

Urtzi Etxeberria\*, M.Teresa Espinal and Susagna Tubau

# Establishing the limits between polarity sensitivity, negative polarity and negative concord

<https://doi.org/10.1515/lingty-2022-0083>

Received January 11, 2023; accepted February 17, 2024; published online April 4, 2024

**Abstract:** In this paper, by focussing on the behaviour of polarity elements from a variety of languages from different language families (namely, Basque, Hindi, English, Romanian, Spanish, Greek, Czech, and Russian) we investigate the relationship between polarity sensitive items (PSIs) and negative polarity items (NPIs) on the one hand, and between PSIs and negative concord items (NCIs) on the other. Based on a number of contrasts that we find, we argue that: (i) if a language has PSIs it does not necessarily have NCIs; (ii) PSIs need to be distinguished from NPIs; (iii) NCIs emerge as a subtype of PSIs, not of NPIs; and (iv) all languages that show negative concord (NC) also have polarity sensitivity (PS), but the opposite does not hold. We thus postulate that PS is a general phenomenon across languages with negative polarity (NPol) and NC as possible subtypes of PS but independent among them, and argue against the standard hypothesis that NC is a special subtype of NPol.

**Keywords:** polarity sensitivity; negative polarity; negative concord; polarity sensitive items; negative polarity items; negative concord items

## 1 Introduction

The nature and limits of polarity items (PIs, our PSIs, as will be made clear later on), negative polarity items (NPIs) and negative concord items (NCIs) is rather blurred in the literature, and by extension, so is the distinction between the phenomena of polarity sensitivity (PS), negative polarity (NPol) and negative concord (NC) (see

---

All the authors contributed equally to the research that conducted to this paper.

---

**\*Corresponding author: Urtzi Etxeberria** [*urtʃi e.ʃeβe'ria*], IKER (UMR5478), CNRS, Bayonne, France, E-mail: [urtzi.etxeberria@iker.cnrs.fr](mailto:urtzi.etxeberria@iker.cnrs.fr). <https://orcid.org/0000-0001-6560-1614>

**M.Teresa Espinal** [*mə'ɾiə.tɾezəsp'i'naʃ*] and **Susagna Tubau** [*su.zaɲ'naʃ.tuβau*], Universitat Autònoma de Barcelona, Bellaterra, Spain, E-mail: [teresa.espinal@uab.cat](mailto:teresa.espinal@uab.cat) (M. Espinal), [Susagna.Tubau@uab.cat](mailto:Susagna.Tubau@uab.cat) (S. Tubau)

Haspelmath 2022, where the same problem is addressed from a different perspective). NPIs and PSIs, for example, are two labels that have often been interchangeably used to characterise a family of lexical items that show remarkable distributional differences. *Anybody*, as shown in (1a–d) can be licenced in all non-veridical contexts but is ungrammatical in veridical ones (e.g. affirmative sentences) such as (1e). By contrast, *one bit* in (2) is only grammatical in a subset of these non-veridical contexts.<sup>1</sup> Yet, the terminology has often not systematically distinguished between the two.

- |     |    |                                      |                                   |
|-----|----|--------------------------------------|-----------------------------------|
| (1) | a. | <i>I didn't see anybody.</i>         | [Negative context, anti-morphic]  |
|     | b. | <i>Nobody invited anybody.</i>       | [Negative context, anti-additive] |
|     | c. | <i>Few people saw anybody.</i>       | [Downward entailing context]      |
|     | d. | <i>Did you see anybody?</i>          | [Non-veridical context]           |
|     | e. | <i>*I saw anybody.</i>               | [Veridical context]               |
| (2) | a. | <i>I didn't like it one bit.</i>     | [Negative context, anti-morphic]  |
|     | b. | <i>Nobody liked it one bit.</i>      | [Negative context, anti-additive] |
|     | c. | <i>*Few people liked it one bit.</i> | [Downward entailing context]      |
|     | d. | <i>*Did you like it one bit?</i>     | [Non-veridical context]           |
|     | e. | <i>*I liked it one bit.</i>          | [Veridical context]               |

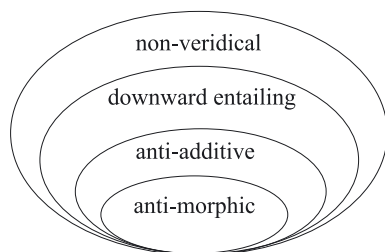
The expressions *anybody* and *one bit* in (1) and (2) both fit in Giannakidou's (1999: 1) definition of PSI in (3), as the semantic property  $\beta$  the PSI is sensitive to is 'at least' non-veridicality, if not further specified in the classification of polar operators given in Figure 1. That is, for any item that may appear in one of the contexts expressed by the external circles it will also be possible for it to appear in all the other contexts expressed by the most internal ones. Yet, it is clear from (2) that there exist items that fit into the definition in (3) but exhibit stricter restrictions concerning the particular group of operators that licence them.

- (3) *Polarity Item*
- (i) A polarity item  $\alpha$  is an expression whose distribution is limited by sensitivity to some semantic property  $\beta$ .
  - (ii)  $\beta$  is at least non-veridical.

It has been mainstream practice in the literature to use the label NPI by default for all items that show polar sensitivity, rather than using the label PSI for semantically dependent expressions that allow licensors from all possible groups of operators in Figure 1 and restricting the label NPI strictly to those that are licenced only in negative anti-veridical contexts (i.e. anti-additive and anti-morphic operators, the two more internal contexts in Figure 1). In other words, the term NPI has been used to refer to

---

<sup>1</sup> See the Appendix for detailed definitions of all the properties mentioned in (1) and (2).



**Figure 1:** Classification of polar operators (Zwarts 1995, 1996, 1998; Giannakidou 1997 et seq.; Hoeksema 2012; Giannakidou and Zeijlstra 2017, among others).

elements such as *any* in (1) and to *one bit* in (2), but as we have seen, these two types of elements show different properties in that they are licenced in different contexts. Thus, the label ‘NPI’ appears to be a misnomer (Giannakidou 1999; Larrivé 2021) that has been specified in terms of strength depending on which contexts these polar elements appear in (Tovena 2020; Homer 2021). As a consequence, when it becomes relevant for a given linguistic discussion to answer the question of in which contexts these elements are licenced (Giannakidou 2011; Ladusaw 1996), the labels *STRONG* and *WEAK* NPIs are used (Gajewski 2008; Ladusaw 1992, 1996; van der Wouden 1994). Thus, *anybody* in (1) has been referred to in the literature as a “weak NPI”, as it is licenced by all kinds of non-veridical operators, while *one bit* in (2) would be classified as a “strong NPI”, as its possible set of licensors is restricted to negative contexts.

Beyond this standard classification between weak and strong NPIs, replaced in this paper by a dichotomy between PSIs and NPIs, there is yet another set of items that has been identified in the literature on negation and polarity, namely NCIs (*n-words* in Laka 1990 and older literature), conceived as a special type of strong NPIs (Giannakidou and Zeijlstra 2017, building on Ladusaw’s 1992 original idea).<sup>2</sup> The distribution of NCIs across languages shows that they are most commonly licenced by an anti-morphic operator (and some anti-additive operators such as *without*; Bosque 1980, Giannakidou 1999), as illustrated in the Spanish and Greek examples in (4) and (5) respectively, thus also fitting into the definition in (3).

Spanish

- (4) *No ha comido nada.*  
 not has eaten n-thing  
 ‘S/he hasn’t eaten anything.’

<sup>2</sup> NCIs have also been argued to be lexically ambiguous between NPIs (our PSIs) and their genuinely negative counterparts (what we consider to be negative NQs). See, among others, Herburger (2001).

## Greek

- (5) *O papus dhen idhe KANENA apo ta egonia tu.*  
 the father not saw n-thing from the grandchildren his  
 ‘Grandpa didn’t see any of his grandchildren.’ (Giannakidou 1999: 377,  
 ex. 24)

However, the definition in (3) does not capture some characteristic distributional behaviour that NCIs show cross-linguistically, which necessarily distinguishes them as a separate class. As stated in Giannakidou’s (2006: 327) definition of NCIs (i.e., n-words) in (6), they can serve as fragment answers without an overt negative licenser, (7) and (8).

- (6) An expression *a* is an NCI iff:  
 (i) *a* can be used in structures containing sentential negation or another *a*-expression yielding a reading equivalent to one logical negation; and  
 (ii) *a* can provide a negative fragment answer.

## Spanish

- (7) Q: *¿Qué ha comido?* A: *Nada*  
 what has eaten n-thing  
 ‘What did s/he eat?’ ‘Nothing.’

## Greek

- (8) Q: *Ti idhes?* A: *TIPOTA.*  
 what saw.2sg n-thing  
 ‘What did you see?’ ‘Nothing’

(Giannakidou 2000: 459, ex. 2)

Interestingly, as shown in (9) and (10), both the so-called weak NPI *anybody* and the so-called strong NPI *one bit* cannot occur as fragments in English, thus suggesting that in spite of the fact that NCIs have been claimed to be NPIs (Laka 1990: 108, who indeed, analysed NCIs as NPIs; see also Progovac 1994), the limits between the two sets of items need still be clarified.

## Standard English

- (9) Q: *Who did you see?* A: \**Anybody.*  
 (10) Q: *Did you like it?* A: \**One bit.*

Furthermore, NCIs have also been shown to occur in preverbal position, both without the sentential negative marker (in so-called Non-Strict NC languages, e.g. Spanish, Italian) or with it (in so-called Strict NC languages, e.g. Greek, Romanian, Russian), as shown in the examples in (11) and (12) from Spanish and Greek, respectively (Giannakidou 1997, 2000). When they appear in preverbal position, they can licence

other postverbal indefinites, either NCIs or PSIs.<sup>3</sup> In opposition, the examples in (13) and (14) show that English *anybody* and *one bit* are not grammatical in such contexts.<sup>4</sup>

#### Spanish

- (11) *Nadie (\*no) ha comido nada.*  
 n-person not has eaten n-thing  
 ‘Nobody ate anything.’

#### Greek

- (12) *KANENAS \*(dhen) ipe TIPOTA / tipota.*<sup>5</sup>  
 n-person not said n-thing anything  
 ‘Nobody said anything.’

