

Fine-tuning the Negative Concord approach to expletive *ne . . . pas, mie* and *point* in historical French

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Abstract

Negative contexts like French *défendre* (‘forbid’) create an environment in which the negation marker *ne* occurring together with a negative constituent like *jamais* (‘never’), *rien* (‘nothing’), *personne* (‘nobody’), receives a non-canonical, “expletive”, reading. This study investigates the distribution of bare and complex expletive negation phrases in the diachrony of French. Drawing on corpus data from historical French, it argues that the development of complex expletive negation phrases is linked to the Quantifier Cycle, a cycle whereby Polarity Sensitive Items become Negative Concord Items. Additionally, this paper seeks to explain why apprehensional modals, like the verb of fearing *craindre* (‘fear’), fail to trigger complex negation phrases. Framing expletive negation within a Negative Concord approach, which predicts its occurrence in negative contexts, this paper argues that the production of bare expletive negation with verbs of fearing stems from their hybrid semantics.

Keywords— expletive negation, negative contexts, polarity sensitive items, historical French, quantifier cycle, apprehensional modality

1 Introduction

Expletive negation is a negation marker that appears to be interpreted non-canonically under certain triggers like verbs of fearing. In effect, the pre-verbal negation marker *ne* does not seem to reverse the truth-value of the proposition it scopes over in (1).

- (1) Je crains qu’ il **ne** pleuve
I fear that it NEG rain-SBJV
‘I fear that it might rain.’

Present-Day French exhibits “embracing negation”, a term coined by [Horn, 1989] and defined by [Zejlstra, 2009] as “a phenomenon in which (...) not one, but two negative markers (preverbal *ne* and postverbal *pas*) (...) normally ‘embrace’ the finite verb.”. Intriguingly, an expletive interpretation of *ne . . . pas* cannot obtain in the subordinate clause of verbs of fearing, see (2).

- (2) *Je crains qu’ il **ne** pleuve **pas**
 I fear that it NEG rain-SBJV NEG
 Intended : ‘I fear that it might rain.’

Within the framework of generative syntax, the influential analysis of [Zanuttini, 1997] and [Pollock, 1989] claimed that *ne* is the governing head of the functional projection which expresses negation, NegP, while *pas* as well as other negative constituents such as *jamais*, *rien* and *personne* are generated in the specifier position of the NegP. Given that, some authors have claimed that *ne* is expletive when it occurs alone. Their claim is most likely based on the assumption that, in a language like French, a specifier-head relation must obtain for sentential negation to be expressed. Indeed, in Present-Day French, sentences in which *ne* is the sole negator are perceived as archaic (see [Rowlett, 1998], for a discussion).

The motivation for this investigation stems from the observation that expletive negation does not behave in a unified way across contexts, since it can be instantiated as a complex negation phrase in negative contexts ([van der Wouden, 1997]). In those constructions, a negative head and a negative constituent like *pas* occur together, as in (3).

- (3) Le chercheur Chinois He Jiankui l’ a utilisé afin d’ éviter que les
 the researcher chinese He Jiankui it has use-PTCP in-order to avoid that the
 jumelles Lulu et Nana **ne** soient **pas** porteuses du VIH.
 twins Lulu and Nana NEG be-SBJV NEG carriers of VIH
 ‘Chinese researcher He Jiankui used it [genetic engineering] to prevent twins Lulu
 and Nana from becoming HIV carriers.’ (Wikipedia, Génie génétique)

This study will adress two questions in particular: (1) What can the diachronic development of complex expletive negation phrases teach us about the semantics of these constructions? (2) What semantic conditions must be met, so that complex expletive negation phrases are felicitously produced with a given trigger? To answer these questions, I will proceed as follows. Section 2 draws a distinction between bare and complex expletive negation phrases, based on distributional criteria. Section 3 proceeds with the presentation of the historical data on complex expletive negation phrases, discussing them in relation with the Quantifier Cycle. Section 4 discusses the semantic negativity of those triggers of complex expletive negation phrases, as opposed to that of triggers with which bare expletive negation only can be produced. In Section 5, I discuss the semantics of complex expletive negation phrases as well as their Negative Concord interpretation with the higher negative predicate.

2 Two subtypes of expletive negation

This section draws on the research of [Greco, 2019] to distinguish between bare and complex expletive negation phrases (respectively, strong and weak expletive negation in Greco’s terminology). Bare expletive negation can only be instantiated by the negative head alone, as it cannot occur with a Negative Concord Item, which are negative indefinites. Complex expletive negation phrases, involve both the negative head and a negative constituent, the nature of which will be discussed in Section 3.

2.1 Bare expletive negation

Expletive negation behaves differently from standard negation in languages that exhibit Negative Doubling, a combination in which a Negative Concord Item and a negative marker together yield one semantic negation (after [Zeijlstra, 2004]). In these languages, like Russian, it appears indeed that expletive negation cannot co-occur with Negative Concord Items, in a context like verbs of fearing, see (4). Since this subtype of expletive negation cannot involve a Negative Concord Item, I will refer to it as bare expletive negation.

- (4) *Ja bojus’ kak by **nikto ne** opozdal
I fear how MOD nobody NEG was-late
Intended : ‘I fear that somebody might be late.’ (in [Abels, 2005])

Several tentative explanations have been put forward to account for this phenomenon. Some have posited that expletive negation is not a real syntactic negation, but rather belongs to another morphosyntactic category, like that of a mood marker (see among others, [Yoon, 2011], [Zovko-Dinkovic, 2017], [Tahar, 2022]). However, [Abels, 2005] argued that, even in these cases, no other morphosyntactic category than that of negation should be assigned to expletive *ne*, since it displays a hallmark property of negation in Russian, namely the Genitive of Negation.

