

On Prohibitive and Expletive Negations

Alda Mari and Chloé Tahar
Institut Jean Nicod CNRS/ENS/EHESS/PSL

Abstract

In this paper we study the diachronic development of expletive negation from Indo-European to French, through Latin. We show that the negative expression *ne* (from Indo-European *mē*) is found in two contexts in Latin: imperatives and priority attitudes. We propose a unified semantics for these contexts, that leaves room to accommodate a distinction between positive (e.g. *order/wish*) and negative (e.g. *forbid/fear*) priority attitudes. We argue for an ambiguity account of *ne* driven by these two types of attitudes, and argue for a distinction of a prohibitive *ne* acting as a true negation in the context of imperatives and positive priority attitudes and an expletive *ne*, reversing the value of the ordering source of trigger with negative priority attitudes. We show that, in French, only expletive negation survives the Jespersen Cycle and offer a principle explanation for the distributions observed. We also show how our account can be extended to expletive negation in the context of epistemic attitudes conveying a meaning of contrariness such as *doubt* thus establishing a unified semantics for attitudes that cuts across priority and epistemic ones.

Expletive negation is the cross-linguistically attested form/meaning mismatch whereby a negation marker appearing in a complement clause does not contribute proper negative meaning. Expletive negation does not occur randomly, and across languages a large variety of triggers have been identified. Not all languages feature all triggers, but there is some overlap cross-linguistically (see [Yoon, 2011], for the most recent inventory). Among the core contexts that license expletive negation *ne* in French – the language under scrutiny here – and across languages, we find attitudes expressing apprehension (1-a), doubt (1-b) verbs, as well as *before*, clauses and (1-c) and comparatives, see (1-d).

- (1) a. *Jane craint que son fils ne mange de la viande.*
Jane fear-3SG.PRES that her son *ne* eat-3SG.SUBJ of the meat
'Jane **fears** that her son might eat meat.'
- b. *Je ne doute pas que Jane n' aime le jazz.*
I NEG doubt-1SG.PRES not that Jane *ne* like-3SG.SUBJ the jazz.
'I **don't doubt** that Jane likes jazz.'
- c. *Jane est partie avant que la fête ne commence.*
Jane be-3SG.AUX.PRES go.PP before that the party *ne* begin-3SG.SUBJ.
'Jane was gone **before** the party began.'
- d. *Jane est plus gentille qu' on ne le pense.*
Jane is more nice than we *ne* CL think-3SG.SUBJ
'Jane is **nicer than** we think.'

Some studies ([Chatzopoulou, 2012]) have pointed to a relation between expletive negation in modern languages (and in particular Greek) and the so-called Indo-European prohibitive negation.

The main goal of this paper is to retrace the history of this negative element – which we will call NEG₂ (to distinguish it from the declarative negator, which we call NEG₁) – from Indo-European to Modern French, through Classical Latin, by adopting a bird's eye view on these three stages of its development. For each of these three stages (Indo-European, Latin and Modern French) we will study its distributions and its meaning(s), by closely considering the semantics of its triggers.

Our historical investigation will lead us to propose that, in Indo-European and Classical Latin, NEG₂ appears in different types of contexts and specifically with imperatives and priority attitudes (priority attitude is a label that encompasses attitudes of command and wish, see [Portner, 2009], [Condoravdi and Lauer, 2012]).

Focusing on Latin data, we will tease apart two different types of priority attitudes, which we call *positive* (e.g. *order/wish*) and *negative* (e.g. *forbid/fear*). We will identify two uses of *ne*: a *prohibitive* use where it contributes negative meaning, with imperatives and positive attitudes (2), and an *expletive* use with negative priority attitudes (3).

(2) Prohibitive negation with imperatives and positive priority attitudes in Latin

- a. *Ne male loquere apsentī amico.*
NEG₂ bad say.2SG-IMP absent friend.
'Do not insult a friend in his absence.' (Pl, *Trin*, 926)
- b. *Te vehementer iubeo, ne me territes.*
CL-2SG strongly order-1SG *ne* CL-1SG frighten-2SG.SUBJ
'I **order** you strongly, not to frighten me.' (Cic, *Cur*, 538)

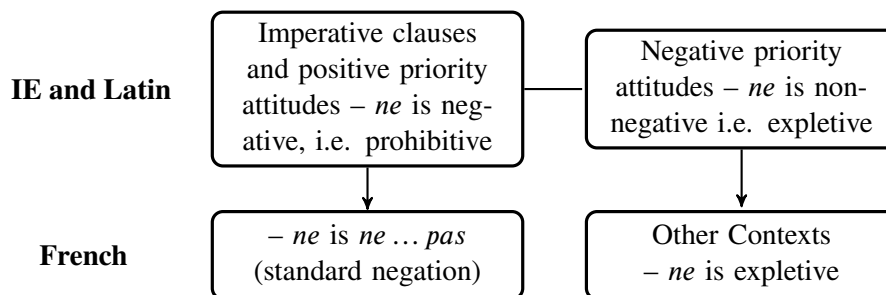
(3) Expletive negation with negative priority attitudes in Latin

- a. *Pondus enim prohibet ne plaris omnia fiant.*
gravity-NOM thus forbid-3SG *ne* choc-ABL everything-ACC happen-3PL-SUBJ
'Gravity thus **prevents** everything from happening out of choc.' (Lucr, *DRN*, 2.228)
- b. *Ego uereor ne istaec pollicitatio te in crimen populo ponat.*
I fear *ne* this-NOM offer-NOM CL in accusation-ACC people-DAT put-3SG.SUBJ
'I **fear** that this offer may expose you to the accusations of the public.' (Pl, *Trin*, 738-739)

Our analysis will substantiate the descriptive categories 'positive' and 'negative' priority attitudes (see section 3), by fine-tuning a unified modal semantics for imperatives and priority attitudes, which leaves room to accommodate key differences between these two types of priority attitudes. We will thereby propose an ambiguity account where *ne* contributes negative meaning only when it is prohibitive; we will argue that, in the context of negative priority attitudes, expletive *ne* operates over the ordering source of the attitude by spelling out a negative component lexically encoded in the meaning of the verb.

We will show that this ambiguity of *ne* found in Latin is lost in French, where only expletive *ne* survives, also appearing in new environments. We argue that solitary prohibitive *ne* undergoes the Jespersen Cycle and is no longer found in this language.

The overall picture that the paper is going to design and argue for in detail looks as follows.



Our paper is structured as follows. In section 1 we discuss current theories of expletive negation, by highlighting the main points of overlap with our account. In section 2 we present our diachronic study. Section 3 is devoted to the semantic analysis and its (diachronic) predictions. Section 4 offers further predictions, discussing epistemic verbs triggering expletive negation and proposes some conclusive notes about the unity of the phenomenon across different types of non-declarative clauses.

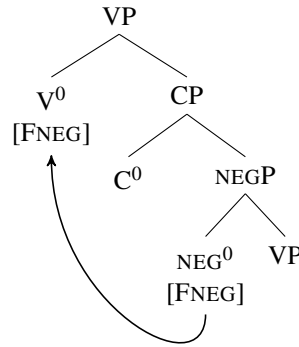
1 Previous accounts

There are three major approaches to expletive negation (i) as a Negative Concord item; (ii) as a mood morpheme with a comparative semantics; (iii) as a negation over alternatives in an ordered set.

1.1 Expletive negation as a Negative Concord Item

[Zeiljstra, 2004] and [Espinal, 2007] posit that expletive negation and the main verb do enter a Negative Concord relation yielding a ‘single-negation’ semantic reading. Espinal’s proposal consists in a Negative Concord analysis of the relation between nonveridical predicates (non-implicative predicates \mathcal{A} such that $\mathcal{A}p$ does not entail p [Giannakidou, 1997]) and expletive negation. According to Espinal, only the main predicate is interpreted as semantically ‘negative’, while the negation marker in the subordinate clause is interpreted as a dependent concord item.

(4) Espinal’s proposal:



The idea of a deep connection between the negative semantics of the predicate and expletive negation is important and we will maintain it here. There are several non-veridical predicates, however, that do not trigger expletive negation (e.g. belief-predicates), and our diachronic analysis will help us to pin down the negative contribution of the predicate at the level of its modal comparative semantics rather than at the level of its nonveridical property, thus abandoning the idea of a Negative Concord. In our account expletive negation is not an empty element, but is the overt spell out of a negative component of the main predicate which fulfills a specific task of reversing the preferences encoded in the comparative semantics of the attitude.

1.2 Expletive negation as a mood marker

[Yoon, 2011] posits that in Korean, although expletive negation is morphologically identical to standard negation, it does not play the role of a standard negation marker, but that of a subjunctive mood marker. In the line of reasoning of [Giannakidou, 2009], Yoon assumes that the subjunctive mood is licensed by nonveridical predicates as a Negative Polarity Item. Within this perspective, subjunctive mood is conceived as a semantically dependent morpheme, which doesn’t actively contribute to meaning, but has a certain definedness condition that restricts its distribution to the scope of nonveridical predicates (see also [Giannakidou and Mari, 2016]). Based on the robust cross-linguistic observations that (i) expletive negation tends to appear in the scope of nonveridical predicates and that (ii) expletive negation essentially appears in embedded contexts and tends to co-occur with the subjunctive mood, Yoon argues that expletive negation is a subjunctive mood marker. She proposes that expletive negative conveys a scalar (or evaluative) meaning, akin to an ordering source à la [Kratzer, 1991] (see also [Villalta, 2008]). Yoon argues that expletive negation realizes the ordering source of the predicate. According to Yoon’s analysis, expletive negation (abb. EN in (5) and (6)) imposes an ordering on the modal base M_B of verbs like *hope*

or *fear*, ranking $\neg p$ -worlds higher than p -worlds, on a likelihood scale for (5), on a desirability scale for (6).

(5) *Scalar semantics for expletive negation with hope* [Yoon, 2011, p.161]:

- a. If *hope* (x, p) is true in a context c , then $M_B(x) \cap p$ is not \emptyset in c .
- b. The evaluative component of EN (x, p) expresses in context c as the following: $M_E(x) - p >_{Likely} M_E(x) \cap p$ in c

(6) *Scalar semantics for expletive negation with fear* [Yoon, 2011, p.161]:

- a. If *fear* (x, p) is true in a context c , then $M_B(x) \cap p$ is not \emptyset in c .
- b. The evaluative component of EN (x, p) expresses in context c as the following:
 $M_B(x) - p >_{Desirability} M_B(x) \cap p$ in c

As we have mentioned above, our analysis will recognize a connection between expletive negation and the ordering semantics, and, as we have already mentioned, we will abandon the idea that expletive negation is triggered by non-veridicality. For us, expletive negation is not a mood marker, but it is a true negation. It will yield different effects depending on whether it scopes over a proposition (at the TP level) or over a set of propositions (by reversing the value of the ordering source), as we will explain.

By positing that expletive negation operates over an ordering source by negating it, we will be able to explain how the ordering introduced by the expletive negation and the ordering introduced by the verb cope with each other. *Hope* and *fear* lexically encode opposite preferences and a proper account of expletive negation must explain how this element deals with attitudes of different polar orientations (*hope* ranks p worlds higher in the desirability scale and *fear* ranks p worlds as less desirable).

