

Evripidis Tsiakmakis*

On the non-homogeneity of expletive negation in Greek and beyond

<https://doi.org/10.1515/ling-2024-0063>

Received April 3, 2024; accepted December 19, 2024; published online April 4, 2025

Abstract: Expletive negative markers, i.e., negative markers that do not reverse the truth conditions of the sentence in which they occur, have been reported to appear in a wide array of languages and in a fairly large set of syntactic environments. Previous research has shown that expletive negation is a non-homogeneous phenomenon. Focusing on Greek, I motivate two general claims related to this non-homogeneity: (i) Greek expletive negation hosts can be classified into two linguistically relevant groups, depending on whether they feature the standard negative marker *dhen* or the modal negative marker *min*. (ii) The semantic contribution of the expletive occurrences of *dhen* and *min* retains at least parts of the meaning of their respective non-expletive counterparts. After presenting some first evidence that the dichotomy of expletive negation hosts motivated by the Greek data extends to other languages, I submit the following hypothesis as a novel promising perspective in the study of expletive negation cross-linguistically: The bi-partite distinction between *dhen*-expletive negation hosts and *min*-expletive negation hosts may be cross-linguistically valid, suggesting that expletive negation hosts across languages are divided into two classes: (a) a class of expletive negation licensors that obscure the truly negative semantics of the featured negative markers, and (b) a class of modal expletive negation licensors that feature expletive negative markers corresponding to the spell-out of modal or deontic ordering sources.

Keywords: expletive negation; standard negation; modality; Greek; non-homogeneity

1 Introduction

Sentential negation in natural languages is canonically interpreted as an operator that reverses the truth conditions of the sentence in which it occurs – see Horn (2001) for an overview of the linguistic study of negation in the last two and a half millennia.

***Corresponding author: Evripidis Tsiakmakis**, Department of Translation and Language Sciences/ Formal Linguistics Group (GLiF), Universitat Pompeu Fabra, 08018, Barcelona, Spain, E-mail: evripidis.tsiakmakis@upf.edu. <https://orcid.org/0000-0001-6799-7894>

The intuitive nature of this statement is revealed when one compares the pair of English examples in (1) below.

- (1) a. It is raining in Lisbon.
b. It is *not* raining in Lisbon.

The proposition conveyed by Example (1a) is true under the condition that there is rain falling over Lisbon at the moment the speaker is uttering this sentence. The proposition expressed by Example (1b) on the other hand, which is minimally different from (1a) in further containing the English negative marker *not*, is true in all other cases; it might be sunny, cloudy or snowing in Lisbon, assuming for the sake of the example that there are only four possible weather conditions.

Strikingly, not all instances of sentential negative markers appear to bring about a reversal or complementarity of truth conditions.

- [French]
- (2) Je crains que vous *ne* soyez en retard encore une
I fear that you NEG you.are.SUBJ in late again one
fois.
time
'I'm afraid you are late once again.'

(Tahar 2021: 288, ex. (1b))

[Catalan]

- (3) Quin desastre *no* heu fet!
what disaster NEG you.have made
'What a mess you've made of everything!'

(Espinal 2000: 50, ex. (5b))

[Spanish]

- (4) No volveremos hasta que *no* haya agua en
NEG we.will.return until that NEG there.is.SUBJ water in
nuestro departamento.
our apartment
'We won't come back until there is water in our apartment.'

(Cépeda 2018: 21, ex. (32))

As the English translations suggest, the French speaker is afraid that the addressees are actually late again, the Catalan kids have indeed made a big mess, and the Spanish speaker is unwilling to return to their apartment until there *is* water, despite the presence of *non*, *no*, and *no* in (2), (3), and (4) respectively. Such occurrences of negative markers that, at least at first sight, do not reverse the truth conditions of the proposition they embed are usually lumped together under the term *expletive negation* – also *pleonastic* or *abusive negation* (Espinal 1992, 2000, 2002; Greco 2019,

2020; Horn 2001: 458, 2010; Jespersen 1962 [1917]: 75–77; Moeschler 2020; Muller 1991; Vendryès 1950: 357–443; among others).

If expletive negative markers do not bring about a reversal of truth conditions by definition, then what is the meaning they contribute? The answer given to this question by the first studies of the phenomenon within the framework of Generative Grammar was “zero”; expletive negation was formally treated in a way parallel to Negative Concord Items (NCIs; Espinal 1992, 2000) and was thus considered to have no interpretative import. Recently, however, a growing body of research has motivated the claim that instances of expletive negation may actually be interpretable, be it (i) as canonical negative markers whose meaning is obscured by peripheral factors (Cépeda 2018; Labelle 2023; Tsiakmakis 2023), (ii) as epistemic or deontic modals (Choi and Lee 2017; Makri 2013; Tahar 2022; Tsiakmakis and Espinal 2022; see also Olguín Martínez 2023, 2024), or (iii) as negators operating at the level of implicatures (Delfitto 2020; Delfitto et al. 2019; Giannakidou and Yoon 2008; Yoon 2011) or presuppositions (Fortuin 2023). Such variety of approaches to the interpretative properties of expletive negation raises the question whether we are dealing with a single phenomenon or with various phenomena unified under the unexpected absence of negative meaning.

In order to take an informed stance on the analytical dilemma laid out above, one needs to have a global overview of the distribution of expletive negative markers across languages. Several attempts have been made to create near-exhaustive lists of the linguistic environments in which expletive negation may occur (Greco 2019, 2020; Horn 2001: 458; Jin and Koenig 2019, 2020; Makri 2013; among others). Putting together these lists, one can compile the following inventory of expletive negation hosts:

- (5) Potential expletive negation hosts across languages
 - i. emotive doxastic predicates (e.g., *FEAR*,¹ *HOPE*²)
 - ii. negative predicates (e.g., *FORBID*, *PREVENT*)
 - iii. dubitative predicates (e.g., *DOUBT*)
 - iv. temporal expressions (e.g., *BEFORE*, *UNTIL*)
 - v. negative adverbials (e.g., *WITHOUT*, *ALMOST*)
 - vi. conditional operators (e.g., *UNLESS*)
 - vii. comparatives (degree comparatives, metalinguistic comparatives)
 - viii. polar questions
 - ix. rhetorical questions
 - x. exclamatives
 - xi. free relatives

¹ Throughout the paper, I use italic small caps to refer to the approximate meaning of the set of relevant expletive negation licensors.

² But see Goodhue and Shimoyama (2024), for arguments that *HOPE*-predicates do not license expletive negative markers in Japanese.

If a unitary approach to expletive negation was to be adopted, as proposed for example in Delfitto et al. (2019) and Delfitto (2020), the eleven hosts in (5) would have to form a natural class. This is clearly not the case, as Jin and Koenig (2020) note. There is no characterizing property shared by all hosts, other than the licensing of expletive negative markers itself. Consequently, what the linguistic literature has dubbed as expletive negation should be regarded as a non-homogeneous phenomenon. Can we at least identify subclasses of expletive negative markers though?

Jin and Koenig (2020) take expletive negation proper to be triggered by the semantics of a lexical predicate or operator on which said negation is syntactically dependent (see also Espinal 1992, 2000, 2002; Horn 2010; Tsiakmakis and Espinal 2022). Under this view, the hosts listed in (i) through (vii) arguably constitute the class of proper expletive negation hosts, leaving out the rest. Although methodologically solid, the choice to pin the expletiveness of negation on the word-status of its licenser is theoretically shaky. Note, for example, that the phonologically null operator introducing questions has a theoretical status very similar to the doxastic operator introduced by a lexicalized *FEAR*-predicate (Giannakidou and Mari 2021). Moreover, there is no lexical property of *HOPE*-predicates that makes them a licenser similar to *BEFORE*- or *WITHOUT*-words, for example, but distinct from interrogative operators.

Greco (2019, 2020), focusing exclusively on Italian data, proposes another partition of expletive negation hosts based on the (un)availability of NCIs or – as he calls them – *n-words*. Intriguingly, with this criterion, *BEFORE*-hosts differ significantly from *UNTIL*-hosts, and degree comparatives are to be regarded as substantially different from metalinguistic comparatives. While the motivation for this partition is in a way more grammatically sensitive than the one driving the classification put forth by Jin and Koenig (2020), it does not necessarily tell us much about the status of the expletive negative marker in each case. On the one hand, NCIs may be licensed under different conditions cross-linguistically (see Giannakidou 2020 for an overview). On the other hand, very recent research suggests that NCIs are interpreted negatively regardless of the presence of an overt truly negative licenser (Espinal et al. 2023).

In this paper, I propose that the non-homogeneity of expletive negation be addressed under the prism of the non-homogeneity of canonical negation. Concretely, I capitalize on the typological observation that some languages feature morphologically distinct sentential negators (Dahl 2010). Greek, being one of these languages (Holton et al. 2012 [1997]: 509–515), shows that variable negator realization extends to instances of expletive negation, too.³ On a first level, I show that the morphosyntax of the expletive negative marker in Greek can help reveal two

³ See Dobrushina (2021) and Jin and Koenig (2021) among others, for the same observation regarding languages other than Greek.

linguistically relevant subclasses of expletive negation hosts in this specific language. On a second level, I explore the possibility that the principled non-homogeneity of expletive negation in Greek extends to other languages as well.

The paper is structured as follows: In Section 2, I lay out the panorama of Greek sentential negation, including both its canonical and its expletive instances. Section 3 zooms in on expletive negation hosts that feature the negative marker *dhen*, while Section 4 focuses on hosts involving the negative marker *min*. In Section 5, I speculatively extend the insight gathered via the study of *dhen* and *min* to the full inventory of expletive negation hosts identified cross-linguistically. Section 6 concludes the paper.

A terminological clarification is in order before we proceed. Incorporating the core insight of Tsiakmakis and Espinal (2022), I use the term *expletive negation* throughout the paper merely as a descriptive, metalinguistic label that (i) comprises all instances of negative markers that appear to be interpreted non-canonically up to the level of the utterance, and (ii) does not in itself involve any commitment regarding the (lack of) semantics of these negative markers.

2 The distribution of Greek sentential negative markers

Greek displays two morphologically distinct sentential negation markers, namely *dhen* and *min* (Holton et al. 2012 [1997]: 509–515; Klairis and Babiniotis 1999: 109–118; Triantafyllidis 1941: 195; Tzartzanos 1989: 281–299, among others). What is barely made explicit in Greek reference grammars is that the two negators have both truly negative and expletive instantiations. To facilitate exposition, let us start with their purely negative uses.

2.1 The negative uses of *dhen* and *min*

The negative marker *dhen* is used in Greek to negate the verbal predicate of an indicative sentence (Holton et al. 2012 [1997]: 509–515). It can thus be regarded as the exponent of standard negation in the sense of Dahl (2010).

- (6) *Dhen* vrexī sti Lisavona.
 NEG₁⁴ rains at.the Lisbon
 ‘It is not raining in Lisbon.’

4 For the sake of clarity, I gloss *dhen* as NEG₁ and *min* as NEG₂ throughout the paper.

In Example (6), *dhen* syntactically embeds a Tense Phrase (TP) denoting the proposition *It is raining in Lisbon* and reverses its truth conditions. The denotation of the whole sentence in (6) is the complementary proposition corresponding to *It is not raining in Lisbon*. In this sense, *dhen* is interpreted as canonical sentential negation, formally defined as a function that takes a proposition p as its argument and returns its polar propositional alternative $\neg p$:

$$(7) \quad \llbracket \text{dhen} \rrbracket = \lambda p. \neg p$$

As for the negative marker *min*, its distribution is complementary to the one of *dhen*. For this reason, *min* is often labeled as the subjunctive negative marker (Holton et al. 2012 [1997]). Given the fact that Greek lacks morphological marking of subjunctive mood though (Roussou and Tsangalidis 2010), *min* is best described as a polar variant of *dhen*, i.e., as a variant dependent on the presence of a semantic licenser (Chatzopoulou 2018). Specifically, *min* emerges only in contexts involving a non-veridical operator (Giannakidou 1998), such as the directive speech act operator in (8) or the operator introduced by the *WANT*-predicate in (9).