- (5) Ivan **ne** čitaet žurnal / žurnala
Ivan NEG reads journal-ACC journal-GEN
‘Ivan doesn’t read the journal/a journal.’ (in [Abels, 2005])
- (6) Ja bojus’, kak by Petr **ne** narušil èksperimenta
I fear how MOD Petr NEG ruined experiment-GEN
‘I fear that Petr might ruin the experiment.’ (in [Abels, 2005])

Others, like [Greco, 2022], have pursued a more syntactically inclined line of explanation, positing that expletive negation, in Negative Concord languages, can only be realized as the head of a negation phrase, excluding the element with the specifier status, such as the negative particle *pas* in French or the Negative Concord Item *nikto* in Russian. Importantly, Greco’s Head-principle (“only syntactic heads implement the expletive negation phenomenon”) provides a satisfactory means to tease apart *ne*-less non-negative occur-

rences of *pas*, see (7), attested in contexts like superlatives, from actual instantiations of expletive negation.

- (7) J' ai fait tout ce que je pouvais **pas** faire.
 I have do-PTCP all DEM that I could NEG do.
 'I did all I could' (in [Gonzalez and Royer, 2022])

Such uses of *pas* were convincingly analyzed as a Polarity Sensitivity Item, whereby *pas* is a non-negative indefinite in Modern Québec French, by [Gonzalez and Royer, 2022] as well as in historical French, by [Eckardt, 2006]. As such, these uses of *pas* don't convey any negative force of their own and should be kept distinct from expletive negation proper (*contra* [Espinal, 2007]'s claim that they represent cases of "extended" expletive negation). However, Greco's Head-Principle does not accurately capture the fact that expletive negation can be instantiated in negative constructions that behave like maximal projections (insofar as a Spec-Head relation obtains).

2.2 Complex expletive negation phrases

Expletive negation behaves differently accross triggers and it turns out that it can be instantiated in complex negation phrases in certain contexts. It was notably observed by [Greco, 2019] that expletive negation can involve negative constituents like *nessuno* ("no-body") in Italian: the same applies to French, see (8).

- (8) Jean lui a interdit qu' il **ne** vende **aucune** bouteille de vodka.
 John him has forbade that he NEG sell-3PS.SBJV none bottle of vodka
 Intended : 'John forbade him to sell any bottle of vodka.'

Two distinct interpretations of (8) are available.

- (9) a. $\sim \text{ALLOW}(\text{Bill}, \text{John}) : \neg \exists x. \text{vodka}(x) \wedge \text{sell}(\text{John}, x)$
 b. $\sim \text{ALLOW}(\text{Bill}, \text{John}) : \cancel{\neg} \exists x. \text{vodka}(x) \wedge \text{sell}(\text{John}, x)$

Either the complex negation phrase receives a standard interpretation, roughly meaning that Bill did not allow John to sell not a single bottle of vodka, as described in (9-a). Or it can receive a "polarity" reading, as described in (9-b), roughly meaning that Bill did not allow John to sell any bottle of vodka whatsoever.

The notion of a polarity reading of negation is deeply tied to the Negative Concord approach to expletive negation, to be discussed in Section 5, which stipulates that a polarity reading of negation obtains when a dependent negation that is interpreted in the scope of a negative operator, like *forbid* in (8), is interpreted conjointly with the higher negation, as represented by the cancellation of the dependent negation in (9-b). I adopt [Espinal, 2007]'s point of view that negation is ambiguous between a standard sentential negation interpretation and a "polarity" reading ("*no* can be interpreted as a negative operator in some contexts or as a negative polarity item in some others"). In my definition, complex expletive negation phrases involve a polarity reading of a negative exis-

tential phrase. To defend the view that this definition is on the right track, as the next section will argue, we'll meet the burden of proof to show that complex expletive negation phrases involve a logical negation. Distributional evidence support this hypothesis. [Greco, 2019] has put forward as a defining property for expletive negation in Negative Concord languages the fact that it cannot occur with strong NPIs (like *du tout* in French, see [Burnett and Tremblay, 2012]) or (*n*)*either*-coordination. These tests are classically used to identify sentential negation (see also [Penka, 2010]).

- *Either*-conjoning

(10) (John didn't see the fireworks from his balcony)

Marie **n'** a **rien** vu **non plus**.
 Mary NEG has NOTHING see-PTCP either

Mary didn't see anything either.'

- Strong NPI licensing

(11) Marie **n'** a **rien** vu **du tout**.

Mary NEG has NEG see-PTCP at all
 'Mary didn't see anything at all.'

If it is indeed true that bare expletive negation with verbs of fearing (among other contexts) don't pass these tests, it appears that complex expletive negation phrases actually do, see (12-b) and (13-b), which suggests that they express a logical negation.

(12) (John didn't know that Lucien came to the party)

a. *Marie a empêché qu' on l' ait su **non plus**.
 Mary has prevent-PTCP that we it have-SBJV know-PTCP either
 *'Mary prevented us from knowing it, either.'

b. Marie a empêché qu' on **n'** en ait **rien** su
 Mary has prevent-PTCP that we NEG it have-SBJV nothing know-PTCP
non plus.
 either
 Intended: 'Mary prevented us from knowing anything about it, either.'

(13) a. *Marie a empêché qu' on le remarque **du tout**.

Mary has prevent-PTCP that we it notice-SBJV at all
 *'Mary has prevented us from noticing anything at all.'

b. Marie a empêché qu' on **ne** remarque **rien du tout**.
 Mary has prevent-PTCP that we NEG notice-SBJV nothing at all
 Intended: 'Mary has prevented us from noticing anything at all.'