1.3 Expletive negation as a scalar negation

The idea of the interaction between negation and alternatives, is at the core of [Zanuttini and Portner, 2000]’s proposal according to whom expletive negation acts upon the scalar implicature of exclamatives. They work on Paduan (7) and (8), and, according to them, the meaning of exclamative clauses like (7) or (8) feature two layers of meaning, (i) a presupposition that the propositional content of the exclamative is true and (ii) a scalar implicature based on a scale of expectedness.

(7) *Cossa che l magnava!*

what that CL ate
‘What things he ate!’

(8) *Cossa no ghe dise-lo!*

what NEG him say-CL
‘What things he’s telling him!’

Portner and Zanuttini propose that exclamatives trigger a counterexpectation implicature, ie. the implicature that whatever propositions denoted by the exclamative are true, they were not expected to be true. As for (7), only the lowest ranked alternatives on the expectedness scale (the things least expected to be eaten) are true. Portner and Zanuttini argue that *no* is semantically a real negation that interacts with the exclamative’s scalar implicature. *No* generates the implicature that only the lowest negative alternatives on the expectedness scale are true. Consequently, by implicating that the only thing that he didn’t told him was extremely unlikely, (8) conveys a meaning of counterexpectation, just like its positive counterpart.

Our diachronic study shows that all these three approaches propose important ingredients to understand expletive negation, namely the idea of a relation between expletive negation and the negative semantics of its triggers (Espinal), and the idea that expletive relation is somehow related to a comparative

meaning as well (Yoon and Portner and Zanuttini).

We now present an empirical diachronic study that will allow us to elaborate a proposal that is faithful to these two ideas. Anticipating on what it is to come in the next sections, we will however tackle the study of non-declarative negation NEG₂ from a different perspective. We will consider NEG₂ in both root and embedded clauses, and we will treat these two contexts on a par as featuring a unified modal semantics. This unified semantics for the triggers of NEG₂ will allow us to identify an ambiguity for this negation, which will use as a leverage to explain the diachronic evolution of NEG₂ from Indo European to Modern French.

2 A pathway of change from prohibitive to expletive negation

In this section we lay down our empirical study. Our investigation is articulated in three main parts. First (section 2.1) we show that, in Indo-European, the same negative marker is used in root imperative clauses and under priority attitudes, which are used to report desires, goals and obligations (see [Portner, 2009]). Second (section 2.2), focusing on Latin, we show that priority attitudes that can trigger *ne* come in two sorts and distinguish – on an empirical basis only – between positive and negative priority attitudes. We show that *ne* bears negative meaning only with the first subtype. Finally (section 2.3), we turn to French, and describe the contexts in which the negative element *ne* can appear, noting that the contexts which trigger expletive negation are a superset of the contexts in which it is found in Latin.

2.1 Distributions of NEG₂ in Indo-European

The goal of this section is to show that, in several Indo-European languages, there is a morphological correlation between the negation appearing in imperative root clauses (as well as other non-declarative contexts), with the negation appearing under priority attitudes, see Table 1. In root clauses, the Latin, Albanian or Greek negative element NEG₂ is in complementary distribution with the standard propositional negation NEG₁ and is employed in the construction of negative imperatives (understood as canonical imperatives as well as hortatives).

	Root clause		Embedded clause
	Declarative clause	Imperative clause	Priority attitudes
LATIN	<i>non</i>	<i>ne</i>	<i>ne</i>
ALBANIAN	<i>nuk/s'</i>	<i>mos</i>	<i>mos</i>
GREEK	<i>dhen</i>	<i>mi(n)/me</i>	<i>mi(n)/me</i>

Table 1 – Choice of negation marker in Latin, Albanian and Greek

It is important to mention that evidence from Anatolian, Indo-Iranian, Greek, Latin, Tocharian, Albanian or Armenian, among other languages, see [Clackson and Meissner, 2007], allows us to establish a distinction between a declarative negation and a non-declarative negation. In each of these languages, non-declarative negation is found in imperative clauses.¹ On the basis of the evidence provided by these individual languages, historical linguists have reconstructed the system of negation in Proto-Indo-European, that distinguishes between a standard propositional negation *ne* and a non-declarative negation *mē*.

¹It can also be found in questions. See [Joseph and Janda, 1999] for a discussion of the ‘constellation’ of uses of NEG₂ and an extensive list of the contexts of appearance of non-declarative negation.

2.1.1 Classical Latin

In Classical Latin (roughly from 150 BC to 300 AD), negative imperatives are formed with the negative marker *ne*, which might originate from Proto-Indo-European **mē* (see [Löfsted, 1966]). It combines with the imperative mood to form canonical imperatives, see (9-a), or with the subjunctive mood to form hortative sentences (9-b).

- (9) a. *Ne male loquere apsentī amico.*
 NEG₂ bad say.2SG-IMP absent friend.
 ‘Do not insult a friend in his absence.’ (Pl, *Trin*, 926)
- b. *Ne vivam si tibi concedo.*
 NEG₂ live.1SG.SUBJ if you.DAT abandon.1SG
 ‘May I not live if I let you down.’ (Cic, *Epis*, 2.209)

The choice of the standard negation *non* is associated with the indicative mood, as shown in (10).

- (10) *Illud mihi verbum non placet, ‘quod nunc habes’.*
 this.ACC me sentence NEG₁ like what now have
 ‘This phrase, ‘What you have now’, doesn’t please me.’ (Pl, *Aul*, 547)

Ne could appear in embedded contexts either with a negative, see (11-a) or an expletive interpretation, see (11-b), as we will develop in section 2.2.

- (11) a. *Obsecro ne indicium ero facias/ *facis meo.*
 beg-1SG NEG₂ denunciation-ACC master-DAT do-2SG.SUBJ/ do-2SG-IND mine
 ‘I implore you not to betray us to my master.’ (Pl, *Mos*, 743-5)
- b. *Timeo *(ne) laborem augeam / *augeo.*
 fear-1SG NEG₂ work-ACC increase-1SG.SUBJ / increase-1SG-IND
 ‘I’m afraid that I shall increase my work.’ (Cic, *Leg*, 1.4)

Note that in both cases, with attitude reports such as *obsecro* (‘I beg’) or *timeo* (‘I fear’) the choice of NEG₂ in embedded position is correlated to the choice of the subjunctive mood.

2.1.2 Modern Albanian

In Modern Albanian, prohibitions are formed with the negative marker *mos*, which is followed either by the imperative or the subjunctive, to form canonical imperatives, or by the optative, to form hortative sentences, see the examples below.

- (12) a. *Mos më ndhimo!*
 NEG₂ CL help.IMP
 ‘Don’t help me!’ [Turano, 2012]
- b. *Të mos vish!*
 PTCL-SUBJ NEG₂ come.2SG
 ‘Don’t come!’ [Turano, 2012]:
- c. *Mos vdeshk kurrë!*
 NEG₂ die.2SG-OPT never.
 ‘May you never die!’ [Turano, 2012]

Prohibitive negation *mos* and sentential negation *nuk* are in complementary distribution, as sentential negation co-occurs with the indicative mood. In declarative contexts, *nuk* cannot be replaced by *mos*, see (13-a), and in imperative contexts, *mos* cannot be replaced by *nuk*, see (13-b), as argued by [Turano, 2012].

- (13) a. ***Nuk/ *mos** vajta në bibliotekë.*
 NEG₁/ NEG₂ went.PAST-1SG in library
 ‘I didn’t go to the library.’ [Turano, 2012]
- b. ***Mos/ *nuk** më ndhimo!*
 NEG₂/ NEG₁ me help.IMP
 ‘Don’t help me!’ [Turano, 2012]

Mos can appear embedded under priority attitudes, such as *urdhëroj* (‘I order’), with a negative interpretation, see (14-a) or with *kam frikë* (‘I fear’), with an expletive interpretation, see (14-b).²

- (14) a. ***Urdhërova** të **mos** vriten demonstruesit.*
 order-1SG PTCL-SUBJ NEG₂ kill-3PL-IND demonstrators-ACC
 ‘I **ordered** not to kill the demonstrators.’
- b. ***Kam** **frikë** se (**mos**) më vdes babai.*
 have.1SG fear that NEG₂ CL die-2SG father-the
 ‘I **fear** that my father dies.’

2.1.3 Modern Greek

Greek forms negative imperative clauses with the negation *mi(n)*, which co-occurs with the imperative in Attic and Koine Greek. In Medieval Greek, however, only surrogate verb forms, unmarked for mood, became available with *mi(n)*, preceded by the optional subjunctive particle *na*, as observed by [Chatzopoulou, 2017], see (15).

- (15) (*Na*) ***min** to petáksis!*
 PTCL-SUBJ NEG₂ it-ACC throw-2SG
 ‘Don’t throw it out!’ [Joseph and Janda, 1999]

The prohibitive negation *mi(n)* is in complementary distribution with the standard negation *dhen*, as *dhen* cannot be replaced by *min* in declarative contexts, see (16-a). *min* cannot be replaced by *dhen* in imperative contexts, see (16-b).

- (16) a. *o Jánis **dhen/ *min** írthe.*
 the-NOM Janis-NOM NEG₁/ NEG₂ came-3SG-PP
 ‘John did not come.’ [Chatzopoulou, 2017]
- b. ***Mi/ *dhen** fëris ton Jáni!*
 NEG₂/ NEG₁ bring-PNP-2SG the-ACC Jani-ACC
 ‘Don’t bring John!’ [Chatzopoulou, 2017]

Like its Latin and Albanian counterpart, NEG₂ in Greek also occurs in the embedded clause of priority attitudes, like *parakaló* (‘I request’) with a negative interpretation, see (17-a), or with *fováme* (‘I fear’) with a non-negative interpretation, see (17-b).

- (17) a. *o Jánis **parakálese** ti **María** na **min** erthi.*
 the Jannis requested the Maria PTCL-SUBJ NEG₂ come-3SG-PNP
 ‘John **requested** Maria not to come.’ [Chatzopoulou, 2012]
- b. ***Fováme** na ***(min)** erthi.*
 fear.3SG SUBJ NEG₂ come.3SG
 ‘I **fear** that he comes.’ [Chatzopoulou, 2012]

²We give many thanks to Bujar Rushiti for these judgments.

To conclude, across three different languages of the Indo-European family, the same morpheme is to express negative meaning in imperative root clauses and in the embedded clause of priority attitudes. With priority attitudes it can also bear non-negative meaning. We could not establish for Greek and Albanian an exhaustive list of verbs that trigger non-declarative negation. We have accomplished this task for Latin, to which we now turn. Focusing on Latin, we now zoom on the types of attitudes that embed *ne* and tease apart cases in which *ne* contributes negative meaning, from those in which, *prima facie*, it seems not to do so.

2.2 Latin distributions of *ne*

As we just argued, the same expression *ne* can be found in two types of contexts: in negative imperatives and embedded under priority attitudes.