#### Standard English

- (13) \**Anybody did not eat anything.*  
 (14) \**One bit she did not eat.*

Further inspection of so-called NC languages has shown that if one follows mainstream practice and adopts the label NPI broadly, one must consider NCIs in languages such as Greek, Romanian or Russian “strong NPIs”, as they are often restricted to anti-morphic contexts, whereas in Catalan (and more marginally in Spanish) one should analyse them as “weak NPIs”, as lexical items such as *ningú* ‘anyone’ or *res* ‘anything’ can be used in non-veridical contexts such as questions and conditionals, as well as in anti-veridical contexts such as in the scope of a negative marker (exemplified with *res* in (15)–(16)).

#### Catalan

- (15) a. *Si necessities res, truca’m.*  
 if you.need anything call.me  
 ‘If you need anything, call me.’

<sup>3</sup> Postverbal NCIs in all NC languages require the presence of what looks like a sentential negative marker, though. See Tubau et al. (2023) for a new account of NC in terms of syntactic feature-sharing and feature disembodiment according to which this requirement obeys a syntax-phonology constraint rather than a semantic scope condition. See also Espinal et al. (2023) for an experimental study on Greek, Romanian, and Russian that shows that the distinction between Strict and Non-Strict NC is more about morpho-phonology than about the syntax-semantics interface.

<sup>4</sup> Other differences between PSIs and NCIs include the possibility (i) of long-distance licencing, which is a property of PSIs but not of NCIs (bound to syntactic locality), and (ii) of giving rise to double negation (DN) readings, which is a possibility for NCIs in some (but not all) NC languages (e.g. Hungarian and Romanian, in contrast to Greek), but never a possibility for PSIs.

<sup>5</sup> We thank E. Tsiakmakis (pers.comm.) for those Greek examples not extracted from the literature.

- b. *Que necessites res?*  
 Q you.need anything  
 ‘Do you need anything?’

- (16) *No menja res.*  
 not eat anything/n-thing  
 ‘S/he doesn’t eat anything.’

Regardless of whether NCIs are understood as (strong or weak) NPIs, and despite their varying behaviour across languages, the exact difference between NPIs and NCIs is still open to debate, and this is one of the issues addressed in this paper. In fact, in spite of the discussed distributional differences, and in spite of the fact that NPIs appear to be SEMANTICALLY negation-dependent expressions whereas NCIs have been classically considered to be SYNTACTICALLY negation-dependent expressions (Dočekal 2020; Giannakidou 1998 et seq.; Zeijlstra 2004 et seq.), there is no consensus in the literature on the relationship between the three classes of items, PSIs, NPIs and NCIs, and the three phenomena related to them, namely PS, NPol and NC. This is the reason why the main goal of this paper, based on the properties shown by polarity elements from various languages, is to scrutinise the relation between NPol and NC on the one hand, and between PS and NPol on the other, so as to provide an answer to the following research questions. First, is NC a type of NPol, a type of PS or a phenomenon independent of the two? Approaching this question will force us to address another one, namely what are the limits and the differences between these phenomena in the grammar of languages? One second question we address is how are the indefinite expressions that contribute to negation organised within a given language? Approaching this question will allow us to gain some insight on what the landscape of PSIs looks like in different languages.<sup>6</sup>

In order to answer these questions, first, we assume that the term PSI is a hyperonym, an umbrella term, and that PS is a general phenomenon found cross-linguistically, a semantic dependency between a licenser and a PSI, where the licenser is semantically non-veridical, and the licensee is semantically sensitive to non-veridicality (non-veridicality would play a role along the lines of Giannakidou 1997, 1998, 1999, et seq.). Second, NPol will also be a semantic dependency, but in this case the NPI will be sensitive to anti-veridicality and will need to be licenced by an anti-veridical operator (see Figure 1 and examples (1) and (2)). Therefore, we argue that NPol is a subtype of PS, in that the formal relation between the licenser and the licensee is constrained to include sensitivity only to anti-veridicality but not to other non-veridical operators. NPIs then participate in classical examples of anti-veridical

---

<sup>6</sup> For a recent investigation that pursues a similar line of research, see Zeijlstra (2022).

semantic dependencies, whereas PSIs participate in non-veridical semantic dependencies. Finally, based on Tubau et al. (2023), we assume that NC encodes a syntactic feature-sharing relation.

In this paper we centre our research in various typologically different languages that belong to different families and that show different properties in what concerns the polarity landscape. Thus, we begin Section 2 by focussing on Basque, a typologically isolated language that has been claimed in the literature to have NPI licencing (Laka 1990) but also to be a Strict NC language (Etxepare 2003; Etxeberria et al. 2018), thus showing that the boundaries between (negative) polarity licencing and NC are often difficult to establish. We show here, based on previous work (Etxeberria et al. 2022), that the Basque polarity elements are PSIs, not NCIs, and that as a consequence Basque cannot be considered an NC language, but a PS language. We use Basque PSIs to set the standard of what the properties of a PSI are expected to be cross-linguistically. Then we contrast the behaviour of Basque PSIs with that of (negative) indefinites in a language such as Hindi, which Lahiri (1998) described as having NPIs. The aim of comparing Hindi with Basque is to check what the real nature of these items is. We conclude that Hindi polarity items are PSIs in the sense that they are licenced in non-veridical contexts. Then we compare Basque (and Hindi) PSIs to English *any*-PSIs, and we show that they also have similar behaviour in negative contexts (except in subject position, where *any*-PSIs are excluded). The distributional differences are argued to be the result of the existence of polarity elements in English that do not exist in Basque or Hindi, namely, NQs. Finally, we compare Basque to NCIs in so-called Strict NC languages such as Romanian or Greek. These two languages have been shown in the literature to possess NPIs as well as NCIs, which enables us to scrutinise the properties of PSIs and to observe their relevant structural differences with NPIs, and NCIs from a cross-linguistic perspective. In Section 3 we investigate various contrasts between NCIs and NPIs in various Strict NC languages (such as Czech, Russian, or Modern Greek), and various so-called Non-Strict NC languages (Non-Standard English, French or Catalan) to show that (i) NC is not a subtype of NPol (i.e., these two phenomena do not exist in a subset relation), but a subtype of PS and, (ii) that, as a consequence, NCIs derive from PSIs, not from NPIs (see e.g. Labelle and Espinal 2014). Section 4 concludes the paper.

## 2 PSIs and NCIs from a cross-linguistic perspective

### 2.1 Basque indefinites in comparison to PSIs in other languages

Basque has a series of indefinites that are morphologically built on *wh*-words to which the prefix *e-* is added (Etxepare 2003; Euskaltzaindia 1993; Laka 1990; Michelena 1985; de Rijk 2008). This prefix *e-* is presumably related to the negative

marker *ez*, becoming *i-* by dissimilation. *I*-indefinites, as we will call them hereafter, are illustrated in (17).<sup>7</sup> Note however, that diachronically, there is no historical evidence that this Basque series of indefinites had ever had negative force by themselves, that is, they never occurred, for example, as fragment answers (possibly until the 21st century, see Section 3.2).

(17) Sample of *wh*-series and *i*-indefinite series in Basque

	<i>Wh</i> -series	<i>I</i> -indefinite series
PERSON	<i>nor</i> ‘who’	<i>i-nor</i> ‘anybody’
THING	<i>zer</i> ‘what’	<i>e-zer</i> ‘anything’
PLACE	<i>non</i> ‘where’	<i>i-non</i> ‘anywhere’
TIME	<i>noiz</i> ‘when’	<i>i-noiz</i> ‘any time’
MANNER	<i>nola</i> ‘how’	<i>i-nola</i> ‘anyhow’

Syntactically, note first that *i*-indefinites are unable to negate a sentence by themselves (18). In order for the sentence to be interpreted as negative and be grammatical, they must co-occur with the sentential negative marker *ez* ‘not’, which can licence several *i*-indefinites at a time; see (19).

Basque

- (18) a. \**Inork goxoki bat jan du.*  
anybody.ERG candy one.ABS eat AUX  
b. *Ez du inork goxoki bat jan.*  
not AUX anybody.ERG candy one.ABS eat  
c. *Inork ez du goxoki bat jan.*  
anybody.ERG not AUX candy one.ABS eat  
‘Nobody ate a candy.’
- (19) *Inork ez du inor inon ikusi.*  
anybody.ERG not AUX anybody.ABS anywhere see  
‘Nobody saw anybody anywhere.’

7 Apart from these *i*-indefinites, there are two other PSI series in Basque which are built using the focal particle *ere* ‘even’ combined either with an *i*-indefinite, (ia), or with *bakar bat* ‘lit.: single one’, (ib).

(i) a. *i*-indefinite *ere* lit.: anyone/anything even; ‘even anyone/anything’.  
b. N *bakar bat ere* lit.: N single one even, ‘even a single N’.

These two series have a parallel syntactic distribution to *i*-indefinites in that they are grammatical in the same contexts, but show different semantics due to the overt presence of the focal particle *ere* ‘even’. We will not consider these two series of indefinites in this paper. The reader is referred to Etxeberria et al. (2022).



Notice that these examples show that Basque *i*-indefinites are licenced by an anti-morphic operator. *I*-indefinites are also licenced in other non-veridical contexts and hence qualify as polarity elements that can appear in the most external circle in Figure 1. See Etxepare (2003: 547–549) for a list of environments that licence *i*-indefinites in Basque.

Second, Basque *i*-indefinites have been claimed to be ill-formed when used as fragment answers in the absence of the negative marker; see (20), in opposition to what happens with NCIs as we have seen in examples (7)–(8) from Spanish and Greek respectively.

- (20) Q: *Nor ikusi du Jonek?* A: *Inor ez.*  
           who see AUX Jon.ERG anybody not  
           ‘Who did Jon see?’ ‘Nobody.’  
                                   A’: \**Inor*.<sup>8</sup>  
                                   anybody

Third, *i*-indefinites cannot yield DN readings; see (21). This is strongly supported by experimental research in Etxeberria et al. (2018), who show that single negation (SN) is the native speakers’ preferred interpretation for sentences such as (21), with two *i*-indefinites and the sentential negative marker.<sup>9</sup>

- (21) *Inork ez du ezer ekarri.*  
       anyone.ERG not AUX anything bring  
       ‘Nobody brought anything.’

It cannot mean: ‘Nobody brought nothing.’ (Everybody brought something)

In addition, Etxeberria et al. (2022) have shown experimentally that Basque *i*-indefinites never give rise to a negative interpretation in the absence of an overt negative marker; see (22), which is a property of NCIs, as illustrated in the Spanish negative spread construction in (23).

<sup>8</sup> See Section 3.2.

<sup>9</sup> According to Etxepare (2003: 554, ex.1175), “the intonation corresponding to the polarity reading is expected to have a main prominent accent on *inork* ‘nobody’ and a secondary accent on preverbal *ezer* (typically, preverbal elements receive an accent, realised via stress in most dialects). In the universal quantifier interpretation, both *inork* and *ezer* are supposed to have an equally prominent accent. The intonation pattern is similar to one with focus and a quasifocus.”

This notwithstanding, in Etxeberria et al. (2018), where participants were asked to read transitive sentences containing *i*-indefinites in subject and object position with and without an overt negative marker *ez*, judge their acceptability and assign them a SN or a DN interpretation, speakers consistently interpreted them as conveying SN. That is, despite the different possible intonation patterns that critical items could be associated to (the sentences were written, so no particular intonation pattern was a priori attached to them), SN was the only available reading to participants.

- (22)    *\*Inork       ezer       ekarri du.*  
          anyone.ERG anything bring AUX  
          It cannot mean: ‘Nobody brought anything.’  
          It can only mean: ‘Somebody brought something.’

### Spanish

- (23)    *Nadie ha dicho nada.*  
          n-body has said n-thing  
          ‘Nobody said anything.’

When asked to evaluate the acceptability of declarative sentences containing one or more *i*-indefinites but no sentential negative marker (see (22) above), Basque speakers predictably assigned low acceptability scores to those sentences, thus showing that *i*-indefinites are semantically dependent expressions. Furthermore, when the same speakers had to attribute an interpretation to the sentences that had been rated low in the acceptability task by means of a picture-selection task, they consistently chose an existential reading rather than a negative one.

To sum up, Basque *i*-indefinites (i) cannot negate a sentence by themselves, (ii) can be licenced in a wide range of polarity contexts (beyond downward entailing, anti-additive, and anti-morphic ones), (iii) cannot be used in isolation as fragment answers, (iv) cannot yield DN, and (v) are associated with an existential reading when used in subject and object position of affirmative declarative sentences without the negative marker *ez* ‘not’. All these properties confirm that Basque *i*-indefinites are PSIs. This contrasts with what has been claimed in the literature, i.e. that Basque features Strict NC (Ettxepare 2003; Etxeberria et al. 2018), and that Basque *i*-indefinites are NPIs (Laka 1990), which Etxeberria et al. (2022) clearly show not to be the case. In fact, Laka’s (1990) definition of NPI includes the elements that we dub PSIs and NPIs. However, we argue that cross-linguistically NPIs constitute a reduced and idiomatic subset of PSIs.

In what follows, Basque *i*-indefinites are compared to what have been dubbed as PSIs in other languages, and as NCIs in Strict NC languages. The aim is not only to empirically motivate the position of Basque *i*-indefinites within the polarity landscape, but also to identify the set of properties that clearly define PSIs as well as the limits between NPol and NC more generally in the languages studied. We address this latter question in Section 3.

Hindi PSIs (e.g. *ek bhii* ‘any, even one’, Lahiri 1998: 58) are syntactically similar to Basque *i*-indefinites. First, Hindi PSIs must also co-occur with a clause-mate negative marker for a declarative sentence to be interpreted as negative

(and be grammatical), as shown in the example in (24). The examples in (24b,c) show on the one hand that *koi bhii* ‘any’ is licenced in pre-negative position and that Hindi has a pre-/post-negative symmetry as a characteristic property, exactly as has been shown to be the case for Basque *i*-indefinites in (18b,c).

Hindi

- (24) a. *\*koi bhii aaya.*  
           anyone came  
       b. *koi bhii aadmii nahiiN aayaa.*  
           any man not came  
           ‘No one came.’  
       c. *NahiiN aayaa koi bhii aadmii.*<sup>10</sup>  
           not came any man  
           ‘No one came.’

(Lahiri 1998: 60, ex. 6a,b)

Second, as can be seen in (25), the negative marker *nahiiN* can also licence multiple PSIs in the same clause, as was the case for Basque, see example (19). However, no DN readings are possible for these sentences.

- (25) *Kisii-ne kisii-ko nahiiN dekhaa.*  
       someone.ERG someone.OBJ not see  
       ‘Noone saw anyone.’

It cannot mean: ‘Noone saw no one.’ (Everybody saw somebody)

Third, like in Basque, Hindi PSIs are grammatical in a wide range of contexts, beyond anti-morphic ones: they are allowed in the restriction of universal quantifiers, as in (26) – a characteristic anti-additive context – as well as in *yes-no* questions, as in (27), among other downward entailing and non-veridical contexts.

- (26) *Aisaa har chaatr jisne koi bhii kitaab paRhii, paas ho gayaa*  
       such every student who any book read passed  
       ‘Every student who read any book passed.’

(Lahiri 1998: 63, ex. 11b)

- (27) *Tumben kuch bhii pasand aayii kyaa?*  
       you anything like QPART  
       ‘Do you like anything?’

(Lahiri 1998: 74, ex. 34c)

---

<sup>10</sup> We thank U. Lahiri (pers.comm.) for his intuitions about Hindi and those examples not extracted from Lahiri (1998).

Fourth, Hindi PSIs cannot occur as fragment answers without the presence of an overt negative marker, (28Ab).

- (28) Q: *Kaun aayaa?* A: a. *Koi bhii nahiiN.*  
           who come.PERF anyone not  
           ‘Who came?’ ‘Nobody.’  
                                   b. *\*Koi bhii.*<sup>11</sup>  
                                   anyone

Thus, Basque *i*-indefinites and Hindi PSIs show a very similar distribution. They appear in a similar range of contexts (both negative and non-negative), and they display remarkable parallelisms in negative contexts: (i) they must co-occur with the overt negative marker in declarative negative clauses and when used as fragment answers (i.e. they cannot be used as fragment answers by themselves), (ii) they can occur both in pre-negative and in post-negative position, and are therefore allowed in subject position, and (iii) they do not give rise to DN readings. All in all, the parallel between Basque and Hindi suggests that so-called PSIs have a wide distribution, licenced by a broad variety of non-veridical operators, and an existential meaning (see Ettxeberria et al. 2022 for Basque). This is important in relation to the fact that these same languages have a reduced set of items, NPIs, only licenced in the context of anti-veridical operators. See Section 3.1.

If we now compare Basque *i*-indefinites to English *any*-PSIs, we notice that they also show similar behaviour in negative contexts (except in subject position, where *any*-PSIs are excluded). As shown in (29), English *any*-PSIs must occur with clause-mate negation, either in the form of the negative marker *not/n’t* (29a), or of a negative quantifier (NQ) such as *nobody* (29b).

Standard English

- (29) a. *John didn’t see anyone.*  
       b. *Nobody saw anyone.*  
       c. *\*John saw anyone.*<sup>12</sup>

<sup>11</sup> Note that the ungrammaticality of (28Ab) corresponds to the PSI reading. The fragment answer is grammatical with a free-choice reading, because in Hindi the PSI series can also behave as free-choice items (FCIs) in generic and modal contexts (Lahiri 1998: 75). We do not consider FCIs in this paper.

<sup>12</sup> This example is grammatical with a free-choice reading assigned to *any*. In English, like in Hindi, there is no series of FCIs that are lexically distinct from the PSI series. Rather, FCIs and PSIs are homophonous in both languages (*any*- in English and *koi bhii* in Hindi). By contrast, Basque has two series of FCIs, namely *edo-nor* (lit. or-who) and *nor-nahi* (lit. who-want), which are distinct from PSIs

It is important to clarify at this point that despite the fact that lexical items such as *nobody*, *nothing* and the like have been referred to in the literature as NQs (Quirk et al. 1973), we here assume them to be the combination of an incorporated negation and an existential indefinite (Iatridou and Sichel 2011; Jacobs 1980; Klima 1964; Ladusaw 1992; Penka 2011; Penka and Zeijlstra 2010; Sauerland 2000; Temmerman 2012, among others) following a long-standing tradition that started in the mid-1960s. Within this view, English NQs, for instance, contain a negative operator *not*, which enters the derivation as an independent lexical item and syntactically merges with a PSI. Thanks to a morphological operation of Fusion (Temmerman 2012), the negative operator and the PSI become a single lexical item, i.e. an NQ. NQs, therefore, are considered complex syntactic objects that are derivationally formed and morphologically complex counterparts of PSIs under the immediate local domain of a(n incorporated) negative marker. Notice that, under this view, NQs are a subset of PSIs with an incorporated negative marker.

Since Basque (like Hindi) does not have lexical items comparable to English NQs, *i*-indefinites can only be licenced in negative declarative sentences by the overt presence of the clause-mate negative marker *ez* in full clauses, as already observed. That is, the Basque paradigm for (29) includes a counterpart of (29a) but not of (29b).

Beyond anti-morphic contexts, Basque *i*-indefinites share with English *any*-PSIs the possibility of being licenced in a broader set of contexts: in the scope of a negative quantificational adverb, in the scope of an affective predicate, or in the protasis of conditionals, as shown in (30)–(32).

(30) *John rarely attended any conference.*

---

(*i*-indefinites). This obviously blocks the use of PSIs as FCIs in Basque. Hence, in fragment answers such as (i) and (ii) English and Hindi allows FCIs, not PSIs, just like in Basque, see example (iii).

Standard English

(i) Q: *Who can come to the party?* A: *Anyone.*

Hindi

(ii) Q: *Main kyaa khaa saktaa huN?* A: *Kuchh bhii.*  
 I what eat can AUX anything  
 ‘What can I eat?’ ‘Anything.’

Basque

(iii) Q: *Nor joan daiteke zure festara?* A: *Edozein.*  
 who go AUX.can you.GEN party.to anyone  
 ‘Who can come to your party?’ ‘Anyone.’

(31) *I am surprised that John attended any conference.*

(32) *If John attends any conference, I will be surprised.*

Basque *i*-indefinites also show similarities with English *any*-PSIs in another syntactic context, namely that of fragment answers. As shown in (33A), English *any*-PSIs cannot be used as fragment answers, although their acceptability improves when they co-occur with an overt negative marker, (33b). Note that Basque *i*-indefinites are fully grammatical in a context such as (33Ab). Clearly though, in English the use of an NQ (as in (33Ac)) is preferred over the use of a negated *any*-PSI (as in (33Ab)).

(33) Q: *Who saw her?*

A: a. *\*Anybody.*

b. *??Not anybody.*

c. *Nobody.*

English *any*-PSIs, just like Basque *i*-indefinites, cannot induce DN readings, as in (34).

(34) a. *John didn't see anything.*

It cannot mean: 'John saw everything.'

b. *\*Anybody has eaten anything.*

It cannot mean: 'Everybody ate something.'

Crucially, unlike Basque *i*-indefinites and Hindi PSIs, which can surface higher than the licencing negative marker (e.g. in the subject position, see (18c), (19) for Basque and (24b), (25) for Hindi), English *any*-PSIs are excluded from surfacing higher than their negative licenser; as in (35).

(35) *\*Anything didn't happen.*

This is the case, we argue, because in English only NQs and, to a lesser extent, constituent-negated PSIs are grammatical in the subject position.<sup>13</sup> Since Basque lacks a class of lexical items that is equivalent to the NQ in (36a) or the constituent-negated PSI in (36b) (see Etxepare and Uribe-Etxebarria 2020), this leaves the Basque equivalent of (35) as the only possible option to express what the English sentences in (36) express. The same applies to Hindi.

---

<sup>13</sup> This asymmetry is often attributed to the Neg-First principle (Horn 1989: 292–293; Jespersen 1909–1949). According to Jespersen (1933: 297) NegFirst is a constraint that encodes the functional need “to put the negative word or element as early as possible, so as to leave no doubt in the mind of the hearer as to the purport of what is said.” According to Horn (1989: 311), “negation tends to be assigned as early as possible within the sentence, for ease in processing.”

In the particular case of English, this principle is not satisfied by (35), but it is by (36a) – under the assumption that *nothing* contains an incorporated negation – and (36b).

- (36) a. *Nothing* happened.  
 b. *??Not anything* happened.

Thus, a clear prediction of what we are claiming in this paper is that if a given language has no NQs, it will resort to a different polarity element available in that language. In the case of Basque or Hindi, it makes use of PSIs combined with overt sentential negation, since these are the only polarity elements available in these languages. Obviously, the opposite also holds, that is, if a language possesses NQs, it will not (or very marginally) resort to PSIs to express what the sentence in (36a) expresses.<sup>14</sup>

To sum up, English *any*-PSIs share with Basque *i*-indefinites and Hindi PSIs (i) the need for the presence of a negative marker in well-formed negative sentences, and the need for other licensors in non-negative contexts, (ii) the impossibility of occurring as isolated fragment answers, and (iii) the impossibility of licensing DN readings. However, Basque *i*-indefinites and Hindi PSIs differ from English *any*-PSIs in that the latter cannot occur in subject position and do not show a pre-/post-negative symmetry, a fact that must be linked to the existence of a series of NQs in English, but not in Basque and Hindi. This leads to the conclusion that, language internally, the polarity landscape of PSIs depends crucially on the distribution and meaning of the set of items that constitute this class.

## 2.2 Basque indefinites in comparison to NCIs

Let us now compare Basque *i*-indefinites to NCIs in Strict NC languages (e.g. Romanian, Greek, Hungarian, Czech, or Russian). So-called Strict NC languages (Giannakidou 1998) are languages where NCIs (both in preverbal and postverbal position) always co-occur with what looks like a sentential negative marker in full clauses.<sup>15</sup> This is illustrated in (37) for Romanian.<sup>16</sup>

---

14 The tendency to predominantly use NQs in preverbal position might be due to the fact that “a negative DP in the canonical subject position always types the clause as negative” (De Clercq et al. 2012: 28). See Tottie (1991) for the claim that NQs in postverbal position are mainly reserved for written language.

15 See Espinal et al. (2023) for an experimental study on Greek, Romanian and Russian that shows that what looks like a preverbal negative marker is not necessary to be able to attribute a single negation reading to sequences that contain NCIs in preverbal, postverbal or in both positions.

16 We thank A.M. Fălăuș, I. Giurgea, T. Mihoc and E. Soare (pers.comm.) for sharing their intuitions on Romanian with us.

## Romanian

- (37) a. *Nimeni \*(nu) a sunat.*  
 n-body not has called  
 ‘Nobody has called.’  
 b. *\*(Nu) a sunat nimeni.*  
 not has called n-body  
 ‘Nobody has called.’

Given the fact that Basque *i*-indefinites must always co-occur with the negative marker *ez* in negative full clauses, we could hypothesise that if Basque were an NC language (as suggested by Etxepare 2003; Etxeberria et al. 2018), it would have to be of the Strict kind. Yet, a number of very important differences arise when the distribution and the interpretation of Basque *i*-indefinites (and PSIs in general) is compared to that of NCIs in Strict NC. We consider the distributional differences in what follows, but concerning their interpretational differences it is important to note at this point that (i) Etxeberria et al. (2022) have already shown experimentally that Basque PSIs are interpreted existentially in the absence of an overt negative marker and are, hence, non-negative items; and that (ii) Espinal et al. (2023) have shown experimentally that the NCIs of Greek, Romanian and Russian (three so-called Strict NC languages) are negative indefinites whose presence in a clausal domain is enough to assign a single negation reading, (i.e. in the absence of what looks like an overt negative marker).

In this subsection we concentrate on Romanian and Greek, two languages that have been shown by the literature to possess weak NPIs (our PSIs) as well as NCIs, which enables us to dissect the relevant structural differences between PSIs, NPIs, and NCIs.

First, in Strict NC languages, NCIs and PSIs compete for lexical insertion in some contexts, namely in fragment answers and in preverbal position. In Romanian, for instance, the NCI *niciun/nicio* + N ‘no + N’ and the PSI *vreun/vreo* + N ‘any + N’ block each other. According to Farkas (2002), the PSI *vre-* is used under the scope of an anti-morphic negative operator (though with restrictions, compare (38a) with (38b)), in anti-additive contexts such as the complement of *without*, and the restriction of a universal quantifier, as well as other downward entailing contexts such as the restriction of the quantifier *few*, and non-veridical contexts such as questions, and conditionals.<sup>17</sup> As was also the case for English PSIs, *vre-* cannot occur in a position higher than the negative marker *nu* (39).

<sup>17</sup> We refer the reader to Fălăuș (2014: 124) for examples of PSI *vre-* in the restriction of a universal quantifier, the restriction of the quantifier *few*, and non-veridical contexts such as questions and conditionals.



## Romanian

- (38) a. *Nu cunosc vreun medicament care să-l ajute.*  
 not know.1SG vreun medicine that SUBJ-him help  
 ‘I don’t know of any medicine that can help him.’  
 b. *Nu am \*vreo prietenă/ nicio prietenă la Utrecht.*  
 not have.1SG vreun friend no friend in Utrecht  
 ‘I don’t have any friend in Utrecht.’

(adapted from Fălăuș 2014: 124, exes. 5b and 7)

- (39) *\*Vreun student nu a picat.*  
 vreun student not has failed  
 ‘Any student didn’t fail./No student failed.’

(adapted from Fălăuș 2014: 124, ex. 6)

By contrast, NCIs must be used in most contexts with clause-mate negation (see (38b)), and can appear in subject position, (40) (compare it to the ungrammatical (39)), as well as in fragment answers; see (41).

- (40) *Niciun student nu a picat.*  
 n- student not has failed  
 ‘No student failed.’

- (41) Q: *Cine a venit?* A: a. *Niciun student.*  
 ‘Who came?’ ‘No student.’  
 b. *\*Niciun student nu.*  
 no student not  
 c. *\*Nu niciun student.*<sup>18</sup>  
 not no student  
 d. *\*Vreun student.*  
 any student  
 e. *\*Nu vreun student.*  
 not any student

In Greek, there is a series of PSIs (e.g. *tipota* ‘anything’) and a parallel emphatic series of NCIs (e.g. *TIPOTA* ‘n-thing’; expressed with capital letters following the convention in the literature), which distribute in different contexts (Giannakidou 1997, 1998, 1999, et seq.). While PSIs (but not NCIs) can be used in non-veridical contexts such as questions, conditionals, and the scope of intensional verbs, only

<sup>18</sup> The answer in (41Ac) is ungrammatical unless there is a pause after *nu*; in such case the sentence would be interpreted as ‘No, no student’, and *niciun* as an NCI. We thank E. Soare (pers.comm.) for pointing this out to us.

NCIs can be used in fragment answers, as in (42), and in subject position, as in (43), even licencing a postverbal PSI or NCI, as in (44).

Greek

(42) Q: *Ti idhes?*

‘What did you see?’

A: a. \**Tipota*. b. *TIPOTA*. c. \**Dhen tipota*. d. \**Dhen TIPOTA*.  
 anything ‘Nothing.’ not anything not n-thing

(43) a. \**Kanenas dhen* irthe.  
 n-person not came  
 b. *KANENAS dhen* irthe.  
 n-person not came  
 ‘Nobody came.’

(44) *KANENAS dhen ipe tipota / TIPOTA*.  
 n-body not said anything n-thing  
 ‘Nobody said anything.’

A second important difference that arises when we compare the distribution of Basque *i*-indefinites to that of NCIs in Strict NC languages is that, as shown in (41A) and (42A) for Romanian and Greek respectively, NCIs in Strict NC languages must occur in the absence of the negative marker when used as fragment answers to questions (e.g. \**Niciun student nu*, \**Dhen TIPOTA*). By contrast, Basque *i*-indefinites (as well as Hindi PSIs), must co-occur with the sentential negative marker *ez* when used as fragments, see (20A) (and (28A)).

In order to continue clarifying the boundary between PSIs and NCIs empirically, we can inspect more thoroughly the distribution of Greek PSIs in negative contexts in order to check whether their behaviour is consistent with that of PSIs in Basque, Hindi, and English. As was shown in (42A), the Greek PSI *tipota* ‘anything’ cannot be used as a fragment answer, not even when preceded by the negative marker *dhen* ‘not’, whereas Basque and Hindi (and English to some extent) do not allow a PSI in the absence of a licencing negative marker to serve as a negative fragment answer. Unlike in these three languages, nonetheless, Greek does allow an emphatic NCI *TIPOTA* as a fragment answer. Recall that Basque and Hindi do not have NCIs (unlike Greek), or NQs (unlike English). Hence, the only possible fragment answer to questions such as (42Q) in Basque and Hindi is the combination of a PSI with the negative marker as its licensor. In the case of Greek, it seems that the existence of an NCI series bans the option of using a PSI with a licencing negative marker in a fragment answer. By contrast, in English the existence of NQs simply results in these being preferred over the combination of a negative marker and a PSI.

In a similar vein, note that Romanian and Greek PSIs are also excluded from surfacing higher than their clause-mate negative licenser, as in (39) and (43a), as was the case for English, see (35). While in Greek the preverbal position is reserved for NCIs, as in (44), in English it is reserved for NQs, as in (36a). In Hindi and Basque, PSIs can surface higher than their licenser because there are no other series of items competing for insertion in negative contexts.

Finally, it should be noted that while it is possible to obtain DN (and reject) readings in some Strict NC languages such as Romanian (and Hungarian), although not Greek, in sentences with two NCIs distributed in preverbal and postverbal positions in combination with some particular prosodic contour (Fălăuş and Nicolae 2016), DN has been shown not to be possible in sentences that combine various *i*-indefinites with *ez* in Basque (Etxeberria et al. 2018, 2022; contra Etxepare 2003) and various *koi bhii* indefinites with a negative marker in Hindi (see Lahiri 1998).<sup>19</sup> Consider the contrast between (45a), from Romanian, and (21), from Basque, and (25), from Hindi, copied here as (45b) and (45c), respectively.

#### Romanian

- (45) a. *Nimeni nu a citit nimic.*  
 n-body not has read n-thing  
 ‘Everybody read something.’

(Fălăuş and Nicolae 2016: 593, ex. 23)

#### Basque

- b. *Inork ez du ezer ekarri.*  
 anyone.ERG not AUX anything bring  
 ‘Nobody brought anything.’  
 It cannot mean: ‘Nobody brought nothing.’ (Everybody brought something)

#### Hindi

- c. *Kisii-ne kisii-ko nahiiN dekhaa.*  
 someone.ERG someone.OBJ not see  
 ‘Noone saw anyone.’  
 It cannot mean: ‘Noone saw no one.’ (Everybody saw somebody)

Summing up, in Section 2, we have shown that Basque and Hindi only have PSIs (no NCIs and no NQs), and that these PSIs are allowed in all polarity contexts. Basque and

<sup>19</sup> DN readings have been reported experimentally for Non-Strict NC languages. See Déprez et al. (2015) for Catalan, Espinal et al. (2016) for Spanish, and Déprez and Yeaton (2018) for French.

Hindi PSIs differ from English *any*-PSIs in that the latter cannot occur in subject position and do not show a pre-/post-negative symmetry, due to the fact, we argue, that English has a series of NQs. We have also shown that Basque, Hindi, English, Greek or Romanian PSIs differ from NCIs in that only NCIs (i) can occur in isolation as fragment answers, (ii) can licence DN readings in reject contexts, and (iii) are negative indefinites (see Espinal et al. 2023; Tubau et al. 2023). By contrast, Strict NC languages such as Romanian or Greek have both PSIs and NCIs, which obviously distribute in different polarity contexts, as shown above. Thus, cross-linguistically, PSIs and NCIs differ in both their distributional as well as in their interpretational properties.

### 3 Is negative concord a subtype of negative polarity?

In this section we first show that NPIs are morphologically distinct from NCIs. In other words, we show that those languages that have both series of items show a different distribution for them, and that NPIs form a closed class of vocabulary items. Second, we show that previous diachronic studies support the conclusion that NCIs derive from PSIs, but not from NPIs. Finally, we provide evidence for the fact that all languages with NC also have PS, but not all languages that have PS also have NC.

#### 3.1 NCIs are distinct from NPIs

Here we consider data from both Strict and Non-Strict NC systems and show that they all converge in having very limited instances of NPIs, which, in addition, are always formally distinct from NCIs and with a strong tendency towards being fully or partially idiomatic. We focus first on various contrasts between NCIs and NPIs in three Strict NC languages (Czech, Russian and Modern Greek), and then we move to Non-Strict NC languages (namely Non-Standard English) and PS languages (Basque and Hindi).

Thus, let us first consider Czech. This West Slavic language has been argued to have a small class of NPIs, distinct from NCIs. Dočekal (2020) discusses the distribution of *ani (jeden) + N* ‘even (one) N’ expressions and experimentally shows that despite having been traditionally classified as NCIs, they are actually NPIs. *Ani (jeden)* requires clause-mate negation in simple sentences and as such it could, in principle, be considered an NCI or a (strong) NPI.

## Czech

- (46) a. *Petr neviděl ani jednoho studenta.*  
 Petr NEG.saw even one n-adj student  
 ‘Petr didn’t see any student.’  
 b. *\*Ani jeden student přišel.*  
 even one student came  
 ‘Not even one student came.’

(adapted from Dočekal 2020: 27, ex. 24)

However, whereas NPIs are accepted in the embedded clauses of Neg-raising predicates, (47), NCIs are not, (48), confirming that *ani (jeden)* and *nikdo* have a different status.

- (47) *Nový bača v Tatrách si nemyslí, že se ztratila ani jedna ovce.*  
 new shepherd in Tatra se NEG.think COMP se lost even one sheep  
 ‘The new shepherd in Tatra doesn’t think that even one sheep is missing.’  
 (Dočekal 2020: 29, ex. 26d)

- (48) *\*Petr nechce, aby tu nikdo byl.*  
 Petr NEG.wants COMP.SUBJUNCTIVE here n-body were  
 Intended meaning: ‘Petr doesn’t want anybody to be here.’  
 (Dočekal 2020: 21, ex. 8c)

Further evidence for the NPI status of *ani (jeden)* is found in Dočekal and Dotlačil (2016, 2017), where the acceptability of *ani (jeden)* is tested in fragment answers. *Ani (jeden)* is not grammatical as a fragment answer while NCIs (e.g. *žádný*) are judged as natural by native speakers.

- (49) Q: *Kdo odešel z hospody?* A: a. *??Ani jeden student.*  
 who left from pub? even one student  
 ‘Who left the pub?’  
 b. *Žádný student.*  
 n-adj student  
 ‘No student.’  
 (Dočekal 2020: 34–5, ex. 36)

Interestingly, note that *ani (jeden)* does not function as a PSI in the sense that it cannot occur in non-veridical contexts such as questions or protasis of conditionals.<sup>20</sup>

- (50) a. *\*Koupil jsi ani jednu knihu?*  
 bought AUX.2SG even one book.ACC  
 Intended meaning: ‘Did you buy any book?’

<sup>20</sup> We thank R. Šimík (pers.comm.) for these Czech examples.

- b. \**Pokud jsi koupil ani jednu knihu, nechej ji na stole*  
 if AUX.2SG bought even one book.ACC leave.IMP it on table  
 Intended meaning: ‘If you bought any book, leave it on the table.’

Let us now consider Russian, an East Slavic language that contains a series of indefinites formed by adding the prefix *ni-* to interrogative pronouns (e.g. *nikto* ‘n-body’, *ničto* ‘n-thing’, *nigde* ‘n-where’, etc.) and that is characterised in the literature as showing NC. The distribution of these lexical items is the one expected from NCIs in Strict NC languages (see Garzonio 2019; Gerasimova 2019; Tsurska 2010). As shown in (51), they are required to co-occur with what looks like the negative marker *ne* ‘not’ when postverbal, as in (51a), and when preverbal, as in (51b), but not when used as fragments, as in (52), a context where NCIs occur without an overt sentential negative marker cross-linguistically.<sup>21</sup>

Russian

- (51) a. *Ne prišel nikto.*  
 not came n-body  
 ‘Nobody came.’

(Garzonio 2019: 176, ex. 1a’)

- b. *Nikto ne zvonil.*  
 n-body not called  
 ‘Nobody called.’

- (52) Q: *Čto ty videl?* A: *Ničego.*  
 what.ACC you saw n-thing. ACC  
 ‘What did you see?’ ‘Nothing.’

By contrast, Russian has a series of indefinites formed with the interrogative pronouns (*kto* ‘who’, *čto* ‘what’, *gde* ‘where’, etc.) and the affixes *-libo*, *-to* or *-nibud*<sup>22</sup> that are used in non-veridical contexts such as questions and conditionals (see (53) and (54)) and, thus, do not qualify as NPIs.<sup>23</sup>

<sup>21</sup> We thank D. Seres, O. Borik and L. Bogatyreva (pers.comm.) for those Russian examples not extracted from the literature.

<sup>22</sup> For some speakers there seems to be a preference for *-to/-nibud* forms over *-libo* forms, which are perceived as stylistically more formal.

<sup>23</sup> These indefinites can be interpreted as FCIs in Russian, but the PSI reading is also possible. The fact of having a homophonous PSI and FCI series is a property shared by many languages (e.g. English). In contexts where both are possible, we are only considering the PSI interpretation, as we do not consider FCIs in this paper.

- (53) *Vy udivleny kakimi-nibud' / kakimi-libo voprosami?*  
 you be surprised some-nibud' some-libo questions  
 'Are you surprised with any questions?'  
 (Gerasimova 2019: 110, ex. 12)
- (54) *Esli budut kakie-nibud' / kakie-libo voprosy, zvoni.*  
 if be some-nibud' / some-libo questions call  
 'If you have any questions, call me.'  
 (Gerasimova 2019: 110, ex. 11)

In addition, as expected, NCIs in Russian cannot occur in questions and conditionals.

- (55) *\*Ty videl ničego/nikogo?*  
 you saw nothing/nobody.ACC  
 Intended meaning: 'Did you see anybody/anything?'
- (56) *\*Elsi nikto ustal, my pojdëmguljat'.*  
 if nobody.NOM tired.MASC we go.PERF.walk  
 Intended meaning: 'If nobody is tired, we can go for a walk.'

Russian, nonetheless, has at least two items that qualify as NPIs: these are the lexical item *dolgo* 'for a long time' and the genitive subject. As can be seen in (57), *dolgo* requires a clause-mate negation (i.e. an anti-veridical operator). Example (58) shows that the genitive subject of a negative clause contrasts with the nominative subject of a non-negative clause. Hence, it seems that the grammaticality of genitive subjects depends on the obligatory presence of a clause-mate negation.

- (57) *My dolgo \*(ne) uvidimsja.*  
 we long.time not see.each.other.PERF.FUT  
 'We won't see each other for a long time.'
- (58) a. *Deneg ne ostaëtsja.*  
 money.GEN.PL not be.left.IMPERF.PRES.SG  
 'There's no money left.'
- b. *\*Deneg ostaëtsja.*  
 money.GEN.PL be.left.IMPERF.PRES.SG
- c. *Den'gi ostajutsja.*  
 money.NOM.PL be.left.IMPERF.PRES.PL  
 'There's money left.'

Modern Greek is another Strict NC language where NC co-occurs with a few instances of NPol. As mentioned above, Modern Greek NCIs (e.g. *TIPOTA* 'n-thing', *KANENAS* 'n-person', etc.) co-occur with a clause-mate negation both in postverbal and in

preverbal position, and can be used as fragment answers in the absence of an overt negation (see Section 2.2). Their non-emphatic counterparts, by contrast (e.g. *tipota* ‘anything’, *kanenas* ‘anybody’) have the distribution of PSIs: they are grammatical in non-veridical contexts (including negative sentences), but cannot serve as fragments. Beyond emphatic NCIs and non-emphatic PSIs, idiomatic expressions such as *trexi kastano* lit. ‘runs chestnut’, as in (59), *ute lexi* ‘not even word’, (60), and the prefix *poli-* ‘much’, (61), are only grammatical in anti-veridical contexts and, therefore, qualify as proper NPIs (see Giannoula 2021).

Greek

- (59) a. *Dhen trexi kastano.*  
not runs chestnut  
‘Nothing is happening.’  
b. *\*Trexī kastano?*  
runs chestnut
- (60) a. *Dhen ipe ute lexi.*  
not said not.even word  
‘He didn’t say a single word.’  
b. *\*Ipe ute lexi.*  
said not.even word
- (61) a. *Dhen polidiavasa.*  
not much.study.PAST.1SG  
‘I didn’t study much.’  
b. *\*Polidiavasa.*  
much.study.PAST.1SG

Interestingly, note that *poli-* ‘much’ cannot occur in non-veridical contexts such as questions or protasis of conditionals, hence it does not function as a PSI.

- (62) a. *\*Poly-dhiavase i Ioanna?*  
much-studied.3SG the Joanne  
Intended meaning: ‘Did Joanne study much?’  
(Giannoula 2021: ex. 9)
- b. *\*An i Ioanna poly-dhiavasi, tha pari A.*  
if the Joanne much-studies will take.3SG A  
Intended meaning: ‘If Joanne studies much, she will take an A’  
(Giannoula 2021: ex. 10)

If we now turn to Non-Strict NC languages, namely Non-Standard English, it should be noted that lexical items such as *nothing* participate in an NC relationship with *-n’t* in (63a) and *nobody* and *nothing* appear in a negative spread structure in (63b),



hence, they should be considered NCIs in these contexts. In addition, some few lexical items exist that differ morphologically from NCIs and that should be considered NPIs (e.g. *either*), since they are restricted to occurring with anti-morphic and anti-additive operators, as in (64a,b), but are ungrammatical with other downward entailing and non-veridical operators, as in (64c,d).

#### Non-Standard English

- (63) a. *I didn't say nothing.*  
Intended meaning: 'I didn't say anything.'  
b. *Nobody said nothing.*  
Intended meaning: 'Nobody said anything.'
- (64) a. *I didn't like it either.*  
b. *Nobody liked it either.*  
c. *\*Few people liked it either.*  
d. *\*Did she like it either?*

Finally, PS languages, that is, languages which – as we argue – do not have NCIs, but only PSIs, such as Basque and Hindi, also have a very small set of NPIs. In Hindi, for instance, there seems to be at least one NPI. As shown in (65), *gayaa* is an inabilitative modal that requires negation to be licenced. This modal cannot be licenced in other non-veridical contexts, as in (66), except for questions, but only when a negative answer is expected.<sup>24</sup>

#### Hindi

- (65) *Raam se ghar nahiiN jaayaa gayaa.*  
Ram-INSTR/AG home NEG go-PASSIVE go-PFV  
'Ram was not able to go home.'
- (66) *\*Agar us se pahaaR chaRhaa gayaa hota,*  
if he-INSTR mountain climb gayaa be-IMPV  
*to mujhe bahut khushii hotii.*  
then I-DAT very happiness be-IMPV  
Intended meaning: 'Had he managed to climb the mountain, I would be very happy'

In a similar vein, in Basque, which is also a language without NC (see Ettxeberria et al. 2022), certain lexical items exist that do not have a meaning of their own (*txint*, *tut*, *zipitz*) and that need to always appear in negative contexts (see Ettxeberria 2014, 2021; Ettxepare 2003; de Rijk 1972, 1996).

<sup>24</sup> We thank U. Lahiri and R. Bhatt (pers.comm.) for the Hindi data.

Basque

- (67) *Ez du txintik (ere) esan.*  
 not AUX txint.PART even say  
 ‘He didn’t say anything.’

In short, in this section we have shown that NC languages (both Strict and Non-Strict), as well as PS languages, have few cases of NPol. One could interpret these data by hypothesising that NC is a subtype of NPol. Yet, the discussed data are also compatible with the view that NC and NPol are independent phenomena. In fact, in support of this latter view we have shown that in a number of languages NCIs, which derive from indefinite PSIs, are morphologically and distributionally distinct from NPIs, and that the class of NPIs includes a remarkably small number of items, which are most often idiomatic.

In order to evaluate the claim that NC could be a subtype of NPol, in the next subsection we consider the diachronic evolution of some NCIs in a Non-Strict NC language and show that they do not evolve from NPIs. This points towards the conclusion that the two phenomena, NC and NPol, are different but compatible with each other rather than towards the conclusion that the two phenomena exist in a subset relation.

### 3.2 NCIs derive from PSIs, not from NPIs

In this section we focus on diachronic changes that have affected nominal and indefinite expressions with a special reference to a Non-Strict NC language, namely French. Previous studies coincide on the claim that in the evolution from Latin to Modern French some expressions became less negative over time (e.g. *nient*, *nuns*, *nesun*), while others became more negative (e.g. *nului*, *personne*, *rien*, *aucun*). According to Labelle and Espinal (2014) these historical changes depend on the gain or loss of a formal feature by these expressions, and they postulate two fundamental processes: (i) a semantic change (by which an expression acquires or loses a semantic feature that is a requirement for its interpretation as a PSI); (ii) a morphosyntactic change (by which an expression acquires or loses a syntactic feature that makes it syntactically dependent on a checking relationship). (See also Gianollo 2018; Herburger in press.)

This analysis predicts that, on the one hand, both indefinite and nominal expressions can become more negative over time. Thus, in the case of *personne* and *rien* the polar variant started to diverge from the plain nominal variant already in the 12th century in the case of *rien*, and in the 16th century in the case of *personne* (Labelle and Espinal 2014: 221). What is crucial for the topic of the present section is

the evolution from original nouns to PSIs and later to NCIs, and likewise for backward evolution from NCIs to PSIs (Déprez and Martineau 2004; Hansen 2013; Ingham 2011; Larrivée 2014, 2021; Larrivée and Kallel 2020).

On the other hand, these diachronic changes appear to show bidirectionality. Thus, Latin *nullus* underwent semantic weakening towards a PSI status and later underwent morphosyntactic change towards an NCI status. More specifically in Classical Latin *nullus* ‘no, none’ was an NQ, which became an NCI in Late Latin when it displayed NC. In Old French the descendant of *nullus*, *nul*, was a PSI, with an existential reading in typical non-veridical polarity contexts. Finally, in Middle French *nul* started to be found with a negative reading outside of polarity contexts, suggesting the emergence of an NCI status. Interestingly though, it is relevant to note that, to our knowledge, this same type of bidirectionality has not been described for NPIs, most probably due to their characteristic idiomatic status and marked distribution.

In addition, in Basque there seems to be a change in progress when it comes to the distribution of *i*-indefinites in fragment answers that is of particular interest to what we are arguing in this paper. Recall from Section 3.1 that Basque *i*-indefinites are ungrammatical in fragment answers (a context that is diagnostic of NC) unless an overt negative marker is present in the sentence, as in (68)/(20).

Basque

- (68) Q: *Nor ikusi du Jonek?* A: a. *Inor ez.*  
           who see AUX Jon.ERG anybody not  
           ‘Who did you see?’ ‘Nobody.’  
       b. \**Inor.*  
           anybody

However, in contrast to the ungrammaticality of (68Ab), young generations of Basque speakers appear to be using *i*-indefinites as fragment answers without the need for the presence of the sentential negative marker. In order to empirically support the observation that younger generations show a tendency to accept Basque PSIs as fragment answers we have conducted an informal acceptability judgement test with two groups of speakers: 45 participants of 38–51 years of age (Group 1), and 46 participants of 14–18 years of age (Group 2).

We prepared two Google Forms questionnaires with four question/answer pairs that consisted of a question and a fragment answer with a Basque *i*-indefinite (different in each answer, *inor* ‘anybody’, *ezer* ‘anything’, *inon* ‘anywhere’, and *inoiz* ‘anytime’) with no sentential negative marker and a continuation sentence that forced the participants to interpret the answers in a negative way, that is, as though these elements were NCIs.

- (69) a. Jon: *Nor joango da gaur gaueko festara?*  
 who go.FUT AUX today night-GEN party.ALL  
 ‘Who will go to tonight party?’  
 b. Ane: *Inor. Lagun guztiak etxean geratuko dira.*  
 anybody friend all.D.PL home.IN stay.FUT AUX  
 ‘Nobody. All the friends are staying home.’
- (70) a. Jon: *Zer jan du Mikelek bazkaltzeko?*  
 what eat AUX Mikel.ERG lunch.FOR  
 ‘What did Mikel eat for lunch?’  
 b. Ane: *Ezer. Bazkal aurretik asko jan omen du.*  
 anything lunch before much eat EVID AUX  
 ‘Nothing. Apparently, he ate a lot before lunch.’

Participants read the stimulus and they were asked to rate the acceptability of the answer provided by Ane in (69b) or (70b) by choosing among two options: “In your opinion, Ane’s response is adequate”; “In your opinion, Ane’s response is not adequate”. Each sentence was presented without a preceding context.

Speakers of Group 1 judged in 93.25 % of the cases the answer provided in the test as unacceptable while speakers of Group 2 judged the same answers as acceptable in 90.20 % of the cases. The results consistently show that younger speakers judge fragment answers such as (69) and (70), and by extension the one in (68Ab), as much more acceptable than older speakers and interpret them as negative. In other words, they interpret them as NCIs. Further research and more formal tests are needed to confirm this statement, but we would not expect to find any difference in the results.

This obviously means that younger generations are beginning to reanalyse *i*-indefinites from PSIs to NCIs. The crucial point here is that this is happening without *i*-indefinites transitioning to NPIs first. That is, those (young) speakers that accept and produce fragment answers such as the ones in (68Ab), (69), and (70) still use *i*-indefinites in the whole range of non-veridical contexts (e.g. questions, conditionals, etc.) that we have presented in Section 2.1, rather than restricting them to anti-veridical contexts, contexts where NPIs are accepted. This change in progress recently detected in Basque,<sup>25</sup> together with what we have shown above based on Labelle and Espinal (2014), come to show that NC is not a subtype of NPI since the data show that NCIs do not derive from NPIs.

---

<sup>25</sup> We thank M. Uribe-Etxebarria for pointing this out to us.

### 3.3 All languages with NC also have PS, but not vice versa

The claim that NC cannot be conceived as a subtype of NPol, as we have been able to conclude in the previous section, does not exclude the idea that NC may be a type of PS (and NPol a different subtype of PS). In this section we aim to show that there are languages with PS and NPol but no NC and that, at the same time, there may also be languages with PS and NC but no NPol.

Let us assess such predictions in turn. If NC is a special kind of PS, it is predicted to be the case that all NC languages will also have PSIs, while it must not be the case that all languages that have PSIs also have NCIs. It was shown in Sections 2.1 and 3.2 that Basque and Hindi are languages with PSIs and a small number of NPis but with no NCIs, thus confirming the prediction made by the conclusions in the previous section. To the best of our knowledge, there are no languages in the world that have NCIs but no PSIs at all.

The picture that emerges, therefore, is one where PS is a general phenomenon across languages (Haspelmath 1997), with NPol and NC being possible subtypes of PS but independent phenomena from one another. This makes it possible for languages to have PS, NPol and NC as part of their grammar (e.g. Non-Standard English, Czech, Modern Greek, Catalan, and French), but also languages with PS, but no NC and very few cases of NPis. The latter is the case of Hindi and Basque, but also Standard English, which has not been discussed so far.

Standard English is generally assumed to be a non-NC language, as NQs such as *nobody* and *nothing* introduce logical negation on their own (see de Swart 2010; Ladusaw 1992; Longobardi 2014; Puskás 2012; Zeijlstra 2004; among others). This is especially obvious when they occur in postverbal position and no overt negative marker is needed for the proposition to be negated, as in (71).

Standard English

(71) *She said nothing.*

Remember that in this paper (see Section 2.1) we are assuming that so-called NQs are complex syntactic objects that are derivationally formed and morphologically complex counterparts of PSIs under the immediate local domain of a(n incorporated) negative marker. Thus, NQs are a marked subset of PSIs. One of the predictions of the assumption that morphologically NQs are the combination of a PSI and a negative marker is that if a language has NQs, it will also have other polarity elements; in other words, no language will exist in the world that only has NQs as the only type of expression in the polarity-sensitive landscape. This appears to be the case.

Regardless of how Standard English lexical items such as *nobody* and *nothing* are analysed, what is clear is that they are not NCIs in this variety, for it is a cross-linguistic property of NCIs to require what looks like an overt negative licenser when they occur in a postverbal position, which is not the case for NQs, as in (71). Unlike

NCIs, NQs encode an instance of logical negation that negates the proposition regardless of the syntactic position in which they occur.

The situation is such that Non-Standard English (see Section 3.1) differs from Standard English in having NCIs in addition to NQs, PSIs and NPIs. This suggests that assuming that NPol and NC are special types of PS makes the right predictions. Non-Standard English is a language that has NC and also has PS, while Standard English has PS but not NC.

## 4 Conclusions

In this paper we have investigated the nature and limits of PS, NPol and NC. On the basis of an analysis of Basque *i*-indefinites (compared to Hindi and English PSIs, and to NCIs in Strict NC systems), as well as an analysis of NPIs and NCIs in various Strict (Czech, Russian, Greek) and Non-Strict (French, Spanish) NC systems, we conclude that: (i) if a language has PSIs it does not necessarily have NCIs, but if a language has NCIs it necessarily has PSIs; (ii) NCIs are distinct from NPIs, (iii) NCIs emerge as a subtype of PSIs, not as a subtype of NPIs, and (iv) the polarity landscape is such that all languages that show NC also have PS, but not the other way around, and that NC is not a special subtype of NPol.

In particular, we have shown that Basque (like Hindi) is a language with PSIs and a small number of NPIs, but no NCIs. We thus support a picture according to which PS is a general phenomenon across languages, with NPol and NC being possible subtypes of PS but independent phenomena from one another, NPol regulated as a semantic dependency and NC regulated as a syntactic one. These dependencies, which have been investigated in the light of languages that show PS and not NC (Basque, Hindi, Standard English) and languages that show both PS and (Strict and Non-Strict) NC (Czech, Greek, Romanian, Russian, Non-Standard English, French, Spanish), should be further tested more generally through typologically different languages to support the limits here postulated between PS, NPol and NC.

The cross-linguistic predictions of what we have proposed in this paper are the following: (i) it is possible for languages to have PS, NPol and NC as part of their grammar, but it is also the case that some languages only show PS, with very few cases of NPol, and no NC; (ii) it is not possible for a language to have NQs and not have other polarity elements; (iii) it is not possible for a language to have NCIs and not have other polarity items; (iv) it is not possible to find languages with only NPIs and not PSIs in general; (v) it is possible for languages to have NCIs without having NPIs. Obviously, future research on more languages will test whether the predictions put forward in this paper are to be confirmed. See Table 1, which contains the criteria used for classifying the languages discussed in the paper, with their values and the number of example(s) where this is illustrated.

Table 1: Summary.

Properties	Language types	
	PS LANGUAGES	NC LANGUAGES
	– LANGUAGES THAT ONLY HAVE PSIs (BASQUE, HINDI)	– LANGUAGES THAT HAVE PSIs AND NCIs
	– LANGUAGES THAT HAVE PSIs AND NQs (ENGLISH)	
Dependent polar indefinites ( <i>any</i> ) cannot negate a sentence by themselves	✓ Basque (18) ✓ Hindi (24) ✓ English (29)	✓ Romanian PSIs. Farkas (2002) ✓ Greek PSIs. Giannakidou (1997, et seq.) ✓ Russian PSIs. Gerasimova (2019), Tsurska (2010) ✓ Romanian NCIs (37) ✓ Greek NCIs. Giannakidou (1997, et seq.) ✓ Russian NCIs. Gerasimova (2019), Tsurska (2010)
Dependent polar indefinites ( <i>any</i> ) can be licenced in a wide range of polarity contexts	✓ Basque. Etxepare (2003: 547–9) ✓ Hindi (26), (27) ✓ English (30), (31), (32)	✓ Romanian PSIs. Farkas (2002) ✓ Greek PSIs. Giannakidou (1997, et seq.) ✓ Russian PSIs. Gerasimova (2019), Tsurska (2010) ✗ Greek NCIs Giannakidou (1997, et seq.) ✗ Russian NCIs (55), (56)
Several dependent polar indefinites ( <i>any</i> ) can be licenced at a time and may occur both pre-negative and post-negative	✓ Basque (19) ✓ Hindi (25) ✗ English (29), (35) versus (36)	✗ Romanian PSIs versus NCIs (39) versus (40) ✗ Greek PSIs versus NCIs (43a) versus (43b) ✗ Russian PSIs versus NCIs
Dependent polar indefinites ( <i>any</i> ) cannot be used as fragments	✓ Basque (20A) ✓ Hindi (28) ✓ English (33)	✓ Romanian PSIs. (41) ✓ Greek PSIs. (42) ✗ Romanian NCIs (41) ✗ Greek NCIs (42) ✗ Russian NCIs (52)
Dependent polar indefinites ( <i>any</i> ) cannot yield DN readings	✓ Basque (21). Etxeberria et al. (2018) ✓ Hindi (25) ✓ English (34)	✓ Romanian PSIs. Farkas (2002). ✓ Greek PSIs. Giannakidou (1997, et seq.) ✓ Russian PSIs. Gerasimova (2019), Tsurska (2010) ✗ Romanian NCIs (45) ✗ Non-standard English NCIs (63)

Table 1: (continued)

Properties	Language types	
	PS LANGUAGES	NC LANGUAGES
	– LANGUAGES THAT ONLY HAVE PSIs (BASQUE, HINDI)	– LANGUAGES THAT HAVE PSIs AND NCIs
	– LANGUAGES THAT HAVE PSIs AND NQs (ENGLISH)	
Dependent polar indefinites ( <i>any</i> ) do not give rise to a negative reading without an overt negative marker	✓ Basque (22). Etxebarria et al. (2022) ✓ Hindi (24)	✗ Romanian, Greek and Russian NCIs. Espinal et al. (2023)
NCIs are formally distinct from NPIs and have a different distribution		✓ Czech (48) versus (47), (49), (50) ✓ Russian (51) versus (53), (54)
Restricted distribution of NPIs	✓ Basque (67) ✓ Hindi (65), (66) ✓ English (64)	✓ Greek (59), (60), (61) ✓ Russian (57), (58)
NCIs derive from PSIs, not from NPIs	✓ Basque (69), (70)	✓ French. Labelle and Espinal (2014)

**Acknowledgements:** We would like to express our most sincere gratitude to the reviewers and editors of *Linguistic Typology* for their detailed and helpful comments. We are most grateful to U. Lahiri, E. Tsiakmakis and M. Uribe-Etxebarria for data and comments on Hindi, Greek and Basque, respectively; to A.M. Fălăuş, I. Giurgea, T. Mihoc and E. Soare for their judgements on Romanian; and to L. Bogatyreva, O. Borik and D. Seres for their judgements on Russian.

**Research funding:** We acknowledge financial support from Spanish MINECO (grants PID2020–112801GB–I00, PGC2018-096380-B-100), Generalitat de Catalunya (grant 2021SGR00787), ANR (grant ANR-17-CE27-11), and ANR-DFG (grant ANR-18-FRAL-0006).

**Author contributions:** The authors initiated this study in 2018 and have continuously been thinking about the limits between polarity sensitivity, negative polarity and negative concord while they have been developing experimental and theoretical work on these phenomena in various languages, also in collaboration with V. Déprez (Rutgers U.), J. Borràs-Comes (U. Barcelona), and E. Puig-Mayenco (King’s College London).



## Abbreviations

Abbreviations used in the glosses:

ABS	absolutive
ACC	accusative
ALL	allative
AUX	auxiliary
COMP	complementizer
D.PL	determiner plural
D.SG	determiner singular
EVID	evidential
ERG	ergative
FUT	future
GEN	genitive
IMPERF	imperfective
PART	partitive
PERF	perfective
QPART	question particle
SUBJ	subjunctive.

Abbreviations used in the text:

DN	double negation
FCIs	free choice items
NC	negative concord
NCIs	negative concord items
NPIs	negative polarity items
NPol	negative polarity
NQs	negative quantifiers
PS	polarity sensitivity
PSIs or PIs	polarity (sensitive) items
SN	single negation

## References

- Bosque, Ignacio. 1980. *Sobre la Negación* [About Negation]. Madrid: Ediciones Cátedra.
- De Clercq, Karen, Liliane Haegeman & Terje Lohndal. 2012. Medial adjunct PPs in English: Implications for the syntax of sentential negation. *Nordic Journal of Linguistics* 35(1). 5–26.
- Déprez, Viviane & France Martineau. 2004. Micro-Parametric variation and negative concord. In Julie Auger, J. Clancy Clements & Barbara Vance (eds.), *Contemporary approaches to Romance linguistics. Current issues in linguistic theory*, vol. 258, 139–158. Amsterdam: John Benjamins.
- Déprez, Viviane, Susagna Tubau, Anne Cheylus & M. Teresa Espinal. 2015. Double negation in a negative concord language: An experimental investigation. *Lingua* 163. 75–107.

- Déprez, Viviane & Jeremy Yeaton. 2018. French negative concord and discord: An experimental investigation of contextual and prosodic disambiguation. In Lori Repetti & Francisco Ordóñez (eds.), *Romance Languages and Linguistic Theory 14: Selected papers from the 46th Linguistic Symposium on Romance Languages*, 35–51. Amsterdam: John Benjamins.
- de Swart, Henriëtte. 2010. *Expression and interpretation of negation: An OT typology*. Studies in Natural Language and Linguistic Theory 77. Dordrecht, Heidelberg, London, New York: Springer.
- Dočekal, Mojmír. 2020. N-words and NPIs: Between syntax, semantics, and experiments. In Franc Marušič, Petra Mišmaš & Rok Žaucer (eds.), *Advances in formal Slavic linguistics 2017*, 15–49. Berlin: Language and Science Press.
- Dočekal, Mojmír & Jakub Dotlačil. 2016. Experimental evidence for neg-raising in Slavic. *Linguisticai* 56(1). 93–109.
- Dočekal, Mojmír & Jakub Dotlačil. 2017. Strong NPIs vs. n-words: Acceptability experiment in Czech. *Paper presented at Sinn und Bedeutung 22, Berlin*.
- Espinal, M. Teresa, Susagna Tubau, Joan Borràs-Comes & Pilar Prieto. 2016. Double negation in Catalan and Spanish. Interaction between syntax and prosody. In Pierre Larrivé & Chuming Lee (eds.), *Negation and polarity: Experimental perspectives*, 145–176. Dordrecht: Springer.
- Espinal, M. Teresa, Urtzi Etxeberria, Eloi Puig-Mayenco & Susagna Tubau. 2023. On the status of NCIs. An experimental investigation on so-called Strict NC languages. *Journal of Linguistics* 1–41. <https://doi.org/10.1017/S0022226723000221>.
- Etxeberria, Urtzi. 2014. The definite article and the partitive particle in Basque: Dialectal variation. In Silvia Luraghi & Tuomas Huomo (eds.), *Partitive cases and related categories*, 291–322. Berlin: de Gruyter.
- Etxeberria, Urtzi. 2021. The partitive marker in Basque, and its relation to bare nouns and the definite article. In Petra Sleeman & Giuliana Giusti (eds.), *Partitive determiners, partitive pronouns and partitive case*, 319–355. Berlin: de Gruyter.
- Etxeberria, Urtzi, Susagna Tubau, Viviane Déprez, Joan Borràs-Comes & M. Teresa Espinal. 2018. Relating (un)acceptability to interpretation. Experimental investigations on negation. *Frontiers in Psychology* 8. 2370.
- Etxeberria, Urtzi, Susagna Tubau, Joan Borràs-Comes & M. Teresa Espinal. 2022. Polarity Items in Basque. Experimental evidence for their existential reading. *Natural Language and Linguistic Theory*. 40. 485–504.
- Etxepare, Ricardo. 2003. Negation. In José Ignacio Hualde & Juan Ortiz de Urbina (eds.), *A grammar of Basque*, 387–421. Berlin: Mouton de Gruyter.
- Etxepare, Ricardo & Myriam Uribe-Etxebarria. 2020. A conspiracy theory of constituent negation. *Paper presented at the Barcelona Linguistic Hub, January 22, 2020. Universitat Autònoma de Barcelona*.
- Euskaltzaindia. 1993. *Euskal Grammatika Laburra: Perpaus Bakuna* [The brief Basque grammar: Simple sentences]. Bilbao: Euskaltzaindia.
- Fălăuş, Ana Maria. 2014. (Partially) free choice of alternatives. *Linguistics and Philosophy* 37(2). 121–173.
- Fălăuş, Ana Maria & Andrea C. Nicolae. 2016. Fragment answers and double negation in strict negative concord languages. *Semantic Linguistic Theory* 26. 584–600.
- Farkas, Donka. 2002. Extreme non-specificity in Romanian. In Claire Beyssade, Reineke Bok-Bennema, Frank Drijkoningen & Paola Monachesi (eds.), *Romance languages and linguistic theory 2000*, 127–151. Amsterdam: John Benjamins.
- Gajewski, Jon. 2008. Licensing strong NPIs. *University of Pennsylvania Working Papers in Linguistics* 14(1). 1–14.
- Garzonio, Giuseppe. 2019. Negative concord in Russian: An overview. *Studi e Ricerche* 20. 175–189.
- Gerasimova, Anastasia. 2019. Licensing negative polarity items in Russian Event nominalizations. *Proceedings of ConSOLE XXVII*. 106–117.

- Giannakidou, Anastasia. 1997. *The landscape of polarity items*. University of Groningen PhD dissertation.
- Giannakidou, Anastasia. 1998. *Polarity sensitivity as (non)veridical dependency*. Amsterdam and Philadelphia: John Benjamins.
- Giannakidou, Anastasia. 1999. Affective dependencies. *Linguistics and Philosophy* 22. 367–421.
- Giannakidou, Anastasia. 2000. Negative...concord? *Natural Language and Linguistic Theory* 18. 457–523.
- Giannakidou, Anastasia. 2006. *Only*, emotive factive verbs, and the dual nature of polarity dependency. *Language* 82(3). 575–603.
- Giannakidou, Anastasia. 2011. Positive polarity items and negative polarity items: Variation, licensing, and compositionality. In Claudia Maienborn, Klaus von Stechow & Paul Portner (eds.), *Semantics: An international handbook of natural language meaning*, 1660–1712. Berlin: de Gruyter.
- Giannakidou, Anastasia & Hedde Zeijlstra. 2017. The landscape of negative dependencies: Negative concord and N-words. In Martin Everaert & Henk van Riemsdijk (eds.), *The Wiley Blackwell companion to syntax*, 2099–2136. London: Wiley Blackwell.
- Giannoula, Mina. 2021. *POLY and a novel NPI analysis*. University of Chicago Ms.
- Gianollo, Chiara. 2018. *Indefinites between Latin and Romance*. Oxford: Oxford University Press.
- Hansen, Maj-Britt Mosegaard. 2013. Negation in the history of French. In David Willis, Christopher Lucas & Anne Breitbarth (eds.), *The history of negation in the languages of Europe and the Mediterranean. Vol. 1: Case studies*, 51–76. Oxford: Oxford University Press.
- Haspelmath, Martin. 1997. *Indefinite pronouns*. Oxford: Clarendon Press.
- Haspelmath, Martin. 2022. *Negindefinites and negative concord: Concepts, terms and analyses*. University of Leipzig lingbuzz/006819 Ms.
- Herburger, Elena. 2001. The negative concord puzzle revisited. *Natural Language Semantics* 9. 289–333.
- Herburger, Elena. 2023. On the history of NPIs and negative concord. *The Canadian Journal of Linguistics/Revue canadienne de linguistique* 68(4). 555–589.
- Hoeksema, Jack. 2012. On the natural history of negative polarity items. *Linguistic Analysis* 44(2). 3–33.
- Homer, Vincent. 2021. Domains of polarity items. *Journal of Semantics* 38(1). 1–48.
- Horn, Laurence R. 1989. *A natural history of negation*. Chicago: University of Chicago Press.
- Iatridou, Sabine & Ivy Sichel. 2011. Negative DPs, A-movement, and scope diminishment. *Linguistic Inquiry* 42. 595–629.
- Ingham, Richard. 2011. Grammar change in Anglo-Norman and continental French: The replacement of non-assertive indefinite *nul* by *aucun*. *Diachronica* 28(4). 441–467.
- Jacobs, Joachim. 1980. Lexical decomposition in Montague Grammar. *Theoretical Linguistics* 7. 121–136.
- Jespersen, Otto. 1909–1949. *A modern English grammar on historical principles*. London: Allen and Unwin/Copenhagen: Ejnar Munksgaard.
- Jespersen, Otto. 1933. *Essentials of English grammar*. London: Allen & Unwin.
- Klima, Edward S. 1964. Negation in English. In Jerry A. Fodor & Jerrold J. Katz (eds.), *The structure of language. Readings in the philosophy of language*, 246–323. New Jersey: Prentice Hall.
- Labelle, Marie & M. Teresa Espinal. 2014. Diachronic changes in negative expressions: The case of French. *Lingua* 145. 149–225.
- Ladusaw, William A. 1992. Expressing negation. In Chris Barker & David Dowty (eds.), *Proceedings of SALTIII*, 237–259. Columbus: The Ohio State University.
- Ladusaw, William A. 1996. Negation and polarity. In Shalom Lappin (ed.), *The handbook of contemporary semantic theory*, 321–341. