Tsiakmakis, Evripidis & Espinal, M.Teresa. 2022. Expletiveness in grammar and beyond. *Glossa: a journal of general linguistics* 7(1). pp. 1–36. DOI: https://doi.org/10.16995/glossa.5807

Expletiveness in grammar and beyond

Evripidis Tsiakmakis, Universitat Autònoma de Barcelona, ES, Evripidis.Tsiakmakis@uab.cat
M.Teresa Espinal, Universitat Autònoma de Barcelona, ES, Teresa.Espinal@uab.cat

This paper sets out to find the defining characteristics of so-called expletive categories and the consequences the existence of such categories has for Universal Grammar. Looking into different instantiations of expletive subjects and impersonal pronouns, definite articles, negative markers and plural markers in various natural languages, we reach the following generalizations: (i) expletive categories are deficient functional elements interpreted as introducing an identity function at the level of semantic representation, (ii) they can be divided into syntactic expletives, that occur to satisfy some syntactic relationship with another item in the clause, and semantic expletives, that stand in a semantic dependency with some c-commanding category, and (iii) expletive categories tend to develop additional meaning components that are computed beyond core grammar, at the level where speech act-related information is encoded. Our discussion reveals that all categories that have been traditionally considered as expletive in the linguistic literature are interpretable in grammar or beyond and, thus, do not violate Chomsky's Full Interpretation Principle. We conclude that there are no expletive elements in natural languages and that expletiveness is not a grammatically relevant concept.

1 Introduction

Abstracting over the various cases where the term “expletive” has been used in the linguistic literature, one can form the following preliminary descriptive definition of expletiveness: it is the property of natural languages to display instances of form that have no meaning. Two further points need to be made. First, interpretation seems to be the reference point for defining expletiveness, since form without meaning is considered expletive but meaning without form (e.g., VP-ellipsis, sluicing, etc.) is not. Second, only functional items that are standardly associated with a referential or a monadic operation (e.g., third person pronouns, the definite article; the negative marker) have been considered as potential expletive items in the literature. Thus, verbal agreement or nominal concord markers, although examples of form devoid of meaning par excellence, are not commonly described as expletive categories.

But let us attempt a more informative overview of the literature on expletiveness. Classical grammatical studies (Jespersen 1917; Vendryès 1950; Jakobson 1978) have claimed that some items that appear overtly in some sentences are *expletive, pleonastic* or *abusive*; either because –as we have just said– they have form but *no meaning*, or because they have a form contributing a *redundant meaning*. In this respect, the term “expletive” has been used traditionally on the one hand to refer to so-called ‘dummy’ subjects such as extraposition *it* or weather *it*, which have been characterized by their lack of semantic content, and on the other hand to refer to a redundant negative marker that appears under the scope of a negative predicate.

Regarding the former type, a distinction has been made within generative grammar between (a) phonological forms that correspond to dummy syntactic items required for purely structural reasons, with no semantic relationship to any other constituent of the sentence, and (b) phonological forms that correspond to semantically void items that are selected by a predicate but do not enter a thematic relationship with this or any other predicate of the sentence. Case (a) is exemplified for English and Finnish in (1) and (2), respectively. Case (b) is demonstrated by the French examples in (3). In the analysis put forward below we show that this distinction has no place in the theory of grammar.

(1) a. *It* seems that the boss is running late.
b. *There* is a fly on the soup.

(2) *Sitä* leikkii lapsia kadulla.
SITA play children in.street
‘Children are playing in the street.’
(Holmberg & Nikanne 2002: 71, ex. (2a))

(3) a. *Il* pleuvait tout le temps.
it was.raining all the time
'It was raining all the time.'

b. *Il* neige.
it is.snowing
'It is snowing.'

This sort of expletives have been commonly associated with expletive subjects in so-called non-prodrop languages with a SVO word order, such as English and French (Newmeyer 2005; Greco et al. 2017; Haider 2019). In other words, they have been considered as dummy items, needed to satisfy a general principle of grammar according to which clauses must contain a noun phrase or a determiner phrase in subject position (Chomsky 1981).

To exemplify the second situation, namely the existence of forms with a redundant meaning, one can think of items that introduce a piece of meaning already encoded elsewhere in the clause. This has been classically illustrated by the negative marker *ne* in Latin and French following a verb expressing fear, as in (4).

(4) a. Timeo *ne* veniat.
I.fear not come.SUBJ
'I fear she may come.'

b. Je crains qu' il *ne* vienne.
I fear COMP he not come.SUBJ
'I fear he may come.'

Redundant expletives have been related in the literature to the existence of semantic dependencies. Specifically, what is included under this term are non-argumental items that do not contribute some independent meaning to the proposition expressed by a clause but are canonically interpreted as encoding a concept already contributed by another item present in the clause.[1] In (4) the negative operator encoded by the negative marker is semantically dependent

[1] Three anonymous reviewers enquire about the difference between what is referred to as redundant expletive items and indefinite expressions that enter a semantic polarity relationship with a negative antecedent (Giannakidou 1997; 1998, and ff.) or that enter a syntactic negative concord relationship with another expression within a local domain (Zeijlstra 2004, and ff.). Crucially, these indefinite expressions, considered either (negative) polarity items or negative concord items (NCIs), are interpreted as semantic arguments (or adjuncts), and therefore their semantic contribution cannot be considered redundant. NCIs are fully negative when they occur as fragment answers, in languages that have this type of items, whereas expletives cannot occur as fragments. NCIs have been claimed to introduce a discourse referent and a zero-cardinality test (Kuhn 2021), whereas none of these properties apply in the case of expletives. NCIs can be claimed to have an at-issue/truth-conditional contribution, whereas we here argue that expletives make no at-issue contribution to a proposition but may constrain one of the speech act layers. See Déprez and Espinal (2020) for an updated review of different types of negative dependencies.

on a predicate incorporating negation, such as the *fear*-predicate (Espinal 1992; Horn 2010; Giannakidou & Mari 2020; Moeschler 2020).[2]

Given the above, how can one meaningfully define expletiveness? The definition that opens this paper leaves us without any formal and precise criteria to determine what counts as an expletive item in natural languages. It is unsatisfying and, thus, dispensable. With this problem in mind, our main goal here is to address the question of what it means for Universal Grammar (UG) to have expletive items, if this turns out to be the case.

Recall that within generative grammar expletive items are expected not to exist in the first place, since according to the Full Interpretation Principle (FIP; Chomsky 1986) of UG each element in a Phonetic Form (PF) or Logical Form (LF) representation must be licensed. In other words, a representation observes the FIP if it consists only of legitimate objects that can be interpreted at the interface levels (Chomsky 1995). While categories such as allegedly expletive *it* or *there* have received elaborate analyses within the minimalist program that seem to justify their presence (Moro 1997; 2017; Kayne 2008; Deal 2009; Wu 2019; among others), *redundant* expletives, such as expletive plural markers, are sometimes harder to account for: if they are not interpreted at LF, a minimalist approach would predict that they are deleted and substituted by a syntactic associate after satisfying some structural need, a thesis that, for this type of expletives, seems untenable.

In accordance with the predictions of the FIP, our answer to the general question above will be that so-called "expletive" items are not grammatically expletive. We argue that this is true based on three generalizations: (i) expletive items correspond to functional heads that introduce an identity function at the level of semantic representation, which is their contribution to the compositionality of the sentence; (ii) some expletive categories participate at narrow syntax by entering an Agree relation –or some more general grammatical relation within a structurally delimited domain; and (iii) the remaining expletive categories appear, at LF, under the scope of another head with respect to which they encode a redundant meaning. In either of the latter two cases, the meaning of an expletive item is a function of the meanings of the constituents it combines with (Principle of Compositionality; Frege 1906; Partee 2004).

We also aim to address two more specific questions: (i) what kinds of items are legitimately considered expletive in the grammar of natural languages? and (ii) where and how is expletiveness resolved? Our answer to the first question will be that expletive items are functional items (heads or features) that modify another category (either lexical or functional) but do not conceptually contribute to the category they modify. Expletive items do not select thematic arguments and do

[2] Predicates denoting fear are considered negative because they encode the experiencer's desire that something not happen. See Horn (2001: 161) for *fear* as the "yin quality" opposed to the "yang quality" of *hope*.

not contribute to the truth-conditions of the proposition, yet they constrain the way the meaning of a proposition is built.

The answer to the second question will be that expletiveness can be resolved at syntax (e.g., by an operation of syntactic Agree, Chomsky 2000), at the syntax-semantics interface (e.g., by an operation of logical absorption, Espinal 1992, or, more generally, by operations conditioned by the Principle of C-command, Reinhart 1976), or beyond core grammar, at the point where speech act information is encoded (speaker's modality and evidentiality; Speas & Tenny 2003; Krifka 2020; Wiltschko 2021).

This paper is structured as follows: Section 2 shows that syntactic expletives seem semantically inert, but they are commonly associated with an identity function of type ⟨T,T⟩. Therefore, we argue that such expletives are not formally devoid of meaning. Section 3 deals with semantic expletives, for which we show that, in addition to introducing a type-neutral identity function, they are semantically dependent but differ from other bound items in that they encode a redundant meaning. Section 4 demonstrates that some of the so-called expletive items trigger pragmatic enrichment, thus arguing that expletiveness can be further related to contribution of meaning beyond grammar, at the level of representation of speech act information (Austin 1962; Searle 1969; Krifka 2020). Section 5 concludes the paper.

2 Syntactic expletives

In this section, we attempt a common characterization of legitimate syntactic expletiveness candidates, by looking into different categories to which the existing literature has attributed the label of syntactic expletive in one form or another.

Expletive items are not associated with lexical categories (Noun, Verb, Adjective; Baker 2003),[3] which contribute to the propositional content of the sentence where they occur and impose thematic restrictions on their arguments. By contrast, expletives are commonly associated with a subset of the functional categories postulated in the grammar of natural languages, both in the nominal domain (Determiner, Number) and in the sentential domain (Voice, Negation). Moreover, expletive items are non-thematic and morphosyntactically deficient (Deal 2009). Nominal expletives tend to lack some of the phi features they are expected to have (e.g., expletive pronouns lack person features; they are caseless or have a default nominative case; they lack morphosyntactic number or have a default singular number). Sentential expletives, as is the case of expletive voice markers, also lack phi features.

Among deficient functional items, we consider pronominal expletives first, which in the syntactic literature have been argued to be mostly syntactic subjects, but also peripheral topic

[3] See also Grimshaw and Samek-Lodovici (1998) and van der Beek and Bouma (2004).

constituents.[4] This group includes third person non-human and impersonal pronouns such as those exemplified in (5).[5]

(5) a. *it* (English), *il* (French)
b. *there* (English)
c. *sitä* (Finnish)
d. *se* (Spanish)

From a syntactic perspective these items have in common that they fill up a specifier position of a functional projection, be it the subject –that is supposed to satisfy the Extended Projection Principle (EPP) feature of Tense– or the topic –that is supposed to satisfy the EPP feature in a functional projection above TP in structures that do not have an overt topic–, and enter an Agree relation with the head of that functional projection.[6]

However, various considerations point to the conclusion that this group of expletives is not homogeneous: (i) the EPP might not be universal; null subject languages do not have overt expletives (Rizzi 1982) and have been argued to satisfy the EPP by Verb raising to

[4] See Holmberg & Nikanne (2002) on Finnish *sitä* and Wood (2015) on Icelandic expletive *Það*.

[5] Majorcan Catalan and Dominican Spanish have been claimed to have third person demonstrative pronouns, distinct from subjects, used as exclamative particles (Todolí 2002) or as discourse markers (Hinzelin & Kaiser 2007). These expletive items are distinct from the ones in English and French in (5a) in that (a) they are not obligatory, and (b) their use is not exclusive of impersonal sentences and sentences whose predicate is a meteorological verb. Consider the examples in (i) and (ii), where *ell/ello* 'it' appears to be used for purely pragmatic purposes.