2.2.1 *ne* in negative imperative sentences

Starting with negative imperatives, it is a well-known fact that imperative clause type is a notional category that can have different flavors in context. [Condoravdi and Lauer, 2012] and [Kaufmann, 2012] propose a typology of imperatives, whereby they can be interpreted as (1) commands, (2) wishes and (3) permissions. Each one of these main flavors features a variety of subflavors.³

1. COMMAND-type:

- | | | |
|------|---|-----------|
| (18) | a. <i>Stand at attention !</i>
He ordered me to stand at attention. | (Command) |
| | b. <i>Don't enter my house!</i>
He ordered me not to enter his house. | |
| (19) | a. <i>Hand me the salt, please.</i>
He requested to be passed the salt. | (Request) |
| | b. <i>Don't talk too fast, please.</i>
He requested me not to speak too fast. | |
| (20) | a. <i>Watch out!</i>
He warned me to watch out. | (Warning) |
| | b. <i>Don't touch the hot plate!</i>
He warned me not to touch the hot plate. | |
| (21) | a. <i>Take these pills for a week.</i>
He advised me to take these pills for a week. | (Advice) |
| | b. <i>Don't believe his lies.</i>
He advised me not to believe his lies. | |
| (22) | a. <i>Please, lend me the money!</i>
He pleaded me with lending him the money. | (Plea) |
| | b. <i>Please, don't be angry at me!</i>
He pleaded me with not being angry at him. | |

2. WISH-type:

- | | | |
|------|--|-------------|
| (23) | a. <i>Enjoy the film!</i>
He wished me to enjoy the film. | (Well-wish) |
| | b. <i>Don't get bored!</i>
He wished me not to get bored. | |

³According to [Condoravdi and Lauer, 2012] these are subtypes of speech-acts.

- (24) a. *Drop dead!* (Curse)
He cursed me to drop dead.
b. *Don't ever recover!*
He cursed me not to ever recover.
- (25) a. *Please, rain!* (Addressee-less wish)
He expressed the wish that it rains.
b. *Please, don't rain!*
He expressed the wish that it won't rain.
- (26) a. *[on the way to a blind date] Please be rich !* (Absent wish)
He wished for his date to be rich.
b. *[a father to his son] Please, don't have broken another vase!*
He wished he would not have broken another vase.

3. PERMISSION-type:

- (27) a. *Okay, go out and play.* (Permission/concession)
He allowed me to go out and play.
b. *Okay, don't finish your soup.*
He allowed me not to finish my soup.

We can observe that Latin negative imperatives may have the same uses than their English counterparts. What matters for us, is that these categories provide a grid to understand the distributions of expletive negation beyond negative imperative as we will argue later in the paper (see section 4).

1. COMMAND-type:

- (28) *Nimium est ! – Ne clama.* (Command)
Excess-ACC is ! – *ne* shout-2SG-IMP
'That's too much! – Don't shout.' (Ter, *Ph*, 664)
- (29) *Uigila, ne somno stude.* (Warning)
Stay-awake-2SG-IMP, *ne* sleep.DAT seek-for-2SG-IMP
'Open your eyes, don't fall asleep.' (Pl, *Mil*, 215)
- (30) *Ne parce uocem, ut audiat.* (Request)
ne spare-2SG-IMP voice-ACC, so-that hear-3SG.SUBJ
'Don't talk quietly, so that he can hear you.' (Pl, *Mil*, 1220)
- (31) *Actum, aiunt, ne agas.* (Advice)
done, say-3PL, *ne* do.2SG.SUBJ
'Don't, as they say, deal with done business.' (Ter, *Phorm*, 419)
- (32) *Ignosce, irata ne sies.* (Plea)
forgive-2SG-IMP, angry *ne* be-2SG.SUBJ
'Forgive me, don't be angry at me.' (Pl, *Amph*, 94)

2. WISH-type:

- (33) *Ne magis sim pulcer quam sum.* (Addressee-less wish)
ne more be-1SG.SUBJ beautiful-NOM than be-1SG-IND
'May I not be more beautiful than I am.' (Pl, *Mil*, 1086)
- (34) *Ne di sirint!* (Absent wish)
ne gods-NOM allow-3PL
'May the gods not allow it!' (Pl, *Amph*, 613)

3. PERMISSION-type:

- (35) *Haec negat se tuam esse matrem. – Ne fuat se non uolt.*
 This-one-NOM-FEM denies CL your be mother-ACC. – NEG be-3SG.SUBJ if *ne*
 want-3SG-IND
 ‘She says she’s not your mother. – Let her not be if she doesn’t want to.’
 (Pl, *Epid*, 584-5) (Permission/concession)

2.2.2 *ne* in the embedded clause of priority attitudes

As for *ne* appearing in embedded clauses, we observe that it appears with priority attitudes. This observation is based on data found in [Allen and Greenough, 1903], [Lakoff, 1968], [Baldi and Cuzzolin, 2011], [Pinkster, 2015] and [Melo, 2007]. We have also checked samples of attitudes from other classes such as emotives and we found no occurrence of *ne*. We have instead found *ne* with epistemics such as *dubitare* (*doubt*), a fact that we address in section 4.

As for priority attitudes, we also observe that they come in two sorts: they can be *positive* (for instance *impero* ‘order’) – conveying that *p* is conform to the laws – or *negative* (for instance *prohibeo* ‘forbid’) – conveying that *p* is not conform to the laws –.

In the case where positive priority attitudes are followed by *ne*, *ne* maintains its negative meaning. However, with negative priority attitudes, *ne* does not add visible negative meaning in the same way as it does with positive priority attitudes, see (36-b). In (35-a) *ne* reverses the truth value of the embedded clause, in (35-b) *ne* adds no negative meaning as otherwise the whole sentence would convey a meaning of allowance.

- (36) ‘Don’t shout!’
 a. ***Impero ne clama.***
 Command.PRES.1SG *ne* call.IMP.2SG
 ‘I order you not to shout.’
 b. ***Prohibeo ne clama.***
 Forbid.PRES.1SG *ne* call.IMP.2SG
 ‘I forbid you to shout.’

Table 2 summarizes the kinds of contexts in which *ne* can appear in Latin. We refer to positive priority attitudes followed by negative *ne* as Att⁺, and we refer to negative priority attitudes followed by expletive *ne* as Att[−]. As the table shows, there is a strong parallelism between the flavors that imperative utterances can have in context and the range of meanings that priority attitudes which can be followed by *ne* may have. As for the positive priority attitudes, we see attitudes of ordering (*impero*, ‘I order’), warning (*moneo*, ‘I warn’), asking (*rogo*, ‘I ask’), advising (*suadeo*, ‘I advise’), pleading (*obsecro*, ‘I pray’) or wishing (*opto*, ‘I wish’). Negative priority attitudes include attitudes of prohibition, (*prohibeo*, ‘I forbid’), of avoidance (*uito*, ‘I avoid’), impediment (*impedio*, ‘I prevent’), dissuasion (*dissuadeo*, ‘I dissuade’) or fear (*timeo*, ‘I fear’).

We provide here below examples of positive priority attitudes followed by negative *ne* in (a) and negative priority attitudes followed by non-negative *ne* in (b).

1. COMMAND-type:

- (37) a. *Caesar suis imperavit ne quod omnino telum in hostes reicerent.* (Command)
 Cesar them ordered *ne* which none weapon to enemies throw/SUBJ.IMP.3PL
 ‘Cesar **ordered** them not to throw back any weapon.’ (Caes, *B.G.*, 1.46)
 b. *Potuisti prohibere ne fieret.*
 Could.2SG avoid *ne* happen.IMP.3SG

Root uses			Embedded uses	
Flavor	SubFlavor	Example	Att ⁺ + <i>ne</i>	Att ⁻ + <i>ne</i>
COMMANDS	Command	<i>Ne clama! (Don't shout!)</i>	<i>Impero</i>	<i>Prohibeo</i>
			<i>Iubeo</i>	<i>Recuso</i>
				<i>Defendo</i>
	Warning	<i>Ne somno stude! (Don't fall asleep!)</i>	<i>Moneo</i>	<i>Uito</i>
			<i>Admoneo</i>	
	Request	<i>Ne parce uocem. (Don't talk quietly.)</i>	<i>Rogo</i>	<i>Impedio</i>
			<i>Peto</i>	<i>Deterreo</i>
			<i>Mando</i>	
			<i>Efficio</i>	
	Advice	<i>Ne moramini. (Don't waste your time.)</i>	<i>Suadeo</i>	<i>Dissuadeo</i>
			<i>Cohortor</i>	<i>Dehortor</i>
	Plea	<i>Irata ne sies. (Don't be angry at me)</i>	<i>Obsecro</i>	
WISHES			<i>Deprecor</i>	
			<i>Quaeso</i>	
	Wish	<i>Ne di sirint! (May the gods not allow it!)</i>	<i>Velim</i>	<i>Timeo</i>
PERMISSIONS			<i>Opto</i>	<i>Metuo</i>
				<i>Uereor</i>
	Permission	<i>Ne fuat. (Let her not be.)</i>		

Table 2 – Types of statements with *ne*

‘You could have **prevented** it from happening.’ (Cic, *Caec*, 33)

- (38) a. *Moneo, ne faciatis.* (Warning)
warn.1SG *ne* do.PRES.SUBJ.2SG
‘I **warn** you not to do it.’ (Cic, *Rab*, 18.3)
- b. *Quem ego uitauī ne uiderem.*
Whom.ACC I avoided *ne* see.IMPF.SUBJ.3SG
‘And this man, I **avoided** to see him.’ (Cic, *Att*, 3.10.2)
- (39) a. *Peto a te ne me putes oblivione tui rarius ad te*
Ask.1SG to you *ne* me attribute.PRES.SUBJ.2SG forget.ABL you.GEN rarely to you
scibere. (Request)
write.
‘I **ask** you not to attribute the scarcity of my letters to oblivion.’ (Cic, *Fam*, 6.2.1.1)
- b. *Cupio **deterre**re ne permaneas in incepto.*
want.1SG prevent *ne* remain.SUBJ.2SG in initiative.ABL
‘I want to **prevent** you from keeping your resolution.’ (Cic, *Fam*, 5.14.3.6)
- (40) a. *M.Rufus **cohortatur** suos, ne animo deficiant.* (Advice)
M.Rufus exhorted his-ACC *ne* courage-ABL lose-3PL-SUBJ
‘M.Rufus **encouraged** his people not to lose hope.’ (Caes, *Civ*, 2.43.1)
- b. *Hannibal (...) me **dehortatur** **dissuadet**que, ne bellum geram.*
Hannibal (...) CL discourages dissuades-and, *ne* war-ACC do-1SG.SUBJ
‘Hannibal **discourages** and **dissuades** me from making war.’ (Gell, *Noct*, 6.2)
- (41) a. ***Obsecro** ne indicium ero facias meo.* (Plea)
beg-1SG *ne* denunciation-ACC master-DAT do-2SG.SUBJ me-DAT
‘I’m **imploring** you not to betray us to my master.’ (Pl, *Mos*, 743-5)

2. WISH-type :

- (42) a. ***Velim** ne intermittas.* (Absent wish)
Wish-1SG *ne* interrupt-2SG.SUBJ
‘I **wish** you wouldn’t stop.’ (Cic, *Epis*, 11.12.4.6)
- b. *Ego **uereor** ne istaec pollicitatio te in crimen populo ponat.*
I fear *ne* this-NOM offer-NOM CL in accusation-ACC people-DAT put-3SG.SUBJ
‘I **fear** that this offer may expose you to the accusations of the public.’ (Pl, *Trin*, 738-739)
- (43) a. ***Optare** ne potestas tribunicia (...) **ui**olet intercessionem*
wish-1SG.INF *ne* power-NOM tribunician-NOM (...) violate-3SG.SUBJ opposition-ABL
sua Romanum imperium. (Addressee-less wish)
his-ABL Roman-ACC power-ACC
‘He **wishes** that the tribunician power would not violate the authority of Rome by coming into opposition with it.’ (Tit, *Urb*, 8.34.1.1)
- b. ***Metui** ne haereret hec.*
fear-1SG-PAST *ne* be-bogged-down-3PL-SUBJ here

'I was **afraid** that he [my son] would be hanging around here.' (Ter, *Ad*, 403.)