Both (12-a) and (13-a) show that, without the complex negation phrase, continuations with a strong-NPI or *either*-phrase are not possible, which evidences the fact that they are

not merely licensed by the negativity of the context, but rather licensed by the negation phrase itself.

3 Data from historical French

This section deals with the diachronic development of expletive negation, inscribing itself in a line of other works that have delved into its historical past to refine the synchronic analysis of this phenomenon (see [van der Wurff, 1999], [Bar-Asher Siegal, 2024]). The main stake of this section is to show that, over the history of French, complex expletive negation phrases are productive (as evidenced by their frequent attestations in historical texts) as long as negative constituents like *pas*, *point* and *mie* (originating from Latin *micam* (‘crumb’), see [de Vaan, 2008]) are Polarity Sensitive Items, i.e., non-negative indefinites. This section thus draws a correlation between the historical productivity of complex expletive negation phrases with the historical pathway of development known as the Quantifier Cycle, a cycle out of which Polarity Sensitive Items develop into Negative Concord Items.

3.1 Background on the Quantifier Cycle

The Quantifier Cycle (see [Ladusaw, 1993] who originally coined it the “argument cycle”, as well as [Willis, 2011]; [Mosegaard Hansen, 2014]; [Auwera et al., 2022]) refers to the diachronic cycle whereby Polarity Sensitive Items turn into Negative Concord Items. Both notions are defined after [Etxeberria et al., 2024], respectively as (14) and (15):

- (14) **Negative Concord Items (NCIs):**
 - a. Can occur in isolation in fragment answers
 - b. Are negative indefinites
- (15) **Polarity Sensitive Items (PSIs):**
 - a. Need the presence of a negative marker in well-formed negative sentences, or other licensors in non-negative contexts
 - b. Cannot occur as isolated fragment answers
 - c. Are non-negative indefinites

In recent years, it has been observed that Negative Concord Items are subject to a process of grammaticalization, out of which certain non-negative indefinite expressions are first to be recruited as Polarity Sensitive Items, exhibiting a negative dependency, to reinforce the negation marker (see also [Horn, 1989]). The Polarity Sensitive Items can be conveyed of as “minimizers”: “those partially stereotyped equivalents of *any*” that “occur within the scope of negation as a way of reinforcing that negation” ([Horn, 1989, p.452]). Indeed, a subset of Old French negative constituents originate from Latin expressions that were semantically positive, like *rien* (‘thing’) and *personne* (‘person’) among the negative

indefinites and *pas* (‘step’), *mie* (‘crumb’), *goutte* (‘drop’) among the negative particles, see for instance [Mosegaard Hansen, 2014] for a discussion.

At a later stage, Polarity Sensitive Items turn into Negative Concord Items, as they incorporate a morphological feature of negation. This cycle is independent to the Jespersen’s Cycle, but also related. The Jespersen Cycle is a pathway of change motivated by communicative reasons (see [Horn, 1989] for a pragmatic account resorting to general Gricean principles as well as [Ahern and Clark, 2017] for a recent game-theoretic account) and phonetic reasons. At the first stage of the cycle, the preverbal negative marker can be used on its own to negate a clause before it is gradually reinforced by a postverbal reinforcer, i.e. a PSI, at the second stage of the cycle. At the third stage of the cycle, the postverbal reinforcer turns obligatory (i.e., it turns into a NCI), before the preverbal marker is lost to the postverbal one, over the fourth stage. Summing up, the interrelation between the two cycles can be represented as follows (based on [Rowlett, 1998] and focusing only on the Jespersen’s cline):

- (16) a. Stage 2 : $ne_{[iNEG]}$ Verb ($pas_{[uNEG]}$)
 b. Stage 3 : $ne_{[uNEG]}$ Verb $pas_{[iNEG]}$

I build on [Herburger, 2023], according to whom Polarity Sensitive Items have “a low-scalar semantics (e.g., ‘least noteworthy’, disjunctive) and bear the distributional feature [u-neg]”, while Negative Concord Items “lack [u-neg] and are semantically the negation of the low-scalar meaning; we can say they bears [i-neg]”.

3.2 Complex expletive negation phrases

The goal of this section is to demonstrate that complex expletive negation phrases are only productive during the second stage of the Jespersen Cycle, over the history of French.

3.2.1 Corpora and periodization

To carry on this inquiry, I have used the well-established database of Medieval French BFM2022 (*Base de Français Médiéval* [Guillot-Barbance et al., 2017]), which spans over the 9th century to the end of the 15th century (see also [Buridant, 2000] for a discussion of the periodization of Medieval French). Indeed, the second stage of the Jespersen Cycle has been argued to span over the Medieval French period. It has been notably observed by [Mosegaard Hansen, 2013] that *pas*, *point*, *mie* are optionally used to reinforce the preverbal negation marker *ne*, as well as negative indefinites such as *rien*, *personne*, *aucun*. Still, *ne* could also be used to negate a clause on its own, by this period. Note that [Gianollo, 2016] as well as [Greco, 2022] have discussed the fact that the optional reinforcement of Latin negation was already under way in Late Latin. Besides, it is widely accepted that Polarity Sensitive Item-uses of *ne*-less negative constituents were quite frequent accross Medieval French (see [Eckardt, 2006]), a period in which they are found in a wide range of contexts, among which the exceptive connective *sans* (‘without’), the temporal connective *avant* (‘before’), superlatives and comparatives, as well as

polar questions and the antecedent of conditionals¹

With regard to the Classical French period, I have used the EDdA corpus (*Encyclopédie de Diderot et d'Alembert*, [Morissey and Roe, 2020]) which involves 28 encyclopedic volumes published between 1751 and 1772 and more than 120 contributors. Indeed, the stage 3 of the cycle is generally argued to happen around the 16th century for French ([Price, 1962]) and is thus reached by the 18th century. Besides, as observed by [Muller, 2004a], Polarity Sensitive-uses of negative constituents are still attested by the 16th century², but their productivity is greatly receding, which makes Classical French a good field of investigation.