- (8) *Min pas sti Lisavona.*
 NEG₂ you.go at.the Lisbon
 'Don't go to Lisbon.'

- (9) *Thelo na min pas sti Lisavona.*
 I.want SUBJ NEG₂ you.go at.the Lisbon
 'I want you to not go to Lisbon.'

The English translations show that *min* is interpreted as a run-of-the-mill sentential negation marker; the content of the order in (8) and the speaker's desire in (9) involve the addressee's *not* going to Lisbon. In principle, then, one could attribute to *min* the same denotation as *dhen*:

$$(10) \quad \llbracket \text{min} \rrbracket = \lambda p. \neg p$$

When comparing the negative uses of *dhen* with those of *min*, however, one can easily see that (10) cannot be entirely correct. The *dhen*-sentence in (6) denotes a proposition of negative polarity $\neg p$, which is true under a state of affairs such that there is no rain falling in Lisbon at the moment of utterance. The *min*-sentences in (8–9), on the other hand, cannot be characterized as true or false; they both express the speaker's preference for possible worlds where the negative proposition corresponding to *The addressee does not go to Lisbon* is true (Condoravdi and Lauer 2012; Giannakidou and Mari 2021; Kratzer 1981, 1991; Portner 2009, among others). Reference to possible worlds is essential for the interpretation of the negative occurrences of *min*. Consequently, *min* can be dubbed as the Greek modal negative marker.

For our current purposes, the claim above can be formally translated using the standard theory of modality by Kratzer (1981, 1991). First, I adopt the simplified definition of an ordering source shown in (11).

- (11) Ordering source $g(w)$
 For any set of propositions X and any worlds w, w' : $w \leq_X w'$ iff for all $p \in X$ if $w' \in p$ then $w \in p$.

Then, I adopt the definition of *Best* worlds as derived by the ordering source $g(w)$:

- (12) $\text{Best}_{g(w)(X)} : \{w' : \forall p \in X (w' \in p)\}$
Best, as defined by the ordering source $g(w)$ and with respect to the set of propositions X , includes the set of possible worlds w' such that, for every proposition p that belongs to X , p is true in w' .

Now that the relevant terms have been defined, the negative marker *min* can be claimed to introduce an ordering source such that *Best* includes only worlds where $\neg p$ is true; worlds where the addressee does not go to Lisbon, in the case of our Examples (8) and (9) above. *Min*, then, is formally defined as a function that is always interpreted with respect to an ordering source, it takes a proposition p as its argument and ensures that the complementary proposition $\neg p$ is true in all the possible worlds that are *Best* worlds.

- (13) $\llbracket \text{min} \rrbracket^{g(w)} = \lambda p. \forall w' \in \text{Best}_{g(w)} : \neg p(w')$

Summing up, Greek uses both the negative marker *dhen* and the negative marker *min* to negate a proposition. The main difference between these two, which for the most part determines their distribution, is that the latter further involves a modal component.

2.2 The non-negative uses of *dhen* and *min*

Several researchers have identified allegedly non-negative, that is, expletive, uses of the Greek sentential negative markers, mostly extending insights from Romance or Germanic languages. Espinal (1997) cites the following example from Greek:

- (14) Posus anthropus *dhen* kseyelase sta niata tu!
 how.many men NEG₁ cheated in.the youth his
 'How many people he cheated in his youth!'

(Espinal 1997: 76, ex. (2b))

Under the indicated reading, the sentence in (14) corresponds to an exclamative conveying the speaker's surprise at the number of people that the person talked

about cheated when he was young, not the number of people that he did *not* cheat. In other words, it appears that the negative exclamative in (14) features an expletive instance of the negative marker *dhen*.

Romero and Han (2004) report that the negative marker *dhen* can receive a non-canonical interpretation also in the context of Greek polar questions.

- (15) *Dhen* ipie o Yanis kafe?
 NEG₁ drank the Yanis coffee
 ‘Didn’t Yanis drink coffee?’

(Romero and Han 2004: 614, ex. (14))

According to the authors, the preposed negation question in (15) encodes the speaker’s previous belief that Yanis actually did drink coffee. Abstracting away from the specifics of the example, Romero and Han (2004) claim that negative polar questions with preposed *dhen* encode the speaker’s bias towards the positive propositional alternative *p*, not its negated complement $\neg p$. In this sense, Greek preposed negation questions can be argued to be expletive *dhen* hosts.

Negative rhetorical questions could also be added to this list:

- (16) Sto kato kato, *dhen* ine xrisimi ke i vroxi?
 at.the down down NEG₁ is useful and the rain
 ‘After all, isn’t rain useful?’

Greek rhetorical questions can be identical in form to genuine information-seeking questions (Holton et al. 2012 [1997]: 503–511; Veloudis 2018). In Example (16), the Greek equivalent of *after all* is meant to strongly favor the rhetorical reading (Sadock 1971), according to which the speaker in a way asserts that rain is useful (Reese and Asher 2009; Sadock 1971). Crucially, under this interpretation, *dhen* is arguably expletive in (16) as well.

Intriguingly, Greek root (17a) and embedded polar questions (17b) may feature expletive instances of the negative marker *min*, too (Chatzopoulou 2018; Makri 2013; Tsiakmakis et al. 2023).

- (17) a. *Min* kimate to pedhi?
 NEG₂ sleeps the kid
 ‘Is the kid maybe sleeping?’
 b. Kita *min* kimate to pedhi.
 look.IMP NEG₂ sleeps the kid
 ‘Check if the kid is maybe sleeping.’

A felicitous use of the questions in (17) does not require the existence of compelling evidence against the positive proposition corresponding to *The kid is sleeping*. In fact, chances are there is evidence in favor of this positive propositional alternative whenever either question is used (see Tsiakmakis et al. 2023). Therefore, (17a–b) do

not behave like standard negative polar questions in the sense of Büring and Gunlogson (2000); they involve occurrences of *min* that are interpreted non-negatively.

The negative marker *min* receives the same expletive interpretation when it introduces complements of predicates denoting fear (Chatzopoulou 2018; Makri 2013; Tsiakmakis and Espinal 2022):

- (18) Fovame *min* aryiso sto mathima.
 I.fear NEG₂ am.late at.the class
 'I fear I may be late for class.'

Notice that, despite the presence of *min*, Example (18) conveys the speaker's fear that she will be late for class, not her fear that she will not, as would be expected if *min* were interpreted as a canonical sentential negation marker.

Tsiakmakis et al. (2023) mention in passing the last context that licenses expletive occurrences of *min* in Greek, namely conditionals.

- (19) *Min* po kati, amesos na griniaksis!
 NEG₂ I.say something immediately SUBJ you.whine
 'If I say something, you will immediately start whining!'
 (Tsiakmakis et al. 2023: fn. 4, ex. (i))

While this use is understated and understudied in the linguistics literature, *min* is very productive and unambiguously non-negative in conditionals. According to (19), the addressee's whining is conditioned on the speaker's talking, not their silence.

Putting together all the above, the Greek expletive negation hosts form a subset of the general host inventory compiled in the Introduction. The list in (20) summarizes the distribution of Greek expletive negation, displaying its morphological exponence in each case.

- (20) Expletive negation hosts in Greek
 i. emotive doxastic predicates: *min*
 ii. conditional operators: *min*
 iii. polar questions: *min/dhen*
 iv. rhetorical questions: *dhen*
 v. exclamatives: *dhen*

Building on the Greek sentential negation landscape described in the present section, I will firstly proceed to motivate two general claims:

- (i) Greek expletive negation hosts can be classified into two groups, depending on whether they feature the negative marker *dhen* or the negative marker *min*.
- (ii) The interpretative contribution of the expletive occurrences of *dhen* and *min* retains at least parts of the meaning of their respective non-expletive counterparts.

Then, I will present some first empirical arguments to motivate the following hypothesis as a future research agenda:

- (iii) The bi-partite distinction between *dhen*-expletive negation hosts and *min*-expletive negation hosts extends to languages other than Greek.

With this triple goal in mind, the non-negative uses of *dhen* and the non-negative uses of *min* will now be studied separately and in depth.

3 Expletive *dhen* and its hosts

In the previous section, the Greek negative marker *dhen* was shown to be interpretable as expletive in the context of negative exclamatives, preposed negation polar questions, and negative rhetorical questions. Let us zoom in on each of these expletive negation hosts and investigate the source of the non-negative interpretation of *dhen* and the common denominator behind its non-negative occurrences.

3.1 Greek negative exclamatives

The exclamative sentence type in Greek prototypically involves an initial *wh*-element optionally followed by the complementizer *pu* ‘that’ (Holton et al. 2012 [1997]: 516).

- (21) Ti oreá ruxá (pu) aghorase o Petros!
 what nice clothes that bought the Petros
 ‘Oh what nice clothes Petros bought!’

Assuming the standard view on exclamatives (Michaelis 2001; see also Castroviejo 2006, 2021; Rett 2011, among others), Example (21) conveys the speaker’s surprise at the extreme degree of niceness that Petros’s clothes exhibit. In principle, Greek grammar allows for negative exclamatives, too:

- (22) Ti oreá ruxá (pu) *dhen* aghorase o Petros!
 what nice clothes that _{NEG₁} bought the Petros
 ‘Oh what nice clothes Petros didn’t buy!’

Villalba (2004) claims that exclamatives do not easily admit sentential negation cross-linguistically, because the negative semantics is not compatible with the factivity and the extreme degree reading contributed by the exclamative operator. Indeed (22), under the reading according to which the speaker expresses their surprise at the extreme degree of niceness of the clothes that Petros did not buy, is not very productive.

Interestingly, if the complementizer *pu* is dropped, the negative exclamation above becomes ambiguous, allowing both the interpretation given in (22) and the one shown in (23) below; a speaker is definitely more likely to intend the latter.

- (23) Ti orea ruxa (*pu) *dhen* aghorase o Petros!
 what nice clothes that _{NEG₁} bought the Petros
 ‘Oh what nice clothes Petros bought!’

The English translation of (23) does not involve negation, despite the presence of the negative marker *dhen* in the Greek version of the example. In other words, (23) instantiates the expletive negation host that has so far been described as *negative exclamatives*. But why do Greek negative exclamatives differ from positive exclamatives in rejecting the characteristic complementizer *pu* altogether?

Another puzzling asymmetry between negative exclamatives and their positive counterparts is revealed when looking at sentences that feature singular *wh*-phrases.

- (24) a. Ti bluza aghorase o Petros!
 what T-shirt bought the Petros
 ‘What a T-shirt Petros bought!’ ≈ ‘Petros bought a very nice T-shirt!’
 b. Ti bluza *dhen* aghorase o Petros!
 what T-shirt _{NEG₁} bought the Petros
 ‘What T-shirt Petros didn’t buy!’ ≈ ‘Petros bought so many T-shirts!’

In Example (24a), which is introduced by the singular unmodified *wh*-phrase *ti bluza* (lit. ‘what T-shirt’), an extreme degree reading is coerced, as is expected in an exclamation (Rett 2011). Example (24b) on the other hand, which is minimally different in further including an instance of *dhen*, receives a quantity reading.

Combining the last two observations, Greek negative exclamatives differ from their positive equivalents in rejecting the complementizer *pu* and receiving a quantity instead of a quality reading. On a first note, such syntactic and interpretative asymmetries cannot be attributed simply to the presence of an (expletive) negative marker; in this case, *dhen*. On a second, more worrisome note, the two properties that negative exclamatives fail to display make up the definition of the Greek exclamative sentence type. In view of the above, I propose that the Greek expletive negation host previously dubbed as a negative exclamative actually corresponds to negative rhetorical questions uttered in situations where the speaker happens to be surprised (see Rohde 2006, for a similar view inspired in other languages). Notice that Espinal’s (1997) example from Section 2.2, repeated below for convenience, is fully compatible with a rhetorical interpretation:

- (25) Q: Pistevis me apatise tote?
 you.believe me cheated then
 ‘Do you think he cheated on me back then?’

A: Posus anthropus *dhen* kseyelase sta niata tu!
 how.many men NEG₁ cheated in.the youth his
 ‘How many people he cheated in his youth!’

