause extensively discussed in chapter 5, I proposed that EN is an epistemic modal that is licensed only in the scope of predicates with existential force that take complements of type $\langle\langle s, t \rangle t \rangle$.

The largely overlapping distribution of EN-complements and embedded interrogatives, the similarities in their meaning as well as their licensing conditions point towards a comparative study of the two. As I showed in 7.2, however, this is a nontrivial matter as there are both empirical and conceptual reasons to pursue different accounts for the two and a more fine grained distinction that would explain both the similarities and the differences. At this point, I adopt the weakest position, that both EN and (Unselected) interrogatives would result in contradiction if they are embedded under an attitude of acceptance, in a way similar that a necessity epistemic would result in contradiction if embedded under an emotive doxastic or a dubitative.

⁴⁵sek.edu.gr Document file WFBG08-0001

Chapter 8

Conclusions and Potential Extensions

In this thesis I examined EN constructions in attitude contexts in Modern Greek, Classical Greek, Latin, Spanish, French, Hebrew and Russian and tried to identify its licensing conditions and its semantic contribution. I proposed that EN is an epistemic modal that can be licensed only in tensed CPs that are complements of interrogative embedding attitudes with existential force.

The comparison of this set of languages gave an insight into the relation between EN and Negative Concord: Firstly, EN is licensed in non-Negative Concord languages like Latin, therefore, it cannot involve the same licensing mechanism as Negative Concord. Secondly, I extended Yoon's (2011) observation that EN differs from 'real negation' in that EN does not license strong NPIs by demonstrating that in Latin, hence in non-Negative Concord languages, EN cannot trigger 'Double Negation' interpretations.

Based on existing but also new data I tried to identify the licensing conditions of EN and its semantic contribution. The consideration of the previously unexamined Classical Greek data, had two important consequences: firstly it provided straightforward evidence against the existence of a causal link between EN and Subjunctive or non-veridicality. Secondly, another implicit assumption was also falsified: EN can be licensed in infinitival complements. The comparative analysis of the Classical Greek, Hebrew and Russian EN infinitival complements on the one hand and French and Spanish on the other, revealed one of the necessary conditions for EN licensing: the complement clause must define its own Tense domain.

The semantic analysis of the predicates licensing EN in chapter 6 unveiled another necessary condition for EN licensing (in attitude contexts): the EN embedding attitudes are actually question selecting predicates with existential force. Having identified two (of the) licensing conditions of EN, I proceeded by investigating the semantic contribution of EN under attitudes. I presented four new empirical puzzles (epistemics are not licensed in EN sentences, EN sentences are infelicitous answers (in contrast with their non-EN counterparts), matrix negation has different scope in EN and non-EN constructions, EN can be used in counterfactuals) that actually led me to propose that EN is an epistemic modal. This proposal also explains the generalisation drawn in chapter 5: epistemic modals take scope over Tense, that is the reason why all EN clauses are Tensed clauses.

Finally, I pointed that EN-clauses are in many respects similar to (unselected) embedded questions: they have the same semantic type, they involve a set of equally probable doxastic alternatives and they are licensed only in attitudes with existential force. Their distribution is largely overlapping, making it possible to alternate EN-

complements with embedded questions. I showed also, however, that their distribution is not identical and thus a more detailed investigation of the topic is necessary.

Even though this excursus in the meaning and licensing conditions of EN resulted in a new proposal about its nature (namely that it is an epistemic modal) it actually raised more questions than the answers it provided. First of all, research on EN negation should be extended into two directions: firstly, examination of a broader set of languages including languages that do not license EN at all, e.g. Standard British English would shed more light on the licensing conditions of EN. Secondly, as was shown in chapter 2, EN is licensed in a variety of environments apart from attitudes. Therefore, a holistic explanation of the phenomenon presupposes extension of the current proposal in the rest of EN environments.