Overall, I queried the most productive triggers of expletive negation with the software TXM ([Heiden et al., 2020]) to obtain frequency information with respect to bare and complex expletive negation phrases. Since the productivity of complex expletive negation phrases is most significant with verbs of inhibition in Medieval French (namely, with the verb of prohibition *défendre* ('forbid')) as well as in Classical French (with the verb of prevention *empêcher* ('prevent')), this section focuses on complex expletive negation with verbs of inhibition.³

3.2.2 Medieval French

Over the Medieval French period, the most productive structure with verbs of prohibition is complex expletive negation phrases (representing the vast majority of occurrences), although bare expletive negation is attested as well. Importantly, across its 139 occurrences in the BFM corpus, the verb *défendre* is almost never attested without expletive negation (only one occurrence). Besides, I have recovered no attested example of a negative reinforcer without preverbal negation.

Ne + Pas, point, mie

¹see for instance (i) or (ii) when it comes to negative particles.

- (i) messire Jehan Pare demandoit partout se **personne** avoit veu sa geline
master Jehan Pare asked everywhere if *personne* has seen his hen
'Master Jehan Pare asked everywhere whether anyone has seen his hen (Les Cents Nouvelles nouvelles, p.76, 1515, in [Eckardt, 2006])
- (ii) li mieudres ki (...) **point** fust en tout le lignage le roi Ban
the best that *point* be-3SG.PST.SBJV in all the lineage the king Ban
'The best there ever was in the lineage of the king Ban' (trisp, p.179 , 1300)

²See for instance:

- (i) les plus grands usuriers qui soient **poinct**
the most big usurer that be-3PL.SBJV *point*
'The biggest userers there ever was' (L'Heptameron, p.1036, 1550, in [Muller, 2004b])

³Note that, in accordance with the synchronic facts discussed in Section 2.1, only bare expletive negation is attested with verbs of fearing.

- (17) Premier l' assault Jachoniüs (...) mes Damedieu l' a
 First 3SG.CL assault-3SG Jachonius (...) but God 3SG.CL has
 desfendu qu' il **ne** l' a **pas** aconsseü.
 forbidden that 3SG NEG 3SG.CL has *pas* recognize-PTCP
 'The first to attack him is Jachonius, but the lord God has forbidden him that he
 should not recognize [Tydeus]' (thebes1, p.50, 1250)
- (18) Damoisiele, je vous desfenc que che **ne** fachiés **mie**
 Damsel, 1SG 2PL forbid-1SG that DEM NEG do-2PL.SBJV *mie*
 'Damsel, I forbid that you should not do so.' (merlin_suite_litt, p.150, 1317)
- (19) Loth deffendit a sa femme qu' elle **ne** regardast **point** derriere
 Loth forbid-3SG.PST to his wife that 3SG NEG look-3SG.SBJV *point* behind
 ly.
 him.
 'Loth forbade his wife that she should not look behind him.' (menagier, p.42,
 1425)

Ne + Rien, nient, personne

- (20) il vous deffent que **ne** faciez **riens** à l' entreprise de vostre ennemy
 he you forbids that NEG do.3SG.SBJV *rien* a the enterprise of your enemy
 'He forbids you that you should not do anything against your enemy.' (jouven-
 cel2, p.32, 1483)
- (21) Nostre lei defent Qu' om **n'** en manjuce **nient**
 our law forbid-3SG that 3SG EXN it eat-3SG.SBJV *nient*
 'Our law forbids that we should eat not any [hyena].'
 (bestiaire, p.44, 1181)
- (22) si lui deffendy qu' il **n'** en parlast a **personne**
 thus him forbid-3SG.PST that he NEG it talk-3SG.SBJV.PST to *personne*
 'thus he forbade him that he should not talk about to anyone.' (melusine, p.72,
 1410)

Ne + Nul

- (23) Cedit jour, a esté defendu au graphier que il **ne** reçoive
 This day, has been forbidden to-the clerk taht 3SG EXN receive-3SG.SBJV
nul accort à passer sanz le congié et consentement de la
nul agreement to bypass without the permission and consent of the
 Court.
 court
 'On this day, it was forbidden to the clerk that he should not receive any agreem-
 ent without the permission and consent of the Court.' (baye1, p.84, 1409)

Ne + Negative coordination Complex expletive negation phrases can also involve the negative coordination *ni ... ni* (which have been argued to receive Polarity Sensitive-uses in Medieval French by [Mosegaard Hansen, 2021]).

- (24) elle leur deffendit qu' elles **n'** en dissent **riens** a l'
 she them forbid-3SG.PST that they NEG it say-3PL.SBJV anything to the
 abbess **ne** aux aultres seurs
 abbess or to-the other sisters
 'She forbade them to say anything about it to the abbess or to the other sisters.'
 (StBath2, p.81, 1450)

3.2.3 Classical French

In Classical French, the verb *défendre* ('forbid') grows less productive than the verb *empêcher* ('prevent'). Since both verbs have a common semantics of inhibition (see also [Copley and Mari, 2021]), this section provides examples of complex expletive negation with the verb *empêcher*. Strikingly, in Classical French, the most productive structure with verbs of inhibition is the absence of any expletive negation. When expletive negation occurs, it is most often a bare expletive negation. However, complex expletive negation phrases are also attested, although very seldom. Note that in Present-day colloquial French, complex expletive negation phrases are no longer productive in this context, as an inquiry onto the Wikipedia corpus and the ESLO corpus of spoken French shows that the default is the absence of any form of expletive negation.

Ne + Pas, point

- (25) Il faut la faire sécher lorsqu' elle est cueillie, & **empêcher** qu' elle **ne**
 it must her make dry when she is picked, and prevent that she NEG
 se mouille **pas**.
 itself wet-3SG.SBJV *pas*
 'It is necessary to dry it once it has been picked, to prevent it from getting wet.'
 (EDDA, volume16-74, Teinture, 1765)
- (26) On couvre d' un peu de terre humide cette graine pour **empêcher** qu' elle
 one covers of a little of earth damp this seed so-as-to prevent that she
ne soit **point** dissipée par les vents.
 NEG be-3SG.SBJV *point* dispersed by the winds
 'The seed is covered with a little damp earth to prevent it from being blown away
 by the winds.' (EDDA, volume07-1784, Gazon, 1757)

Ne + Rien, jamais

- (27) [Le Concile] de Malines, (...) les charge de visiter tous les six mois les
the council of Malines them mandates to visit every the six months the
écoles de leur dépendance, pour **empêcher** qu’ on **ne** lise
schools of their dependency so-as-to prevent that one NEG read-3SG.SBJV
rien qui puisse corrompre les bonnes mœurs
rien that might corrupt the good morality
The [Council] of Malines, (...) instructs them to visit the schools in their depen-
dency every six months, to prevent students from reading anything that might
corrupt their morality. (EDDA, volume05-1251, Ecolatre)
- (28) la promesse qu’ il a faite (...) d’ **empêcher** que les portes de l’ enfer
the promesse that he has done to prevent that the doors of the hell
ne prévalent **jamais**.
NEG prevail-3PL.SBJV *jamais*
‘the promise he made (...) to prevent the gates of hell from ever prevailing.
(EDDA, volume03-3628, Concile)

Summing up, it was shown that complex expletive negation structures involve Polarity Sensitive-uses of Negative Concord Items, since these structures were most frequently attested in Medieval French, when negative constituents are still Polarity Sensitive Items, and since they have greatly receded by Classical French, a period at which Polarity Sensitive Items have developed into Negative Concord Items. It is a plausible assumption to make (see also [Herburger, 2023]), that the few complex negation structures which are attested in Classical French are actually continuations of past stages of the development of Polarity Sensitive Items as Negative Concord Items.

4 Diagnosing negative contexts

A large body of works ([van der Wouden, 1997], [van der Wurff, 1999], [Espinal, 2000], [Zeijlstra, 2004]) have argued that expletive negation is triggered by negative contexts. Negativity is classically casted as downward-monotonicity ([Ladusaw, 1979]).⁴ In essence, these predicates involve a logical negation that reverses the direction of entailment in their complement clause. This section aims at relating the production of complex expletive negation phrases to the strong negative property, diagnosable as downward-monotonicity (and anti-additivity), of verbs of inhibition. It shows that verbs of inhibition like *défendre* or *interdire* (‘forbid’) are unequivocally negative, unlike the verb of fearing *craindre* (‘fear’). The non-veridical information state expressed by *craindre* is argued to over-

⁴It is important to mention that certain authors like [Espinal, 2007] or [Yoon, 2011], in view of the wide array of triggers of expletive negation, have argued that the negative property that they have in common is the more widespread property of non-veridicality, a property of unsettled epistemic states according to [Giannakidou and Mari, 2018]. Their claim, however, is inconsistent with [Giannakidou and Zeijlstra, 2017]’s observation that “non-veridical (...) elements have zero negativity”, since they do not reverse the direction of entailment in their complement clause.

ride or over-code its downward-monotonicity. I suggest that, as a consequence of their mixed modality, verbs of fearing rule out an expletive interpretation of complex negation phrases under their scope.

4.1 Verbs of prohibition

This section shows that *défendre* ('forbid') is a strong negative context, namely a context characterized by the properties of downward-monotonicity and anti-additivity (following [Giannakidou and Zeijlstra, 2017]).

Downward-monotonicity Downward-monotonicity is a notion that originates from logic and was adopted by linguists (starting with [Ladusaw, 1979]) to cast the common sense notion of negativity in logical terms when applied to the semantics of natural language expressions. An operator is characterized as downward-monotonic if it reverses the direction of entailment in its argument clause.

(29) **Downward-monotonicity:**

An operator O is downward-entailing iff:
if for every X, Y such that $X \subseteq Y$, $O(Y) \subseteq O(X)$

Downward-monotonicity (29) is a property of valid reasoning patterns involving, as in (29), *predicate replacement* (see also [Van Benthem and Liu, 2020]): in the scope of a downward-entailing operator, a more general (weaker) predicate Y can be replaced by a more specific (stronger) predicate X . Very clearly, *défendre* is downward-entailing. In the first place, it does not allow for a reasoning pattern from the specific case to the more general case, as one cannot deduce from the specific statement (30-a) that the more general statement (30-b) holds as well. For instance, in monotheist religions like Islam or Judaism, pork consumption is prohibited, as stated in (30-a). However, it is not the case that these religions prohibit the consumption of any other types of meat (like lamb or chicken), as stated in (30-b). The prohibition against eating pork is specific.

- (30) a. Cette religion défend qu'on mange du porc. ('This religion forbids one from eating pork')
b. Cette religion défend qu'on mange de la viande. ('This religion forbids one from eating meat')

On the contrary, one can deduce from the prohibition report on a general predicate (30-b) the more specific one (30-a). Suppose that the *défendre* report in (30-b) concerns Jainism, an Indian religion which is vegetarian. In Jainism, meat consumption is prohibited, therefore the consumption of eat any kind of meat, including pork, is also prohibited, as stated in (30-a).

Anti-additivity Anti-additivity (see also [Zwarts, 1998]) is a property that is conceived after de Morgan's law, the law according to which the disjunction of two proposi-

tions under the scope of a negative operator are logically equivalent to the conjunction of each negated individual propositions.

- (31) a. John doesn't speak Greek or German $\neg(p \vee q)$
b. John doesn't speak Greek and he doesn't speak German $(\neg p \wedge \neg q)$

Anti-additive operators allow conjunctive conclusions from the disjunction of two propositions. This is so because, under negative contexts, none of disjuncts is true.⁵

- (32) **Anti-additivity:**
A operator O is anti-additive iff :
 $O(p \vee q) \leftrightarrow O(p) \wedge O(q)$

Défendre is very clearly anti-additive: in its scope, both disjuncts are false. Indeed, the law of a country like Singapore forbids people to eat or drink in public transportations, as stated in (33-a), which entails that people cannot do either of the two activities, (33-b).

- (33) a. La loi défend qu'on boive ou mange dans les transports publics. ('The law prohibits eating and drinking on public transport.') $O(p \vee q)$
b. La loi défend qu'on boive et la loi défend qu'on mange dans les transports publics. ('The law forbids drinking and the law forbids eating on public transport.') $O(p) \wedge O(q)$

Therefore, we can relate the production of complex expletive negation with the strong negative semantics of verbs of prohibition.

4.2 Verbs of fearing

Verbs of fearing, a key context for the production of bare expletive negation, are consensually analyzed as involving both an epistemic component and a dispreferential component, since [Lichtenberk, 2014]'s influential study (see also [Anand and Hacquard, 2013] for a formal account). Verbs of fearing have also been argued to exhibit contextual ambiguity between an evidential reading and an action-oriented reading. [Tahar, 2022] proposed that fear reports are under a requirement of Relevance, as per [Roberts, 2012], [Roberts, 2023], since they address a Question under Discussion (QUD).

- (34) **Relevance:** Since the QUD reflects the interlocutor's publicly evident discourse goals at any point in a discourse, in order for an utterance to be rationally cooperative it must address the QUD.

She argued that evidential fear reports address an informational QUD, unlike action-oriented fear reports, which instead address a practical QUD or "decision problem" (after [Kaufmann and Kaufmann, 2012], [Kaufmann, 2019]). According to [Tahar, 2018], the

⁵The reader is referred to [Chierchia, 2001] and [Noveck et al., 2002] for for a further discussion on the relation between downward-monotonicity and the interpretation of disjunction.

evidential reading of *craindre* foregrounds their epistemic layer of meaning, whereas the goal-oriented reading foregrounds their dispreferential component.

Building on these works, I will show that the evidential reading of verbs of fearing does not allow downward-entailing or anti-additive inferences, for the reason that it is (subjectively) non-veridical. The action-oriented reading, on the contrary, allows downward-entailing and anti-additive inferences.

4.2.1 Evidential reading

The conversational goal of the evidential reading of verbs of fearing is to provide an answer to an informational QUD on whether p or not- p . The fear report is, in essence, a claim that p is possible with respect to the subject's belief worlds. According to evidential approaches to epistemic modals (see for instance [Von Stechow and Gillies, 2010]), epistemic claims presuppose that the asserted proposition is a conclusion that was indirectly inferred. When *craindre* receives an evidential reading, it is typically used to signal that the subject has reached the conclusion that p via an indirect inference. Interestingly, this use often involves a continuation with a causal connective (*parce que* 'because', as in (35-a)), which gives the justification on which the evidential claim is based.

- (35)
- a. A: Je crains qu'il soit arrivé quelque accident à mon chien, parce que je ne l'ai pas vu ce matin. ('I fear that something happened to my dog, because I haven't seen it this morning.')
 - b. B: Of course not, your dog is down the street!
 - c. B: #Don't worry, we'll take it to the vet.

Consequently, dialogical continuations that target the subject's claim that p is a possibility, as in (35-b), are preferred to those that target the subject's dispreference for p , as in (35-c).

Non-monotonicity Uncovering the monotonicity property of verbs of fearing is not as simple a task as it may first seem. Indeed, some attitude verbs involve reasoning on epistemic alternatives that may obscure their monotonicity properties.⁶ Consider (36)

- (36) (Context: the speaker is a vegetarian parent raising his son as a vegetarian)
- a. A: Je crains qu'à l'école on serve de la viande à mon fils. ('I'm afraid my son will be served meat at school.')
 - b. B: #Ah! So you're afraid they will serve him pork?

It would be pragmatically irrelevant for the interlocutor B to reply the worried parent's qualm in (36-a) by asking him (36-b). This is so because the speaker A's fear self-attribution is not specific: his fear bears on whether or not his son will be served meat

⁶The fact that reasoning under uncertainty gives rise to nonmonotonic inference patterns has been discussed in the psychological literature (see for instance [Ragni and Johnson-Laird, 2020]) but this question goes beyond the scope of this paper.

at school, not on which kind of meat he will be served. In fact, by drawing the inference that A fears that his son will be served pork, the interlocutor does more pragmatic reasoning than what the fear report (36-a) should normally allow for. The fact that B specifically singles out pork as a relevant type of meat carries along strange implications, which highlights the fact that evidential fear reports are not downward-entailing, but rather non-monotonic.⁷

Non-additivity The interpretation of disjunction under the scope of *craindre* gives rise to the inference that the subject does not know which one of the disjunct is true.

- (37) (Context: the speaker's was made aware by professors that his son never participates in class)
- a. Je crains qu'il soit timide ou qu'ils soient trop nombreux en classe ('I'm afraid that he's shy or that there are too many of them in the class.')
 - b. ... but I don't why he doesn't participate in class.

The QUD that the speaker's self-attributed fear report partially answers to is why does his son not participate in class. The answer to the QUD is either because his son is too shy or because there are too many students in the class, or possibly, but not necessarily, both. The fact that the subject doesn't know exactly which of the disjunct is true is an ignorance inference that arises as a standard Gricean implicature. As such, it can be reinforced. The ignorance inference is not anti-additive.

Non-veridicality The non-monotonicity and non-additivity of evidential fear reports can be cashed out by the notion of subjective non-veridicality [Giannakidou and Mari, 2018].

- (38) **Subjective non-veridicality:**
An operator O is subjectively non-veridical with respect to an individual anchor i and epistemic state $M(i)$ iff $O(p)$ does not entail that i knows p : iff $\exists w' \in M(i) : \neg p(w') \wedge \exists w'' \in M(i) : p(w'')$

Subjective non-veridicality is an inquisitive state [Kang and Yoon, 2020], which captures the fact that the subject's claim that it might be the case that p is made under uncertainty.

⁷Contrast (36) with (i):

- (i) (Context: same as (36))
- a. A: J'ai interdit qu' à l' école on serve de la viande à mon fils. ('I have forbidden that my son be served meat at school.')
 - b. B: Ah! So you have forbidden that he'd be served pork?

Unlike in (36-b), the answer in (i-b) can simply be interpreted as a conversational move made by an inquisitive interlocutor, wanting to know whether or not A has really forbidden his son to be served any kind of meat, even the one he likes the most.

(39) **Inquisitiveness in terms of possibilities:**

A proposition p is inquisitive in an epistemic state $M(i)$ iff there are at least two possibilities of p in $M(i)$

(adapted from [Groenendijk and Roelofsen, 2009], after [Kang and Yoon, 2020])

4.2.2 Action-oriented reading

The conversational goal of the action-oriented reading of verbs of fearing is to provide a partial answer to a practical QUD - or decision problem, [Kaufmann and Kaufmann, 2012], [Kaufmann, 2019]. To simplify matters somewhat greatly, a decision problem can be conceived of as a QUD on whether or not a particular future course of event Q should be chosen by a certain agent of the conversation. For instance, assume that the QUD that (40-a) intends to resolve is the question *should I give this man my last banknote?*. The conditional fear report in (40-a) doesn't directly resolve the decision problem, as a *Yes/No* answer would, but is nonetheless providing a partial answer to it. The conditional fear report attributes a conditional dispreference to the subject, given the choice of the course of event Q . In that respect, it provides a motivation to avoid choosing this course of event.

- (40) a. A: Si je lui donne mon dernier billet, je crains que je ne vienne à manquer d'argent. ('If I give him my last banknote, I fear that I'll be running out of money.')
- b. B: ??Of course not, you won't be running out of money.
- c. B: Don't worry, I'll give him money myself.

Consequently, the dispreference layer is foregrounded, as evidenced by the fact that a dialogical continuation targetting the subject's claim that p is a possibility, see (40-b), is less relevant than one that targets the subject's dispreference that p , see (40-c).

Downward-monotonicity An anecdote gathered from the French Wikipedia concerning the American chess grandmaster Bobby Fischer, whose golden age took place during the Cold War, should prove useful to understand the downward-monotonic property of action-oriented *craindre*. According to Wikipedia, Bobby Fischer feared that the KGB wanted to poison him, so he always took a suitcase containing various counter-poisons with him when he ate in a restaurant. Given the contextual information that Bobby Fischer is resolving a decision problem by choosing to carry with him a suitcase containing various counter-poisons, we can draw the inference that his fear to be poisoned by the KGB entails his fear to be poisoned by the KGB with any poison whatsoever, be it cyanide, anthrax or arsenic. In other terms, it appears valid to draw an inference from (41-a) to (41-b).

- (41) (Context: Bobby Fischer always carries with him a suitcase containing various counter-poisons when he eats in a restaurant)
- a. S'il mange au restaurant, Bobby craint que le KGB l'empoisonne. ('If he eats out, Bobby fears that he will be poisoned by the KGB.')

- b. S'il mange au restaurant, Bobby craint que le KGB l'empoisonne avec du cyanure. ("If he eats out, Bobby fears that he will be poisoned by the KGB with cyanide.")

Anti-additivity In a similar fashion, if we are to interpret the fear report (42) modulo the subjective non-veridicality layer of meaning, it is anti-additive: Bobby's fear that the KGB will poison him with cyanide or anthrax entails that he fears that the KGB will poison him cyanide and that he fears that the KGB will poison him with anthrax, since he's prepared for both possibilities.

- (42) (Context: Bobby Fischer always carries with him a suitcase containing various counter-poisons when he eats in a restaurant)
 S'il mange au restaurant, Bobby craint que le KGB l'empoisonne avec du cyanure ou avec de l'anthrax. ("If he eats out, Bobby fears that he will be poisoned by the KGB with cyanide or anthrax.")

Therefore, we can relate the non-production of complex expletive negation with verbs of fearing with the fact that they have a non-veridical layer of meaning, which overrides their downward-monotonic layer of meaning.

5 Towards a Negative Concord approach

5.1 Main findings

The present study addressed two research questions: (1) What can the diachronic development of complex expletive negation phrases teach us about the semantics of these constructions? (2) What semantic conditions must be met, so that complex expletive negation phrases are felicitously produced with a given trigger?