Treating negative exclamatives as rhetorical questions straightforwardly explains the data presented: the complementizer *pu* is out because it is not appropriate for the interrogative sentence type (Holton et al. 2012 [1997]: 503–508), and the degree reading does not arise because there is no exclamative operator in the first place. But does this analytical alternative have anything to say about why or how the negative marker *dhen* ends up being interpreted non-negatively in such environments? In effect, it does not; it simply defers an answer to this question until the discussion of rhetorical questions in the immediately following subsection. This line of analysis is enlightening, though, to the extent that it shows the expletive interpretation of *dhen* to be independent of the exclamative force of a sentence.

3.2 Greek negative rhetorical questions

If negative exclamatives exemplify the same sentence type as negative rhetorical questions, this is exactly where one needs to look next. To further highlight the affinity between the two, let us stick to Example (25Q) from Espinal (1997), this time without exclamative force:

(26) Posus anthropus *dhen* kseyelase sta niata tu?
 how.many men NEG₁ cheated in.the youth his
 ‘How many people didn’t he cheat in his youth?’

(adapted from Espinal 1997: 76, ex. (2b))

In the absence of context, (26) is ambiguous. On the one hand, it can correspond to an information-seeking question via which the speaker seeks to know the number of people that the person talked about did not cheat in his youth. On the other hand, (26) can be meant as a rhetorical question, used by a speaker who wants to assert (Reese and Asher 2009; Sadock 1971) or remind the addressee of their shared knowledge (Caponigro and Sprouse 2007; Rohde 2006; Veloudis 2018): that person cheated many people in his youth. Despite the presence of the negative marker *dhen*, and irrespective of the specific account of rhetorical questions that one prefers, the question in (26) is associated with a positive polarity proposition under its rhetorical reading. Therefore, Greek negative rhetorical questions have been reported as expletive negation hosts (Makri 2013).

One would be tempted to attribute the asymmetry between the form (negative proposition $\neg p$) and the meaning (positive proposition p) of negative rhetorical

questions to the expletive negative marker itself; see for example Delfitto and Fiorin (2014). However, such an analytical choice stumbles upon two empirical observations brought forth by Rohde (2006). The first one is that negative rhetorical questions do not always convey a proposition of positive polarity.

- (27) Se pxion *dhen* aresun ta yuvarlakia?
 to whom NEG₁ like the meatball.soup
 ‘Who doesn’t like meatball soup?’

Under its rhetorical reading, the question in (27) may indeed be used as a conversational move parallel to asserting that everybody likes meatball soup. However, if in the context of utterance it is shared knowledge that dad does not like this type of soup, the question can be used simply to refer to him:

- (28) Q: Pxios *dhen* efaye to fayito tu?
 who NEG₁ ate the food his
 ‘Who didn’t eat their food?’
 A: Se pxion *dhen* aresun ta yuvarlakia?
 to whom NEG₁ like the meatball.soup
 ‘Who doesn’t like meatball soup?’

Notice that the negative marker *dhen* is interpreted canonically in (28A), even though the question receives a clearly rhetorical reading.

The second empirical observation of crucial importance to the present discussion is that positive rhetorical questions show an effect parallel to their negative counterparts, obviously in the absence of an expletive negative marker that could be charged with such an effect (Rohde 2006).

- (29) Posus anthropus kseyelase sta niata tu?
 how.many men cheated in.the youth his
 ‘How many people did he cheat in his youth?’

Under its rhetorical use, (29) is conversationally similar to the assertion that the person talked about did not cheat anybody in his youth. Is it feasible and/or economical to assume that asymmetries in polarity are derived via expletive negative markers in negative rhetorical questions but via different mechanics in the case of positive rhetorical questions?

I take Rohde’s (2006) observations to show (i) that the polarity reversal effect is not always present in rhetorical questions, and (ii) that the rhetorical effect is independent of the presence of an (expletive) negative marker. In other words, the non-negative interpretation of *dhen* in Greek negative rhetorical questions and – consequently – negative exclamatives is an epiphenomenon produced by the polarity reversal that most often accompanies rhetoricity. In light of this conclusion, there is neither motivation nor reason to assume that the occurrences of *dhen* found in negative exclamatives and negative rhetorical questions are different from the

standard negative marker *dhen*, which was defined in Section 2.1 as a function that takes a proposition *p* as its argument and returns the complementary proposition $\neg p$.

$$(30) \quad \llbracket \text{dhen}_{\text{negative exclamative/rhetorical question}} \rrbracket^5 = \llbracket \text{dhen} \rrbracket = \lambda p. \neg p$$

The canonical negative meaning of *dhen* in these two expletive negation hosts is masked due to the coincidental presence of an independent factor affecting interpretation, namely rhetoricity. Whether rhetoricity in its turn is best captured in terms of informativity reversal (Delfitto and Fiorin 2014) or as an independent epistemic operator (Tsiakmakis 2023) lies beyond the scope of the present paper.

3.3 Greek preposed negation questions

The last expletive *dhen* host identified was what Romero and Han (2004) dub as preposed negation questions. Concretely, the authors compare pairs of negative polar questions similar to the following:

- (31) a. O babas dhen efaye yuvarlakia?
 the dad NEG₁ ate meatball.soup
 ‘Did dad not eat meatball soup?’
 b. *Dhen* efaye o babas yuvarlakia?
 NEG₁ ate the dad meatball.soup
 ‘Didn’t dad eat meatball soup?’

According to Romero and Han (2004), Example (31a) would correspond to a standard negative polar question featuring a canonically interpreted negative marker *dhen*. A speaker is expected to ask (31a) when they want to find out whether dad ate meatball soup and they have evidence that he did not (Büring and Gunlogson 2000); they might have a previous belief favoring the positive answer to this question, but this is not reflected in the form of the question. Example (31b) is allegedly rather different. A speaker may use this preposed negation question in order to double check either the positive proposition corresponding to *Dad ate meatball soup* or its negative counterpart corresponding to *Dad didn’t eat meatball soup* (see also Ladd 1981). In either case, the speaker necessarily holds a prior belief in favor of the positive propositional alternative.

If Romero and Han’s (2004) empirical claim above is true, and if the preposing of *dhen* can be systematically linked to the expression of positive speaker bias, negative

5 Subscripts in the formulas are merely indicative of the distribution of the item within the square brackets. I use the subscript *expletive* to encode the set of expletive negation hosts featuring the item within the square brackets.

polar questions in the form of (31b) constitute an expletive negation host. However, the validity of this claim relies heavily on the reality of the distinction between non-preposed negation questions (31a) and preposed negation questions (31b) in Greek, solid evidence for which is extremely hard to come by.

To begin with, the distinction proposed by Romero and Han (2004) is based on the relative position of negation with respect to the syntactic subject. But Greek is a pro-drop language (Holton et al. 2012 [1997]: 575–577). If the subject is omitted, as is most frequently the case in languages that allow this, the questions in (31) end up being string-identical:

- (32) *Dhen efaye yuvarlakia?*
 NEG₁ ate meatball.soup
 ‘Didn’t he eat meatball soup?’

Moreover, the preposed negation variant can appear as part of alternative questions.

- (33) *Efaye i dhen efaye o babas yuvarlakia?*
 ate or NEG₁ ate the dad meatball.soup
 ‘Did dad eat meatball soup or not?’

Given the well-known incompatibility of bias with alternative questions (Pope 1976; Sailor 2013, among others), Example (33) suggests that Greek preposed negation questions are not necessarily interpreted as biased.

Looking deeper, there are reasons to doubt the very stipulation that the negative marker *dhen* in questions like (31b) is preposed, that is syntactically higher than its counterpart in (31a). On the one hand, Greek preposed negation questions are perfectly compatible with Negative Polarity Items, such as *akoma* ‘yet’. This can be explained only if *dhen* is interpreted as canonical propositional negation (Ladd 1981).

- (34) *Dhen efaye o babas yuvarlakia akoma?*
 NEG₁ ate the dad meatball.soup yet
 ‘Did dad not eat meatball soup yet?’

The truly negative status of *dhen* in preposed negation questions is corroborated further by *again*-modification (see Goodhue 2022):

- (35) *Dhen efaye o babas yuvarlakia pali?*
 NEG₁ ate the dad meatball.soup again
 ‘Did dad not eat meatball soup again?’

Again-modifiers trigger a presupposition that the content of the proposition over which they scope has happened before (von Stechow 1996). In (35), the presupposition is that dad has refrained from eating meatball soup at least once before. This means that *dhen* is interpreted as part of the proposition in this case and, thus, has a canonical sentential negation status.

In the absence of evidence supporting the distinction between Greek preposed negation questions and non-preposed negation questions, and actually in the presence of evidence undermining it, I propose that the two types of questions can be collapsed into one (see van Rooy and Safarova 2003, for a similar claim regarding English negative polar questions). They all feature occurrences of *dhen* interpreted as standard sentential negation:

$$(36) \quad \llbracket \text{dhen}_{\text{preposed negation question}} \rrbracket = \llbracket \text{dhen} \rrbracket = \lambda p. \neg p$$

The truly negative meaning of *dhen* may be obscured by the conversational goal of the speaker (see van Rooy and Safarova 2003); if, in a given context, the positive answer has higher utility value for the speaker than its negative counterpart, *dhen* is more likely to be interpreted non-negatively. The negative meaning of *dhen* may also be masked by the speaker's epistemic bias (Büring and Gunlogson 2000; Sudo 2013); a strong belief in favor of the positive propositional alternative can lead to a non-negative reading of the question. It is highly probable though that speaker bias does not interact with the form of Greek negative polar questions.⁶

3.4 On the expletiveness of *dhen*

Let us put together the insights gathered via the individual study of Greek negative exclamatives, negative rhetorical questions, and preposed negation questions. Greek expletive negation hosts that feature *dhen* arguably involve a standard sentential negation marker, whose negative meaning is masked by factors independent of the intrinsic properties of this particular negative marker (see Abels 2002, for a similar claim on instances of Russian expletive negation). In other words, expletive occurrences of *dhen* maintain the full interpretative load of their non-expletive counterparts; both instantiate the very same negative marker.

$$(37) \quad \llbracket \text{dhen}_{\text{expletive}} \rrbracket = \llbracket \text{dhen} \rrbracket = \lambda p. \neg p$$

4 Expletive *min* and its hosts

The non-negative marker *min* was reported to be interpreted as expletive in the complement position of emotive doxastic predicates denoting fear, in the antecedent of conditionals, and in embedded and matrix polar questions. Let us examine each of

⁶ See Tsiakmakis (2023) for experimental evidence suggesting that the form of Greek negative polar questions is more sensitive to the available contextual evidence than to the epistemic state of the speaker.

these hosts separately and explore whether expletive *min* behaves similarly across hosts, whether it is different from negative *min* and how it relates to expletive *dhen*.

4.1 Greek fear-predicate complements

When a Greek predicate denoting fear takes a whole sentence as its complement, this complement may be introduced by *min*:⁷

- (38) Fovame *min* efaye ta yuvarlakia o babas.
 I.fear NEG₂ ate the meatball.soup the dad
 ‘I fear dad maybe ate the meatball soup.’

The negative marker *min* is unambiguously interpreted non-negatively in this context (Chatzopoulou 2018; Makri 2013; Tsiakmakis and Espinal 2022, among others). This is shown not only by the English translation provided, but also by the fact that *min* can co-occur with the complementary negative marker *dhen* in this position, in which case the speaker’s fear is about the negative propositional alternative:

- (39) Fovame *min* dhen efaye ta yuvarlakia o babas.
 I.fear NEG₂ NEG₁ ate the meatball.soup the dad
 ‘I fear dad maybe didn’t eat the meatball soup.’

Greek is a Strict Negative Concord language (Giannakidou 1998; Zeijlstra 2004). This means that canonical sentential negative markers can license NCIs such as the emphatic *TIPOTA* ‘nothing’, without giving rise to a double negation reading. The non-negative status of *min* in fear-predicate complements is further witnessed by its inability to license *TIPOTA* (see Chatzopoulou 2018; Makri 2013; Tsiakmakis and Espinal 2022).