We would like to emphasize that the list of priority attitude reports corresponding to subtypes of COMMAND, WISH or PERMISSION-types of imperative speech-acts is not meant to be exhaustive cross-linguistically and that future research will determine whether we can fill in the empty boxes or lengthen the table with further attitude reports.

Summarizing, the same negative element *ne* is found in matrix negative imperatives and in embedded contexts. The attitudes that trigger *ne* in their embedded clause are priority attitudes. These attitudes can be positive with *ne* bearing negative content or negative with *ne* contributing *prima facie* no negative content.

2.3 French distributions of *ne*

From the perspective of Modern French, we see that the diachronic evolution of expletive negation has lead to an enlargement of the contexts in which it can occur. In French, expletive negation is productive in three types of contexts: with negative priority attitudes, subordinate conjunctions and comparative constructions.⁴ While negative priority attitudes are already a triggering context for *ne* in Latin, subordinate conjunctions and comparatives are a novelty. We retrace the first appearance of expletive *ne* with comparatives to the early 13-th century and the first appearance of *ne* with subordinate conjunctions to the mid-16-th century, as shown in Table 3. The precise dates of the first apparition of *ne* in these contexts was obtained based on queries on the corpus of French literary texts Frantext, which gives access to texts spanning from 12-th century to modern-day French. Note that the number of literary texts accessible for each period of time in the Frantext corpus is not homogeneous, as most ancient texts are scarcer than modern day texts. More concretely, the corpus has 28 texts from the 12-th century (1 013 321 words), 30 texts from the 13-th century (1 352 322 words), 115 texts for the 14-th century (3 822 918 words), 160 texts for the 15-th century (4 185 747 words), 121 for the 16-th century (5 327 805 words), 352 for the 17-th century (9 373 494 words), 701 for the 18-th century (31 198 139 words) and 1150 texts for the 19th-century (63 683 871 words).

Comparative + <i>ne</i>	Date of 1 st apparition
<i>Moins que</i>	1180
<i>Plus que</i>	1218
Subordinate conjunction + <i>ne</i>	
<i>Avant que</i>	1502
<i>A moins que</i>	1551
<i>Sans que</i>	1560

Table 3 – Expletive negation beyond Attitude Statements in French

We will list the contexts where expletive *ne* occurs below, providing examples of the first occurrences of expletive negation found in the corpus Frantext in the context under consideration, as well as examples from Modern French. Before that, we would like to make some preliminary remarks on the historical development of expletive negation in French, to get a better grasp on its distributions.

⁴We will leave aside a fourth context : attitudes of doubt and denial. These are attested in Latin, with the complementizer *quin* (*qui* (why/how) - *ne*), and are found as well in French, with expletive negation. We discuss them in Section 4.

2.3.1 Preliminaries

It is useful to cast the description of expletive negation in French within the larger picture of the Jespersen Cycle. First, recall that sentential negation *non* and prohibitive negation *ne* were morphologically distinct in Latin. During the transition from Late Latin to early Old French, sentential and prohibitive negation progressively became expressed with the same marker *ne*. During the history of French, they both underwent the Jespersen cycle. The Jespersen cycle is the process whereby the solitary negation *ne* was progressively reinforced by the adverb *pas* ('crumb'), optionally at first and then obligatorily (see also [Ingham and Larrivée, 2011], [Van der Auwera, 2009]). As these authors show, the co-occurrence of *ne* with *pas* became optional by the mid-16-th century, and *pas* becomes obligatory by the mid-17-th century (in declarative as well as in non-declarative contexts). In the embedded clause of positive priority attitudes, Latin *ne* is thus replaced by *ne ... pas*, as shown in (44)-(45).

- (44) *Ne viens* **(pas)*
ne come.2SG.IMP *pas*
 'Don't come!'
- (45) a. *J'ordonne que tu ne viennes* **(pas)*.
 I-order that you *ne* come.2SG.SUBJ *pas*.
 'I order you not to come.'
- b. *Je souhaite que tu ne viennes* **(pas)*.
 I wish that you *ne* come.2SG.SUBJ *pas*.
 'I wish you will not to come.'

Importantly, expletive negation remained expressed with the solitary negation marker *ne*. It is also important to notice that, as sentential negation could be expressed with *ne* from the 11-th century to the mid-17-th century, the use of *ne* in the embedded clause of negative priority attitudes could give rise to an ambiguous reading. Indeed, in some sentences, *ne* could either receive a negative or an expletive reading, if the context didn't make the polarity of the sentence explicit enough, see (46).

- (46) *Ay* *peur que ne veulhe* *manger de noustre veneson*.
 Have-1SG fear that *ne* want-3SG.SUBJ eat of our deer
 'I fear that he might want / might not want to eat our deer.'
 (Anonyme, *Passion d'Auvergne*, 1477)

An interesting correlation emerges between the fact that sentential negation becomes optionally expressed with the co-occurrence of *ne* with *pas* by the mid-16-th century with the fact that, at the same time, the use of expletive negation became productive in a new set of contexts. Indeed, the first occurrence of expletive negation with *avant que* ('before') appears in 1502, with *à moins que* ('unless'), it appears in 1551, and with *sans que* ('without') expletive negation first appears in 1560, see Table 3. We would like to suggest that the use of expletive negation expanded to new contexts in the mid-16-th century, because the reinforcement of sentential negation with *pas* avoids ambiguity in the reading of expletive *ne*. Consequently, as the negation *ne* became preferentially associated with an expletive reading by the mid-16-th century, it is somehow protected and expands to new embedded contexts.

2.3.2 *ne* in the embedded clause of negative priority attitudes

The set of French attitudes that trigger expletive negation are not necessarily the direct descendents of the attitudes under which *ne* is found in Latin, although they are most of the times. *Défendre*, which means *prohibit*, comes from the Latin word *defendere*. *Eviter*, which means *avoid*, comes from the Latin verb *evitare*. *Empêcher* comes from the Latin word *impedicare* ('to impede'), a synonym of *impedire*. As for *craindre*, it comes from Latin *timere*, altered in *cremere*, then turned into *cr(i)embre* (in Old French) and then into *craindre*.

Below we give examples of those attitude statement which trigger expletive negation in French. For each, we first give an example from Contemporary French (except for *défendre* which is no longer pro-

Embedded uses			
Flavor	SubFlavor	Attitude + <i>ne</i>	Date of loss
COMMANDS	Command	<i>Défendre</i>	1560
	Warning	<i>Eviter</i>	
	Request	<i>Empêcher</i>	
	Advice		
	Plea		
WISHES	Wish	<i>Craindre</i>	

Table 4 – Expletive negation in Attitude Statements in French

ductive) and an example of the first attestation of the form sought for, as found in Frantext.

1. COMMAND-type :

- (47) *Lanceloz le regarda et **desfandi** qu' il ne parlast de lui.* (Command)
 Lancelot CL watched and defended that he *ne* talk-3SG.SUBJ of him.
 'Lancelot watched him and **forbidded** him to talk about him.'
 (Chrétien de Troyes, *Lancelot ou le Chevalier à la charette*, 1177)
- (48) a. *Si tu veux **éviter** que le chien ne te morde [...], jette-lui un os.* (Warning)
 If you want avoid that the dog *ne* CL bite-3SG.SUBJ [...], throw.IMP-him a bone
 'If you want to **avoid** being bitten by a dog, throw him a bone.'
 (Hamadou Hampâté, *Oui mon commandant!*, 1994)
- b. *Se doit **éviter** que on ne conseille chose cruelle.*
 one must avoid that one *ne* advise-3SG.SUBJ thing cruel
 'One must **avoid** advising a cruel thing.'
 (Jean Juvenal, *Verba mea auribus percipe, Domine*, 1452)
- (49) a. *Je me souviens avoir tenté d' **empêcher** qu' elle ne soit vendue.* (Request)
 I CL remember having tried to prevent that she *ne* be-3SG.SUBJ sold
 'I remember having tried to **prevent** the house from being sold.'
 (Jacques Roubaud, *La Boucle*, 1993)
- b. *Sire, je ne veux point **empescher** que justice ne soit faicte.*
 Sire, I NEG want NOT prevent that justice *ne* be-3SG.SUBJ done
 'Sir, I do not want to **prevent** justice from being made.'
 (Alain Bouchart, *Grandes croniques de Bretagne*, 1514)

2. WISH-type :

- (50) a. *Je **crains** qu' il ne soit un peu jaloux.* (Absent wish)
 I fear that he *ne* be-3SG.SUBJ a little jealous.
 'I fear that he is a bit jealous.' (Hélène Hoppenot, *Journal*, 2012)

- b. *Sire, (...) la verité vos an dirai, (...) mes je criem qu' il ne vos*
 Sir, (...) the truth PRO-2PL PRO-3SG tell.1SG-FUT, (...) but I fear that it ne PRO-2SG
enuit.
 bother-3SG.SUBJ
 'Sir, I will tell you the truth, but I **fear** that it will bother you.'
 (Chrétien de Troyes, *Erec et Enide*, 1213)

2.3.3 *ne* in comparative clauses

Expletive negation is not attested with comparative contexts in Latin. Recall that these contexts become productive by the early 13-th century.

1. LESS-THAN (*Moins que*)-clauses :

- (51) a. *Sa voix [...] lui appartient **bien moins** qu' elle n' appartient à une créature de*
 Her voice [...] CL belongs much less that she ne belongs-3SG.IND to a creature of
dessin animé.
 drawing animated
 'Her voice belongs to her **much less** than it belongs to a cartoon character.'
 (Denis Podalydès, *Voix Off*, 2008)
- b. *Ne fui gueres aseüree, or ma seur, **meins** ke einz ne fis.*
ne be-1SG not safe, now my sister, less than before *ne* be-1SG-PAST
 'I'm not safe from danger, now my sister, **less** than I was before.'
 (Hue de Hotelande, *Ipomédon*, 1180)

2. MORE-THAN (*Plus que*)-clauses :

- (52) a. *Comme vous êtes mignon – Et **encore plus** que tu ne crois.*
 How you are cute – And even more that you *ne* think-2SG.IND
 'How cute you are – And even **much more**— than you think.'
 (Raymond Queneau, *Sally Mara*, 1962)
- b. *Mout est prez la mors - **plus** que noz ne penssonz.*
 Much is close the death - more that we *ne* think-1PL.IND
 'Very close is death - **more** than we think.'
 (Gautier de Coinci, *Miracles de Notre-Dame*, 1218)

2.3.4 *ne* in the embedded clause of conjunctions

Interestingly, BEFORE (*avant que*), UNLESS (*à moins que*) and WITHOUT (*sans que*) clauses are prototypical contexts triggering expletive negation cross-linguistically (see for instance [Krifka, 2010] for German, [Margulis, 2016] for Hebrew, [Yoon, 2011] for Korean, [Lin, 2016] for Mandarin Chinese, among others). We will ask the question of the semantic underpinnings that explain the extension of the use of *ne* to BEFORE, UNLESS and WITHOUT clauses in French. The first occurrences of *ne* with subordinate conjunctions are attested around 1500 in French (see (54), (56), (58)).

1. BEFORE (*Avant que*)-clauses :

- (53) *Partez vite **avant** que je ne change d' avis.*
 go-2SG-IMP quickly before that I *ne* change-3SG.SUBJ from opinion
 (Alexis Jenni, *L'art français de la guerre*, 2011)
 'You should quickly leave **before** I change my mind.'

- (54) *Mons. de Berry vendist sa vesselle pour nourrir ses gens, disant qu' il aymoît mieulx*
 Mr. de Berry sold his crockery to feed his people, saying that he wanted better
menger en vesselle d' estain et de boys avant que ses gens ne fussent
 eat in crockery of tin and of wood before that his people *ne* be.3PL.PAST-SUBJ
nourris.
 fed
 (Jean Le Clerc, *Interpolations et variantes de la chronique scandaleuse*, 1502)
 'Mr. de Berry sold his crockery to feed his people, saying he would rather eat in tin and wood
 crockery **before** his people would be fed.'

2. UNLESS (*A moins que*)-clauses :

- (55) *Ma cassette a été volée. – Volée? – À moins qu' on ne l' ait*
 My suitcase has been stolen. – Stolen? – Unless that PRO-3SG *ne* it have-3SG.PAST-SUBJ
jetée à la mer.
 thrown to the sea
 'My suitcase was stolen. – Stolen? – **Unless** it was thrown into the sea.'
 (Yacine Kateb, *Nedjma*, 1956)
- (56) *Si tu vouloys prendre les [oyseaulx] sauvages [...] ils ne voudroient pondre*
 If you wanted take the birds savages [...] they NEG want lay-their-eggs
estants ainsi assubjectis et serrez, à tout le moins que ce ne fust bien tard.
 being thus subjected and oppressed, unless that CL *ne* be-3SG.SUBJ much late.
 'If you were to take savage birds, they wouldn't want to lay their eggs, being subjected and
 oppressed, **unless** it would be very late.' (Claude Cottureau, *Les douze livres*, 1551)

3. WITHOUT (*Sans que*)-clauses :

- (57) *Mais lui devait continuer, mener sa barque sans qu' elle ne coule.*
 but he must-PAST continue, lead his boat without that she *ne* sink-3SG.SUBJ
 (Alexis Jenni, *L'art français de la guerre*, 2011)
 'But he had to continue, he had to steer his boat **without** letting it sink.'
- (58) *"Que la gloire te demeure sans qu' on ne diminue une*
 May the glory PRO-2SG remain-3SG.SUBJ without that PRO-3SG *ne* diminish-3SG.SUBJ one
seule goutte."
 only drop
 (Jean Calvin, *Institution de la religion chrestienne*, 1560)
 "May the glory remain yours **without** any piece of it be diminished."

2.4 Summary of the facts

1. In Indo-European, the same negative expression *ne* occurs in non-declarative clauses (specifically, negative imperatives) and embedded under attitudes. While we could not establish a precise list for the attitudes that can host *ne* in their embedded clause in all the three languages under comparison, we could establish, for Latin, that these are priority attitudes. In root imperative clauses, *ne* contributes negative meaning.
2. For Latin, we have noted that the negative item *ne* can appear under priority attitudes which are positive (like *order* or *wish*) or negative (like *forbid* or *fear*). *ne* contributes negative meaning only with the positive attitudes but not with the negative ones.
3. In French, *ne* does no longer appear in imperatives without the *pas*, nor under positive priority attitudes. In this context, *ne ... pas* contributes negative meaning. In negative imperatives and under positive attitudes *ne* underwent the Jespersen cycle and the negation of the (embedded) clause is obtained with *ne...pas*.

4. We have also noted that solitary *ne* is maintained in French with negative priority attitudes, and that, in this context, it does not contribute visible negative meaning.
5. Finally, in French, *ne* is found in BEFORE-clauses, WITHOUT-clauses, UNLESS-clauses and with comparatives.

3 Analysis

3.1 *ne* in Indo-European and Latin

The Latin data have revealed that *ne* is triggered in contexts that convey priorities (see [Portner, 2009], [Mari, 2016a] and specifically for French [Mari, 2015]), including imperatives and priority attitudes. As we have noted in our empirical investigation, there are three ways in which a negative priority can be constructed: (1) a root imperative clause with *ne*; (2) a positive priority attitude with *ne*, and (3) a negative priority attitude with *ne*. We recall the main examples here.

- *ne* in root imperatives

- COMMAND-type imperative

- (59) *Nimium est ! – Ne clama.*
 Excess-ACC is ! – *ne* shout-2SG-IMP
 ‘That’s too much! – Don’t shout.’ (Ter, *Ph*, 664)

- WISH-type imperative

- (60) *Ne di sirint!*
ne gods-NOM allow-3PL
 ‘May the gods not allow it!’ (Pl, *Amph*, 613)

- *ne* in embedded clause

- ORDER or WISH-type attitude

- (61) *Te vehementer iubeo, ne me territes.*
 CL-2SG strongly order-1SG *ne* CL-1SG frighten-2SG.SUBJ
 ‘I **order** you strongly, not to frighten me.’ (Cic, *Cur*, 538)

- (62) *Velim ne intermittas.*
 wish-1SG *ne* stop-2SG.SUBJ
 ‘I **wish** you won’t stop.’ (Cic, *Epis*, 11.12.4.6)

- FORBID or FEAR-type attitude

- (63) *Sententiam ne diceret recusavit.*
 opinion-ACC *ne* say-3SG.SUBJ refuse-3SG-PAST
 ‘He **refused** to give his opinion.’ (Cic, *Off*, 3.27.100)

- (64) *Ego uereor ne istaec pollicitatio te in crimen populo ponat atque infamiam.*
 GLOSS
 ‘I **fear** that this offer may expose you to the accusations and slanders of the public.’
 (Pl, *Trin*, 738-739)

The correspondence between imperatives and attitudes of command has not escaped theoreticians, and [Katz and Postal, 1964] [Sadock, 1974] have advanced the hypothesis, known as the Performative Hypothesis, of a correspondence between imperatives and priority attitudes. This view makes some specific assumptions about the structure of imperatives and the corresponding attitude sentences, whereby an imperative clause has an abstract operator IMP in the deep structure, which can be spelled out by an attitude like *I order*. According to this idea, what the operator IMP and the attitudes that paraphrase it have in common is a performative meaning.

However, this idea has some limitations. Besides those noted by [Portner, 2018],⁵ the immediate difference between the two is that the attitude report does not always have a performative meaning. This is most prominently the case when the attitude is not in the first person (*I order that you close the door* vs. *She orders that you close the door*). For this reason, we are reluctant to encode a performative meaning in the attitude itself.

Considering performativity as a contribution at the pragmatic level [Kaufmann, 2012], we propose that the semantic core common to both imperatives and priority attitudes is modal in nature, and we assume that they share the same modal skeleton. For imperatives, we will rely on the proposal in Kaufmann, according to which, at the level of at-issue content, imperatives are equivalent to modalized declaratives with priority modals (like *you should*, *you may*, *you can...* sentences). For attitudes, we will rely on [Mari, 2016b], [Giannakidou and Mari, 2020], who propose a unified semantics for attitudes and modals. Both these authors adopt for imperatives and attitudes a standard Kratzerian analysis relying on two conversational backgrounds: a modal base \mathcal{M} and an ordering source \mathcal{O} . We use a silent operator IMP, which bears a modal semantics.

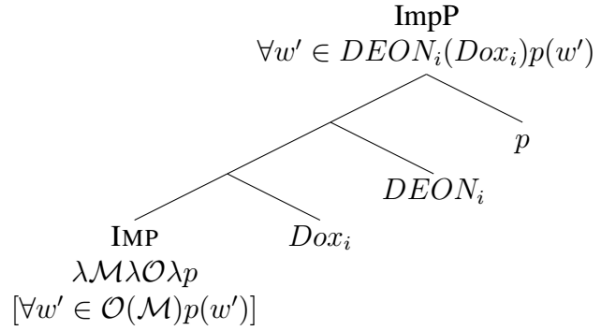


Figure 1 – Positive imperative clause

We align with the idea that imperatives are flexible with respect to their ordering source [Kaufmann, 2012], thus accommodating different contextual flavors. For simplicity here, for orders, we assume that the ordering source is ‘what the speaker/laws order’; for wishes, we assume that the ordering source is ‘what the speaker wishes’ (for recent discussion [Giannakidou and Mari, 2020]). For the attitudes, the modal base and the ordering source are lexically specified. We assume that the modal base is question sensitive and does not include far-fetched worlds. We index modal bases and ordering source to i , which stands for the attitude holder. We use a doxastic modal base, but nothing special hinges on this and the common ground could have been used, instead.

Returning to *ne*, our claim is that *ne* comes in two guises: **prohibitive** and **expletive**. It is prohibitive in the context of root imperatives and positive priority attitudes. It is expletive in the context of negative

⁵According to Portner, the bare utterance ‘It rains’ and ‘I declare that it rains’ do not have the same truth conditions. If it is not the case that it rains, then only the former will be false.

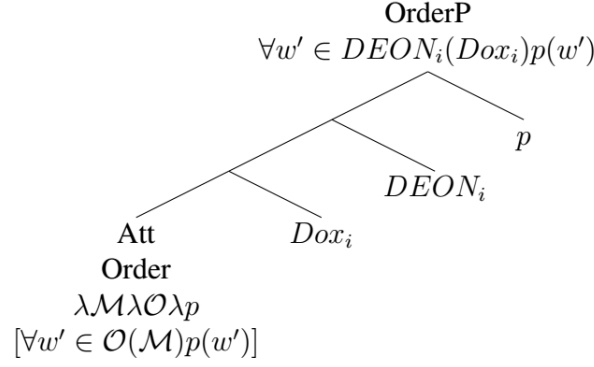


Figure 2 – Positive priority attitude

priority attitudes. With these distributions in mind, we can now provide a semantic content to the labels prohibitive and expletive. We propose that prohibitive-*ne* is a standard negation that scopes over the TP (see e.g. [Kaufmann, 2012]). In this case, *ne* does not differ in content from declarative negation. The only difference with declarative negation is that prohibitive-*ne* is triggered by priority modals. As we see in Figure 3 and 4, the prohibitive-*ne* produces the expected meaning according to which the order targets a negative proposition.

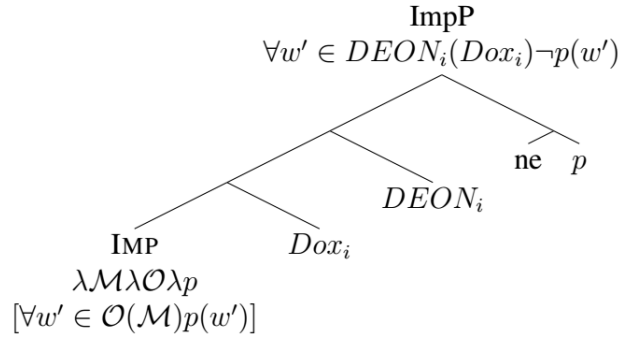


Figure 3 – Negative imperative clause

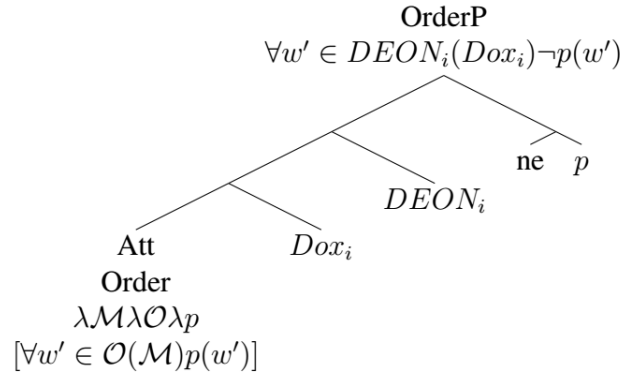


Figure 4 – Positive priority attitude embedding prohibitive-*ne*

To understand the role of expletive-*ne* with *negative* priority attitudes, we need a basic toolkit. Ordering sources restrict the modal base to those worlds that comply with them. We assume that modal

bases are question sensitive and thus do not include far fetched worlds. In our definition, we consider an all-or-nothing configuration, where the worlds delivered by the ordering are those worlds in the modal base \mathcal{M} in which all the propositions in the ordering source are true.

$$(65) \quad \mathcal{O}_S(\mathcal{M}) = \{w' \in \mathcal{M} : \forall q \in S(w' \in q)\}$$

Given (65), we define the negation of the ordering as in (66). According to the definition, $\text{NEGATIVE} - \mathcal{O}_S(\mathcal{M})$ worlds are those worlds in the modal base in which *none* of the propositions in the ordering source are true.

$$(66) \quad \text{NEGATIVE} - \mathcal{O}_S(\mathcal{M}) = \{w' \in \mathcal{M} : \forall q \in S(w' \notin q)\}$$

With [von Fintel, 1999], [Giannakidou and Mari, 2016], [Giannakidou and Mari, 2017], [Giannakidou and Mari, 2018a], [Giannakidou and Mari, 2018b], we assume that human necessity à la [Kratzer, 1991] requires that the modal base be compatible with both p and $\neg p$ (p is the prejacent of the modal). Let us now consider the FORBID/FEAR-type of attitudes. We propose that *forbid* encodes a component of *contrariness*. ORDER-like predicates introduce an ordering that can be paraphrased as ‘in accordance with the laws/the orders of the attitude holder’. FORBID-like predicates introduce an ordering source that can be roughly paraphrased as ‘contrary to the laws’. This suggests that *forbid* is not primarily a paraphrase of *order that $\neg p$* . *Forbid/Fear p* conveys at the semantic level that *p* is *not compatible with what the attitude holder orders/wishes*. To grasp the meaning of contrariness encoded in negative priority attitudes, we claim that there is a silent negative operator over the ordering source, and that the semantics of the FORBID/FEAR-type of attitudes is as follows.

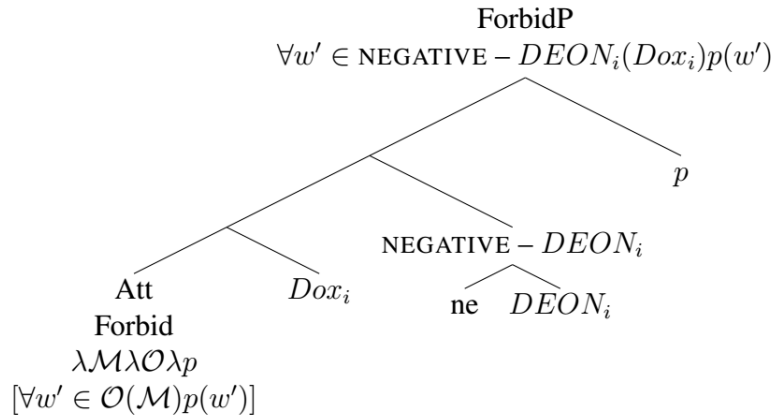


Figure 5 – Negative priority attitude embedding expletive-*ne*

$\text{NEGATIVE-}\mathcal{O}_i$ is the set of worlds that do not comply with the laws according to what the attitude holder i orders or wishes. Negative priority attitudes, by quantifying over $\text{NEGATIVE-}\mathcal{O}_i$ worlds state that, in these worlds, p is true. Since p is in the complement set of the propositions delivered by \mathcal{O}_i (the laws according to what the attitude holder orders or wishes), p is conceived as ‘contrary’ to what the attitude holder orders or wishes.

The defeasible inference (symbolized by \rightsquigarrow) can arise that $\neg p$ is in accordance with the laws. Recall that $\text{NEGATIVE-}\mathcal{O}$ partitions the modal base in two parts, those in which the propositions in the ordering source are true, and the one in which none of them is true. By quantifying over the first set, the attitude conveys that, in the worlds that comply with the negative ordering source (i.e. those worlds which do not comply with the laws), p is true. Of course, nothing *a priori* excludes that p can also be true in the subset of the modal base in which none of the propositions of the negative ordering source is true (i.e. those worlds that comply with the laws). However, the following defeasible inference can arise, thus preserving the intuition that if one forbids p (i.e. p is not conform to the laws), s.he might also be suggesting that $\neg p$

is conform to the laws.

(67) NEGATIVE - $\mathcal{O}(\mathcal{M})p \rightsquigarrow \mathcal{O}(\mathcal{M})\neg p$

Independently of the arising of the inference, the semantic makeup of negative priority attitudes is such that the ordering source comes with contrariness information (p is true in worlds that do not comply with the laws), and given this caveat, we can now understand the role of expletive negation with negative priority attitudes.

We claim that expletive-*ne* it is the overt spell out of the silent negation operating over the modal base and encoded in the meaning of the verb (thus rendering justice to an intuition that underlies all accounts of expletive negation), and lack of apparent proper semantic contribution follows from this redundancy.

Summing up: our account defends an analysis based on ambiguity in the interpretation of *ne*. In Indo-European and Latin *ne* acts as a true negation in the context of imperatives and positive priority attitudes and, in this case, it is *prohibitive*; it is a negation operating over the ordering source with negative priority modals, and, in this case, it is *expletive*. This difference is driven by the lexical meaning of negative priority attitudes that encode a component of ‘contrariness’ and that the expletive negation makes visible.

There is thus a type difference between the two *ne*: expletive *ne* operates over a set of propositions, whereas prohibitive *ne* operates over a proposition. We will now see that this view makes important predictions.

3.2 First predictions

First prediction : the distributions of NEG₂ NEG₁ Our first prediction is that negative priority attitudes such as *prohibere* and *timere* can embed *ne* ... *non*. This fact is observable in Latin, Albanian and Greek. In this case, the expletive *ne* is interpreted as a modifier of the ordering source and *non* is interpreted at the level of the proposition.

- (68) a. *Sed timeo ne non impetrem.*
But fear-1SG *ne* neg achieve-1SG.SUBJ
‘But I fear that I may not obtain it. (Cic, *Att*, 9)
- b. *Frika se mos ata nuk vinin.*
fear-1SG that NEG₂ they NEG₁ come-3PL-IND
I fear that they will not come.
- c. *Fovame mi dhen fai tipota.*
Fear-1SG NEG₂ NEG₁ eat-3SG anything.
‘I fear he will not eat anything.’ [Roussou, 2015]

Second prediction: only TP *ne* undergoes the Jespersen cycle Our analysis allows to explain the facts pertaining to the Jespersen cycle, and in particular the observation that only *ne* in the context of imperatives and positive priority attitudes undergoes it: in these contexts, the negation is prohibitive and contributes propositional negative meaning of the type that undergoes the Jespersen Cycle. This is borne out by the data. In Modern French negative imperatives and negative orders conveyed by the combination of a positive priority attitudes and an embedded negation, use *ne* ... *pas*.

- (69) a. *Ne viens pas !*
neg come-2SG.IMP not
‘Don’t come!’
- b. *J’ordonne que tu ne viennes pas.*
I order that you neg come-2SG.SUBJ not
‘I order you not to come.’

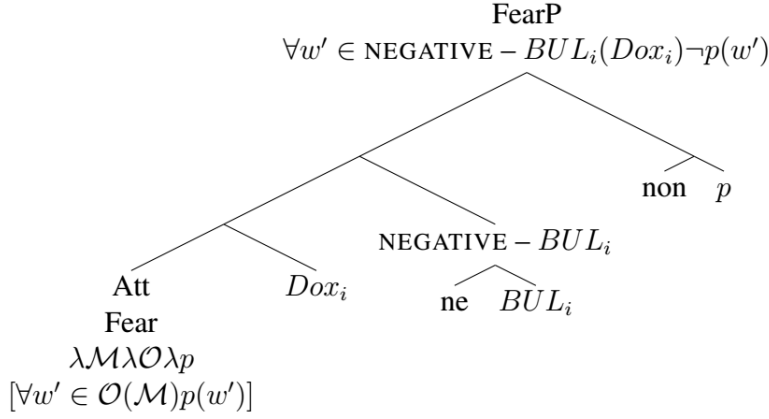


Figure 6 – Negative priority attitude embedding $\text{NEG}_2 \dots \text{NEG}_1$

We have proposed that the negation in the context of negative priority attitudes does not operate as a regular negation but operates at the level of the ordering source. As a consequence, it did not undergo the Jespersen Cycle which targets propositional negation, and solitary *ne* is still found with negative priority attitudes in Modern French.

Third prediction: the remaining *ne* has scalar modal meaning Once *ne* has undergone the Jespersen Cycle in the context of imperatives and positive priority attitudes, the only remaining occurrences of *ne* are interpreted as negations operating over an ordering source. It is this scalar modal negative particle that we find in modern French for expletive *ne*. We call this negation *scalar modal negation*.

3.3 From Latin to French: a scalar (modal) negation

3.3.1 New contexts in Modern French

We have seen in section 2 that, once the Jespersen cycle is completed, there is an enlargement of the contexts of appearance of *ne*. The enlargement is not random and a proper theory of expletive negation must explain why comparatives and conjunctive clauses like *unless*, *without*, *before*-clauses are specifically involved in this process. Recall that, in Modern French, beyond negative priority attitudes, we see four prominent contexts that host expletive negation:

(70) *Before, without, unless*-clauses and comparatives :

- a. *Marie vivait à Paris **avant** qu' elle ne parte pour Rome.*
 Marie lived in Paris **before** that she NEG_2 go-3SG.SUBJ for Rome
 'Marie lived in Paris before she left for Rome.'
- b. *Marie est partie **sans** que Jean ne le sache.*
 Marie is gone without that Jean NEG_2 CL know-3SG.SUBJ
 'Marie left **without** letting Jean know.'
- c. *La fête sera triste à **moins** que Marie ne vienne.*
 The party be-3SG-FUT sad unless that Marie NEG_2 come-3SG.SUBJ
 'The party will not be fun **unless** Marie comes.'
- d. *Marie est **plus** gentille qu' on ne le pense.*
 Marie is more nice than PRO-3SG NEG_2 CL think-3SG.SUBJ
 'Marie is **nicer than** we think.'

We do not have a detailed account for WITHOUT or UNLESS clauses, nor for comparatives. However, our account of *ne* as a scalar modal negation operating over an ordering source allows to design a direction of analysis for BEFORE clauses on which we briefly focus here to provide some insight for future research on other subordinate conjunctions and comparatives. Our core idea is that all these contexts have in common a scalar semantics.

3.3.2 A possible line of research for BEFORE-clauses

Our analysis of *ne* in BEFORE-clauses will be build on [Beaver and Condoravdi, 2003]’s core account. According to these authors (71) is to be analyzed as in (74).

(71) A before B

(72) Marie lived in Paris before she left for Rome.

(73) ‘A before B’ is true in w iff:

$(\exists t : < w, t > \in A) < \text{earliest}_{alt(w,t)} B$ [Beaver and Condoravdi, 2003]

This states that A is true at a time which is prior the earliest time at which B is true. [Beaver and Condoravdi, 2003] use a branching modal base with a fixed past and an open future [Thomason, 1984]. This is not relevant for us here. What is important is that they posit a restriction over the alternatives in which B is true, and these are the alternatives that are reasonably probable (we call them *BEST*) at the world and time pair at which A is true. To make this visible we rewrite (73) as (74):

(74) ‘A before B’ is true in w iff:

$(\exists t : < w, t > \in A) < \text{earliest}_{BEST(w,t)} B$

Returning to French and to the expletive negation with BEFORE clauses, we claim that *ne* creates an *incompatibility* relation between A and B. Note that a sentence like (75) conveys that A can be true only if B is not. Note that by the very fact that A and B follow each other in time, the ‘incompatibility’ comes for free.

(75) *Le voleur est parti avant qu’ on ne l’ arrête.*

The thief is gone before that PRO-3SG NEG₂ CL stop-3SG.SUBJ
‘The thief left before he could be caught.’

The expletive negation adds a causal relation of contrariness. If B were the case, A couldn’t be true, see (75). Note that this does not mean that B is considered to be ‘unlikely’ or ‘unsuitable’ *per se* ([Yoon, 2011]). We propose to encode the meaning of incompatibility between the situations described in A and B (beyond temporal succession) as in Figure 7. Let assume that $< w, t >$ is the world time pair at which A is true. We also relativize truthfulness of A to situation s . C is a circumstantial modal base.

We see that *ne* negates the ordering source as with negative priority attitudes. However, in the case of BEFORE clauses, rather than being parametric to the speaker, the modal base is relativized to the situation s at which A is true. This relativizes non-suitability NEGATIVE-*BEST* of B worlds to A’s situation. For (75), those B worlds in which the thief is arrested are worst relatively to the escaping situation of the thief (the escaping would not occur if the thief were arrested). ‘Lack of normality’ (NEGATIVE-*BEST*) is thus not considered *per se* (i.e. these are not non-normal worlds given general normalcy or stereotypicality conditions); lack of normality is relativized to A: A could not be true if B were (to become) true. B thus occurs in the worlds that are worst for the realization of A.

As we announced, this is a tentative explanation of the meaning of *avoidance* that emerges with *ne* in BEFORE clauses. What matters is that *ne* is used with expressions that feature an ordering over which it can operate.

We can now better see what happened between Latin and French. Once the Jespersen Cycle is completed by the mid 16-th century French, expletive negation is free to expand to other contexts. By ex-

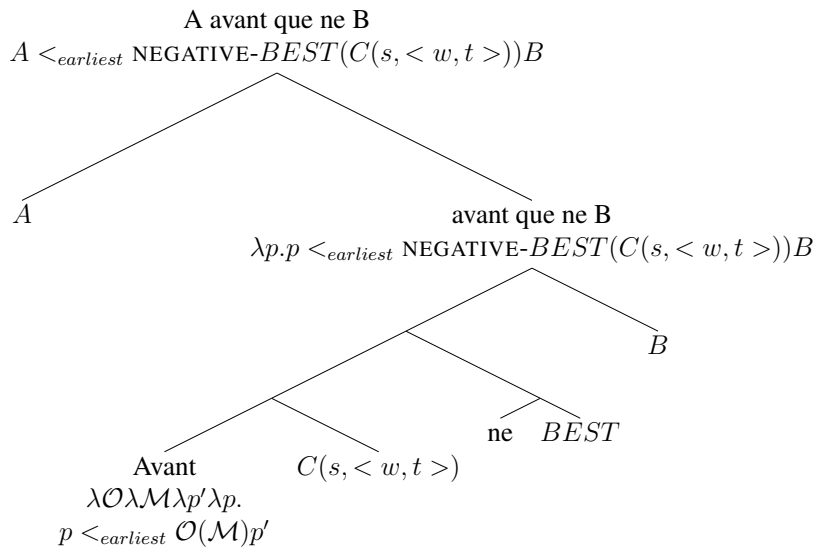


Figure 7 – Expletive negation with BEFORE-clauses in French

panding to comparatives, BEFORE, WITHOUT and UNLESS clauses, expletive negation expands to non attitudinal contexts. There is thus an enlargement with respect to the grammatical triggering categories. However, the semantic core of expletive negation remains unchanged: (1) Expletive negation appears in modal contexts (see also [Espinal, 2007], [Yoon, 2011]). (2) Expletive negation reverses the ordering that is introduced by the trigger and is thus a scalar negation. (3) The resulting interpretation remains in the realm of negative priorities.

3.4 Explaining the facts

To conclude, our account derives in a principled way the facts enumerated in section 2.4 in the following manner.

1. We have offered a unified modal semantics for all the contexts in which non-declarative NEG₂ occurs (root and embedded clauses), as a baseline to explain diachronic developments.
2. We have proposed that *ne* occurring with priority attitudes is ambiguous, as it can either receive a negative or nonnegative interpretation. With positive priority attitudes, *ne* is interpreted as a propositional negation; with negative priority attitudes, *ne* is interpreted as a scalar negation and thus does not reverse the truth-value of the embedded proposition, but negates the ordering source of the modal. Our analysis also accounts for the fact that with negative priority attitudes only, *ne* can be used concomitantly with *non*.
3. Our account can explain why Latin *ne* in root imperative clauses and in the embedded clause of positive priority attitudes underwent the Jespersen Cycle (because it is a true negative marker), whereas *ne* in the embedded clause of negative priority attitudes remained expressed with the solitary negation marker *ne* (because it operates over an ordering source and does not act as a regular negation operator).
4. Having teased apart different types of *ne* across different environments, and having explained that only prohibitive *ne* undergoes the Jespersen Cycle, our account can predict the types of environments in which expletive negation survives in French (i.e. those environments that feature a priority, and specifically an ordering source).

5. In particular, we account for the fact that expletive negation *ne*, due to its interaction with ordering sources, expanded to new contexts encoding an ordering relation such as comparatives or *before*-clauses.

Having established that negative priorities (technically, negative ordering sources) are the key element triggering expletive negation in modern French, explaining how the reversing of the ordering happens in *without*-clauses, *unless*-clauses and comparatives is a matter that we leave for future research.

4 Conclusion and further extensions

In this paper, we have restricted our field of inquiry to non-declarative negation originating from Indo-European *mē*, ie. the negation which occurs in imperative clauses and embedded under priority modals, in Latin. We have explained how the semantics of priority modals is related to that of imperatives and why negation receives an expletive reading with negative priority modals.

However, expletive negation also occurs in another set of contexts, which is not related to imperatives. In French, *ne* receives a nonnegative reading in the embedded clause of verbs of doubt and denial, see (76-b), (77-b):

- expletive-*ne* in the embedded clause of (negated) DOUBT-type of attitudes

- (76) a. *Si [les terres] pouvaient, mieux cultivées, rapporter plus, je doute que le fermier ne s'y attelle.*
 REFL-3SG it undertake-3SG.SUBJ
 'If the land could, if better cultivated, yield more, I **doubt** that the farmer would undertake it.' (André Gide, *L'immoraliste*, 1902)
- b. *Je ne doute pas qu' il ne nous arrive malheur.*
 I ne doubt not that it ne CL happen-3SG.SUBJ misfortune.
 'I have **no doubt** that something bad will happen to us.'
 (Stendhal, *La Chartreuse de Parme*, 1839)

- expletive-*ne* in the embedded clause of (negated) DENY-type of attitudes

- (77) a. *Et je niai que le garçon aux pieds agiles n' eût eu d' yeux que pour elle.*
 And I denied that the boy of feet agile ne have-3SG.PAST-SUBJ had the eyes only for her
 'And I **denied** that the boy with agile feet had only had eyes for her.'
 (Proust, *A la recherche du temps perdu*, 1922)
- b. *Ils ne nient pas qu' il n' y ait un Dieu supérieur.*
 they neg deny-2SG-FUT not that PRO-3SG ne CL have-3SG-.SUBJ a God superior.
 'They do **not deny** that there is a superior God.'
 (Maurice Barrès, *Mes Cahiers*, 1914)

The diachronic origin of *ne* under doubt verbs is different from the origin of expletive *ne* with imperative and priority attitudes. Indeed, the expletive negation found with epistemic attitudes originates from *quin*, resulting from the fusion of the interrogative adverb *qui* (how/why) with the enclitic negation *-ne* (see [Fleck, 2008]). However, we believe that it is possible to provide a unified semantics for expletive negation across priority and epistemic attitudes, by extending the predictions we made for priority attitudes of the FORBID or FEAR-type to negatively-biased epistemic attitudes of the DOUBT-type. At the semantic

level, we claim, these epistemic attitudes convey a meaning of *contrariness*. The starting point of our analysis is [Mari, 2016b] proposal for belief predicates. To explain the fact that belief attitudes can licence subjunctive across languages, Mari proposes that belief predicates feature an epistemic modal base (which is partitioned, indicating lack of knowledge) and a doxastic ordering source.⁶ By quantifying over worlds that comply with the ordering source, the attitude conveys that, although the attitude holder does not know whether p is true, in worlds that best comply with his opinions, p is true (see Figure 8).

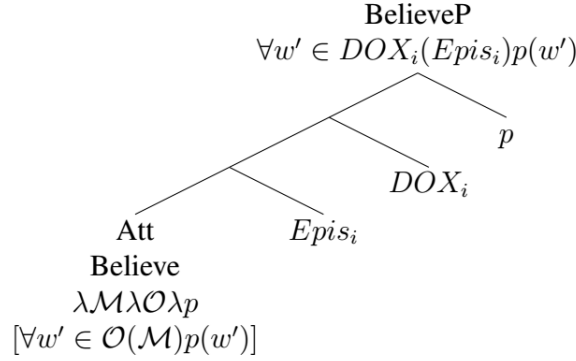


Figure 8 – Positively-biased epistemic attitude

We now propose that *doubt* (a subjunctive selector cross-linguistically) encodes dispreferred belief, p is true in worlds that do not comply with what the speaker believes (see Figure 9). In other terms, *doubt* is a negatively-biased epistemic attitude, akin to *forbid* in the realm of commands. Just as *forbid* is not truthconditionally equivalent to *order not*, *doubt* is not truth conditionally equivalent to *believe not*. In our analysis, ‘I doubt that p ’ amounts to stating that p is not conform to my beliefs. The defeasible inference can arise that I believe that not- p ; however, this is a defeasible inference with *douter*.

(78) NEGATIVE - $DOX_i(Epis_i)p \rightsquigarrow DOX_i(Epis_i)\neg p$

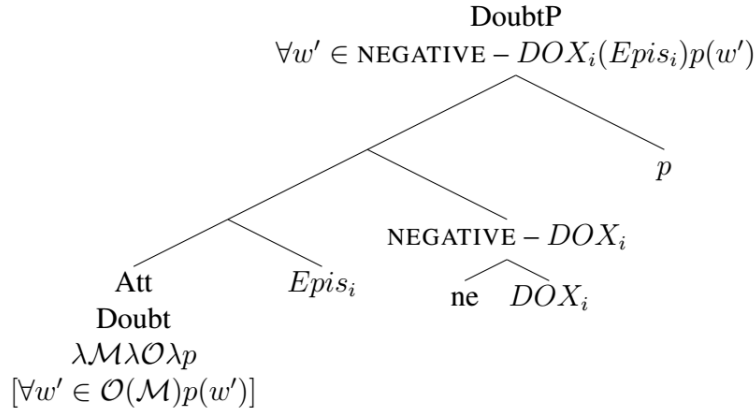


Figure 9 – Negatively-biased epistemic attitude

One possible objection to our analysis is that the expletive *ne* is also found under *ne pas douter*, which means ‘be certain’ and can be argued not to feature an ordering source.

⁶For extended discussion on how this proposal connects with the standard Hintikkaean semantics for belief, see [Giannakidou and Mari, 2020] and [Mari and Portner, 2019].

- (79) *Je ne doute pas qu'elle ne vienne à la fête.*
 I neg doubt not that-she *ne* come.3SG.SUBJ to the party.
 'I have no doubt that she will come to the party.'

We argue that the main clause negation is metalinguistic: 'I do not doubt that p ' amounts to 'It is not true that I doubt that p '. According to well-established accounts of negatively-biased verbs, and negative expressions more generally, the higher negation is justified when the possibility that the speaker is 'doubting that p ' is active in the conversation ([Ducrot, 1985]). No matter whether this is correct, it appears that the expletive negation is unrelated to the presence of the higher negation. It is lexically triggered by the attitude which encodes contrariness as we argued above.

As for the DENY type of verbs, we would adopt the same analysis. The ordering source is the set of propositions that are the content of the saying. This ordering source would order worlds in the common ground according to those that best comply with the saying. Denying worlds would introduce contrariness by the same mechanism as above, by ordering as higher worlds that worst comply with the saying, see [Mari and Portner, 2019].

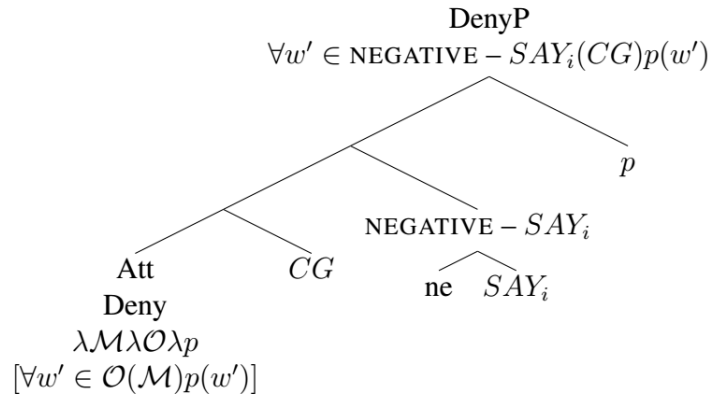


Figure 10 – Negatively-biased epistemic attitude

Again, the inference could arise that $\neg p$ worlds are compatible with what could be said (i.e. deny p can imply say that not p), but, again, this is an optional inference (denying that p does not always imply saying that $\neg p$).

To conclude, these diverse origins of expletive *ne(s)* (from prohibitive negation or from an interrogative negation), and its distributions with imperatives and command attitudes on the one hand (for the expletive *ne* originating from *mē*) and with biased questions and epistemic attitudes on the other (for expletive *ne* originating from *quin*) points to a deep relation between types of attitudes (priority attitudes and epistemic attitudes) and speech acts types (imperatives and questions). We have tried to spell out these relations in terms of modal meaning on the basis of the diachronic evolution of expletive negation from Indo-European to Modern French. Whether our suggestions of such a unified analysis for the attitudes and the speech acts is on the right track still remains an open question which would benefit from further typological work. Focusing on French and its history from Latin, we hope that we offered a caveat to reconsider the nature of expletive negation as contributing new evidence to further establish a connection between attitudes, modality and speech acts.⁷

References

[Allen and Greenough, 1903] Allen, J. and Greenough, J. (1903). New Latin Grammar. Ginn & Company.

⁷See [Portner, 2018] for the most recent discussion on these connections.

- [Baldi and Cuzzolin, 2011] Baldi, P. and Cuzzolin, P. (2011). Complex Sentences, Grammaticalization, Typology, volume 180 of Trends in Linguistics. De Gruyter.
- [Beaver and Condoravdi, 2003] Beaver, D. and Condoravdi, C. (2003). A unified analysis of *Before* and *After*. In Proceedings of SALT 13.
- [Chatzopoulou, 2012] Chatzopoulou, K. (2012). Negation and Nonveridicality in the history of Greek. PhD thesis, University of Chicago.
- [Chatzopoulou, 2017] Chatzopoulou, K. (2017). The history of the Greek neg2 : Two parameter resets linked to a syntactic shift. In Journal of Historical Syntax, volume 2(5), pages 1–48.
- [Clackson and Meissner, 2007] Clackson, J. and Meissner, T. (2007). Indo-European Linguistics: an Introduction. Cambridge University Press.
- [Condoravdi and Lauer, 2012] Condoravdi, C. and Lauer, S. (2012). Imperatives: meaning and illocutionary force. In Pinon, C., editor, Empirical Issues in Syntax and Semantics, volume 9, pages 37–58.
- [Ducrot, 1985] Ducrot, O. (1985). Le Dire et le Dit. Les Editions de Minuit.
- [Espinal, 2007] Espinal, M. T. (2007). Licensing expletive negation and negative concord in Catalan and Spanish. In Floridic, F., editor, La négation dans les langues romanes, pages 47–74.
- [Fleck, 2008] Fleck, F. (2008). Le Latin *quin*: interrogation, coordination et subordination. Presses de l'Université Paris-Sorbonne.
- [Giannakidou, 1997] Giannakidou, A. (1997). The landscape of polarity items. PhD thesis, University of Groningen.
- [Giannakidou, 2009] Giannakidou, A. (2009). The dependency of the subjunctive revisited: temporal semantics and polarity. Lingua, 120.
- [Giannakidou and Mari, 2016] Giannakidou, A. and Mari, A. (2016). Emotive predicates and the subjunctive: a flexible mood ot account based on (non)veridicality. In Sinn und Bedeutung, number 19.
- [Giannakidou and Mari, 2017] Giannakidou, A. and Mari, A. (2017). A unified analysis of the future as epistemic modality. In Natural Language Linguistic Theory, number 36(1), pages 85–129.
- [Giannakidou and Mari, 2018a] Giannakidou, A. and Mari, A. (2018a). The semantic roots of positive polarity: epistemic modal verbs and adverbs in greek and italian. In Linguistics and Philosophy, volume 41(6).
- [Giannakidou and Mari, 2018b] Giannakidou, A. and Mari, A. (2018b). A unified analysis of the future as epistemic modality : the view from greek and italian. In Natural Language and Linguistic Theory.
- [Giannakidou and Mari, 2020] Giannakidou, A. and Mari, A. (2020). (Non)Veridicality in grammar and thought. Mood, Modality and Propositional Attitudes. University of Chicago Press.
- [Ingham and Larrivée, 2011] Ingham, R. and Larrivée, P. (2011). The evolution of negation : Beyond the Jespersen Cycle. De Gruyter Mouton.
- [Joseph and Janda, 1999] Joseph, B. and Janda, R. (1999). The Modern Greek Negator *mi(n)* as a Morphological Constellation. In Babiniotis, G., editor, Greek Linguistics: Proceedings of the 3rd International Conference on Greek Linguistics, pages 341–351. Athens: Elinika Gramata.
- [Katz and Postal, 1964] Katz, J. and Postal, P. (1964). An Integrated Theory of Linguistic Descriptions. MIT Press, Cambrigde, Massachussets.

- [Kaufmann, 2012] Kaufmann, M. (2012). Interpreting imperatives. Springer: Studies in Linguistics and Philosophy.
- [Kratzer, 1991] Kratzer, A. (1991). Modality. In von Stechow, A. and Wunderlich, D., editors, Semantics: An International Handbook of Contemporary Research. Berlin : Mouton de Gruyter.
- [Krifka, 2010] Krifka, M. (2010). How to interpret expletive negation under *bevor* in German. In Hanneforth, T. and Fanselow, G., editors, Language and Logos. Studies in Theoretical and Computational Linguistics., pages 214–236. Akademie Verlag.
- [Lakoff, 1968] Lakoff, R. (1968). Abstract Syntax and Latin Complementation. MIT Press.
- [Lin, 2016] Lin, J.-w. (2016). Negation under *Yiqian* ‘before’ in mandarin chinese and cross-linguistic variation in expletive negation. Language and Linguistics, (17(1)):1–26.
- [Löfsted, 1966] Löfsted, L. (1966). Les expressions du commandement et de la défense en Latin et leur survie dans les langues romanes. Helsinki : Société néophilologique.
- [Margulis, 2016] Margulis, D. (2016). Expletive negation and the decomposition of *only*. In Sinn und Bedeutung.
- [Mari, 2015] Mari, A. (2015). Modalités et temps. Bern: Peter Lang AG.
- [Mari, 2016a] Mari, A. (2016a). Actuality entailments: when the modality is in the presupposition. In International Conference on Logical Aspects of Computational Linguistics, pages 191–210. Springer.
- [Mari, 2016b] Mari, A. (2016b). Assertability conditions of epistemic (and fictional) attitudes and mood variation. In Semantics and Linguistic Theory, volume 26, pages 61–81.
- [Mari and Portner, 2019] Mari, A. and Portner, P. (2019). Mood variation with belief predicates: Modal comparison in semantics and the common ground.
- [Melo, 2007] Melo, W. (2007). The Early Latin verb system: archaic forms in Plautus, Terence and Beyond. Oxford University Press.
- [Pinkster, 2015] Pinkster, H. (2015). Latin Syntax. Oxford University Press.
- [Portner, 2009] Portner, P. (2009). Modality. Oxford University Press.
- [Portner, 2018] Portner, P. (2018). Mood. Oxford University Press.
- [Roussou, 2015] Roussou, A. (2015). Is particle a unified category? In Bayer, J., Hinterhölzl, R., and Trotzke, A., editors, Discourse-oriented approaches to syntax. John Benjamins Publishing Company.
- [Sadock, 1974] Sadock, J. (1974). Toward a Linguistic Theory of Speech Acts. Academic Press.
- [Thomason, 1984] Thomason, R. (1984). Combinations of tense and modality. In Handbook of Philosophical Logic: Extensions of Classical Logic. Dordrecht.
- [Turano, 2012] Turano, G. (2012). On clitics and negation in albanian. In Rivista di Grammatica Generativa.
- [Van der Auwera, 2009] Van der Auwera, J. (2009). The jespersen cycles. In van Gelderen, E., editor, Cyclical change, pages 35–71. Amsterdam : John Benjamins.
- [Villalta, 2008] Villalta, E. (2008). Mood and gradability: An investigation of the subjunctive mood in spanish. Linguistics and Philosophy, 31(4):467–552.

- [von Fintel, 1999] von Fintel, K. (1999). Npi licensing, strawson entailment, and context dependency. In Journal of Semantics, volume 16, pages 97–148.
- [Yoon, 2011] Yoon, S. (2011). Not in the Mood: the syntax, semantics and pragmatics of evaluative negation. PhD thesis, University of Chicago.
- [Zanuttini and Portner, 2000] Zanuttini, R. and Portner, P. (2000). The force of wh exclamatives and interrogatives. In Horn, L. and Kato, Y., editors, Negation and Polarity. Syntactic and Semantic Perspectives. Oxford University Press.
- [Zeiljstra, 2004] Zeiljstra, H. (2004). Sentential Negation and Negative Concord. PhD thesis, University of Amsterdam.