With respect to the first question, this paper found that the production of complex expletive negation phrases is historically related to the Quantifier Cycle. These constructions involve a specifier-head relation between the pre-verbal negation marker *ne* and a negative constituent interpreted as a Polarity Sensitive Item, such as *pas*, *point*, *mie*, as well as *rien*, *jamais*, *personne*. In line with [Herburger, 2023], I make the assumption that, when these constructions occur in Present-Day French, they represent the continuation of past stages of the development of Negative Concord Items. It is standard practice to capture the semantics of a negative marker occurring together with a Polarity Sensitive Item as jointly expressing existential negation, see [Giannakidou and Zeijlstra, 2017].

- (43) a. Bill didn't see any student.
 b. $\neg \exists x. \text{student}(x) \wedge \text{see}(\text{Bill}, x)$

Therefore, there are no valid reasons to exclude that complex expletive negation phrases involving *ne* together with a Polarity Sensitive Item express existential negation. Building

on this result, I believe there are no valid reasons either to exclude the possibility that bare expletive *ne* conveys sentential negation as well.

The answer to the second question is that complex expletive negation phrases are felicitously produced with strong negative contexts that are not non-veridical. Non-veridicality is a non-negative property, and as such it disfavors the production of complex expletive negation phrases. However, verbs of prohibition and verbs of fearing, which are triggers of expletive negation in French, are both negative contexts, at some level of their internal semantic make-up.

Overall, the results of this study suggest an explanation of complex expletive negation phrases in terms of Negative Concord, a widespread phenomenon where a single negation reading obtains when the expression of negation spreads over several negative expressions in a same sentence (see [Zeijlstra, 2004]). Within the Negative Concord view, the expletiveness of negation is a property of its interpretation – sometimes referred to as a “polarity” reading (see [Espinal, 2007]) – under the scope of negative contexts. In other words, the negative higher context creates an environment in which negative heads and the negative constituents they combine with receive a polarity reading. Such a view goes back, at least, to [Jespersen, 1917]’s hindsight that expletiveness obtains when a dependent negation, which is semantically autonomous, is interpreted as redundant due to some kind of “mental fusion or blend” ([Horn, 2009]) with the internal negation lexicalized by the higher predicate. This line of reasoning has been notably pursued by [Espinal, 1992], [Espinal, 2000], [Zeijlstra, 2004]. What matters the most within the negative concord view to expletive negation is that both the negation and its trigger must contribute independently to the expression of a logical negation, although at the end they are to be interpreted redundantly.⁸ This paper has brought to light this important desiderata.

5.2 Future research

Future studies should investigate in more depth why non-veridical contexts like verbs of fearing (French *craindre*, ‘fear’) or exceptive connectives (*à moins*, *unless*) fail to trigger complex expletive negation phrases. Indeed, in French, it appears that, next to the attitude verb *craindre*, the exceptive connective *à moins* fails to trigger complex expletive negation phrases, see (44).⁹

⁸More often than not, however, the desiderata that both the negation and the negative predicate independently - that is to say, compositionally - contribute to the expression of a logical negation, has been eschewed by the proponents of this view. For instance, [Espinal, 1992] puts forward the idea that the semantic content of the negation is logically absorbed, which means that it does not autonomously contribute logical negation, but is rather semantically nullified by some syntactic dependency.

⁹Note that this observation which goes in the opposite direction than [Greco, 2019]’s claim that the production of complex expletive negation phrases is attested with Italian *a meno che*.

- (44) *Je prendrai du vin blanc, à moins que vous **n'** ayez
 I take-1SG.FUT of-he wine white, on less that you NEG have-2PL.SBJV
aucun vin rouge.
aucun red wine
 Intended: 'I will take a glass of white wine, unless you have some red wine.'

I suggest that, like *craindre*, the connective *à moins* has an hybrid semantics since, on the one hand, it has been established that it is somehow a negative context, insofar as it encodes a negative condition (akin to *if ... not*), by works in the line of [von Fintel, 1991], and on the other, it has been argued that it involves a nonveridical component. A detailed treatment of the nonveridicality of *unless* can be found in [Jedrzejowski, 2022]'s work, grounded on syntax, which argues that *unless* is an epistemic adverbial connective and in [Nadathur and Lassiter, 2014], which decisively shows that it encodes a nonveridical presupposition. There could be one possible way to explore the ban on complex expletive negation phrases in hybrid negative contexts, that consists in understanding it as motivated by the Gricean Manner-principle "Avoid Ambiguity". Indeed, if a dependent negation is likely to receive a canonical interpretation with hybrid negative contexts, then one possibly strategy that speakers could adopt to convey an expletive interpretation could consist in choosing a marked form. This hypothesis is consistent with the fact that, in certain strong negative contexts like *sans* ('without'), which allow the production of complex negation phrases, the only possible interpretation of negation is expletive, see (45).

- (45) Marie-Louise se plaint auprès de son père qui se justifie
 Marie-Louise REFL complains to her father who REFL justifies by
 en disant que l' accord a été pris par ses ministres,
 saying that the agreement has been taken by his minister, without
 sans qu' il **n'** en sache **rien**. (WIKI, Marie-Louise d'Autriche)
 that he NEG it know-3SG.SBJV *rien*
 'Marie-Louise complained to her father, who justified himself by saying that the agreement had been made by his ministers, without him knowing anything about it.'

6 Conclusion

This paper discussed the distribution of bare and complex expletive negation phrases in combination with the monotonicity properties of its triggers in historical French. Focusing on speech act verbs and attitude reports, it has showed that a negative context like *défendre* ('forbid') has the ability to trigger complex expletive negation phrases, unlike the verb of apprehension *craindre* ('fear'). It was argued that the non-veridical information state expressed by *craindre* overrides its downward-entailing property, thus ruling out an expletive interpretation of complex negation phrases in its scope. This paper singled out the property of downward-monotonicity as the necessary condition for expletive negation triggers, in line with the Negative Concord approach to expletive negation.

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