- (40) *Fovame *min* efaye TIPOTA o babas.
 I.fear NEG₂ ate nothing the dad

Notice that *TIPOTA* is licensed if the canonical negative marker is also added:

- (41) Fovame *min* dhen efaye TIPOTA o babas.
 I.fear NEG₂ NEG₁ ate nothing the dad
 ‘I fear dad maybe didn’t eat anything.’

⁷ Alternatively, Greek sentential fear complements are introduced by the complementizer *oti* ‘that’:

- (i) Fovame *oti* efaye ta yuvarlakia o babas.
 I.fear that ate the meatball.soup the dad
 ‘I fear that dad ate the meatball soup.’

See Tsiakmakis et al. (2023), for a contrastive study of *min*-complements and *oti*-complements of Greek fear predicates based on experimental evidence.

The data above clearly show that Greek fear predicates are expletive *min* hosts but tell us very little about the exact status of *min* in such contexts. Digging deeper in this direction, Makri (2013) observes that *min* is incompatible with epistemic adverbs, such as *isos* ‘maybe’ for example.

- (42) Fovame *min* ([#]*isos*) efaye ta yuvarlakia o babas.
 I.fear NEG₂ maybe ate the meatball.soup the dad
 ‘I fear dad maybe ate the meatball soup.’

Makri (2013) takes this incompatibility as an indication that expletive *min* in fear-predicate complements is interpreted as an epistemic modal itself. Tsiakmakis et al. (2023) explore this hypothesis even further and offer experimental evidence that non-negative *min* is indeed interpreted as an epistemic modal conveying positive speaker bias. The speaker is not clueless as to whether dad ate the meatball soup; they consider it more likely that he did. Formally, expletive *min* is defined as a function interpreted with respect to an ordering source that takes a proposition *p* as its argument and ensures that this proposition *p* is true in all the possible worlds that are *Best* worlds – that is in all the possible worlds that are ranked higher by the respective ordering source.

- (43) $\llbracket \text{min}_{\text{fear}} \rrbracket^{g(w)} = \lambda p. \forall w' \in \text{Best}_{g(w)} : p(w')$
 (adapted from Tsiakmakis et al. 2023: 1278, (37))

Notice that *min* in fear-predicate complements shares the modal component with its canonical sentential negation counterpart but differs from the latter in that it introduces no negation. It is worth noting that fear-*min* differs from canonical sentential negation not only semantically but also syntactically. Tsiakmakis and Espinal (2022) bring attention to the fact that, in fear-predicate complementation, informationally unmarked subjects cannot intervene between the matrix predicate and *min*; they always appear post-verbally.

- (44) a. *Fovame o babas *min* efaye yuvarlakia.
 I.fear the dad NEG₂ ate meatball.soup
 b. Fovame *min* efaye yuvarlakia o babas.
 I.fear NEG₂ ate meatball.soup the dad
 ‘I fear dad maybe ate meatball soup.’

The authors consider this as evidence that expletive *min* is merged in the structure outside the TP-domain, somewhere in the left periphery of the clause (see also Chatzopoulou 2018; Lekakou 2024; Roussou 2015).

4.2 Greek conditionals

The expletive occurrences of *min* in Greek fear-predicate complements were shown to (i) potentially co-occur with the complementary negative marker *dhen*, (ii) fail to

license NCIs, (iii) make an epistemic interpretative contribution, and (iv) merge syntactically in the left periphery of the sentence in which they occur. Let us see whether *min* displays the same properties in the context of a second expletive negation host, namely Greek conditionals.

- (45) *Min* ksexaso kati, amesos na koroidepsis.
 NEG₂ I.forget something immediately SUBJ you.mock
 'If I forget something, you will immediately mock me.'

The English translation provided for (45) already shows why Tsiakmakis et al. (2023) included conditionals in the list of Greek expletive *min* hosts. The non-negative status of *min* is further witnessed by the fact that replacing the indefinite *kati* 'something' with the NCI *TIPOTA* 'nothing' in the example above leads to ungrammaticality:

- (46) **Min* ksexaso TIPOTA, amesos na koroidepsis.
 NEG₂ I.forget nothing immediately SUBJ you.mock

Moreover, conditional *min* is compatible with *dhen*, in which case a single negation reading arises:

- (47) *Min* dhen ertho mia fora, amesos na thimosis.
 NEG₂ NEG₁ I.come one time immediately SUBJ you.get.mad
 'If I don't show up once, you will immediately get mad at me.'

Interestingly, the non-negative interpretation of *min* seems to go hand in hand with a high merge position in the case of conditionals, too. The subject of the conditional antecedent cannot precede *min*, or even intervene between *min* and the verb; it has to be postposed in the way shown earlier for fear-predicate complementation.

- (48) a. **O* babas *min* ksexasi kati, amesos na
 the dad NEG₂ forgets something immediately SUBJ
 koroidepsis.
 you.mock
 b. **Min* o babas ksexasi kati, amesos na
 NEG₂ the dad forgets something immediately SUBJ
 koroidepsis.
 you.mock
 c. *Min* ksexasi kati o babas, amesos na
 NEG₂ forgets something the dad immediately SUBJ
 koroidepsis.
 you.mock
 'If dad forgets something, you will immediately mock him.'

As already mentioned, the presence of expletive *min* in conditionals is understated and, consequently, understudied. This means that systematic work of any kind concerning its interpretation is lacking. However, its distribution and use are informative enough. Notice that conditional *min*, as all other negative and non-negative occurrences of *min* that we have seen so far, occurs in the scope of a non-veridical operator (Giannakidou 1998), in this case the conditional operator. This means that worlds where the positive proposition *p* is true and worlds where its propositional alternative $\neg p$ is true are relevant for its interpretation (Giannakidou and Mari 2021). The question to ask next is whether these alternative worlds are ordered, in the sense of, e.g., Kratzer (1981, 1991).

I pursue an answer to this question by comparing a conditional with *min* to its closest *min*-free counterpart that Greek grammar allows for, which is introduced by the conditional conjunction *an* ‘if’. I postulate that, while *an* ‘if’ is the realization of the conditional operator itself, the conditional operator is phonologically null in the case of *min*-conditionals.

- (49) a. *Min* akusis kutsobolio, amesos tha erthis.
 NEG₂ you.hear gossip immediately will you.come
 b. *An* akusis kutsobolio, amesos tha erthis.
 if you.hear gossip immediately will you.come
 ‘If you hear about some gossip, you will immediately run.’

As suggested by the unique English translation given, (49a) and (49b) are interpreted roughly in the same way. However, the variant with *min* is felicitous only if whatever is described by both the antecedent and the consequent of the conditional has happened before. In fact, (49a) describes something repetitive, a habit or a norm. Example (49b) is unmarked in this respect; the speaker simply considers the possibility of the addressee hearing about some gossip and, consequently, approaching. I propose that the asymmetry above can be explained if, unlike what happens in neutral conditionals featuring *an* ‘if’, the presence of *min* in a conditional orders the alternative possible worlds in such a way that *p* worlds are *Best*.⁸ The speaker’s bias in this case would stem exactly from the fact that what is described by the *min*-clause has happened before.

$$(50) \quad \llbracket \text{min}_{\text{conditional}} \rrbracket^{g(w)} = \lambda p. \forall w' \in \text{Best}_{g(w)} : p(w')$$

Notice that, if the reasoning above is on the right track, Greek expletive conditional *min* displays exactly the same properties as expletive fear-predicate *min*. Under this

⁸ See Liu et al. (2021), for a study of bias in German conditionals.

view, an example like (49a) is best translated in English as ‘In the possible scenario that you hear about some gossip, you will immediately run.’

4.3 Greek polar questions

The last Greek expletive *min* host identified in the literature includes matrix (51a) and embedded (51b) polar questions (Chatzopoulou 2018; Makri 2013; Tsiakmakis et al. 2023).

- (51) a. *Min* efaye ta yuvarlakia o babas?
 NEG₂ ate the meatball.soup the dad
 ‘Did dad maybe eat the meatball soup?’
 b. Kita *min* efaye ta yuvarlakia o babas.
 look.IMP NEG₂ ate the meatball.soup the dad
 ‘Check if dad maybe ate the meatball soup.’

Intriguingly, question expletive *min* behaves in exactly the same way as its equivalents in fear-predicate complementation and conditionals. To begin with, it is unambiguously non-negative, as shown by its inability to license NCIs (52) and its potential co-occurrence with the complementary negative marker *dhen* (53).

- (52) a. **Min* efaye TIPOTA o babas?
 NEG₂ ate nothing the dad
 b. *Kita *min* efaye TIPOTA o babas.
 look.IMP NEG₂ ate nothing the dad
 (53) a. *Min* dhen efaye ta yuvarlakia o babas?
 NEG₂ NEG₁ ate the meatball.soup the dad
 ‘Did dad maybe not eat the meatball soup?’
 b. Kita *min* dhen efaye ta yuvarlakia o babas.
 look.IMP NEG₂ NEG₁ ate the meatball.soup the dad
 ‘Check if dad maybe didn’t eat the meatball soup.’

Moreover, these instances of expletive *min* are also merged in the left periphery of the sentence, as suggested by the fact that they cannot be preceded by informationally unmarked subjects:⁹

- (54) a. *O babas *min* efaye ta yuvarlakia?
 the dad NEG₂ ate the meatball.soup
 b. *Kita o babas *min* efaye ta yuvarlakia.
 look.IMP the dad NEG₂ ate the meatball.soup

⁹ Topicalized or focused subjects may precede *min*.

As far as interpretation is concerned, Tsiakmakis et al. (2023) compare matrix questions with *min* to their *min*-free counterparts:

- (55) a. *Min* efaye ta yuvarlakia o babas?
 NEG₂ ate the meatball.soup the dad
 ‘Did dad maybe eat the meatball soup?’
 b. Efaye ta yuvarlakia o babas?
 ate the meatball.soup the dad
 ‘Did dad eat the meatball soup?’

The authors present experimental evidence that *min*-free questions like (55b) are usually attributed to fully ignorant speakers (in the sense of Farkas 2020), who consider both the positive proposition p and its propositional alternative $\neg p$ as equally probable. Questions featuring expletive *min*, on the other hand, are interpreted as encoding positive speaker bias. In the case of (55a) for instance, the speaker considers the proposition corresponding to *Dad ate the meatball soup* as more probable than its alternative corresponding to *Dad didn’t eat the meatball soup*. In light of these results, Tsiakmakis et al. (2023) claim that *min* in Greek polar questions is interpreted as a biased epistemic modal (see Giannakidou and Mari 2017, 2021). They formally define it as a function interpreted with respect to an ordering source that takes a proposition p as its argument and ensures that *Best* worlds, that is the worlds that are ranked higher by the relevant ordering source, are p worlds:

$$(56) \quad \llbracket \text{min}_{\text{question}} \rrbracket^{g(w)} = \lambda p. \forall w' \in \text{Best}_{g(w)} : p(w') \\ \text{(adapted from Tsiakmakis et al. 2023: 1278, (37))}$$

Tsiakmakis et al. (2023) do not test the interpretation of embedded polar questions. In the absence of contradicting evidence, I see no reason to doubt that *min* encodes positive speaker bias when introducing embedded questions too.

A comment is in order before closing off this subsection. Descriptively speaking, Greek polar questions with *min* feature a negative marker in initial position and systematically convey positive speaker bias. Could these be actual instantiations of the preposed negation question type that Romero and Han (2004) postulate? A positive answer to this question is tempting since it would also explain why no evidence could be found in support of a preposed versus non-preposed negation distinction in polar questions with *dhen*. However, I am hesitant to endorse this view based on a robust syntactic asymmetry between the two types of questions. *Min*-questions have already been shown to be embeddable. Prototypical examples of preposed negation questions from languages other than Greek though, such as English, cannot be embedded while preserving negation in initial position (see also Sailor 2013):

- (57) a. Didn't dad eat the meatball soup?
 b. *Mom asked if didn't dad eat the meatball soup.

Therefore, I take Greek *min*-questions to exemplify a polar question type different from the one illustrated by (57a) from English.

4.4 On the expletiveness of *min*

Greek expletive *min* is licensed by three distinct non-veridical operators: predicates denoting fear, the conditional operator, and the question operator. In all three types of structures, *min* fails to license NCIs, potentially co-occurs with the complementary negative marker *dhen*, is merged outside the TP-domain of the sentence, and is interpreted as a biased epistemic modal. In other words, expletive *min* corresponds to a function that is interpreted with respect to an ordering source; it takes a proposition *p* as its argument and ensures that *p* is true in *Best* worlds.

$$(58) \quad \llbracket \min_{\text{expletive}} \rrbracket^{g(w)} = \lambda p. \forall w' \in \text{Best}_{g(w)} : p(w')$$

Comparing the meaning of expletive *min* to the meaning of negative *min*, the former is missing the polarity reversal effect but maintains the modal component, that is the consideration and ordering of alternative worlds. In contrast to expletive *dhen*, the non-negative interpretation of *min* cannot be attributed to independent peripheral factors kicking in at the utterance level. The expletiveness of *min* must be pinned onto intrinsic properties of the marker itself. In other words, the *min* that appears in the Greek expletive negation hosts discussed in the present section is not a negative marker at all; it is a biased epistemic modal.

5 Expletive NEG₁ and NEG₂ in Greek and beyond

Close examination of Greek expletive negation hosts suggested that non-negatively interpreted negators come in two guises. Expletive *dhen* is the same as negative *dhen* and always bears polarity reversal semantics. Its non-negative reading is an epiphenomenon owed to factors kicking in at the level of utterance interpretation, such as rhetoricity or speaker bias present in the context but not necessarily encoded in the morphosyntax of the sentence. Expletive *min*, on the other hand, is interpreted as a modal. In contrast to its negative counterpart, it lacks negative semantics. There is evidence that expletive occurrences of *min* differ from the negative ones not only semantically but also syntactically.

In the present section, I explore the possibility that the expletive *dhen* versus expletive *min* asymmetry found in Greek, or expletive NEG_1 versus expletive NEG_2 asymmetry to make it language-neutral, may help understand the distribution of expletive negative markers also in languages other than Greek. To this aim, I return to the initial expletive negation host inventory compiled in the Introduction and, building on the existing literature, speculate as to whether each host is more likely to feature the equivalent of expletive NEG_1 or the equivalent of expletive NEG_2 across different languages.

5.1 Emotive doxastic predicates

Greek emotive doxastic predicates and, specifically, predicates denoting fear were shown to license expletive occurrences of NEG_2 , interpreted as epistemic modals that rank p worlds over $\neg p$ worlds. Can this view be extended to similar constructions in other languages (see Espinal 1992, 2000; Horn 2010; Jin and Koenig 2019, 2020, among others)?

Tahar (2021, 2022) studies expletive negative markers in French fear-predicate complementation:

- (59) J'ai peur que vous *ne* vous fassiez piquer par
 I.have fear the you NEG CL you.do.SUBJ sting by
 une méduse.
 a jellyfish
 'I fear you might get stung by a jellyfish.'

(adapted from Tahar 2021: 290, ex. (8a))

Based on a rich diachronic dataset, the author concludes that the expletive negative marker *ne* in such examples is primarily related to the expression of dispreference (Tahar 2022). In (59), the speaker does not want the addressee to get stung. In other words, French fear-predicate *ne* is interpreted as a deontic modal, flagging p worlds as more preferred than $\neg p$ worlds. This conclusion can be regarded as some initial evidence that the NEG_2 status of the fear-predicate expletive marker extends beyond Greek:

- (60) Emotive doxastic predicates:

$$[[NEG_{2expletive}]]^{g(w)} = \lambda p. \forall w' \in \text{Best}_{g(w)} : p(w')$$

Intriguingly, the syntactically high merge position postulated for fear-predicate NEG_2 based on evidence from Greek also finds crosslinguistic support. In Hebrew, for example, the expletive negative marker emerging in the complement of a predicate denoting fear attaches to the complementizer:

- (61) paxadeti še-lo lo yiša'er klum.
 I.fear'd that-NEG NEG remain nothing
 'I was scared that there would be nothing left.'

(Francez to appear: 23, ex. (41))

Similarly to what was shown for Greek, the canonical negative marker – the independent *lo* in (61) – appears lower in the structure than its expletive counterpart.

5.2 Negative predicates

In languages such as Old French, Arabic, and Mandarin, negative predicates like *FORBID* also license expletive negative markers (Horn 2010; Jin and Koenig 2019; Makri 2013; Tahar 2022, among others).

- (62) Mais tul defent *ne* seit gabeth Quant dit
 but you forbid NEG is.SUBJ humiliated when says
 que set e fait que peot.
 what knows and does what can
 'But you forbid him from being humiliated, he who says what he knows and
 does what he can.'

(Benedeit, *Le voyage de Saint Bredan*, 1121, adapted from Tahar 2022: 45, ex. (34))

Despite the presence of the French negative marker *ne* in the complement of the forbid-predicate in Example (62), the subject stops the humiliation of another person, he does not cause it. In other words, *ne* in (62) is not interpreted as a polarity reversal operator; it is expletive.

Makri (2013) suggests that negative predicates licensing expletive negative markers are similar to emotive doxastic licensors, in the sense that both groups of predicates share a doxastic semantic component: the speaker considers both *p* and $\neg p$ worlds. If this is on the right track, French negative predicates such as *défendre* 'forbid' in (62) probably feature non-negative instances of NEG_2 , too.

- (63) Negative predicates:
 $\llbracket \text{NEG}_{2\text{expletive}} \rrbracket^{g(w)} = \lambda p. \forall w' \in \text{Best}_{g(w)} : p(w')$

This speculative claim is independently supported by Tahar (2022). The author's diachronic study leads her to conclude that expletive occurrences of *ne* in the complement of both forbid predicates and fear predicates can be associated with the expression of speaker's dispreference. Put differently, in both environments *ne* does not bear negative truth-conditional semantics but makes a deontically modal interpretative contribution.

While not available in Modern Greek, the expletive negation host described as negative predicates is relevant for Classical Greek (Makri 2013). Importantly, the negative marker emerging in this case is *me*-, which is diachronically linked to Modern Greek *min* (Chatzopoulou 2018), that is NEG_2 .

- (64) *me*: thigganein apeirge.
 NEG touch.INF prevented
 ‘[The bull] prevented [us] from touching [it].’
 (Euripides, *Helen*, 1559, from Makri 2013: 14, ex. (9))

Example (64), then, can be considered as additional evidence in support of associating negative predicates with expletive occurrences of NEG_2 .

5.3 Dubitative predicates

The next expletive negation host, namely dubitative predicates, is readily grouped together with the previous two.

- (65) ¿Hay quien dude que no son falsas las tales historias?
 there.is who doubts that NEG are false the such stories
 ‘Does anybody doubt the falsehood of such stories?’
 (Espinal 2000: 61, ex. (23b))

In the Spanish example above, the negative marker *no* that appears in the complement of the verb *dudar* ‘doubt’ is interpreted non-negatively; ignoring the potentially rhetorical flavor of the question, the speaker asks if anyone doubts the falsehood of the stories told, not their veracity. Based on such data, Spanish dubitative predicates have been identified as expletive negation hosts (Espinal 2000; Makri 2013).

I know of no studies specifically focusing on the interpretative import of Spanish expletive *no* in the complement of *dudar*. However, like emotive doxastics and negative predicates (Anand and Hacquard 2013; Makri 2013), dubitative predicates involve a doxastic semantic component (Uegaki 2023). This means that they are compatible with the speaker considering both p and $\neg p$ worlds and even having an epistemic preference. Capitalizing on this, expletive negative markers emerging in the complement of Spanish dubitative predicates are likely non-negative instances of NEG_2 :

- (66) Dubitative predicates:
 $\llbracket \text{NEG}_{2\text{expletive}} \rrbracket^{g(w)} = \lambda p. \forall w' \in \text{Best}_{g(w)} : p(w')$

Once again, Classical Greek independently points towards a similar generalization. The dubitative predicate *apisto*: ‘doubt’ in (67) below licenses expletive instances of

the negative marker *me:*. Notice that the complementary negative marker *ou(k)*, that arguably had NEG₁ status (Chatzopoulou 2018), follows *me:* and is interpreted as canonical sentential negation.

- (67) apisteis me: ouk episte:me: e:i he: arete:
 you.doubt NEG₂ NEG₁ knowledge is.SUBJ the virtue
 ‘You doubt that virtue is knowledge.’
(Plato, *Meno*. 89d, from Makri 2013: 14, ex. (8a))

5.4 Temporal expressions

Languages like Catalan, Italian, German, French, and Mandarin allow for expletive negative markers in the scope of temporal expressions such as *BEFORE* or *UNTIL* (Cépeda 2018; Espinal 1992; Jin and Koenig 2019, 2020; Makri 2013; Tahar 2022; Tovená 1996).

- (68) Resto qui finché *non* arrivi.
I.stay here until NEG you.arrive
'I stay here until you arrive.'
(Tovena 1996: 110, ex. (4.76a))

The translation provided for (68) from Italian suggests that the negative marker *non* is interpreted non-negatively in this case, justifying the designation of Italian *finché* as an expletive negation host. In fact, (68) seems in principle interchangeable with the minimally different (68’):

- (68) Resto qui finché arrivi.
I.stay here until you.arrive
'I stay here until you arrive.'
(Tovena 1996: 110, ex. (4.76b))

Crucially, Tovena (1996) argues that there is actually a difference between the variant with *non* and the one without, which is obscured by the fact that *arrivare* 'arrive' denotes an achievement. If the verb of the temporal sentence is replaced with *parlare* 'talk' for example, which can be perceived as an activity, then the difference is revealed:

- (69) a. Resto qui finché *non* parli.
I.stay here until NEG you.talk
'I stay here until you talk.'
- b. Resto qui finché parli.
I.stay here until you.talk
'I stay here while you talk.'
- (Tovena 1996: 110, ex. (4.77a–b))

Notice that the *finché*-clause is translated as a positive *until*-clause in (69a), but as a positive *while*-clause in (69b). Importantly, both readings can be derived compositionally (see Tovenà 1996). In the absence of negation (69b), Italian *finché* demands that my staying and your speaking finish at the same time. If the temporal clause is negated though (69a), *finché* conveys that the ending point of my staying coincides with the ending point of your non-speaking, that is the starting point of your speaking.

In light of the empirical observation above, Tovenà (1996) proposes that the negative marker *non* emerging in the scope of *finché* is a true negative marker bringing about the expected reversal. If the verb of the *finché*-sentence denotes an achievement, which starts and ends at the same point in time, then the interpretative contribution of *non* is imperceivable, making *non* expletive on the surface. Mind, however, that this expletiveness is an epiphenomenon stemming from the lexical aspect of the *finché*-verb.

Tovenà's (1996) analysis of *finché-non* is strikingly reminiscent of the conclusions reached concerning expletive instances of the Greek negative marker *dhen*: a canonical negative marker whose negative semantics is obscured by independent factors. Consequently, temporal expressions in Italian, and possibly other languages manifesting similar constructions (see Abels 2002 on Russian *poka* 'until'; Cépeda 2018 on Spanish *hasta* 'until' and German *bevor* 'before'), are likely to feature expletive occurrences of NEG_1 .

(70) Temporal expressions:

$$\llbracket \text{NEG}_1 \rrbracket = \lambda p. \neg p$$

5.5 Negative adverbials

Adverbials encoding some negative meaning such as *WITHOUT* or *ALMOST* license expletive negative markers, too (Horn 2010; Jin and Koenig 2020; Makri 2013, among others).

(71) Je l' a fait sans qu' il ne me voie.
I it have done without that he NEG me sees
'I did it without him seeing me.'

(Makri 2013: 17, ex. (26))

In the French example above, the negative marker *ne* is interpreted as expletive since its co-occurrence with *sans* 'without' does not bring about a double negation reading. The question of immediate interest to the present study is whether *ne* is more similar to an expletive instance of NEG_1 or NEG_2 . Tahar (2022) proposes that French *without-ne*

is similar to its *fear-* and *negative predicate-*counterparts in conveying some kind of speaker dispreference. If this is correct, then *without-ne* could be captured as an occurrence of expletive NEG_2 .

I am hesitant to endorse Tahar's (2022) claim in this case for two main reasons. The first one is empirical and comes from Jamaican English:

- (72) Dem is awftin foun guilty widoutn being tried.
 they be often found gulty without.NEG being tried
 'They are often found guilty without being tried.'

(Linton Kwesi Johnson, "Sense Outa Nonsense", 10)¹⁰

The Jamaican English word for *without* includes the non-negatively interpreted negative marker *-n* as a bound morpheme. In other words, Jamaican *without* is also an expletive negation host. Importantly, though, the presence of *-n* cannot be associated with speaker dispreference; the singer would actually prefer that "they" were tried before found guilty.

Example (72) suggests that *WITHOUT* expletive negation licensors cannot be cross-linguistically linked to the expression of dispreference. Looking closer, I believe that they are not to be associated with NEG_2 altogether. Note that the expletive NEG_2 hosts identified so far share a modal semantic component. Assuming that *without*-words also involve a modal component seems far-fetched in the absence of solid supporting evidence. In light of the above, I propose that the expletive negation host dubbed as *negative adverbials* in languages such as French and Jamaican English involves negative markers of the NEG_1 type.

- (73) Negative adverbials:
 $\llbracket \text{NEG}_1 \rrbracket = \lambda p. \neg p$

I take the extra step to speculatively suggest that the canonical status of the negative marker emerging in the scope of the negative adverbials we saw above is obscured by a Negative Concord relation formed between the licensor and the licensee (see Espinal 2000, for a first attempt to relate expletive negation to Negative Concord, and Espinal et al. 2023, for a fresh analysis of the Negative Concord phenomenon).¹¹ While further research is needed to evaluate the validity or strength of this specific proposal, the link between negative adverbials and NEG_1 -type expletive markers finds independent support in other studies. Fortuin (2023), for example, argues that the expletive negative markers that emerge in the scope of Dutch *without*-constructions do contribute negative semantics but only at the level of presuppositions. Moreover,

¹⁰ <https://genius.com/Linton-kwesi-johnson-sense-outa-nonsense-lyrics>.

¹¹ It is worth noting that Jamaican English is a Negative Concord language (van der Auwera and De Lisser 2019).

Olguín Martínez (2024) shows that *without*-expletive negative markers in a language such as Huasteca Nahuatl may encode mirativity. See Tsiakmakis and Espinal (2022) for a proposal on how to derive mirativity from a canonical negative marker merged outside the TP-domain of the clause.

5.6 Conditionals

Greek conditionals were earlier shown to allow for expletive instantiations of NEG_2 . Recall that expletive *min* occurs in the absence of any (overt) negative licenser in this case. Example (45) is repeated below for ease of reference.

- (74) *Min* ksexaso kati, amesos na koroidepsis.
 NEG_2 I.forget something immediately SUBJ you.mock
 ‘If I forget something, you will immediately mock me.’

Crucially, Greek is the only language reported so far to license expletive negative markers in the positive antecedent of conditionals (Tsiakmakis et al. 2023). In the rest of languages for which conditionals have been identified as an expletive negation host, the presence of *UNLESS* is obligatory (Greco 2019; Jin and Koenig 2019, 2020; Makri 2013; Tahar 2022, among others).

- (75) Me ne andrò a meno che tu non mangi.
 I CL go.away unless you NEG you.eat.SUBJ
 ‘I will go away unless you eat.’

(Greco 2019: 5, ex. (6))

Italian *non* in (75) above, for instance, is interpreted non-negatively in the scope of the conditional conjunction *a meno che* ‘unless’; the co-occurrence of these two elements does not lead to a double negation reading. Replacing *a meno che* with *se* ‘if’, however, forces *non* to be interpreted as standard negation:

- (76) Me ne andrò se tu non mangi.
 I CL go.away if you NEG you.eat.SUBJ
 ‘I will go away if you don’t eat.’

If, in a given language, negative conditionals host expletive negative markers but positive ones do not, then the licensing element is the negative component of *UNLESS*, not the conditional component. Under this perspective, *UNLESS*-words are better viewed as a subcategory of negative adverbials that, as was shown in the previous subsection, appear to host instances of NEG_1 . Importantly, the status of conditionals as an expletive negation host then depends on future research: Do positive conditionals license expletive negative markers in languages other than Greek?

5.7 Comparatives

Comparative constructions are one of the most studied expletive negation hosts (Belletti 2001; Delfitto 2018; Espinal 1992; Giannakidou and Yoon 2008; Labelle 2023; Makri 2018; Napoli and Nespor 1976, among others). Let us take a look at the following example from Italian.

- (77) Gianni è più alto di quanto *non* sia Pietro.
 Gianni is more tall than how NEG is.SUBJ Pietro
 ‘Gianni is taller than Peter.’

The Italian negative marker *non* appears to be interpreted non-negatively in (77). In fact, the minimally different (77') is considered to mean the same.

- (77') Gianni è più alto di quanto sia Pietro.
 Gianni is more tall than how is.SUBJ Pietro
 ‘Gianni is taller than Peter.’

Napoli and Nespor (1976) claim that *non* in (77) has an epistemic interpretative import: what the speaker says contradicts somebody's previous belief. This would suggest that comparatives license expletive instances of NEG_2 .

Crucially, Makri (2018) argues convincingly that the interpretative effect highlighted by Napoli and Nespor (1976) stems from subjunctive mood, not from the presence of expletive *non*. Moreover, she supports empirically and theoretically the claim that expletive negative markers in comparatives are the optional spell-out of the negation incorporated in comparative operators (Seuren 1984), independently motivated by Delfitto (2018). This view is based on the intuitive observation that the interpretation of both (77) and (77') can be represented as in (78):

- (78) $\exists d$ [Gianni is d -tall & \neg Pietro is d -tall]
 There is a degree d to which Gianni is tall and Pietro is not tall to the degree d .

If Delfitto (2018) and Makri (2018) are on the right track, Italian comparatives are more likely to feature instances of NEG_1 (see also Labelle 2023). The truly negative semantics of NEG_1 are in this case obscured by the fact that the latter appears to be spelled out separately from the comparative operator (see Espinal et al. 2023 for independent evidence for the existence of ‘disembodied’ negative markers), possibly in order to mark the exact scope of negation.

- (79) Comparatives:
 $\llbracket \text{NEG}_1 \rrbracket = \lambda p. \neg p$

Additional evidence in favor of associating comparatives with expletive NEG_1 markers can be sought in Classical Greek, where comparatives licensed expletive instances of *ou(k)* ‘not’, that is NEG_1 (Chatzopoulou 2018).

- (80) polin hole:n diaphtheiretai mallon e: ou tous aitious
 city whole destroy more than NEG the guilty
 ‘to destroy the whole city rather than the guilty ones.’
 (Thucydides III 36,4, from Makri 2013: 16, ex. (22))

5.8 Polar questions

Polar questions were shown to be one of the most puzzling expletive negation hosts in Greek since they license instances of both NEG_1 , *dhen*, and NEG_2 , *min*. Examples (31b) and (51a) are repeated below for reference.

- (81) *Dhen* efaye o babas yuvarlakia?
 NEG_1 ate the dad meatball.soup
 ‘Didn’t dad eat meatball soup?’
- (82) *Min* efaye ta yuvarlakia o babas?
 NEG_2 ate the meatball.soup the dad
 ‘Did dad maybe eat the meatball soup?’

Both types of questions are found also in other languages. Spanish preposed negation questions (83) are reminiscent of *dhen*-questions in Greek, while Latin *ne*-questions (84) are similar to Greek *min*-questions.

- (83) ¿No bebe Juan?
 NEG drinks Juan
 ‘Doesn’t Juan drink?’
 (Romero and Han 2004: 614, ex. (15a))
- (84) non *-ne*¹² animadvertis?
 NEG_1 NEG_2 you.observe
 ‘Don’t you observe?’
 (Cicero, *De Natura Deorum*, 3,89, from Makri 2013: 80, ex. (159))

Notice that in (84) the expletive negative marker *-ne* co-occurs with the canonical negative marker *non*, just like we saw earlier for Greek.

¹² See Morris (1889/90) for the view that the Latin interrogative particle *-ne* has a negative etymological origin.

Based on the above, polar questions in different languages appear to host expletive instances of either NEG_1 , potentially coinciding with some bias, or NEG_2 , which triggers a bias interpretative effect itself.

(85) Polar questions:

$$\llbracket \text{NEG}_1 \rrbracket = \lambda p. \neg p \text{ or } \llbracket \text{NEG}_{2\text{expletive}} \rrbracket^{g(w)} = \lambda p. \forall w' \in \text{Best}_{g(w)} : p(w')$$

5.9 Rhetorical questions

Greek negative rhetorical questions were shown to feature canonical instances of NEG_1 , whose negative semantics is obscured by the independent rhetorical effect. The main arguments were that (i) not all negative rhetorical questions convey a proposition of positive polarity, and (ii) the polarity reversal effect is present also in positive rhetorical questions, which obviously lack (expletive) negative markers.

Importantly, the arguments above were anticipated by Rohde (2006) – see also Caponigro and Sprouse (2007) – based on data from languages other than Greek, such as English. Let us take a look at the following examples:

(86) A: Am I to trust you or him?

B: Who hasn't hurt your feelings?

(87) A: Can I trust you?

B: Have I ever hurt your feelings?

Starting from the former, (86b) under its rhetorical reading in this specific context is roughly equivalent to “I haven't hurt your feelings, so it's me you should trust”. The conveyed proposition in this case is of the same polarity as the proposition expressed by the question, suggesting that negative markers in rhetorical questions are not always interpreted as expletive. Moving on to Example (87), the rhetorical question in (87b) corresponds roughly to the assertion “I haven't hurt your feelings”. In other words, it triggers a polarity reversal in the absence of any negative marker, showing that there is no systematic link between these two.

Taking into account the above, as well as the fact that no language has been reported to have only negative rhetorical questions to my knowledge, rhetorical questions across languages are likely to host instances of NEG_1 , whose non-negative interpretation is only an epiphenomenon due to rhetoricity.

(88) Rhetorical questions:

$$\llbracket \text{NEG}_1 \rrbracket = \lambda p. \neg p$$

5.10 Exclamatives

Negative exclamative hosts of expletive negation in Greek were earlier argued to have a negative rhetorical question structural basis, based on two fundamental differences between them and their positive counterparts: (i) negative exclamatives do not admit the exclamative complementizer *pu* ‘that’, and (ii) negative exclamatives trigger an *extreme quantity*-instead of an *extreme degree*-reading. Strikingly, the asymmetry in (ii) is reported also for other languages, like Hebrew (Eilam 2007) and Italian (Delfitto and Fiorin 2014).

(89) [Hebrew]

Ma lo asiti etmol!
 what NEG I.did yesterday
 ‘The things I did yesterday!’

(Eilam 2007: 3, ex. (8b))

(90) [Italian]

Che cosa non ha fatto Gianni!
 what thing NEG has done Gianni
 ‘The things Gianni did!’

(Delfitto and Fiorin 2014: 284, ex. (1))

If negative exclamatives behave similarly to their Greek counterparts in these languages, there is good reason to assume that the expletive negative markers they involve correspond to instances of NEG_1 , whose negative semantics is, however, masked by rhetoricity, exactly like we saw for rhetorical questions.

(91) Negative exclamatives:

$[[NEG_1]] = \lambda p. \neg p$

5.11 Free relatives

The last expletive negation host identified in the literature includes free relatives and, to my knowledge, it has been reported only for Hebrew (Eilam 2007). Let us compare the following pair:

- (92) a. ma še-dani katav hitparsem ba-iton.
 what that-Dani wrote was.published in.the.newspaper
 ‘What Dani wrote was published in the newspaper.’
 b. ma še-dani lo katav hitparsem ba-iton.
 what that-Dani NEG wrote was.published in.the.newspaper
 ‘Whatever Dani wrote was published in the newspaper.’

(Eilam 2007: 1, ex. (1))

Example (92b) differs minimally from (92a) in further including the negative marker *lo*. Crucially, though, *lo* is interpreted non-negatively in this case, as suggested by the English translation given. Instead, it reportedly makes a modal interpretative contribution that can be described as ignorance or indifference, best captured in English by means of the bound morpheme *-ever* (Eilam 2007).

The modal effect would in principle suggest that Hebrew free relatives license expletive instances of NEG_2 . Taking such an analytical step, however, requires further explanation in this case. Up to this point, expletive occurrences of NEG_2 have been related to polar propositional alternatives p and $\neg p$ and a ranking of possible worlds such that p worlds are ranked higher than $\neg p$ worlds. Notice, though, that in free relatives the alternative worlds differ not with respect to the polarity of p but with respect to the value assigned to the referent of the *wh*-word in each case; in this sense, we have $\{p_1, p_2, p_3 \dots p_n\}$. Moreover, these worlds are not ranked in any way, as suggested by the ignorance/indifference effects reported by Eilam (2007). In light of the above, I side with Eilam (2007) that free-relative expletive *lo* is a separate lexical element defined similarly to von Stechow's (2000) English *-ever*. I differ from him in speculatively proposing that free-relative *lo* is derived from NEG_2 uses of the standard negative marker *lo*, with which it shares a modal component. More research is needed to test the validity of this hypothesis. Importantly, however, Hebrew free relatives cannot be established as a canonical expletive negation host under this view.

5.12 Taking stock

The study of individual examples of expletive negation hosts showed that the expletive NEG_1 versus expletive NEG_2 asymmetry motivated on the basis of Greek data can be extended to other languages. In other words, it appears that one can distinguish two classes of expletive negation licensors even in languages that do not display morphological evidence in support of this distinction.

On the one hand, we have (i) temporal expressions, (ii) negative adverbials, (iii) comparatives, (iv) optionally biased polar questions, (v) rhetorical questions, and (vi) exclaimatives. In different languages, these licensors have been argued to feature canonical instances of NEG_1 markers, which are interpreted as a function that takes a proposition p as its argument and returns the complementary proposition $\neg p$. This is represented formally in (93).

$$(93) \quad \llbracket NEG_1 \rrbracket = \lambda p. \neg p$$

The truly negative semantics of the NEG_1 occurrences in the environments listed above is masked by peripheral factors, such as the interaction of negation with other

negative operators, with verbal aspect, or even with rhetorical strategies factored in at the level of utterance interpretation. Notice that (i) there is nothing special about the negative markers emerging in this group of hosts, and (ii) there is no characteristic property defining all and only these specific hosts.

On the other hand, we have (i) emotive doxastic predicates, (ii) negative predicates, (iii) dubitative predicates, (iv) biased questions, and possibly (v) conditionals and (vi) free relatives. In the languages examined in this section, these expletive negation hosts feature expletive instances of NEG_2 , which only retain the modal component of their truly negative counterpart. Concretely, expletive negative markers occurring in these environments are interpreted with respect to an ordering source; they take a proposition p as their argument and ensure that p is true in all the possible worlds that are ranked higher by this ordering source. Formally:

$$(94) \quad \llbracket \text{NEG}_{2\text{expletive}} \rrbracket^{g(w)} = \lambda p. \forall w' \in \text{Best}_{g(w)} : p(w')$$

This second class of hosts can be designated as the class of expletive negation licensors proper since (i) it features intrinsically non-negative instantiations of NEG_2 markers, and (ii) it involves licensors characterized by their compatibility with a modal component; concretely, an epistemic or deontic ordering source (see Kratzer 1981, 1991, among others). In fact, proper expletive negation can be considered as the spell-out of this ordering source in each case (see also Mari and Tahar 2020; Tsiakmakis et al. 2023).

I would like to submit the conclusions of the crosslinguistic excursus that made up this section as some first but promising evidence in support of pursuing the following broad research hypothesis: The bi-partite distinction between *dhen*-expletive negation hosts and *min*-expletive negation hosts may be cross-linguistically valid. Under this hypothesis, I propose that the expletive negation host inventory across languages can be broken down to what could be dubbed as *Apparent expletive negation hosts* and what I have already dubbed as *Expletive negation hosts proper*:

- (95) Revised expletive negation host inventory
 Apparent expletive negation hosts
 i. Temporal expressions
 ii. Negative adverbials
 iii. Comparatives
 iv. Optionally biased polar questions
 v. Rhetorical questions
 vi. Exclamatives ...
 Expletive negation hosts proper
 i. Emotive doxastic predicates
 ii. Negative predicates

- iii. Dubitative predicates
- iv. Biased questions
- v. (Conditionals)
- vi. (Free relatives)

I acknowledge that the research hypothesis introduced above is inspired in Greek and has been motivated mostly on the basis of data from a very small set of Indo-European languages – the ones in which the phenomenon of expletive negation has been studied the most. Therefore, this hypothesis is to be considered merely as a research agenda, an invitation to study what is broadly understood as expletive negation phenomena under this novel perspective. It would be interesting to see, for example, whether the distinction above is reflected in the morphosyntax of genetically unrelated languages, what the limits of the class of *Apparent expletive negation hosts* are and whether there is mobility between the two classes.

6 Conclusions

In this paper, I showed that the linguistic environments identified as expletive negation hosts in Greek can be divided into two groups based on whether they license expletive instances of the negative marker *dhen*, that is NEG_1 , or the negative marker *min*, that is NEG_2 . The first group features canonical NEG_1 markers interpreted as standard truth-reversal operators, whose negative semantics is masked by independent factors. The second group features non-negative NEG_2 markers that retain only the modal semantic component of their negative equivalent. Building on existing research on expletive negation instances in languages other than Greek, I provided some initial evidence that the expletive NEG_1 versus expletive NEG_2 asymmetry extends to more languages. I consider this evidence as opening up a new promising perspective in the study of expletive negation that can be summarized in the following broad research hypothesis: Expletive negation hosts across languages are divided into two classes: (i) a class of licensors that obscure the truly negative semantics of the featured negative markers, and (ii) a class of modal licensors that feature expletive negative markers corresponding merely to the spell-out of modal or deontic ordering sources. Further research is needed to corroborate the non-homogeneity of expletive negation as captured in the present study with data from more diverse languages.

Acknowledgments: I would like to thank M.Teresa Espinal, the audience of the GLiF research group seminars at Pompeu Fabra University, as well as the audience of the Sentential Negation Across the Globe workshop for valuable feedback on parts of the

research presented here. I am also indebted to two anonymous reviewers and the editor of *Linguistics* for their constructive criticism, comments, and suggestions that helped improve significantly this paper in terms of empirical coverage, clarity, and argumentation. The present research acknowledges funding from the Agència de Gestió d'Ajuts Universitaris i de Recerca (INVE SIGPI 2023) and the Spanish Ministerio de Ciencia, Innovación y Universidades (PID2023-150347NB-I00).

References

- Abels, Klaus. 2002. Expletive (?) negation. *Proceedings of FASL* 10. 1–20.
- Anand, Pranav & Valentine Hacquard. 2013. Epistemics and attitudes. *Semantics and Pragmatics* 6(8). 1–59.
- Belletti, Adriana. 2001. Speculations on the possible source of expletive negation in Italian comparative clauses. In Guglielmo Cinque & Giampaolo Salvi (eds.), *Current studies in Italian syntax: Essays offered to Lorenzo Renzi*, 19–38. Oxford: Elsevier.
- Büring, Daniel & Cristine Gunlogson. 2000. Aren't positive and negative polar questions the same? Ms. https://semanticsarchive.net/Archive/mYwOGNhO/polar_questions.pdf.
- Caponigro, Ivano & Jon Sprouse. 2007. Rhetorical questions as questions. In Estela Puig-Waldmüller (ed.), *Proceedings of Sinn und Bedeutung*, vol. 11, 121–133. Barcelona: Universitat Pompeu Fabra.
- Castroviejo, Elena. 2006. *Wh-exclamatives in Catalan*. Barcelona: University of Barcelona Dissertation.
- Castroviejo, Elena. 2021. On wh-exclamatives and gradability. An argument from Romance. *Journal of Linguistics* 57(1). 41–82.
- Cépéda, Paola. 2018. *Negation and time: Against expletive negation in temporal clauses*. New York: Stony Brook University Dissertation.
- Chatzopoulou, Aikaterini. 2018. *Negation and non-veridicality in the history of Greek*. Oxford: Oxford University Press.
- Choi, Yoonhee & Chungmin Lee. 2017. Expletive negation and polarity alternatives. In Chungmin Lee, Ferenc Kiefer & Manfred Krifka (eds.), *Contrastiveness in information structure: Alternatives and scalar implicatures*, 175–201. Dordrecht: Springer.
- Condoravdi, Cleo & Sven Lauer. 2012. Imperatives: Meaning and illocutionary force. In Christopher Pinon (ed.), *Empirical issues in syntax and semantics*, vol. 9, 37–58. Paris: CSSP. http://www.cssp.cnrs.fr/eiss9/eiss9_condoravdi-and-lauer.pdf.
- Dahl, Östen. 2010. Typology of negation. In Laurence Horn (ed.), *The expression of negation*, 9–38. Berlin & New York: De Gruyter Mouton.
- Delfitto, Denis. 2018. Negation as a window on the non-sequential nature of language interpretation and processing. In Alessandro Capone, Marco Carapezza & Franco Lo Piparo (eds.), *Further advances in pragmatics and philosophy (perspectives in pragmatics, philosophy & psychology)*, vol. 18, 81–95. Cham: Springer.
- Delfitto, Denis. 2020. Expletive negation. In Viviane Déprez & M. Teresa Espinal (eds.), *The Oxford handbook of negation*, 255–268. Oxford: Oxford University Press.
- Delfitto, Denis & Gaetano Fiorin. 2014. Negation in exclamatives. *Studia Linguistica* 68(3). 284–327.
- Delfitto, Denis, Chiara Melloni & Maria Vender. 2019. The (en)rich meaning of expletive negation. *Evolutionary Linguistic Theory* 1(1). 57–89.
- Dobrushina, Nina. 2021. Negation in complement clauses of fear-verbs. *Functions of Language* 28(2). 121–152.

- Eilam, Aviad. 2007. Expletive negation in Modern Hebrew: Neither expletive nor negation. *Paper presented at the 23rd annual meeting of the Israel Association for Theoretical Linguistics (IATL)*. Hebrew University of Jerusalem.
- Espinal, M. Teresa. 1992. Expletive negation and logical absorption. *The Linguistic Review* 9(4). 338–358.
- Espinal, M. Teresa. 1997. Non-negative negation and Wh-exclamatives. In Danielle Forget, Paul Hirschbühler, France Martineau & María Luisa Rivero (eds.), *Negation and polarity: Syntax and semantics*, 75–93. Amsterdam: John Benjamins.
- Espinal, M. Teresa. 2000. On the semantic status of n-words in Catalan and Spanish. *Lingua* 110. 557–580.
- Espinal, M. Teresa. 2002. La negació. In Joan Solà, Maria-Rosa Lloret, Joan Mascaró & Manuel Pérez Saldanya (eds.), *Gramàtica del Català Contemporani*, 2687–2757. Barcelona: Empúries/ Grup 62.
- Espinal, M. Teresa, Eloi Puig-Mayenco, Urtzi Etxeberria & Susagna Tubau. 2023. On the status of NCIs: An experimental investigation on so-called Strict NC languages. *Journal of Linguistics*. 60(4). 715–755. (Epub ahead of print).
- Farkas, Donka. 2020. Canonical and non-canonical questions. Ms. <https://semanticsarchive.net/Archive/WU2ZjIwM/questions.pdf>.
- von Fintel, Kai. 2000. Whatever. In Brendan Jackson & Tanya Matthews (eds.), *Proceedings of semantics and linguistic theory (SALT)*, vol. 10, 27–40. Ithaca, NY: CLC Publications.
- Fortuin, Egbert. 2023. The function of extra negation: Insights from the Dutch privative construction. *Functions of Language* 30(2). 1–29.
- Francez, Itamar. To appear. Apprehensive marking in Hebrew. In Marine Vuillermet, Eva Schultze-Berndt & Martina Faller (eds.), *Apprehensional constructions in a cross-linguistic perspective*.
- Giannakidou, Anastasia. 1998. *Polarity sensitivity as (non)veridical dependency*. Amsterdam: John Benjamins.
- Giannakidou, Anastasia. 2020. Negative concord and the nature of negative concord items. In Viviane Déprez & M. Teresa Espinal (eds.), *The Oxford handbook of negation*, 458–478. Oxford: Oxford University Press.
- Giannakidou, Anastasia & Alda Mari. 2017. A unified analysis of the future as epistemic modality: The view from Greek and Italian. *Natural Language & Linguistic Theory* 36. 85–129.
- Giannakidou, Anastasia & Alda Mari. 2021. *Truth and veridicality in grammar and thought*. Chicago: University of Chicago Press.
- Giannakidou, Anastasia & Suwon Yoon. 2008. Metalinguistic comparatives and the expressive dimension: Evidence from Greek and Korean. In Arndt Riester & Torgrim Solstad (eds.), *Proceedings of Sinn und Bedeutung*, vol. 13, 141–155. Stuttgart: University of Stuttgart.
- Goodhue, Daniel. 2022. Isn't there more than one way to bias a polar question? *Natural Language Semantics* 30. 379–413.
- Goodhue, Daniel & Junko Shimoyama. 2024. Embedded negative polar questions in Japanese: Explaining the puzzling distribution of embedded noncanonical negation via the speech act embedding complementizer *to*. Ms. <https://ling.auf.net/lingbuzz/006121>.
- Greco, Matteo. 2019. Is expletive negation a unitary phenomenon? *Lingue e Linguaggio* 18(1). 25–58.
- Greco, Matteo. 2020. On the syntax of surprise negation sentences: A case study on expletive negation. *Natural Language & Linguistic Theory* 38. 775–825.
- Holton, David, Peter Mackridge & Irene Philippaki-Warbuton. 2012 [1997]. *Greek: A comprehensive grammar of the modern language*. Revised by Vassilios Spyropoulos. London: Routledge.
- Horn, Laurence. 2001. *A natural history of negation*. Stanford: CSLI Publications.
- Horn, Laurence. 2010. Multiple negation in English and other languages. In Laurence Horn (ed.), *The expression of negation*, 111–148. Berlin: Mouton de Gruyter.

- Jespersen, Otto. 1962 [1917]. Negation in English and other languages. In *Selected writings of Otto Jespersen*, 3–351. London: George Allen and Unwin.
- Jin, Yanwei & Jean-Pierre Koenig. 2019. Expletive negation in English, French, and Mandarin: A semantic and Language production model. In Christopher Pinon (ed.), *Empirical issues in syntax and semantics*, vol. 12, 157–186. Paris: CSSP. <http://www.cssp.cnrs.fr/eiss12/>.
- Jin, Yanwei & Jean-Pierre Koenig. 2020. A cross-linguistic study of expletive negation. *Linguistic Typology* 25, 39–78.
- Jin, Yanwei & Jean-Pierre Koenig. 2021. The grammatical representation of expletive negation. In Stefan Müller & Nurit Melnik (eds.), *Proceedings of the 28th international conference on head-driven phrase structure grammar*, 46–67. Frankfurt/Main: University Library.
- Klairs, Christos & Georgios Babiniotis. 1999. *Γραμματική της Νέας Ελληνικής [Grammar of the modern Greek language]*. Athens: Ellinika Grammata.
- Kratzer, Angelika. 1981. The notional category of modality. In Hans J. Eikmeyer & Hannes Rieser (eds.), *Words, worlds, and contexts*, 38–74. Berlin: De Gruyter.
- Kratzer, Angelika. 1991. Modality. In Arnim von Stechow & Dieter Wunderlich (eds.), *Semantik/semantics: An international handbook of contemporary research*, 639–650. Berlin: De Gruyter.
- Labelle, Marie. 2023. Apparent expletive negation, silent comparatives, and domain widening in Quebec French superlative and universal constructions. *Glossa: A Journal of General Linguistics* 8(1). <https://doi.org/10.16995/glossa.9549>.
- Ladd, D. Robert. 1981. A first look at the semantics and pragmatics of negative questions and tag questions. In Robert A. Hendrick, Carrie S. Masek & Mary Frances Miller (eds.), *Proceedings of Chicago linguistic society*, vol. 17, 164–171. Chicago: The Chicago Linguistic Society.
- Lekakou, Marika. 2024. Double negative markers in Modern Greek. In Tommaso Balsemin, Irene Caloi, Jacopo Garzonio, Nicolas Lamoure, Francesco Pinzin & Emanuela Sanfelici (eds.), *Quaderni di lavoro ASIt*, vol. 25, 621–635.
- Liu, Mingya, Stephanie Rotter & Anastasia Giannakidou. 2021. Bias and modality in conditionals: Experimental evidence and theoretical implications. *Journal of Psycholinguistic Research* 50, 1369–1399.
- Makri, Maria Margarita. 2013. *Expletive Negation beyond Romance: Clausal complementation and epistemic modality*. York: University of York MA dissertation.
- Makri, Maria Margarita. 2018. *Aspects of comparative constructions: Comparative syntax, semantics & L1-acquisition*. York: University of York Dissertation.
- Mari, Alda & Chloé Tahar. 2020. On prohibitive and expletive negations. Ms. <https://shs.hal.science/halshs-02865961>.
- Michaelis, Laura. 2001. Exclamative constructions. In Martin Haspelmath, Ekkehard König, Wulf Oesterreicher & Wolfgang Raible (eds.), *Language universals and Language typology: An international handbook*, 1038–1050. Berlin: Walter de Gruyter.
- Moeschler, Jacques. 2020. Negative predicates: Incorporated negation. In Viviane Déprez & M. Teresa Espinal (eds.), *The Oxford handbook of negation*, 26–46. Oxford: Oxford University Press.
- Morris, Edward P. 1889/90. On the sentence-question in Plautus and Terence. *American Journal of Philology* 10(4). 397–436; 11(1). 16–54; 11(2). 145–181.
- Muller, Claude. 1991. *La négation en Français. Syntaxe, sémantique et éléments de comparaison avec les autres langues romanes*. Geneva: Droz.
- Napoli, Donna & Marina Nespôr. 1976. Negatives in comparatives. *Language* 52(4). 811–838.
- Olguín Martínez, Jesús. 2023. Precedence clauses in the world's languages: Negative markers need not be expletive. *STUF – Language Typology and Universals* 76(4). 587–634.
- Olguín Martínez, Jesús. 2024. Semantically negative adverbial clause linkage: ‘Let alone’ constructions, expletive negation, and theoretical implications. *Linguistic Typology* 28(1). 1–52.

- Pope, Emily. 1976. *Questions and answers in English*. The Hague: Mouton.
- Portner, Paul. 2009. *Modality*. New York: Oxford University Press.
- Reese, Brian & Nicholas Asher. 2009. Biased questions, intonation and discourse. In Malte Zimmermann & Caroline Féry (eds.), *Information structure: Theoretical, typological, and experimental perspectives*, 139–174. Oxford: Oxford University Press.
- Retz, Jessica. 2011. Exclamatives, degrees and speech acts. *Linguistics and Philosophy* 34(5). 411–442.
- Rohde, Hannah. 2006. Rhetorical questions as redundant interrogatives. *San Diego Linguistic Papers* 2. 134–168.
- Romero, Maribel & Chung-hye Han. 2004. On negative yes/no questions. *Linguistics and Philosophy* 27(5). 609–658.
- van Rooy, Robert & Marie Safarova. 2003. On polar questions. In Robert B. Young & Yuping Zhou (eds.), *Proceedings of semantics and linguistic theory (SALT)*, vol. 13, 292–309.
- Roussou, Anna. 2015. Ο δείκτης μη: άρνηση ή συμπληρωματικός δείκτης [*Μi*: Negation or complementizer?]. In Giorgos Papanastasiou, Dimitris Koutsogianis & Maria Theodoropoulou (eds.), *Studies in Greek linguistics*, vol. 35, 490–501. Thessaloniki: Instituto Neoellinikon Spoudon.
- Roussou, Anna & Anastasios Tsangalidis. 2010. Reconsidering the ‘modal particles’ in Modern Greek. *Journal of Greek Linguistics* 10. 45–73.
- Sadock, Jerrold. 1971. Queclaratives. In *Papers from the seventh regional meeting of the Chicago linguistics society*, 223–232. Chicago: Chicago Linguistic Society.
- Sailor, Craig. 2013. Questionable negation. In *Handout from the LSA annual meeting*. Boston, MA. Available at: https://craigsailor.net/papers/LSA_2013_handout.pdf.
- Seuren, Pieter. 1984. The comparative revisited. *Journal of Semantics* 3(1–2). 109–141.
- von Stechow, Arnim. 1996. The different readings of *wieder* ‘again’: A structural account. *Journal of Semantics* 13(2). 87–138.
- Sudo, Yasutada. 2013. Biased polar questions in English and Japanese. In Daniel Gutzmann & Hans-Martin Gärtner (eds.), *Beyond expressives: Explorations in use-conditional meaning*, 275–296. Leiden: Brill.
- Tahar, Chloé. 2021. *Craindre* (“fear”) and expletive negation in diachrony. In Sergio Baauw, Frank Drijkoningen & Luisa Meroni (eds.), *Romance languages and linguistic theory 2018: Selected papers from going Romance*, 32, 288–302. Amsterdam: John Benjamins.
- Tahar, Chloé. 2022. *La négation explétive: Des impératifs aux connecteurs. Approche diachronique et formelle*. Paris: PSL (Paris Sciences & Lettres) University Dissertation.
- Tovena, Lucia. 1996. *Studies on polarity sensitivity*. Edinburgh: University of Edinburgh Dissertation.
- Triantafyllidis, Manolis. 1941. *Νεοελληνική Γραμματική [Modern Greek grammar]*. Athens: Organismos Ekdosis Didaktikon Vivlion.
- Tsiakmakis, Evripidis. 2023. *Expletiveness across functional categories: Evidence from Greek*. Barcelona: Autonomous University of Barcelona Dissertation.
- Tsiakmakis, Evripidis & M. Teresa Espinal. 2022. Expletiveness in grammar and beyond. *Glossa: A Journal of General Linguistics* 7(1). <https://doi.org/10.16995/glossa.5807>.
- Tsiakmakis, Evripidis, Joan Borràs-Comes & M. Teresa Espinal. 2023. Greek non-negative *min*, epistemic modality, and positive bias. *Natural Language & Linguistic Theory* 41. 1257–1285.
- Tzartanos, Achilleas. 1989. *Νεοελληνική Σύνταξις [Modern Greek syntax]*. Thessaloniki: Kyriakidi.
- Uegaki, Wataru. 2023. The *doubt-whether* puzzle. In Łukasz Jędrzejowski & Carla Umbach (eds.), *Non-interrogative subordinate wh-clauses*, 461–491. Oxford: Oxford Academic.
- van der Auwera, Johan & Tamirand Nnena De Lisser. 2019. Negative Concord in Jamaican. *Ampersand* 6. 1–15.

- Veloudis, Ioannis. 2018. Exploiting polar questions for expressive purposes: “Queclaratives” and “whimperatives” in modern Greek. *Lingua* 204. 117–133.
- Vendryès, Joseph. 1950. Sur la négation abusive. *Bulletin de la Société de Linguistique de Paris* 46(1). 1–18.
- Villalba, Xavier. 2004. Exclamatives and negation. Ms. https://clt.uab.cat/publicacions_clt/reports/pdf/GGT-04-2.pdf.
- Yoon, Suwon. 2011. Rhetorical comparatives: Polarity items, expletive negation, and subjunctive mood. *Journal of Pragmatics* 43(7). 2012–2033.
- Zeijlstra, Hedde. 2004. *Sentential Negation and negative Concord*. Amsterdam: University of Amsterdam Dissertation.