What is more, this thesis has not addressed at all the issue of the syntactic position of EN. In the past EN has been assumed either to be in the position of real Negation (e.g. Espinal 2000) or in a position higher than real negation (e.g. Abels 2005) or in a specific C-head (e.g. Yoon 2011). However, the facts are even more complicated than any of these analysis assumed. First of all EN negation can be either a complementizer (e.g. Hebrew, Latin, etc.) or in a position above TP but below C (e.g. French EN). Moreover, even in a single language, and within the same environment there might be different EN morphemes with different semantic contribution and (maybe) different syntactic distribution: an instance of such a language is ClGr (cf. Appendix). What is more, whereas in languages like Modern Greek, Classical Greek, Hebrew or Latin it is possible for EN and Real negation to cooccur in the same CP, this does not hold for Russian. Therefore, a detailed investigation of EN word order and the structural configurations that it is licensed is necessary. A comparative approach would be especially illuminating for the aforementioned linguistic differences.

Additionally, the data examined in this thesis point also to another empirical puzzle: in languages that have more than one declarative complementizer there is a preference in using the declarative complementizer that morphologically is related to *how*: this pattern is rather consistent across the languages examined in this thesis: In modern Greek EN is composed by *mi*(NEG) and *pos* (how/that) —never with *oti* (that), Latin *quin* if not Expletive in direct questions means 'how (come) not', Russian speakers prefer *kak by ... ne* (how mod NEG) from *ctoby ... ne* (that MOD neg) and finally in ClGr *ho:s ouk* and *me: pos* (NEG how) are attested but not *hoti* +EN (that NEG).⁴⁶

Pertinent to that question is also the question why EN complementizers that are homophonous to NEG have a largely overlapping but not identical distribution with EN complementizers that are composed of negation and a declarative complementizer. Finally, assuming that, under this proposal, EN complementizers have very similar semantics with question complementizers, a more detailed comparison of their distri-

⁴⁶Modern Greek has two declarative complementizers *oti* and *pos*. The latter can also be used as a manner *wh*-adverb in direct/embedded questions

- (xiv) a. Pos irthes?
How come
How did you come?
b. Niotho pos ime adhinami
Feel that be weak
I feel that I am weak.

There is some supersegmental phonological difference between the two (pre-theoretically we could say that interrogative *pos* is stressed but declarative *pos* is not) however it is debatable whether we are talking about the same lexical item where the difference in stress stems from the fact that interrogative *pos* is always stressed, whereas declarative *pos* is not or they are two different lexical items.

bution is necessary.

Finally, in this thesis that EN is only licensed in clauses with non-anaphoric Tense. This correlation actually invites an analysis of control in EN constructions: Sevdali (2006 et seq.) has argued that control is not dependent on Tense whereas Landau (2009) argues that there is a well established correlation between (non) availability of obligatory control and Tense specification of the embedded clause. If Landau is correct, a prediction is made: EN complements are never obligatorily controlled.

Appendix A

Appendix

A.1 Modern Greek

Emotive doxastics *fear*: *fovame* (fear), *anisiho* (worry) *aghonio* (be in anguish), *fovos* (fear -Noun), *aghonia* (agony), *proseho* (be carefull), etc.

(124) Fovame min espasa to podhi mu.
Fear not.NEG break the leg mine.CL
I am afraid that I might have broken my leg.

(125) Anisiho min eghine tipota.
worry not.NEG happen anything
I am worried if anything happened.

hope: *elpizo* (hope)

(126) Ipiza min ine chalasmeh i othoni ke ochi i karta.
Hope not.NEG is broken the screen and NEG the card
I hoped that the screen would be broken and not the card. ⁴⁷

Questions: Positive Bias

(127) Dhen tha rthis?
NEG Fut come
Won't you come?

Low likelihood, speculation

(128) Min/ Mipos itan arostos?
NEG/ NEG-that was sick
Was he sick? (speculation)

Alternative Questions

(129) itan fronimi i mipos simetichan se tipote kinitopiisis?
were prude or NEG-that participated in any protests

⁴⁷ Example originally found in <http://www.insomnia.gr/>

Were they prude or did they participate in any protests? (SEK (Corpus of Greek Texts) WOPG16-5196)

Rhetorical Questions *dhe(n)* (NEG)

- (130) Dhe tha sto eho pi kai 1000 fores?
 NEG FUT you.CL-that.CL have said and 1000 times?
 Won't have I told you a thousand times?

Interrogative Complements: *anarotieme*, *dhierotome* (wonder), *to endhechomeno* (the possible event), *eksetzo* (consider, investigate), *kitazo* (check), *prosecho* (be careful), *ipoptevome* (suspect), *skeftome* (think), etc.

- (131) Anarotiomun mipos itan arostos
 wonder NEG-that was sick
 I was wondering if he was sick.

Exclamatives *dhe(n)* (NEG)

- (132) San posi dhen skotothikan stin dhiarkia tu emfilii!
 Like how-many NEG killed.PSV in-the duration the civil-war
 How many were they killed during the civil war!

A.2 Classical Greek

Emotive doxastics *fear*: *perideidia* (be in great fear), *peridee:s* (very timid or fearful), *foboumai* (fear), *deido:* (fear), *orro:deo:* (dread, shrink from), *phrazo:* (beware of), *eulaboumai* (beware of), *fulattomai* (guard against), etc.

- (133) deido: me ou tis toi huposche:tai tode ergon
 fear NEG NEG someone you promise this task
 I am afraid lest non should undertake fo you this task. Homer K39.
- (134) ephobe:the:san me: kai epi sphas ho stratos cho:re:se.i.
 fear.Pst.Perf. NEG and against them the army march
 they feared lest the army marches against them. Thuc. II 101,2.
- (135) edeisan de me: lutta tis ho:s-per kusin humin empepto:koi
 fear PCL NEG rage some like-exactly dogs you.Pl fall-upon
 they feared lest some kind of madness would have fallen upon you exactly like upon dogs. Xen. *Anab.* V 7,26.
- (136) oute he: parousa eudaimonia pareschen oknon me: elthein es ta
 neither the present happiness provide fear NEG com to the
 deina.
 danger
 nor the existing prosperity could dissuade them from affronting danger.
 Thuc. III 39,3.
- (137) phobeisthai to me:te epenegkein pseude: timo:rian.
 fear the NEG put false punishment

ought rightly to dread bringing upon him a wrongful punishment.

In a subordinate clause introduce with *ho:s* or *hopo:s* with *ho:s* the matrix predicate is usually but not always negative:

(138) oud' an autoi antelegon, ho:s ou chreo:n ton e:sso: to:i
NEG PCL them dispute that NEG must the weaker the
kratounti hupoo:rein.
stronger give-way
(If we had done so,) not even would they have disputed that the weaker
must give way to the stronger. Thuc. I, 77, 3.

(139) ededoikei alla kai peri tou grammateiou hopo:s me hupo tou
fear but also about the memorandum that NEG by the
Meneksenou sulle:phthe:soito
Menexenos gather
he was in a state of fear . . . , but also with respect to the memorandum,
lest Menexenus should obtain possession of it Isocr. 17,22

hope: elpizo:(hope) only with the meaning of *expecting evils, look for, fear:*

(140) oudama elpisas me: kote ara ago:nisamenos houto: paraplhseio:s
never hoping NEG ever PCL fight so close
Kuros elase:i epi Sardis.
Cyrus march against Sardis
never thinking that after a contest so equal Cyrus would march against
Sardis. Hdt. 1,77,4.

(141) te: dhe: houte tis aphulasse hout' an elpise me: kote
the PCL and-not someone guard and-not PCL hope NEG ever
tis kata tauta anabhaie: anthro:po:n.
someone against these go-up men
was a place where no one was on guard, since no one thought any man
could go up that way. Hdt 8,53,1.

Dubitatives: *frontizo* (consider, ponder), *peiro:mai* (try lets), *metanoo:* (change one's mind), *ouk oida* (not know), *ade:lon <esti>* (it is unclear) *apisteo:* (doubt that), *hupopteuo:* (suspect that), *amphisve:teo:* (dispute the fact that), *amphilego:* (dispute), etc.

(142) . . . hupopteuomen kai humas, me: ou koinoi apobe:te . . .
suspect and you, NEG NEG impartial prove
. . . we suspect that you will also prove to be partial . . . Thuc, III, 53,2

Negative Predicates: *okno:* (hesitate to do sth), *oknon parecho:* (make sb hesitate), *empodizo:* (hinder), *arneomai* (deny), *aparnos/ eksarnos <eimi>* (deny), *anainomai* (refuse, decline to do), *apeirgo:* (prevent), *eirgo* (prevent), *antilego:* (reply that), *apogigno:sko:* (reject the law that), *apokruptomai* (conceal), *apoluo:* (acquit), *apostero:* (deprive of), *apotrepho:* (divert), *apochirotono:* / *apopse:phe:zomai* (vote against), *diamachomai* (refuse), *eirgo/ empodo:n eimi* (prevent), *antecho:/ apechomai/ apechomai/ epecho:/ katecho:* (abstain from),

ko:luo (hinder), *metabouleuomai* (alter one's plans), *metagignosko:* (change one's mind), *pheugo:* (and compounds - escape, avoid, disclaim), *anatithemai* (retract opinion), *apogigno:sko:* (abandon an intention), *peiro:mai* (try to do), etc.

- (143) ho Pre:ksaspe:s eksarnos e:n me: men apokteinai Smerdin.
 the Preksaspes denying was NEG PCL kill Smerdin
 Preksaspes denied killing Smerdin. Hrdt. 3, 67.

Questions Positive Bias: *oukoun, mo:n, ou, mo:n ou*

- (144) ou'koun soi dokei ephe: ho Kuros sumphoron einai to
 NEG-so you think say the Cyrus advantageous be the
 lele:thenai e:mai tauta bouleuontas
 have-hidden us these thinking
 "Well then," said Cyrus, do you think it good policy to have this plan
 of ours kept a secret?" Xen. *Cyr.* II.4.15
- (145) mo:n ou dokei dein phrontidos so:te:riou?
 NEg NEG think need care saving
 Surely don't you think there is no need of salutary counsel? Aesch.
Suppl. 417
- (146) eudaimonas de de: legeis ou tous tagatha kai ta kala
 happy PCL PCL say NEG the the-goods and the nice
 kekto:menous?
 acquired?
 And don't you call happy those who possess the good and the beautiful
 things? Plat. *Symp.* 202c

Negative Bias: *me:* (NEG), *mo:n* (NEG-so <*me:* + *oun*), *oukoun ouk, ou de:, me:*

- (147) me: ti soi doko: tarbein hupopte:ssein te tous neous
 NEG at-all you seem quail crouch and.PCL the new
 theous?
 gods
 Do you think I quail, perhaps, and cower before these upstart gods?
 Aesch. *Prom.* 959-960
- (148) mo:n algos ischeis...?
 NEG-so pain have
 Are you in pain? —No...Soph. *Phil.* 734
- (149) oukoun he: psuche: ou dechetai thanaton?
 NEG-so the soul NEG admit death
 And the soul does not admit death? —No. —Then the soul is immortal.
 Plat. *Phaedo* 105e

Rhetorical Questions: *oukoun* (NEG-so)

- (150) oukoun oiesthe to ksumpheron me met' asfaleias einai,
 NEG-so think the expediency on-the-one-hand with security be

to de dikaion kai kalon meta kindunou drasthai?
 the on-the-other right and good with danger act.Inf
 Then you do not adopt the view that expediency goes with security,
 while justice and honor cannot be followed without danger? Th. V,
 107.

Interrogative Complements: *frontizo*: (consider, ponder), *skopeo* (look (in)to) *proek-
 sereunao*: (investigate before), *enthumoumai* (notice or consider), *horao*: (give
 heed, usually in the imperative), *oida* (observe), etc.

Negative Bias: *me*:(NEG)

(151) skopeite, me: doke:sin eichet' ek theo:n
 consider NEG fancy have from gos
 Consider whether you had some fancy, sent by the gods. Eur. *Hel.* 119.

Metalinguistic Comparatives *ou*

(152) polin hole:n diaphtheirai mallon e: ou tous aitious.
 city whole destroy rather than NEG the responsible
 ...to destroy the whole city instead of the guilty. Thuc. II 36,4

A.3 Latin

Emotive Docastics: *timeo*/*metuo*/*vereor* (fear), *trepido* (tremble at), *timor*/*metus
 est* (there is fear that), *periculum est* (there is danger that), *in timore sum*/
in metu sum (I am in fear), *pavor capit me* (I am occupied with fear), *caveo*
 (apprehend), etc.

(153) agebamus verentes ne quid accideret.
 live afraid that something happen
 We lived afraid that something might happen. Cic. *Fam.* 13,9,2

Dubitatives: *non dubito* (I do not doubt), *non est dubium* (there is not doubt), *non
 ignoro* (not be ignorant), *non fallo* (escape one's notice), etc.

(154) non dubitabat quin ei crederemus ...
 NEG doubt that-NEG him believe
 he did not doubt that we believed him... Cic. *Att.* vi.2,3.

Negative Predicates (if negated they select for *quin*-clauses): *impedio* (hinder), *ob-
 sto* (prevent, hinder), *recuso* (refuse), *moro* (delay, hinder), *detertere* (discour-
 age), *continer* (be restrained), *recuso* (object), *praeterire* (neglect), *cuncto* (de-
 lay, hesitate), *veto* (prohibit), *interdico* (forbid), etc.

(155) id in hac disputatione de fato casus quidam ne
 this in this discussion about fate adverse-event some, NEG
 facerem, impedivit
 did hindered

In this discussion about fate this adverse event might hinder me from doing it. Cic. *Fat.* 1,1

(156) quibus non humana ulla, neque divina abstant, quin
to-them NEG human some, neither divine hinder, that-neg
socios amicos trahant, excidant
partners friends drag-away destroy
Sal. *Hist. Mithr.* 17

(157) Histiaeus Milesius, ne res conficeretur, obstitit.
Histiaeus Milesius, NEG thing be-completed prevented
Histiaeus Milesius prevented the thing from being completed. Nep.
Milt. 3.5.

Questions: *-ne* (NEG), *nonne* (NEG-NEG), *num*

(158) Tu -ne id veritus es?
You NEG that fear.PCPL are
Did you fear that? Cic. *Epist. ad Q.* i.3.1

Positive Bias: *nonne* (NEG-NEG), rarely with *-ne* attached to the verb (usually with *num*)

(159) non -ne animadvertis?
NEG -NEG observe
Don't you observe? Cic. *Nat. Deorum* 3,89.

Rhetorical Questions *-ne*

(160) Egone tu interpellem?
I-NEG you interrupt
What I interrupt you? Cic. *Tusc.* ii. 42

Interrogative Complements: *non metuo* (not apprehend), *prospicio*, *quaero*, *nescio*, *incerto*, etc.

(161) divinitus non metuo meae quin uxori latae suppetiae sient.
divine NEG fear my that-NEG wife brought succor is
I do not apprehend but that succour has been brought to my wife from
heaven. Plaut. *Am.* 5,1,53-54

(162) ...Socrates cum esset ex eo quaesitum, ...Archelaum
Socrates when was from him asked, ...Archelaus
...nonne beatum putaret
whether happy considered
Socrates, when he was asked whether he considered Archelaus ... to be
happy ... Cic. *Tusc.* 5,34

Exclamatives *-ne* (NEG)

(163) mene incepto desistere victam!
Me-NEG attempt desist defeated

A.4 Spanish

Emotive Doxastics *fear: temo* (fear)

- (164) Temo no/ que le haya sucedido alguna desgracia
Fear NEG/ that her have happen any misfortune
I 'm worried she may have suffered some misfortune.
- (165) Tenía miedo de que no lo vieran desde arriba
have fear of that/ Neg him see from up
He was afraid that they would see him from above.

Dubitatives *dudo* (doubt)

- (166) ¿Hay quien dude que no son falsas las tales historias?
There whoever doubt that NEG are false the such stories
Does anybody doubt the falseness of such stories? (Espinal 2000:61)

In Spanish an n-word that appears preverbally is interpreted as negative. However, in dubitative sentential complements it has the same interpretation as a weak NPI:

- (167) a. Dudo que nadie sepa la solución.
Doubt that nobody knows the solution.
I doubt that anybody knows the solution.
- b. Dudo que sepa nadie la solución.
Doubt that knows anybody the solution.
I doubt that anybody knows the solution.

Questions Positive bias.

- (168) ¿No tienes miedo?
NEG have fear
Aren't you afraid?
- (169) ¿No me podrías dejar cien pesos?
NEG me could leave hundred pesos
Couldn't you lend me a hundred pesos?

Rhetorical Questions. A speaker may sometimes use a negative question to convey surprise or annoyance.

- (170) ¿Todavía no has terminado?
Yet Neg have finished
Haven't you finished yet?
- (171) ¿Aún no lo has hecho?
still NEG it.CL have done
You still haven't done it?

Exclamatives The *no* (NEG) makes it clear that the sentence is an exclamation, not a question.

- (172) ¡Qué de angustias (no) habrán pasado!
What of anguish NEG have pass
What anguish they must have suffered!
- (173) ¡Cuántas veces (no) te lo habré dicho!
How-many times NEG you.CL it.CL have told
How many times must I have told you!
- (174) ¡Cuántas veces te lo habré dicho!
How-many times you.CL it.CL have told
How many times have I told you?

Metalinguistic Comparatives *no* (NEG)

- (175) Preferiría salir con vosotros que (no) estar trabajando todo el fin de semana.
Prefer go-out with you that NEG be working whole the of week
I would rather go out with you than be working the whole weekend.

Degree Comparatives *non*

- (176) Spende piu denaro che non guadagni.
Spends more money that NEG earns
He spends more money than he earns. (Heatwole & Vanni 1949)
- (177) Mejor gastar cien mil ahora que (no) tener que comprar un coche nuevo para el verano.
Better spend hundred thousand now that NEG have that buy one car new at the summer
Better spend one hundred thousand now than have to buy a new car by summer.

Until-clause . *no* (NEG)

- (178) No recibirás hasta que (no) encuentre trabajo.
NEG receive until that NEG find job
You won't get the money until (s)he finds a job.

But *no* (NEG) is not used if the main clause is positive:

- (179) Siguieron sin hacer nada hasta que llegó el capataz.
continued without do nothing until that came the foreman
They carried on doing nothing until the foreman arrived.

Unless-clause *no* (NEG)

- (180) me casaré contigo a no ser que/ como no sea que/ a
 Me.CL marry with-you at NEG being that as NEG is that at
 menos que hayas cambiado de idea.
 less that have changed of opinion
 I will marry you unless you have changed your mind.
- (181) No sé qué sugerir. Como no (sea que) vayamos al
 NEG know what suggest as NEG is that go to-the
 teatro.
 theatre.
 I don't know what to suggest, unless we go to the theatre.

A.5 French

Emotive Doxastics *fear*: *avoir crainte/peur* (have fear), *craindre, de crainte/ peur* (fear), *redouter* (dread), *trembler* (tremble), *apprehender* (apprehend)

- (182) Elle appréhende qu'il ne se mette à pleuvoir.
 She apprehend that it.EXPL NEG CL put at rain
 She fears that it will start raining.

Dubitatives: (negated) *ne pas douter*(do not doubt), *nul doute*(no doubt), *ne pas nier*(do not deny), etc.

- (183) Je ne doute pas qu'il n'ait raison.
 I NEG doubt NEG that he NEG have right
 I don't doubt if he is right.

In (Rowlett 1998, 2) *doubt* does not have to be negative to license EN:

- (184) je doute qu'il ne soit là.
 I Doubt that he NEG is here
 I doubt that he is here.

Negative Predicates: *empêcher* (hinder), *éviter* (avoid), *prendre garde* (beware)

- (185) Tâche d'éviter qu'ils ne s'en aillent tout de suite.
 try to prevent that they NEG pr.CL CL go immediately
 suite.

Try to prevent them from going.

- (186) J'ai tout fait pour empêcher que les mariés ne se séparent.
 I have all done for hinder that the married NEG separate
 séparent.

I have done everything to prevent the married from breaking up.

Rhetorical Questions *ne* (NEG)

- (187) Qui ne souhaite partir en vacance?
 Who NEG wish depart at vacations
 Who doesn't wish to on holidays? (Rowlett 1998, 28)

Exclamatives *ne* (NEG)

- (188) N en deplaise aux autorités!
 NEG it.CL please at-the authorities!
 Whether the authorities like it on not! (Batchelor & Chebli-Saadi 2011, 410)

Degree Comparatives *ne* (NEG)

- (189) Elle travaille pluw que je ne fais.
 She works more that I NEG do
 She works more than I do. (Batchelor & Chebli-Saadi 2011, 354)

Before-clause *ne* (NEG)

- (190) Avant qu'elle ne sorte, elle doit prendre son repas.
 Before that she NEG go-out, she must take her meal
 Before she goew out, she must eat.

Unless-clause *ne* (NEG)

- (191) ...à moins qu'il ne vienne le premier.
 ...at less that he NEG come the first
 unless he comes first.

Without-clause *ne* (NEG)

- (192) Les cultures OGM sont souvent outorisées sans que la recherch
 the cultures OGM are often authorised without that the research
 scienifique n ait examiné précisément impact sur quiconque,
 scientific NEG have examined precisely the ...
 sur ...

The OGM culture are often authorised without the scientific research having examined precisely their impact on people, on... (Batchelor & Saadi 2011 :619)

A.6 Hebrew

Negative Predicates: *hitnazer* (abstain), *nimna* (refrain), *acar* (stop), *mana* (prevent), *manua* (adj.)(prevented), *hitxamek* (avoid), *nirta* (flinch), *heni* (dissuade), *xadal* (stop, cease), *histamet* (shirk)

- (193) a. Gil nimna/ xadal me -ledaber im Rina.
 Gil refrained/ stopped from -to-talk with Rina
 Gil refrained from/ stopped talking to Rina.

- b. Al ma Giil nimna me-ledaber.
about what Gil refrained from-to-talk
About what did Gil refrain from talking?
- c. Ha-bikush ha-acum mana me -ha -mexirim laredet.
the-demand the-huge prevented from -the -prices to-fall
The huge demand prevented the prices from falling.
- d. Ha-kaba'im man'u me -ha -esh le'hitpshet.
the-firemen prevented from -the -fire to-spread
The firemen prevented the fire from spreading.
- e. Gil mana/ acar bead Rina me-la azov.
Gil prevented/ stopped through Rina from-to-leave
Gil prevented/ stopped Rina from leaving. (Landau 2002)

Questions Positive bias: negation marker (Glinert 1989)

- (194) (ha im) lo yashnu?
QPart NEG
Weren't they asleep?

exclamatives:

These exclamations convey not extremes of degree/ quantity (as in question-shaped exclamations earlier) but rather that everyone/ everything etc. is involved thus contrast the following:

- (195) el mi sho-lo paniti!
to who that-not I-turned!
Who I only turned to!
- (196) mi she-lo haya sham!
who that-not was there!
Who was only There!
- (197) ma she-hi lo yodaat!
what that-she not knows
What she only knows!
- (198) efo she-lo hayinu hayom!
where that not we-were today
Where we've only been today!

Compare:

- (199) eH she-hu lo nisa!
how that-he not tried
How he only tried! (=he tried everything)
- (200) eH she-hu nisa!
how that-he tried
How(hard)he tried!

Less colloquially, the conjunction she- can drop, but still with the negative a blend between a relative clause and the question-shaped exclamations

- (201) ma hi lo yodaat!
 what she not knows
 What she only knows!

Complements of exclamative predicates (matrix negation is necessary): *lepithale*
 (to be surprised)

- (202) ani lo etpale im lo asu et ha- tevox ha-
 I NEG will.be.surprised if NEG they.did ACC the- massacre the-
 ze be- bet hanum rak kedei levatel et mic'ad ha-ge'ava ...
 this in- Bet Hanun only to call.off ACC parade the-pride
 I wouldn't surprised if this massacre in Bet Hanun was NEG committed
 only in order to call off the pride parade ... (www.walla.co.il, 11/8/06
 cited by Eilam 2009)

Free Relatives *lo* (NEG)

- (203) a. Halaxnu le'an she-amru lanu.
 we.went to.where that-they.told to.us
 We went where we were told to.
 b. Halaxnu le'an she-lo amru lanu.
 we.went to.where that-neg they.told to.us
 We went wherever we were told to. (Eilam 2009)

Until-clauses *lo* (NEG)

- (204) lo hifsakti lenakot ad she-ha-orxim lo high'u.
 NEG I.stopped to.clean until that-the-guests NEG arrived
 I didn't stop cleaning until the guests arrived. (Eilam 2009)

A.7 Russian

Emotive Doxastics *fear*: *bojat'sja* (to be afraid of), (*o*)*bespokoit'sja* (to worry), *op-sat'sja* (to fear), *ispugat'sja* (to be frightened of)

- (205) Ja bojus, kak by on ne opzdal!
 I fear how MOD He NEG was late
 I'm afraid he'll be late. (Brown & Franks 1995)

Notice the difference if the modality marker *by* (MOD) is absent.

- (206) Ya boyuw, kto moi rasskazy komu-nibud'ne ponravyatsya.
 I fear that my storiew someone NEG like
 I fear that someone wouldn't like my stories. (Timberlake 2004)

- (207) Ya boyus, kto moi rasskazy nikomu ne ponravyatsya.
 I fear that my stories nobody NEG like
 I fear that no one would like my stories. (Timberlake 2004)

Questions Positive Bias: Negative questions, which open up the possibility that the positive state of affairs holds, prefer the accusative

- (208) Ty ne znaysh' etu semeyku.
 you not know thiw family<ACC>
 Don't you know that family?

In asking a question using a negated verb, the speaker indicates that the positive situation is expected, or hoped for, or imagined, despite the real possibility that the negative situation obtains. (Timberlake 2004, 322)

- (209) ne udalos lki komu-nib uznat.
 not managed whether who-nibud discover
 hasn't anyone succeeded in finding out? (The utterance suggests that the speaker suspects the situation might be true—that someone has learned the answer)

Rhetorical Questions *ne* (NEG)

- (210) Dzhek Potroshitel! Kto ne pomnite eto strashnoye imya.
 Jack the-ripper! Who not remember this scare name<ACC>?

Jack the Ripper! Who does not remember that horrible name? (Timberlake 2004)

- (211) Ljubil *(li) kto tebjja, kak ja?
 Loved Q who you as I
 Did anyone love you like I did? (Brown & Franks 1995)
- (212) Nu ne govoril *(li) ja tebe?
 well NEG told Q I you
 Well, didn't I tell you?! (Brown & Franks 1995)

Until-clause *ne* (NEG)

- (213) Ja podozdu, poka ty ne prideš.
 I will-wait until you NEG arrive
 I will wait until you will arrive. (Brown & Franks 1995)

List of Abbreviations

Aesch. <i>Eum.</i>	Aeschylus, <i>Eumenides</i>
Aesch. <i>Suppl.</i>	Aeschylus, <i>Suppliant Women</i>
Aesch. <i>Prom.</i>	Aeschylus, <i>Prometheus Bound</i>
Apoll. Dyscol. <i>De conjunctionibus</i>	Apollonius Dyscolus, <i>De conjunctionibus</i>
Cic. <i>Ac.</i>	Cicero, <i>Academica</i>
Cic. <i>Att.</i>	Cicero, <i>Letters to Atticus</i>
Cic. <i>Ad Brut.</i>	Cicero, <i>Letters to Brutus</i>
Cic. <i>Rob. Post.</i>	Cicero, <i>For Rabirius Postumus</i>
Cic. <i>Ver.</i>	Cicero, <i>Against Verres</i>
Cic. <i>Planc.</i>	Cicero, <i>For Plancius</i>
Cic. <i>Tusc.</i>	Cicero, <i>Tusculanae Disputationes</i>
Cic. <i>Nat. Deorum</i>	Cicero, <i>De Natura Deorum</i>
Cic. <i>Epist. ad Q.</i>	Cicero, <i>Letters to Quintus</i>
Dem	Demosthenes
Eur. <i>Andr.</i>	Euripides, <i>Andromache</i>
Eur. <i>Hel.</i>	Euripides, <i>Helen</i>
Eur. <i>Or.</i>	Euripides, <i>Orestia</i>
Hdt.	Herodotus
Isocr.	Isocrates
Nep. <i>Milt.</i>	Cornelius Nepos <i>Miltiades</i>
Plat. <i>R.</i>	Plato, <i>Republic</i>
Plat. <i>L.</i>	Plato, <i>Laws</i>
Plat. <i>Theaet.</i>	Plato, <i>Theaetetus</i>
Plat. <i>Phil.</i>	Plato, <i>Philebus</i>
Pl. <i>Am.</i>	Plautus, <i>Amphitruo</i>
Sal. <i>Hist. Mithr.</i>	Sallust <i>Historiae Mithridates</i>
Soph. <i>Antig.</i>	Sophocles, <i>Antigone</i>
Soph. <i>Phil.</i>	Sophocles, <i>Philoctetes</i>
Th.	Thucydides
Verg. <i>Aen.</i>	Vergilius, <i>Aeniad</i>
Xen. <i>Anab.</i>	Xenophon, <i>Anabasis</i>
Xen. <i>Cyr.</i>	Xenophon, <i>Cyropaedia</i>

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