(i) a. ¡*Ell* ha de ploure un dia o altre! (Todolí 2002: 1371, ex. (32a))
it has to rain one day or other
'It must rain one day or another!'.

b. ¡*Ell* això no acaba mai! (Todolí 2002: 1371, ex. (32d))
it that not ends ever
'This never ends!'

(ii) a. *Ello* está lloviendo. (Hinzelin & Kaiser 2007: 177, ex. (a))
it is raining
'It is raining!'

b. *Ello* hay muchos mangos este año. (Hinzelin & Kaiser 2007: 177, ex. (b))
it have.there many mangos this year
'There are many mangos this year.'

[6] Expletive pronouns have been argued to be generated in different positions in the syntactic literature. See Deal (2009) and Wu (2019) for the view that English *there* is merged in Spec,vP, and Wu (2019) for evidence that "expletive" *it* is merged in the same position. See Svenonius (2002), among many others, on expletive subjects being usually generated in Spec,TP. See also Platzak (1983) and Maling (1988) for the proposal that Icelandic expletives always occupy Spec,CP.

Notice that the standard formulation of the EPP comprises two requirements: (a) the clause must instantiate a predication structure, and (b) the clause must instantiate a grammatical subject. Kíss (2002) argues that in Hungarian the most prominent argument of every predicate is encoded as subject (i.e., as the bearer of nominative case) in the lexicon, with the subsequent that the EPP is lexically satisfied.

AgreementSubject, which means that these languages do not seem to require overt or covert expletive subjects (Alexiadou & Anagnostopoulou 1998); (ii) the expletives used in impersonal statements are obligatorily null only when not clause-initial in languages such as Icelandic, German and Yiddish (Thráinsson 1979); and (iii) expletive subjects appear to be restricted to SVO languages (Haider 2019). These observations lead to the conclusion that the term "expletive subject" has been used as a cover term for a variety of items (see also Biberauer et al. 2009). Under closer scrutiny, we find that these items should not even be considered expletive, as we argue next.

From a semantic perspective there are various reasons to assume that expletive pronouns are not semantically empty, against what has been commonly hypothesized in generative grammar (Chomsky 1981: 323–325). First, weather *it* (6a) has been considered a quasi-argument (Chomsky 1981) that can control PRO in an adjunct, unlike *there* (6b). Therefore, *it* cannot be considered "expletive".

(6) a. *It* often clears up here right after PRO snowing heavily.
b. **There* is often a party here right after PRO being a wake.
(Svenonius 2002: 4, ex. (5))

Second, extraposition *it*, exemplified in (7), has been argued to be referential and coindexed with a CP, resembling a resumptive pronoun (Hoekstra 1983; Kiss 2002). This implies that it cannot be considered "expletive" either.

(7) *It* is obvious [that an error occurred in the distribution of the vaccine].

As argued by Svenonius (2002), this seems to leave the impersonal pronoun as the only clear case of expletive subject. Nevertheless, various arguments can be provided against this claim, too. On the one hand, English *there* is linked to an associate weak indefinite (see (1b), repeated as (8a)).[7] On the other, *there* can be said to provide an anchoring for the event argument of stage-level predicates (8b) (Kratzer 1995: 125).

(8) a. *There* is [a fly] on the soup.[8]
b. *There* are firemen available / *altruistic.

These relationships of so-called expletive subjects with full clauses or DP/event arguments leave us with two options. We can assume that "expletive" subjects are actually referential, which sounds rather radical for the cases of extraposition and *there*-clauses, or suggest that they are interpreted in such a way that keeps the semantic derivation going and facilitates composition.

[7] According to Deal (2009) *there* has a [+D] feature that checks the EPP feature of T and some uninterpretable features [uF] that are checked against its nominal associate by local agreement.

[8] Note, parallel to expletive *there,* the existence of expletive *they* in Appalachian English, Ozark English, African American English (https://ygdp.yale.edu/phenomena/expletive-they [accessed on November 30, 2021]).

We go for the latter and claim that syntactic expletives have a uniform semantic contribution to the meaning of the sentence they appear in: they instantiate a category D that denotes an *identity function* that maps functions of type ⟨t⟩ onto functions of type ⟨t⟩ (type ⟨t,t⟩). Specifically, the expletive pronouns considered in this section are associated with a type-neutral identity function over propositions which passes the denotation of its sister to its mother, as represented in (9). In other words, expletive pronouns take a proposition as their argument and give as output the very same proposition. In this sense, these items are claimed not to be devoid of meaning.[9]

(9) a. $[\![it_{\text{EXPL}}]\!] = \lambda p_{\langle t\rangle}.p_{\langle t\rangle}$

b. $[\![there_{\text{EXPL}}]\!] = \lambda p_{\langle t\rangle}.p_{\langle t\rangle}$

Moving on to expletive voice markers, the picture is similar. The *se* morpheme in the French and Spanish *se*-anticausative examples in (10a, b) is considered an expletive DP, merged as specifier of a Voice Phrase (Schäfer 2008; 2017; Alexiadou et al. 2015; and others), which introduces an identity function over predicates of events as shown in (10c) (Wood 2014; 2015), where ⟨s,t⟩ stands for the situation (or event) in which the proposition is true.

(10) a. Le verre *s'*est cassé. [French]
the glass SE.is broken
'The glass broke.'
(Schäfer 2017: 3, ex. (6b))

b. *Se* incendió un edificio. [Spanish]
SE burned a building
'There is a building burnt.'

c. $[\![se_{\text{EXPL}}]\!] = \lambda P_{\langle s,t\rangle}.P_{\langle s,t\rangle}$

No matter whether we consider expletive *it* with meteorological verbs, impersonal or extraposed *it*, *there* in existentials, or *se* in anticausatives, the common semantic denominator that these items have is that they take propositions (or events) as their arguments and give back as the output of the function they introduce what they had as input; this is exactly the role of the identity function we postulate for them. This meaning ascription to syntactic expletives is motivated on

[9] A reviewer expresses the fear that attributing an *identity function* interpretation to expletive categories is merely a notational variant of saying that they are semantically vacuous, according to which expletives would be simply ignored during LF computation. While it is not easy to provide empirical arguments in favor of either alternative, we take the syntactic distribution of so-called expletive categories and their necessary contribution to the compositionality of the meaning of the sentence to corroborate our thesis. Crucially, expletives appear in similar syntactic environments as their non-expletive counterparts, and therefore they are expected not to violate the compositionality principle. If expletive elements were completely inert at any level of interpretation, there would be no way to describe how they operate at the time of building the meaning of sentences at the syntax-semantics interface.

the grounds that, in *it/there/se*-clauses, there is no local argument slot to be saturated by means of the external pronoun. Therefore, syntactic expletives change neither the valency of predicates nor the semantic type of their complement; they simply allow this type to percolate one node up in the derivation.[10]

Notice that traditional modifiers, like adverbs and adjectives in their attributive uses, may also be associated with a similar identity function, as they are type-preserving elements too. Crucially, these differ from the expletives in (9) and (10) in that they are lexical categories that bear non-redundant conceptual content, in contrast with the functional expletives.

It would be interesting at this point to take a small detour towards two functional categories that we have not discussed yet, and with good reason: the verb *to be* and the indefinite article *a* in English have also been claimed to denote an identity function over predicates (type ⟨⟨e,t⟩⟨e,t⟩⟩; Winter 2016), because the meaning of (12a), for example, corresponds to the meaning built by predicating *botanist* of *John* and nothing else, as represented in (12b). Consider (11) and (12).

(11) $[\![a_{\text{INDEF}}]\!] = [\![be_{\text{COP}}]\!] = \lambda P_{\langle e,t\rangle}.P_{\langle e,t\rangle}$

(12) a. John is a botanist.
b. (IS(A(botanist)))(John) = botanist (John)

Intriguingly, *be* and *a* partly fit our characterization of expletive items, despite not being considered as such in the literature. At first sight, this observation can be taken to mean that our descriptive generalization over syntactic expletiveness overgenerates and, therefore, is inaccurate. However, neither the copula nor the indefinite satisfy the primary requirement for syntactic expletiveness status: a syntactic trigger checked by means of an Agree relation with some other functional head. Moreover, the copula also carries information about Tense and the indefinite entails an existential reading with no presupposition of uniqueness. We believe that it

[10] We thank an anonymous reviewer for bringing to our attention a radically different analysis of English *there* and its Italian equivalent *ci* in existential constructions, as well as English *it* in so-called raising constructions. Moro (1997; 2017) considers these items not as inserted expletive subject pronouns but as raising predicates. While his analysis has serious implications for the syntax of these items, the status of the verb *to be* and the status of the quasi copula *to seem*, it does not affect their meaning contribution relevant to our discussion.

Specifically, under the analysis of Moro, English *there* and *it*, as well as Italian *ci*, being propredicates, would compose directly with a full DP or a *that*-clause in subject position of a small clause. Accordingly, these propredicates could be hypothesized to introduce an identity function which would have as input and output either an entity or a proposition type expression, depending on the respective subject. What is important for our purposes is that so-called expletive *there, it* and *ci* would be type-preserving under such an analysis, too. Note the following from Moro (2017: 182–183): "The element *there* doesn't seem to contribute to the sentence's meaning in any crucial way, so much so that we can ignore it in the paraphrase; this is why we've defined it as a "predicate expletive"…an [*there*] existential sentence is, so to speak, a mechanism that "splits" the NP to build a predicative structure."

is for these reasons that these two categories have not been labelled expletive in the literature and, thus, our proposal as so far formulated still stands.

Getting back on the syntactic expletiveness track, the *identity function* analysis can finally be extended to expletive definite articles preceding proper names in languages like Catalan, German, Greek and Italian (Brugger 1993; Longobardi 1994). According to Longobardi (1994), the realization of the D head in a language such as Italian is a syntactic need that must be satisfied for a nominal argument to be licensed (i.e., "A 'nominal expression' is an argument only if it is introduced by a category D", p. 620). Under the assumption that proper names are rigid designators (Kripke 1980) and rigid designators denote entity-type expressions (type ⟨e⟩), the definite article combines with proper names in order to grant them the syntactic status of full-fledged DPs and denotes an identity function of type ⟨e,e⟩, taking as arguments entities and giving as output exactly the same entities.[11] Consider the lexical entry in (13) and the meaning of the Catalan DP *el Joan* in (14).

(13) $[\![el_{\text{EXPL}}]\!] = \lambda x_{\langle e \rangle}.x_{\langle e \rangle}$

(14) a. *el* Joan
b. (EL(Joan)) = Joan

We have shown that the category D may host expletive pronouns (third person pronouns and *there*) and expletive articles (the definite article preceding proper names), and the category Voice may host expletive clitics (the clitic *se* in anticausatives). We have argued that a functional category can be syntactically expletive if and only if it is required for syntactic purposes (to satisfy an Agree relationship for example) and corresponds semantically to an identity function of type ⟨T,T⟩. Thus, we conclude that so-called syntactic expletives do contribute to the meaning of the sentence they occur in and, therefore, are not devoid of meaning.

In the following section we consider another group of expletives referred to as semantic expletives because they are semantically dependent. We show that semantic expletiveness is a property of functional heads or features that, beyond introducing an identity function, are semantically dependent on another lexical or functional category with respect to which they encode a redundant meaning. This group includes the category Negation, which may host a redundant negative marker under the scope of a predicate incorporating negation, the category

[11] Under the alternative view that proper names are predicates (Boër 1975; Matushansky 2006; 2008; Fara 2010; Bach 2015), the definite article is translated as the iota operator that takes nominal predicates as input and gives entities as output; type ⟨⟨e,t⟩⟨e⟩⟩.

Determiner, which may host redundant definite articles in polydefinite and long weak definite constructions, and the feature Plural, when modifying mass nouns.[12]

3 Semantic expletives

Expletive negation is the label used to refer to a phenomenon largely observed in natural languages whereby a negative marker, which is supposed to lexically contribute negation, does not reverse the truth value of the proposition denoted by the sentence in which it occurs (Jespersen 1917; Vendryès 1950; Muller 1991; Espinal 1992; Horn 2010; Greco 2019a; 2019b; Moeschler 2020; a.o.). This lack of polarity reversal is directly caused by the presence within the c-commanding domain of a lexical item (of category V, P, Q) that encodes negative content as part of its lexical meaning. Consider the example in (15) from Catalan.[13]

(15) Tinc por que *no* arribin. [Catalan]
I.have fear that not come.SUBJ
'I'm afraid that they might/will come.'[14]
(Fabra 1956: 103–104)

This example illustrates that, under the scope of predicates that encode the possibility of entertaining ¬*p*, as is the case of *Tinc por*, the negative marker that occurs in the subordinate clause (15) is not interpreted as conveying a negative operator on its own. Rather it is interpreted as being dependent on the predicate that incorporates negation in the main clause.

---

[12] Other functional categories are not candidates for expletiveness because they encode semantic selectional restrictions on their arguments: Force encodes information concerning the speaker or the hearer. Focus and Topic encode constraints on the information structure of the sentence. Degree encodes a measure function in declarative sentences. Tense and Aspect constrain the event. *n, a* and *v* restrict the categorization of the root in complement position, etc.

In accordance with the above, some functional categories for which an identity function analysis would be fitting are not discussed in this paper. Chomsky (1995), for example, states that auxiliaries in certain constructions are merely syntactic placeholders. Notice though that, in such constructions, auxiliaries spell out the categories of Tense or Complementizer and, thus, contribute information richer than plain identity. Something similar holds for conjunctions like English *and*, *or*, which spell out a Conjunction or Coordination head; while the function they introduce is ultimately type-preserving, they instantiate complex elements of type ⟨t, ⟨t,t⟩⟩. We thank two anonymous reviewers for bringing up these issues.

[13] For a description of expletive negation in Catalan, see Espinal (1992; 1997; 2000; 2002; 2007).

[14] According to Fabra (1956), when subjunctive mood is replaced by indicative, the sentence is unambiguously negative (i), a meaning that is not excluded from (15) in the text.

(i) Tinc por que no arribaran. [Catalan]
I.have fear that not come.FUT
'I'm afraid that they will not come.'

See Tubau et al. (2018) for an experimental investigation showing that Catalan native speakers prefer a single negation reading over a non-negative one for sentences with *no* in the context of expletive negation verbal triggers (e.g., fear verbs), since such sentences were interpreted as non-negative only 25% of the times.

In this section we put forward two ideas. First, the sentential negative marker under the scope of fear predicates is a functional head to be translated semantically as an identity function of type ⟨t,t⟩, since it takes a proposition as input and returns a modified proposition as output. In this sense the negative marker satisfies one of the requisites for expletiveness introduced in the preceding section. Consider (16).

(16) $[\![no]\!] = \lambda p_{\langle t \rangle}.p_{\langle t \rangle}$

Second, the semantic contribution of this negative marker is redundant, given the contribution of another lexical item occurring in the main clause, that (i) encodes negation as part of its lexical meaning and (ii) c-commands the overt negative marker. If the triggering negative predicate encoded a negative feature [iNeg], as previously claimed in the literature (Espinal 2000; Moeschler 2020), one would have to postulate that the negative marker is specified with a [uNeg] feature and that the two constituents enter a relationship of Agree, in parallel with the data discussed in the previous section. This would classify expletive negation as a syntactic expletiveness candidate.

However, we consider it unlikely that the negative marker *no* be specified with an uninterpretable syntactic negative feature in a negative concord language like Catalan. In this language, the negative marker is the licensor of several negative concord items that may occur either preverbally or postverbally while contributing to a single negation meaning. It seems more likely that the Catalan negative marker in examples like (15) might be interpreted as polar (Espinal & Tubau 2016; Tubau et al. 2018), in the sense of being semantically sensitive (Giannakidou 1997; 1998) to a semantic property already encoded by a c-commanding predicate or operator in the context of occurrence that allows the speaker to consider the truth of both *p* and ¬*p*. This semantic redundancy brought about by the interaction between the negative predicate incorporating negation and the overt negative marker provides some first evidence that semantic expletives are semantically dependent expressions.

A second case in point is the definite article that occurs in polydefinite DPs, the construction exemplified by means of the Greek data in (17), from Tsiakmakis et al. (2021a: 153–154, exs. (2b) and (1b)).

(17) to trapezi *to* ksilino/ *to* ksilino to trapezi [Greek]
the table the wooden the wooden the table
'the wooden table'

Considering that the definite article introduces a presupposition of existence and uniqueness (Heim 2011) and that, translated into iota, it denotes functions whose output are entities of type ⟨e⟩ (Partee 1987), what is relevant for our discussion is that in (17) reference is made not to two different entities, one that has the property of being a table and another that has the property

of being wooden, but to one single entity of which both properties are predicated (Kolliakou 2004). This being the case, the questions to be addressed are the following: Which of the two articles occurring in (17) corresponds to the iota operator, mapping a property onto the unique individual having that property? And what is the semantic function of the remaining article?

Assuming that the basic word order of polydefinites in Greek is Determiner-Noun-Determiner-Adjective (Campos & Stavrou 2004), it is expected that the prenominal definite article is the one to be translated as iota (a function of type ⟨⟨e,t⟩e⟩), while the second one, the preadjectival article, is dependent on the definiteness encoded by the prenominal one. Given that the Greek clitic pronoun *to* is morphologically identical to the definite article *to,* we follow Tsiakmakis et al. (2021a) in considering that the preadjectival *to* is a resumptive pronoun bound by the c-commanding definite article in prenominal position.[15] Under this approach, the denotation of the preadjectival pronoun *to* in (17) is again an identity function that takes an unsaturated proposition as input (the meaning of the relative clause) and gives an unsaturated proposition as output, as represented in (18)

(18) $[\![to_{EXPL}]\!] = \lambda p_{\langle t \rangle}.p_{\langle t \rangle}$

Notice that, in this view, the extra article of Greek polydefinites is a definite anaphor that (i) is interpreted as introducing an identity function and (ii) is bound by a c-commanding antecedent, the determiner that emerges in prenominal position, which already encodes the definiteness to be contributed by the anaphor. The conjunction of these two properties (the identity function semantics and the dependency on an item that renders some interpretable feature of the dependent redundant) was earlier shown to hold also for expletive negation and, we claim, is characteristic of all the categories considered as semantically expletive. It is important to highlight that it is the second conjunct, i.e., the semantic dependency, that distinguishes semantic expletives from syntactic expletives, where the identity function goes hand in hand with a specific syntactic trigger (e.g., EPP).

Similar to the case of the polydefinite determiner is that of the plural marking that, in Greek, can appear quite freely on mass nouns (Tsoulas 2009; Alexiadou 2011; Chierchia 2015). Assuming a Linkian semantics for plurality (Link 1983) and a plural lexical specification for mass terms (Link 1983; Chierchia 1998), mass nouns are not expected to be morphosyntactically pluralized. Plural morphology on mass-denoting nouns is expletive, redundant, because it modifies an

[15] The reader interested in the syntax of Greek polydefinites assumed here is referred to Tsiakmakis et al. (2021a), who build on work on resumption in relatives by Alexopoulou (2006). For alternative syntactic analyses of polydefiniteness, see Kolliakou (1995; 2004), Alexiadou and Wilder (1998), Campos and Stavrou (2004) and Alexiadou (2014).

See Lekakou and Szendrői (2012) for an analysis of polydefinites according to which both articles (in a Determiner-Noun-Determiner-Adjective structure) are considered instantiations of a phonologically overt but semantically inert category D (i.e., expletive), embedded under a higher functional projection, namely Definiteness, which is phonologically inert but semantically meaningful (i.e., it introduces an iota function).

expression that is already specified as having cumulative reference (Krifka 1989). In other words, plural marking adds cumulativity to an expression that is already encoded as cumulative. Recall the redundant definiteness in polydefinites and the redundant negation in the complement of fear predicates. While the exact syntactic representation of plural mass nouns falls outside the scope of this paper, we mention that, in such cases, plural number is postulated to merge quite low, standing in a proximal syntactic relation with the [mass] specified root (Alexiadou 2011; Kouneli 2019); in such a low position, the root and the plural marker c-command each other.[16]

As regards the semantic derivation, we postulate that plural marking on mass nouns takes the properties denoted by these nouns as input and gives back modified properties as output. Hence, this also turns out to denote an identity function. Consider (19) and (20).

(19) $[\![\mathrm{PL}_{\mathrm{EXPL}}]\!] = \lambda \mathrm{P}_{\mathrm{mass}\langle e,t\rangle}.\mathrm{P}_{\mathrm{mass}\langle e,t\rangle}$

(20) a. lasp*es*
mud.PL

b. (PL(mud))

The above suggest that Greek expletive plural satisfies the criteria for semantic expletiveness that we have set so far, too. Still, this is not in contradiction with the claim that a redundant plural number on mass nouns may bear some kind of interpretational import.[17]

The remaining phenomenon we would like to discuss in this section as exemplifying semantic expletiveness relates to the definite article present in inalienable constructions in Romance (Vergnaud & Zubizarreta 1992) and in long weak definite constructions in English (Poesio 1994; Barker 2005) and Romance (Espinal & Cyrino 2017). Consider the examples in (21) and (22).

(21) Les enfants ont levé *la* main. [French]
the children have raised the hand
'The children raised their hand.'
(Vergnaud & Zubizarreta 1992: 596, ex. (1a))

(22) The baby's fully-developed hand wrapped itself around *the* finger of the surgeon.
(Barker 2005: 96, ex. (15))

---

[16] See Cyrino and Espinal (2020) for a PLURALIZER modifying feature adjoined to N (or the categorial *n*) in English and in marked cases in Romance.

[17] See Tsiakmakis et al. (2021b) for an experimental study on the interpretation of pluralized mass nouns by native Greek speakers. This study provides linguistic evidence for an analysis of Greek plural mass nouns as expressive variants of their singular counterparts, by means of which the speaker commits to holding a negative emotive stance (i.e., DISLIKE) towards the situation communicated by the utterance containing the plural mass noun.

What the definite articles in *la main* and *the finger* share is that the DPs they are part of refer to entities whose existence is dependent on the denotation of another c-commanding DP (Kayne 1993; 2000). Accordingly, in the literature these DPs have been associated with type interpretation (characteristic of non-denoting determiners, Vergnaud & Zubizarreta 1992), weak uniqueness (characteristic of those definite articles in which uniqueness is claimed to depend on existence, Beyssade 2013), and lack of uniqueness (characteristic of bound expressions, Espinal & Cyrino 2017).

All these different approaches to the meaning of the above-mentioned definite descriptions in *la main* and *the finger* are consistent with the analysis of semantic expletives put forward so far: First, the definite article in these descriptions is not translated as an independent iota function but is c-commanded by and dependent on another determiner which in (21) and (22) does instantiate an iota operator (the definite article in *les enfants* and *the surgeon*).[18] Second, the dependent article is interpreted as an identity function that, on this occasion, turns the property-type denotation of the complement noun into the same property-type denotation, as represented in (23) for *la* in the use it has in *la main* in (21).

(23) $[\![la_{\text{EXPL}}]\!] = \lambda P_{\langle e,t\rangle}.P_{\langle e,t\rangle}$

Interestingly, this semantic type makes the definite article of inalienable and long weak definite constructions convey an indefinite-like reading, and as such show similarities with some indefinite polarity items and the expletive negative marker. The entry in (23) corresponds to a polar variant (Espinal & Cyrino 2017) to be distinguished from the strong referentially unique variant of the definite article that is translated as an iota function (Partee 1987). This polar variant is bound to a possessor constituent on which the definite article depends, due to the fact that the possessor (e.g., *les enfants, the surgeon*) c-commands the possessee in both (21) and (22).[19]

To sum up, we have shown that so-called semantically expletive items are not semantically inert, because –beyond denoting an identity function– they contribute a meaning already expressed in the sentence by a c-commanding category.[20] We highlight the tendency that semantic

[18] See Haddock (1987), Bumford (2017) and Kuhn (2021) for an analysis of split scope definites and other redundant forms under a dynamic semantics approach. The similarity between long weak definites and examples such as *the rabbit in the hat* is that the lower definite article does not contribute a presupposition of unicity and therefore can be replaced by an indefinite article.

[19] See Espinal and Cyrino (2017) for technical details of this c-commanding relationship based on Kayne (1993; 2000).

[20] The semantic dependency under specific structural conditions that we postulate for semantic expletives may, at first sight, bring the latter undesirably close to pronominal anaphors. We remind the reader that the complementary requisite for semantic expletiveness is an identity function denotation. Crucially, standard anaphors behave as real arguments and correspond to entity-type expressions.

expletives be regulated by the Principle of C-command, and syntactic expletives be regulated by Agree (Section 2).[21]

4 Expletiveness and pragmatic enrichment

In the previous sections, we showed that all semantically non-argumental elements that have been traditionally considered as "expletive" introduce an *identity function* for either ⟨t⟩, ⟨s,t⟩, ⟨e,t⟩, or ⟨e⟩ types at the level of meaning representation, and can be further classified into two categories: (i) syntactic expletives and (ii) semantic expletives. While the former enter a syntactic relationship (usually Agree) with another item within their merge phase, the latter always stand in a relationship of *semantic dependency* with some c-commanding category. With these generalizations in place, we argue that there are no really expletive items in natural languages –i.e., items that violate Chomsky's (1986) Full Interpretation principle.

Our goal in this section is to further refute the expletiveness hypothesis by bringing attention to another empirical generalization related to allegedly expletive items, namely their tendency to develop a *pragmatic enrichment* effect. Many of the items discussed in Sections 2 and 3 tend to make some meaning contribution, not only at the level of semantics, but also beyond core grammar: at the level where speech act information is encoded (Austin 1962; Searle 1969). We demonstrate this tendency by using instances of so-called expletive negation as our case study.

Let us start with Catalan expletive negation. In Section 3 we stressed that *no*, in cases like (24) below, is best analyzed as a polar item –in the sense of semantically dependent– (Tubau et al. 2018), licensed by the fear-predicate *tenir por* 'to have fear', which introduces a non-veridical context (Giannakidou 1998).

(24) Tinc por que *no* es mengin el pastís. [Catalan]
I.have fear that not CL eat.SUBJ the cake
'I'm afraid that they might/will eat the cake.'

Now, we would like to shift the reader's attention to the mood of the embedded sentence. While a subjunctive subordinate clause (24) allows the negative marker to be interpreted as dependent on the fear predicate, giving rise to an "expletive" negation reading, an indicative complement rules this option out (Fabra 1956; see also fn. 14 above). Example (25) can be interpreted only as conveying the speaker's fear that his/her guests will not eat the cake.

[21] We would like to point out a parallel between this division of labor introduced by the general Principle C-command (see Reinhart 1976 for an initial definition) and the more specific notion of syntactic Agree (Chomsky 2000) at the time of accounting for expletiveness and independent phenomena such as Case and Polarity Licensing: One can think of the difference between dependent Case (Baker & Vinokurova 2010), based on C-command, and Case by Agree (Chomsky 2000; 2001). Alternatively, consider Polarity Sensitivity (Giannakidou 1997; 1998), also based on C-command, and the syntactic relationship of Negative Concord, structured in terms of Agree (Zeijlstra 2004, and ff.).

(25) Tinc por que no es menjaran el pastís
I.have fear that not CL eat.FUT the cake
'I'm afraid that they will not eat the cake.'

This observation suggests that there is a tight relationship between so-called expletive instances of the Catalan negative marker and subjunctive mood.[22] Most importantly, it further suggests that expletive *no* is indirectly but steadily associated with the interpretative contribution of subjunctive mood.

Providing a detailed semantics for subjunctive is beyond the purposes of our study. The reader is referred to Portner (2018) for a thorough discussion on the topic. Here, we limit ourselves to adopting the main insight in Giannakidou and Mari (2020) that subjunctive mood is a polar element introducing a partition of the speaker's doxastic or emotive space into the set of possible worlds where the expressed proposition *p* is true and the set of possible worlds where the polar propositional alternative ¬*p* is true.[23] Put in other words, in the case of our example (24), the speaker cannot know for sure whether the individuals referred to by the null subject pronoun of the subordinate clause will eat the cake or not. It needs to be mentioned in passing, for what is to come next, that Giannakidou and Mari attribute this doxastic/emotive space partition not only to subjunctive but, in general, to the elements that are polar, i.e., semantically dependent on a non-veridical operator.

We argue that the partition epistemic effect associated with subjunctive can be also attributed to Catalan expletive *no* by transitivity: If the expletiveness of *no* goes necessarily hand in hand with subjunctive and subjunctive goes together with a speaker unable to evaluate the truth of the proposition expressed (Giannakidou & Mari 2020), then expletive *no* also goes together with this speaker that has no access to the truth of the expressed proposition. While such a conclusion seems accurate at best merely on a descriptive level, we show that there is good reason to causally relate Catalan expletive negation to the epistemic effect otherwise contributed by the subjunctive mood.

Before moving to the structural representation of the example in (24), a few words should be said about the framework to be used. We formalize our analysis by implementing the

[22] It may well be that this relationship has something to do with the transparency argued to hold of subjunctive complements (Picallo 1985; Roussou 2010; a.o.). Recall that *no* is interpreted as dependent on the matrix predicate lexically encoding negation. See Espinal (1992) for arguments showing that this dependency holds under specific structural conditions: complementizer raising of C next to the lexical category X that triggers expletive negation followed by negation absorption of the negative marker at LF.

[23] See Quer (1998) and Giannakidou (1998) for preliminary versions of what can be considered as essentially the same insight.

Speech Act framework developed in Cohen and Krifka (2014) and Krifka (2015; 2017; 2020).[24] Specifically, we adopt an articulation of the left periphery at the syntax-pragmatics interface elaborate enough to include "a judgement phrase [JP], representing subjective epistemic and evidential attitudes; a commitment phrase [ComP], representing the social commitment related to assertion; and an act phrase [ActP], representing the relation to the common ground of the conversation" (Krifka 2020: 1). Following Krifka, ASSERT stands for assertions, the turnstile ⊢ is used to notate the public commitment to the truth of a proposition *p*, and J– is used to notate a private judgment of the speaker towards *p*. This hypothesis is represented formally by means of the following configuration.

(26) $[_{ActP}\ [_{Act'}\ [_{Act^o}$ ASSERT] $[_{ComP}\ [_{Com'}\ [_{Com^o}\ \vdash\ ]\ [_{JP}\ [_{J'}\ [_{J^o}$ J–] $[_{TP}$ p]]]]]]]

In words, (26) represents an assertion through which the speaker publicly commits to the private judgement that the expressed proposition *p* is true (Krifka 2020).

With the details in place, we can now return to example (24). For simplicity, we represent the matrix sentence as *tinc por* and focus on the detailed structure of the embedded clause, which we take to be a complete ActP.[25] See (27).

(27) tinc por $[_{ActP}\ [_{Act}$ ASSERT] $[_{ComP}\ [_{Com}\ \vdash]\ [_{JP}\ [_{J}$ J–] $[_{CP}\ [_{C}$ que] $[_{NegP}\ [_{Neg}$ no] $[_{TP}$ es mengin el pastís]]]]]]

In words, (27) says that, in (24), the matrix fear predicate embeds a complete assertion through which the speaker commits publicly to the truth of the negative proposition corresponding to *no es mengin el pastís*. Crucially, this is not the intended interpretation.

As already mentioned, *no* needs to be dependent on *tinc por* to get its expletive reading. Therefore, *no* is postulated to move to C, forming a complex head with the complementizer *que*:[26]

---

[24] The framework implemented here is a dynamic semantics model in which on the one hand the meaning of an utterance is partly represented in the syntactic representation, and on the other hand the semantic interpretation makes use of a dynamic update of the common ground. See Krifka (2019; 2020) for the theoretical foundations of the framework. What is special about it, and crucial for our purposes, is that the public commitment component of the utterance interpretation as well as the private judgment of the speaker are represented in syntax.

[25] In this framework the main clause should also be associated with an Act Phrase, a Commitment Phrase and a Judgement Phrase, and the verb, being an epistemic predicate, should move from TP to JP, as shown below.

(i) $[_{ActP}\ [_{Act}$ ASSERT] $[_{ComP}\ [_{Com}\ \vdash]\ [_{JP}\ [_{J}$ tinc por] $[_{TP}$ ~~tinc por~~ …]]]]

We avoid this complex representation because our focus is on the meaning contribution of "expletive" *no* to the speech act layers of the embedded clause.

[26] We claim that this and the following movements in Catalan happen at LF, given that in syntax subjects can appear between *que* and *no*, with the "expletive" negation reading still available.

(i) Tinc por que els nens *no* es mengin el pastís.
I.have fear that the kids not CL eat.SUBJ the cake
'I'm afraid that the kids might/will eat the cake.'

(27^{I}) tinc por [$_{ActP}$ [$_{Act}$ ASSERT] [$_{ComP}$ [$_{Com}$ ⊢] [$_{JP}$ [$_{J}$ J–] [$_{CP}$ [$_{C}$ que no] [$_{NegP}$ [$_{Neg}$ ~~no~~] [$_{TP}$ es mengin el pastís]]]]]]

In (27^{I}) the visibility of *no* to *tinc por* is guaranteed –ActP, ComP and JP, being phonologically null, do not intervene– and the expletive negation reading can be obtained: The speaker commits publicly to the truth of the proposition corresponding to *es mengin el pastís*. However, there is one remaining problem.

Notice that both in (27) and (27^{I}) the speaker commits to the truth of the complement proposition. This part of the interpretation, formally represented as a null realization of the Judgement head, is inconsistent with the meaning ascribed to subjunctive mood, as broadly described above. In order to derive the correct reading, where basically the speaker has no straightforward access to the truth of the proposition, a modalizing element needs to occur in JP, which in this framework relates to epistemic attitudes (Krifka 2020). For a language like Catalan the two elements that are polar and, thus, make good candidates are the complementizer + negative marker complex head and the subjunctive marking on the verb of the embedded clause (see Giannakidou & Mari 2020). Given structural and economy considerations, the best solution available is movement of the complex head *que no* to J^{0}, as displayed in (27^{II}).

(27^{II}) tinc por [$_{ActP}$ [$_{Act}$ ASSERT] [$_{ComP}$ [$_{Com}$ ⊢] [$_{JP}$ [$_{J}$ que no] [$_{CP}$ [$_{C}$ ~~que no~~] [$_{NegP}$ [$_{Neg}$ ~~no~~] [$_{TP}$ es mengin el pastís]]]]]]

Finally, (27^{II}) derives the intended interpretation: The fear predicate *tinc por* embeds an assertion through which the speaker commits publicly to having no access to the truth of the proposition corresponding to *es mengin el pastís*. In other words, the speaker abstains from committing to the truth of the proposition.

This discussion allows us to conclude that Catalan expletive negation, apart from being semantically dependent on another item that lexically encodes negation and introducing an identity function at the level where truth-conditional meaning is formally represented, can be ultimately associated further with an epistemic effect that is computed at some higher level of interpretation, here represented as one of the speech act layers, namely the Judgment Phrase.[27] While the formal details of the proposal put forth here seem a bit of a stretch, one is more easily convinced once they look at languages that provide more straightforward evidence for the link between expletive negation and the speech act domain of the utterance. This is what we do next by considering the Greek negative marker *min* and Italian Surprise Negative Sentences.

[27] Such an analysis further suggests a tentative answer to why Catalan *no* is not interpreted as "expletive" in the case of indicative complements: the "intransparency" of indicative, as opposed to the transparency of subjunctive (Picallo 1985), does not allow *no* to form any relationship with the embedding *tinc por* and move to the head C^{0}.

Let us take a close look at Greek "expletive" negation. At first sight, example (28) seems equivalent to (24) from Catalan. The negative marker *min* 'not' (Holton et al. 1997) is licensed in the non-veridical context created by the fear verb *fovame* 'to fear' and a non-negative reading is obtained (i.e., the negative marker does not reverse the polarity of the proposition denoted by the embedded sentence).

(28) Fovame *min* fane to keik.[28] [Greek]
I.fear not eat the cake
'I fear they might/will eat the cake.'

Similar to Catalan *no*, Greek *min* has been argued to be a polar element scoping over propositions (Roussou 2015; Chatzopoulou 2018). When compared to its Romance counterpart, *min* displays two important differences and one intriguing similarity.

The first asymmetry between *min* and *no* is that the former, in contrast with the latter, can never be interpreted negatively in environments such as the one exemplified by (28) and, consequently, can cooccur with the second Greek negative marker *dhen* 'not' (Holton et al. 1997) without inducing a double negation reading.[29]

(29) Fovame *min* dhen fane to keik.
I.fear not not eat the cake
'I fear they might/will not eat the cake.'

The second point of divergence is that the so-called expletive Greek negative marker *min* does not go with subjunctive mood, as happens in the case of *no*, but with indicative (Makri 2013; Roussou 2015; Chatzopoulou 2018). Subjunctive in Greek is realized not on the verb, but as an independent morpheme. Makri (2013) notices that the standard Greek subjunctive marker *na* imposes restrictions on the sequence of grammatical tenses in the matrix and the subordinate clause, whereas *min* grants the embedded sentence relative freedom in this respect. This suggests that, unlike *na*, *min* is not a subjunctive marker. See the asymmetry between (30a) and (30b).

(30) a. *Fovame na efaghan to keik.
I.fear.PRES SUBJ eat.PAST the cake

b. Fovame *min* efaghan to keik.
I.fear.PRES not eat.PAST the cake
'I fear they might have eaten the cake.'

Moreover, so-called expletive *min* shows incompatibility with *na*. While the sequence *min na* in (31a) leads to ungrammaticality, *na min* in (31b) is interpreted, although by a restricted number

[28] For similar examples, see Makri (2013) and Chatzopoulou (2018).

[29] The reader is referred to Chatzopoulou (2018) for a thorough study of negation in the diachrony of Greek.

of speakers, as a complex item, distributionally equivalent to “expletive” *min* and functionally distinct from *na*.

(31) a. *Fovame *min* na efaghan to keik.
I.fear.PRES not SUBJ eat.PAST the cake

b. Fovame na *min* efaghan to keik.
I.fear.PRES SUBJ not eat.PAST the cake
‘I fear they might have eaten the cake.’

While Greek *min* clashes with Catalan *no* in the way it interacts with standard negation and mood selection, the two allegedly expletive negation markers have a similar interpretive effect. Specifically, Makri (2013) argues that “expletive” *min* is used in those cases where the speaker entertains the possibility of both the expressed proposition *p* and its polar alternative ¬*p*, and thus cannot commit to the truth of either. Notice that this is exactly the epistemic effect that was attributed to Catalan *no* in the first part of this section.

One question readily follows: Does “expletive” *min* receive the same formal analysis as “expletive” *no*? Put concretely, can we schematically represent the structure of example (28) as in (32)?

(32) fovame [$_{ActP}$ [$_{Act}$ ASSERT] [$_{ComP}$ [$_{Com}$ ⊢] [$_{JP}$ [$_{J}$ min] [$_{CP}$ [$_{C}$ ~~min~~] [$_{NegP}$ [$_{Neg}$ ~~min~~] [$_{TP}$ fane to keik]]]]]]

The answer is negative. Recall that “expletive” *min* can co-occur with the negative marker *dhen* (29), which suggests that the former cannot be merged in NegP. This leaves us with two possibilities: external Merge of *min* in C^0 followed by internal merge of *min* in J^0, or external Merge of *min* in J^0.

The data presented here do not provide conclusive evidence for favoring one over the other alternative. Based on economy considerations (external merge is “cheaper” than internal merge; Chomsky 1995), we opt for external Merge of *min* in J^0 and represent the utterance in (28) as in (33) below. Again, the matrix clause is merely represented as *fovame* (see fn. 25).

(33) fovame [$_{ActP}$ [$_{Act}$ ASSERT] [$_{ComP}$ [$_{Com}$ ⊢] [$_{JP}$ [$_{J}$ min] [$_{CP}$ [$_{TP}$ fane to keik]]]]]

The structure in (33) derives the intended reading: the fear verb *fovame* embeds an assertion through which the speaker commits to being unable to evaluate the truth of the proposition corresponding to *fane to keik*, by merging *min* (which is a polar element associated with a partition of the speaker’s epistemic state into *p* and ¬*p* worlds) as the head of JP, the speech act projection responsible for epistemicity. Hence, the speaker abstains from committing to the truth

of the proposition. Notice that the Greek structure is in essence parallel to the one proposed for the Catalan example (24).[30]

By merging "expletive" *min* in the head of JP, our analysis predicts that it cannot be interpreted negatively in the environments under discussion and that it can co-occur with the negative marker *dhen* (29). The proposed syntactic configuration also derives the lack of speaker's commitment with respect to the truth of the expressed proposition *p* in those cases where *min* is used (in the spirit of Makri 2013).

What remains to be explained is the incompatibility of *min* with subjunctive and, concretely, the element *na* (31a). Here the question is: do *min*-sentences receive the same formal analysis as *na*-sentences? We argue that *na*, being a subjunctive marker and, thus, triggering an epistemic effect like the one attributed to *min* (Giannakidou & Mari 2020), needs to be located syntactically in the head of JP, too.[31] In other words, *na* is in complementary distribution with "expletive" *min* and, therefore, the two are incompatible. While we do not have enough evidence to decide whether *na* is merged directly in JP or moved there from a lower Complementizer position, we take the *na min* variant of *min* (31b) as a data point corroborating that *na* and *min* share fundamental structural properties.[32]

The thorough examination of the allegedly expletive *min* has revealed that Greek, like Catalan, is a language in which so-called expletive negation triggers meaning enrichment (i.e., epistemicity) at the level of speech act information representation. Crucially in the case of Greek, the relationship between the negative marker and the epistemicity/evidentiality projection JP is shown to be more direct than in the case of Catalan *no*.

The last language we dig into to further solidify our claim that so-considered expletive categories tend to develop meaning components that are computed beyond grammar is Italian.

---

[30] The direct merge of *min* as head of JP correctly predicts that "expletive" *min* comes before embedded subjects and the canonical negative marker *dhen* in Greek, contrary to what we saw for Catalan.

(i) Fovame *min* dhen fane ta pedhia to keik.
I.fear not not eat the kids the cake.
'I fear the kids might/will not eat the cake.'

[31] Compare example (28) with (i) below. Notice that the non-committal speaker interpretation arises also in the case of the subjunctive.

(i) Fovame *na* fane to keik.
I.fear SUBJ eat the cake
'I fear the possibility that they eat the cake.'

[32] The reader might wonder why Catalan subjunctive (ex. (24)) does not need to/cannot move to JP, despite its epistemic interpretation. Our tentative solution to the problem is to call upon the morphological asymmetries between Catalan and Greek: (i) subjunctive is realized on the verb in the former but as an independent morpheme in the latter and (ii) the complementizer introducing the embedded sentence is overtly realized in Catalan but not in Greek ((24) vs. (28)).

We focus on a specific Italian construction argued to display expletive negation, namely Surprise Negative Sentences (SNEGs; Greco 2017; 2019a; 2019b; Greco et al. 2020).

(34) E *non* mi è scesa dal treno Maria?! [Italian]
and not CL.to.me is got off-the train Mary
'Mary got off the train!'
(Greco 2019a: 18, ex. (31))

As is evident, example (34) includes the Italian negative marker *non*, which however does not in this case reverse the polarity of the proposition expressed in the sentence. Greco et al. (2020) further provide experimental evidence that utterances like this are not interpreted as negative sentences but more like affirmative ones.

Greco (2017; 2019a; 2019b) offers a detailed description of the characteristic properties of SNEGs, focusing on the following: (i) *Non* is not interpreted as a polarity-reversal operator with respect to the expressed proposition, (ii) *non* cannot license Negative Polarity Items, (iii) the presence of *non* conveys that the speaker is surprised with the expressed proposition and (iv) the whole sentence denotes new information.

To explain away properties (i) and (ii), Greco (op.cit.) postulates that, in SNEGs, *non* is merged outside the sentential domain, at the CP area. He further assumes that the rest of the sentence moves to the specifier of a Focus Phrase, and this is how property (iv), the all-new-information reading, is obtained. The proposed syntactic derivation is demonstrated in (35), adapted from Greco (2019b: 799, (59)).

(35) $[_{CP} \ldots [_{X^0}$ non] … $[_{FocP}$ TP Foc^0 [… ~~TP~~ …]]]

While Greco's syntactic representation of SNEGs is formulated following the assumptions of the cartographic project on a split CP field (Rizzi 1997; 2004a; 2004b; Cinque 1999; 2002; 2006; Cinque & Rizzi 2010; a.o.), he does not make the structural position of *non* more specific. Related to this is the fact that the third property of SNEGs, namely the effect of surprise, remains unaccounted for. We believe that Greco's analysis can be easily adapted to fit the speech act framework implemented throughout this section, in a way that sheds light on the relationship between the "expletive" negative marker and the speaker's surprise caused by the proposition denoted by the sentence.

The first alternative that comes to mind is associating *non* in SNEGs with a certain type of exclamative speech act.[33] However, such a proposal is undermined by secondary properties of this type of construction. Specifically, Greco (2019a; 2019b) shows that SNEGs, in contrast with exclamatives, can be used as answers to questions and, more conclusively, are incompatible with *wh*-items.

[33] On the relationship between exclamatives and surprise, see Rett (2011) and Castroviejo (2021), among many others.

(36) *(E) *che cosa non* mi ha fatto Maria per Gianni?!
and what not CL.to.me has done Maria for Gianni
(Greco 2019a: 33, ex. (70b)).

For the same reasons, one can safely conclude that SNEGs should not be related to an interrogative structure either; they are assertions.

The challenge we must take on now is deriving the surprise effect in an assertive environment. Bearing in mind the analyses earlier put forth for so-called expletive negation in Catalan and Greek, one could argue that Italian *non* in SNEGs moves to or is merged in the head of JP. However, this soon proves ineffective. Notice first that both Catalan *no* and Greek *min* were shown to be polar elements, licensed in non-veridical environments. Such a condition does not apply in the Italian examples, as indicated by the indicative (instead of subjunctive) mood of the verb (*è scesa*) and the absence of a non-veridical licensor. Second, the presence of an "expletive" polar negative marker in the head of JP was argued to correlate with the lack of speaker's commitment regarding the truth of the expressed proposition. Such a non-committal speaker is not compatible with the interpretation of SNEGs and, specifically, their surprise-reading.

Considering the above, we conclude that *non* in Italian SNEGs is not a polar element but a negative marker that adjoins to the head *J*– of JP and forms a complex head *non-J*–. Since *J*– by definition (see Krifka 2020) denotes the set of propositions that are included in the speaker's epistemic universe, *non-J*– will denote the complement set (in the sense of Delfitto & Fiorin 2014) of this set: the set of propositions that do not belong to the speaker's epistemic base, i.e., the propositions that denote unexpected events and potentially cause the surprise of the speaker.[34] This is how the surprise effect of SNEGs is straightforwardly derived.[35]

[34] Although interpreted as a complement-set operator, *non* in SNEGs has been regarded as an instance of "expletive" negation because it does not reverse the *truth conditions* of the expressed proposition.

[35] Paolo Morosi (p.c.) informs us that SNEGs, such as the one exemplified in (34), can also be uttered with the negative marker *mica* in the place of *non* or, even, without a negative marker:

(i) E *mica* mi è scesa dal treno Maria?!
and not CL.to.me is got off-the train Mary
'Mary got off the train!'

(ii) E mi è scesa dal treno Maria?!
and CL.to.me is got off-the train Mary
'Mary got off the train!'

We take it that the speaker's surprise is conveyed by *mica* in (i) and by the exclamative prosody (Greco 2019a; 2019b) in (ii). In fact, prosody conveys surprise in all three cases (exs. (34), (i) and (ii)), together with a negative marker only when there is one (see Prieto & Roseano 2021).

An anonymous reviewer informs us that their consultants also confirm that the affirmative version of SNEGs is not accepted in the absence of exclamative prosody. This strengthens our claim that *non* is not expletive in these environments and that both *non* and exclamative prosody bring about a surprise effect. See Prieto and Espinal (2020) and references therein for studies of negation from a multimodal perspective.

Based on the preceding reasoning, Greco's analysis in (35) is revised as shown in (37) below.

(37) [$_{ActP}$ [$_{Act}$ ASSERT] [$_{ComP}$ [$_{Com}$ ⊢] [$_{JP}$ [$_{J}$ non-J–] [$_{FocP}$ mi è scesa dal treno Maria [$_{Foc}$ ∅] [$_{TP}$ ~~mi è scesa dal treno Maria~~]]]]][36]

In words (37) says that, in uttering the SNEG in (34), the speaker makes an assertion through which he/she publicly commits to the unexpected truth of the proposition corresponding to *mi è scesa dal treno Maria*. This is totally compatible with the reading that Greco (2017; 2019a; 2019b) reports for SNEGs.

In this section we motivated a third argument against the expletiveness hypothesis: There is no such thing as grammatically expletive categories in natural languages because allegedly expletive items are interpreted, not only at syntax, semantics, or the syntax-semantics interface, but frequently also beyond grammar, at the layers of speech act information representation. We based this latter claim on the study of instances of expletive negation in three different languages. In Catalan, so-called expletive *no* was shown to correlate indirectly with the speaker's lack of commitment to the truth of a proposition *p*. In Greek, "expletive" *min* was argued to associate directly with the absence of speaker's commitment to the truth of the expressed proposition. Finally, *non* in Italian SNEGs was identified as a negative marker that forms a complex head *non-J–* in the head position of JP and, ultimately, conveys the speaker's unexpectedness (i.e., surprise) with respect to a proposition *p*. Strikingly, all three types of allegedly expletive negative markers were found to interact, directly or indirectly, with JP, justifying among other things the implementation of Krifka's (2020) framework for the present study of expletiveness. Crucially, this was not the only reason for using this specific framework.

Delfitto et al. (2019) and Delfitto (2020) present a descriptively powerful and theoretically promising unifying account of the phenomena that have been grouped under the term "expletive negation". The authors conclude that allegedly expletive negative markers bring about meaning enrichment –a conclusion we agree with and have reached independently– and, therefore, are not truly expletive. Specifically, Delfitto et al.'s core claim is that "expletive" negation introduces a polarity reversal operator (like standard negation), which operates at the level of implicated meaning (Grice 1989) and causes implicature denial. However, we have shown that in several expletive negation environments there is no evidence for such reversal whatsoever. On the contrary, the "expletive" negative markers presented throughout this section interact with epistemicity, an empirical fact that can be straightforwardly accounted for via a syntactic account that relates these markers to a relevant syntactic projection, namely the Judgement Phrase.

[36] Regarding the compatibility of SNEGs with topic constituents noted in Greco (2019a; 2019b), we postulate that topics can adjoin to ActP.

Under closer scrutiny, more reasons to favor a syntactic over an implicature-based account of so-called expletive negation come up. Greek is enlightening in this case. First, the fact that "expletive" *min* can/needs to scope over the negative operator introduced by the negative marker *dhen* can only be explained if *min* and *dhen* occupy different positions in syntax. We repeat example (29) below, for ease of reference.

(38) Fovame *min* dhen fane to keik.
I.fear not not eat the cake
'I fear they might/will not eat the cake.'

Second, the ability of "expletive" *min* to license (Negative) Polarity Items like *tipota* 'anything' with a non-negative but existential interpretation,[37] but crucially not a Negative Concord Item like emphatic *TIPOTA* 'nothing', as exemplified by (39), suggests that (i) *min* is not in the head of a NegP and (ii) *min* is present in the syntax and takes scope over the Polarity Item in order to license it.

(39) Fovame *min* fane *tipota* / **TIPOTA*.
I.fear not eat anything nothing
'I fear they might/will eat something.'

Another argument against the hypothesis put forth by Delfitto and his colleagues is, paradoxically, its bigger theoretical advantage, namely the unification of so-called expletive negation phenomena. Even the three "expletive negation" instances show-cased in this last section were enough to reveal that allegedly expletive negation markers can cause meaning enrichment in at least two different ways: they show that the speaker is unable or unwilling to commit to the truth of the expressed proposition (Catalan, Greek) or that the speaker is surprised at the truth of the expressed proposition (Italian). Treating all negative markers as polarity reversal operators at the level of implicated meaning obscures subtler syntactic distinctions that are worth noticing.

5 Conclusions

The present study aimed at investigating the very concept of expletiveness and its consequences for UG. To this end, we looked closely into several categories traditionally considered as expletive in different languages, such as weather-predicate subjects, extraposition *it* and its equivalents, impersonal pronouns in existential and anticausative constructions, negative markers in the scope of negative predicates, definite articles in polydefinite and long weak definite DPs and plural marking on mass nouns.

[37] See Etxeberria et al. (2021) for an empirical investigation that supports the conclusion that (negative) polarity items in Basque have a non-negative existential reading.

Our discussion allowed a certain level of abstraction: (i) all expletive categories are functional elements interpreted as introducing a type-neutral identity function of type ⟨T,T⟩ at the level of semantic representation that passes the denotation of its sister to its mother, (ii) they can be divided into syntactic expletives, that occur to satisfy some syntactic relationship with another item in the clause, and semantic expletives, that stand in a semantic dependency with some c-commanding element, and (iii) expletive categories tend to develop additional meaning components that are computed beyond grammar, at the level where speech act information is encoded. While the last claim was based solely on the discussion of three different instantiations of one single phenomenon, namely so-called expletive negation, the tendency arguably extends to more "expletive" categories. Dominican Spanish *ello*, for example has already been argued to convey speaker-related meaning (Hinzelin & Kaiser 2007; Greco et al. 2017, a.o.). Similarly, the plural marking on Greek mass nouns has been found to correlate with the speaker's dislike towards the situation of utterance (Tsiakmakis et al. 2021b).

We take the three generalizations above as indicative of the place of expletiveness within the theory of language. On the one hand, the categories to which the linguistic literature has attributed the term *expletive* can be shown to share a set of properties: functional status, identity function semantics, syntactic or semantic dependency on other elements within the sentence and, possibly, meaning enrichment effect at higher levels of interpretation. In this sense, the term "expletive" can be methodologically useful, in order to identify specific uses of certain grammatical categories. On the other hand, all expletive categories were shown to be interpretable at some level of interpretation. Recall that the Full Interpretation Principle (Chomsky 1986), which requires that everything present at the interface levels be interpretable by the interfaces, predicts that expletive items should be eliminated from the structure before reaching the LF interface or that there should be no expletive items in the first place. Our study strongly supports that there are no grammatical expletive categories in natural languages.

If expletiveness as a grammatical concept does not exist, then it becomes clear that the set of properties that "expletive" categories were shown to share in the present study are not to be read as part of an epistemologically relevant definition, but as a metalinguistically interesting abstraction over the elusive use of the term "expletive" in the linguistic literature, which has at times proved to be partial, sloppy, or inconsistent.

Abbreviations

CL = clitic, COMP = complementizer, COP = copula, EXPL = expletive, FUT = future, INDEF = indefinite, PAST = past tense, PL = plural, PRES = present tense, SUBJ = subjunctive mood, SVO = Subject-Verb-Object

Acknowledgements

We thank the three reviewers of *Glossa* for their valuable comments and our colleagues at the Center for Theoretical Linguistics of the Universitat Autònoma de Barcelona for the environment that allowed us to develop the ideas discussed in this paper.

Funding information

We acknowledge financial support from the Spanish Ministerio de Ciencia e Innovación (FFI2017-82547-P, PID2020-112801GB-I00) and the Generalitat de Catalunya (2017SGR634).

Competing Interests

The authors have no competing interests to declare.

References

Alexiadou, Artemis. 2011. Plural mass nouns and the morpho-syntax of number. In Washburn, Mary Byram & McKinney-Bock, Katherine & Varis, Erika & Sawyer, Ann & Tomaszewicz, Barbara (eds.), *Proceedings of the 28th West Coast Conference on Formal Linguistics*, 33–41. Somerville, MA: Cascadilla Proceedings Project.

Alexiadou, Artemis. 2014. *Multiple determiners and the structure of DPs [Linguistik Aktuell/Linguistics Today 211]*. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/la.211

Alexiadou, Artemis & Anagnostopoulou, Elena. 1998. Parametrizing AGR: Word order, V-movement and EPP-checking. *Natural Language & Linguistic Theory* 16(3). 491–539. DOI: https://doi.org/10.1023/A:1006090432389

Alexiadou, Artemis & Anagnostopoulou, Elena & Schäfer, Florian. 2015. *External arguments in transitivity alternations. A layering approach*. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/acprof:oso/9780199571949.001.0001

Alexiadou, Artemis & Wilder, Chris. 1998. Adjectival modification and multiple determiners. In Alexiadou, Artemis & Wilder, Chris (eds.), *Possessors, predicates and movement in the DP [Linguistik Aktuell 22]*, 303–332. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/la.22.11ale

Alexopoulou, Theodora. 2006. Resumption in relative clauses. *Natural Language and Linguistic Theory* 24. 57–111. DOI: https://doi.org/10.1007/s11049-005-0898-2

Austin, John. 1962. *How to do things with words*. Oxford: Clarendon Press.

Bach, Kent. 2015. The predicate view of proper names. *Philosophy Compass* 10(11). 772–784. DOI: https://doi.org/10.1111/phc3.12261

Baker, Mark. 2003. *Lexical categories. Verbs, nouns, and adjectives*. Cambridge: Cambridge University Press. DOI: https://doi.org/10.1017/CBO9780511615047

Baker, Mark & Vinokurova, Nadya. 2010. Two modalities of case assignment: case in Sakha. *Natural Language and Linguistic Theory* 28. 593–642. DOI: https://doi.org/10.1007/s11049-010-9105-1

Barker, Chris. 2005. Possessive weak definites. In Kim, Ji-yung & Lander, Yuri & Partee, Barbara Hall (eds.), *Possessives and beyond. Semantics and syntax*, 89–113. Amherst, MA: GLSA Publications.

Beyssade, Claire. 2013. Back to uniqueness presupposition. *Recherches Linguistiques de Vincennes* 42. 127–137. DOI: https://doi.org/10.4000/rlv.2190

Biberauer, Theresa & Holmberg, Anders & Roberts, Ian & Sheehan, Michelle. 2009. Semi null-subject languages, expletives and expletive pro reconsidered. In Holmberg, Anders & Roberts, Ian (eds.), *Parametric variation: Null subjects in Minimalist Theory*, 153–199. Cambridge: Cambridge University Press. DOI: https://doi.org/10.1017/CBO9780511770784.005

Boër, Steven. 1975. Proper names as predicates. *Philosophical Studies* 27. 389–400. DOI: https://doi.org/10.1007/BF01236458

Brugger, Gerhard. 1993. Generic interpretations and expletive determiner. *University of Venice Working Papers in Linguistics* 3(1). 1–30.

Bumford, Dylan. 2017. Split-scope definites: Relative superlatives and Haddock descriptions. *Linguistics and Philosophy* 40(6). 1–45. DOI: https://doi.org/10.1007/s10988-017-9210-2

Campos, Hector & Stavrou, Melita. 2004. Polydefinite constructions in Modern Greek and in Aromanian. In Tomić, Olga (ed.), *Balkan syntax and semantics [Linguistik Aktuell/Linguistics Today 67]*, 137–144. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/la.67.09cam

Castroviejo, Elena. 2021. On wh-exclamatives and gradability. An argument from Romance. *Journal of Linguistics* 57(1). 41–82. DOI: https://doi.org/10.1017/S0022226719000306

Chatzopoulou, Aikaterini. 2018. *Negation and non-veridicality in the history of Greek*. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/oso/9780198712404.001.0001

Chierchia, Gennaro. 1998. Reference to kinds across languages. *Natural Language Semantics* 6. 339–405. DOI: https://doi.org/10.1023/A:1008324218506

Chierchia, Gennaro. 2015. How universal is the mass/count distinction? Three grammars of counting. In Li, Audrey & Simpson, Andrew & Tsai, Wei-Tien Dylan (eds.), *Chinese syntax in a cross-linguistic perspective*, 147–177. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/acprof:oso/9780199945658.003.0006

Chomsky, Noam. 1981. *Lectures on government and binding*. Dordrecht: Foris.

Chomsky, Noam. 1986. *Knowledge of language. Its nature, origin, and use*. New York: Praeger.

Chomsky, Noam. 1995. *The minimalist program*. Cambridge, MA: MIT Press.

Chomsky, Noam. 2000. Minimalist inquiries: The framework. In Martin, Roger & Michaels, David & Uriagereka, Juan (eds.), *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*, 89–155. Cambridge, MA: MIT Press.

Chomsky, Noam. 2001. Derivation by phase. In Kenstowicz, Michael (ed.), *Ken Hale: A life in language*, 1–52. Cambridge, MA: MIT Press.

Cinque, Guglielmo. 1999. *Adverbs and functional heads. A cross-linguistic perspective*. New York: Oxford University Press.

Cinque, Guglielmo. 2002. *Functional structure in DP and IP. The cartography of syntactic structures*. Oxford: Oxford University Press.

Cinque, Guglielmo. 2006. *Restructuring and functional heads. The cartography of syntactic structures*. Oxford: Oxford University Press.

Cinque, Guglielmo & Rizzi, Luigi. 2010. The cartography of syntactic structures. In Heine, Bernd & Narrog, Heiko (eds.), *The Oxford handbook of linguistic analysis*, 51–65. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/oxfordhb/9780199544004.001.0001

Cohen, Ariel & Krifka, Manfred. 2014. Superlative quantifiers and meta-speech acts. *Linguistics and Philosophy* 37. 41–90. DOI: https://doi.org/10.1007/s10988-014-9144-x

Cyrino, Sonia & Espinal, M.Teresa. 2020. On the syntax of number in Romance. *Studia Linguistica* 74(1). 165–203. DOI: https://doi.org/10.1111/stul.12123

Deal, Amy Rose. 2009. The origin and content of expletives: Evidence from "selection". *Syntax* 12(4). 285–323. DOI: https://doi.org/10.1111/j.1467-9612.2009.00127.x

Delfitto, Denis. 2020. Expletive negation. In Déprez, Viviane & Espinal, M.Teresa (eds.), *The Oxford handbook of negation*. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/oxfordhb/9780198830528.013.9

Delfitto, Denis & Fiorin, Gaetano. 2014. Negation in exclamatives. *Studia Linguistica* 68(3). 284–327. DOI: https://doi.org/10.1111/stul.12024

Delfitto, Denis & Melloni, Chiara & Vendler, Maria. 2019. The (en)rich(ed) meaning of expletive negation. *Evolutionary Linguistic Theory* 1(1). 57–89. DOI: https://doi.org/10.1075/elt.00004.del

Déprez, Viviane & Espinal, M.Teresa. 2020. *The Oxford handbook of negation*. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/oxfordhb/9780198830528.001.0001

Espinal, M.Teresa. 1992. Expletive negation and logical absorption. *The Linguistic Review* 9(4). 338–358. DOI: https://doi.org/10.1515/tlir.1992.9.4.333

Espinal, M.Teresa. 1997. Non-negative negation and Wh-exclamatives. In Forget, Danielle & Hirschbühler, Paul & Martineau, France & Rivero, María Luisa (eds.), *Negation and polarity. Syntax and semantics*, 75–93. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/cilt.155.05esp

Espinal, M.Teresa. 2000. On the semantic status of n-words in Catalan and Spanish. *Lingua* 110. 557–580. DOI: https://doi.org/10.1016/S0024-3841(00)00002-4

Espinal, M.Teresa. 2002. La negació. In Solà, Joan & Lloret, Maria-Rosa & Mascaró, Joan & Saldanya, Manuel Pérez (eds.), *Gramàtica del Català Contemporani,* 2687–2757. Empúries/Grup 62: Barcelona.

Espinal, M.Teresa. 2007. Licensing expletive negation and negative concord in Catalan and Spanish. In Floricic, Franck (ed.), *La négation dans les langues Romanes* (*John Benjamins Linguisticae Investigationes Supplementa* 26), 49–74. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/lis.26.04esp

Espinal, M.Teresa & Cyrino, Sonia. 2017. The definite article in Romance expletives and long weak definites. *Glossa: a Journal of General Linguistics* 2(1): 23. 1–26. DOI: https://doi.org/10.5334/gjgl.160

Espinal, M.Teresa & Tubau, Susagna. 2016. Interpreting argumental n-words as answers to negative wh-questions. *Lingua* 177. 41–59. DOI: https://doi.org/10.1016/j.lingua.2015.12.013

Etxeberria, Urtzi & Tubau, Susagna & Borràs-Comes, Joan & Espinal, M.Teresa. 2021. Polarity items in Basque. *Natural Language and Linguistic Theory*. DOI: https://doi.org/10.1007/s11049-021-09513-2

Fabra, Pompeu. 1956. *Gramàtica catalana*. Barcelona: Teide.

Fara, Graff. 2010. Names are predicates. *Philosophical Review* 124(1). 59–117. DOI: https://doi.org/10.1215/00318108-2812660

Frege, Gottlob. 1906. Introduction to logic [Einleitung in die Logik]. Ms.

Giannakidou, Anastasia. 1997. *The landscape of polarity items*. Groningen: University of Groningen dissertation.

Giannakidou, Anastasia. 1998. *Polarity sensitivity as (non)veridical dependency*. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/la.23

Giannakidou, Anastasia & Mari, Alda. 2020. *Veridicality in grammar and thought*. Chicago: Chicago University Press. DOI: https://doi.org/10.7208/chicago/9780226763484.001.0001

Greco, Ciro & Haegeman, Liliane & Phan, Trang. 2017. Expletives and speaker-related meaning. In Sheehan, Michelle & Bailey, Laura (eds.), *Order and structure in syntax II: Subjecthood and argument structure*, 69–93. Berlin: Language Science Press. DOI: https://doi.org/10.5281/zenodo.1116757

Greco, Matteo. 2017. Surprise negation sentences. Expletive negation and the left periphery. Pavia: Università Vita-Salute San Raffaele Milano – IUSS Pavia dissertation.

Greco, Matteo. 2019a. Is expletive negation a unitary phenomenon? *Lingue e Linguaggio* 18(1). 25–58.

Greco, Matteo. 2019b. On the syntax of surprise negation sentences: A case study on expletive negation. *Natural Language and Linguistic Theory* 38. 775–825. DOI: https://doi.org/10.1007/s11049-019-09459-6

Greco, Matteo & Canal, Paolo & Bambini, Valentina & Moro, Andrea. 2020. Modulating "surprise" with syntax: A study on negative sentences and eye-movement recording. *Journal of Psycholinguistic Research* 49. 415–434. DOI: https://doi.org/10.1007/s10936-020-09691-x

Grice, Herbert Paul. 1989. *Studies in the way of words*. Cambridge, MA: Harvard University Press.

Grimshaw, Jane & Samek-Lodovici, Vieri. 1998. Optimal subjects and subject universals. In Barbosa, Pilar & Fox, Daniel & Hagstrom, Paul & McGinnis, Martha & Pesetsky, David (eds.), *Is the best good enough?*, 193–219. Cambridge, MA: MIT Press.

Haddock, Nicholas J. 1987. Incremental interpretation and combinatory categorial grammar. In *Proceedings of the 10th International Joint Conference on Artificial Intelligence* (Vol. 2), 661–663. https://www.ijcai.org/proceedings/1987-2.

Haider, Hubert. 2019. On expletive, semantically void and absent subjects. Ms. https://ling.auf.net/lingbuzz/004965

Heim, Irene. 2011. Definiteness and indefiniteness. In von Heusinger, Klaus & Maienborn, Claudia & Portner, Paul (eds.), *Semantics: An international handbook of natural language meaning*, 996–1025. Berlin, Boston: De Gruyter. DOI: https://doi.org/10.1515/9783110589443-002

Hinzelin, Marc-Oliver & Kaiser, Georg. 2007. El pronombre ello en el léxico del español dominicano. In Mihatsch, Wiltrud & Sokol, Monika (eds.), *Language contact and language change in the Caribbean and beyond [Lenguas en contacto y cambio lingüístico en el Caribe y más allá]*, 171–188. Frankfurt am Main: Peter Lang.

Hoekstra, Teun. 1983. The distribution of sentential complements. In Bennis, Hans & van Lessen Kloeke, WUS (eds.), *Linguistics in the Netherlands 1983*, 93–103. Dordrecht: Foris. DOI: https://doi.org/10.1515/9783112420249-012

Holmberg, Anders & Nikanne, Urpo. 2002. Expletives, subjects, and topics in Finnish. In Svenonius, Peter (ed.), *Subjects, expletives, and the EPP*, 71–106. Oxford-New York: Oxford University Press.

Holton, David & Mackridge, Peter & Philippaki-Warburton, Irene. 1997. *Greek: A comprehensive grammar of the modern language*. London: Routledge.

Horn, Laurence. 2001. *A natural history of negation*. Stanford: CSLI Publications.

Horn, Laurence. 2010. Multiple negation in English and other languages. In Horn, Laurence (ed.), *The expression of negation*, 111–148. Berlin: Mouton de Gruyter. DOI: https://doi.org/10.1515/9783110219302.111

Jakobson, Roman. 1978. *Six lectures on sound and meaning*. Massachusetts: MIT Press.

Jespersen, Otto. 1917. *Negation in English and other languages*. Reprinted in *Selected writings of Otto Jespersen* (1962), 3–351. London: George Allen and Unwin.

Kayne, Richard. 1993. Toward a modular theory of auxiliary selection. *Studia Linguistica* 47. 3–31. DOI: https://doi.org/10.1111/j.1467-9582.1993.tb00837.x

Kayne, Richard. 2000. A note on prepositions, complementizers and word order. In Kayne, Richard (ed.), *Parameters and universals,* 314–326. New York: Oxford University Press.

Kayne, Richard. 2008. Expletives, datives, and the tension between morphology and syntax. In Biberauer, Theresa (ed.), *The limits of syntactic variation*, 175–217. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/la.132.07kay

Kiss, Katalin. 2002. *The syntax of Hungarian*. Cambridge: Cambridge University Press. DOI: https://doi.org/10.1017/CBO9780511755088

Kolliakou, Dimitra. 1995. Definites and possessives in Modern Greek: an HPSG syntax for Noun Phrases. Edinburgh: University of Edinburgh dissertation.

Kolliakou, Dimitra. 2004. Monadic definites and polydefinites. Their form, meaning and use. *Journal of Linguistics* 40. 263–323. DOI: https://doi.org/10.1017/S0022226704002531

Kouneli, Maria. 2019. Plural marking on mass nouns: Evidence from Greek. In Mathieu, Éric & Dali, Myriam & Zareikar, Gita (eds.), *Gender and noun classification*, 233–249. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/oso/9780198828105.003.0011

Kratzer, Angelika. 1995. Stage-level and individual-level predicates. In Carlson, Gregory & Pelletier, Francis (eds.), *The generic book*, 125–175. Chicago: University of Chicago Press.

Krifka, Manfred. 1989. Nominal reference, temporal constitution and quantification in event semantics. In Bartsch, Renate & van Benthem, Johan & van Emde, Peter Boas (eds.), *Semantics and contextual expression*, 75–115. Dordrecht: Foris. DOI: https://doi.org/10.1515/9783110877335-005

Krifka, Manfred. 2015. Bias in commitment space semantics: declarative questions, negated questions, and question tags. *Semantics and Linguistic Theory 25*. 328–345. DOI: https://doi.org/10.3765/salt.v25i0.3078

Krifka, Manfred. 2017. Negated polarity questions as denegations of assertions. In Lee, Chungmin & Kiefer, Ferenc & Krifka, Manfred (eds.), *Contrastiveness in information structure, alternatives and scalar implicatures*, 359–398. Dordrecht: Springer. DOI: https://doi.org/10.1007/978-3-319-10106-4_18

Krifka, Manfred, 2019. Commitments and beyond. *Theoretical Linguistics* 45(1–2). 73–91. DOI: https://doi.org/10.1515/tl-2019-0006

Krifka, Manfred. 2020. Layers of assertive clauses: Propositions, judgements, commitments, acts. In Hartmann, Jutta & Wöllstein, Angelika (eds.), *Propositionale Argumente im Sprachvergleich: Theorie und Empirie*, 1–46. Gunter Narr Verlag.

Kripke, A.Saul. 1980. *Naming and necessity*. Oxford: Blackwell.

Kuhn, Jeremy. 2021. The dynamics of negative concord. *Linguistics and Philosophy*. 1–46. DOI: https://doi.org/10.1007/s10988-020-09318-3

Lekakou, Marika & Szendrői, Kriszta. 2012. Polydefinites in Greek: Ellipsis, close apposition and expletive determiners. *Journal of Linguistics* 48. 107–149. DOI: https://doi.org/10.1017/S0022226711000326

Link, Godehard. 1983. The logical analysis of plurals and mass terms. In Bäuerle, Rainer & Schwarze, Christoph & von Stechow, Arnim (eds.), *Meaning, use, and interpretation of language*, 302–323. Berlin: De Gruyter. DOI: https://doi.org/10.1515/9783110852820.302

Longobardi, Giuseppe. 1994. Reference and proper names. *Linguistic Inquiry* 25. 609–665. http://www.jstor.org/stable/4178880

Makri, Maria Margarita. 2013. Expletive negation beyond Romance. Clausal Complementation and Epistemic Modality. York: University of York MA dissertation.

Maling, Joan. 1988. Variations on a theme: Existential sentences in Swedish and Icelandic. In Fekete, Denise & Laubitz, Zofia (eds.), *McGill Working Papers in Linguistics: Special issue on comparative Germanic syntax*, 168–191. Montreal: McGill University.

Matushansky, Ora. 2006. Why Rose is the Rose. In Bonami, Olivier & Cabredo Hofherr, Patricia (eds.), *Empirical issues in Formal Syntax and Semantics 6*. 285–308.

Matushansky, Ora. 2008. On the linguistic complexity of proper names. *Linguistics and Philosophy* 21. 573–627. DOI: https://doi.org/10.1007/s10988-008-9050-1

Moeschler, Jacques. 2020. Negative predicates: Incorporated negation. In Déprez, Viviane & Espinal, M.Teresa (eds.), *The Oxford handbook of negation*. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/oxfordhb/9780198830528.013.12

Moro, Andrea. 1997. *The raising of predicates*. Cambridge: Cambridge University Press. DOI: https://doi.org/10.1017/CBO9780511519956

Moro, Andrea. 2017. *A brief history of the verb to be*. Cambridge, Massachusetts: MIT Press. DOI: https://doi.org/10.7551/mitpress/9780262037129.001.0001

Muller, Claude. 1991. *La négation en français. Syntaxe, sémantique et éléments de comparaison avec les autres langues romanes*. Genève: Librairie Droz.

Newmeyer, Frederick. 2005. *Possible and probable languages. A generative perspective on linguistic typology*. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/acprof:oso/9780199274338.001.0001

Partee, Barbara. 1987. Noun phrase interpretation and type-shifting principles. In Groenendijk, Jeroen & de Jongh, Dick & Stokhof, Martin (eds), *Studies in discourse representation theory and the theory of generalized quantifiers*, 15–143. Dordrecht: Foris. DOI: https://doi.org/10.1515/9783112420027-006

Partee, Barbara. 2004. *Compositionality in formal semantics. Selected papers*. Wiley-Blackwell. DOI: https://doi.org/10.1002/9780470751305

Picallo, Carme. 1985. Opaque domains. New York: City University of New York dissertation.

Platzack, Christen 1983. Germanic word order and the COMP/INFL parameter. *Working Papers in Scandinavian Syntax 2*.

Poesio, Massimo. 1994. Weak definites. In Harvey, Mandy & Santelmann, Lynn (eds.), *Proceedings of Semantics and Linguistic Theory (SALT) 4*. 282–299. http://journals.linguisticsociety.org/proceedings/index.php/SALT/issue/view/105. DOI: https://doi.org/10.3765/salt.v4i0.2465

Portner, Paul. 2018. *Mood*. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/oso/9780199547524.001.0001

Prieto, Pilar & Espinal, M.Teresa. 2020. Negation, prosody and gesture. In Déprez, Viviane & Espinal, M.Teresa (eds.), *The Oxford handbook of negation,* 677–693. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/oxfordhb/9780198830528.013.34

Prieto, Pilar & Roseano, Paolo. 2021. The encoding of epistemic operations in two Romance languages: The interplay between intonation and discourse markers. *Journal of Pragmatics* 172. 146–163. DOI: https://doi.org/10.1016/j.pragma.2020.11.008

Quer, Josep. 1998. *Mood at the interface*. The Hague: Holland Academic Graphics.

Reinhart, Tanya. 1976. *The syntactic domain of anaphora*. Cambridge, MA: Massachusetts Institute of Technology dissertation.

Rett, Jessica. 2011. Exclamatives, degrees and speech acts. *Linguistics & Philosophy* 34(5). 411–442. DOI: https://doi.org/10.1007/s10988-011-9103-8

Rizzi, Luigi. 1982. *Issues in Italian syntax*. Dordrecht: Foris. DOI: https://doi.org/10.1515/9783110883718

Rizzi, Luigi. 1997. The fine structure of the left periphery. In Haegeman, Liliane (ed.), *Elements of grammar. Handbook of Generative Syntax*, 281–337. Dordrecht: Kluwer. DOI: https://doi.org/10.1007/978-94-011-5420-8_7

Rizzi, Luigi. 2004a. Locality and left periphery. In Belletti, Adriana (ed.), *Structures and beyond. The cartography of syntactic structures*. Vol. 3, 223–251. New York-Oxford: Oxford University Press.

Rizzi, Luigi. 2004b. *The structure of CP and IP. The cartography of syntactic structures*. New York-Oxford: Oxford University Press.

Roussou, Anna. 2010. Selecting complementizers. *Lingua* 120(3). 582–603. DOI: https://doi.org/10.1016/j.lingua.2008.08.006

Roussou, Anna. 2015. O deiktis mi: arnisi i simpliromatikos deiktis? [The particle mi: negation or complementizer?]. In *Studies in Greek Linguistics 35*. 490–501. Thessaloniki: Instituto Neoellinikon Spoudon.

Schäfer, Florian. 2008. *The syntax of (anti-)causatives. External arguments in change-of-state contexts*. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/la.126

Schäfer, Florian. 2017. Romance and Greek medio-passives and the typology of voice. In D'Alessandro, Roberta & Franco, Irene & Gallego, Ángel (eds.), *The verbal domain,* 129–152. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/oso/9780198767886.003.0006

Searle, John. 1969. *Speech acts. An essay in the philosophy of language*. Cambridge: Cambridge University Press. DOI: https://doi.org/10.1017/CBO9781139173438

Speas, Margaret & Tenny, Carol. 2003. Configurational properties of point of view roles. In Di Sciullo, Anna Maria (ed.), *Asymmetries in grammar*, 315–345. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/la.57.15spe

Svenonius, Peter. 2002. *Subjects, expletives, and the EPP*. Oxford-New York: Oxford University Press.

Thráinsson, Höskuldur. 1979. *On Complementation in Icelandic*. Harvard: Harvard University dissertation.

Todolí, Julia. 2002. Els pronoms. In Solà, Joan & Lloret, Maria-Rosa & Mascaró, Joan & Saldanya, Manuel Pérez (eds.), *Gramàtica del Català Contemporani*, 1337–1433. Empúries/Grup 62: Barcelona.

Tsiakmakis, Evripidis & Borràs-Comes, Joan & Espinal, M.Teresa. 2021a. Greek polydefinites revisited. Polydefiniteness as resumed relative clause modification. *Journal of Greek Linguistics* 21(1). 151–190. DOI: https://doi.org/10.1163/15699846-02101001

Tsiakmakis, Evripidis & Borràs-Comes, Joan & Espinal, M.Teresa. 2021b. The interpretation of plural mass nouns in Greek. *Journal of Pragmatics* 181. 209–226. DOI: https://doi.org/10.1016/j.pragma.2021.05.017

Tsoulas, George. 2009. On the grammar of number and mass terms in Greek. In Halpert, Clair & Hartman, Jeremy & Hill, David (eds.), *Proceedings of the 2007 Workshop in Greek Syntax and Semantics at MIT. MIT Working Papers in Linguistics 57*, 131–146. MITWPL.

Tubau, Susagna, & Déprez, Viviane & Borràs-Comes, Joan & Espinal, M.Teresa. 2018. How speakers interpret the negative markers no and no…pas in Catalan. *Probus* 30(1). 121–167. DOI: https://doi.org/10.1515/probus-2017-0008

van der Beek, Leonoor & Bouma, Gerlof. 2004. The role of the lexicon in optimality theoretic syntax. In Butt, Miriam & Holloway, Tracy King (eds.), *Proceedings of the LFG'04 Conference*, 60–80. Stanford, CA: CSLI Publications.

Vendryès, Joseph. 1950. Sur la négation abusive. *Bulletin de la Société de Linguistique de Paris* 46(1). 1–18.

Vergnaud, Jean Roger & Zubizarreta, Maria Luisa. 1992. The definite determiner and the inalienable constructions in French and in English. *Linguistic Inquiry* 23(4). 595–652. http://www.jstor.org/stable/4178791

Wiltschko, Martina. 2021. *The grammar of interactional language. Towards a formal typology*. Cambridge: Cambridge University Press. DOI: https://doi.org/10.1017/9781108693707

Winter, Yoad. 2016. *Elements of formal semantics*. Edinburgh: Edinburgh University Press.

Wood, Jim. 2014. Reflexive *-st* verbs in Icelandic. *Natural Language and Linguistic Theory* 32. 1387–1425. DOI: https://doi.org/10.1007/s11049-014-9243-y

Wood, Jim. 2015. *Icelandic morphosyntax and argument structure*. Switzerland: Springer. DOI: https://doi.org/10.1007/978-3-319-09138-9

Wu, Danfeng. 2019. Evidence from ellipsis suggests the low origination site of expletives there and it. In Ronai, Eszter & Stigliano, Laura & Sun, Yenan (eds.), *Proceedings of CLS 54*, 573–584.

Zeijlstra, Hedde. 2004. Sentential negation and negative concord. Amsterdam: University of Amsterdam dissertation.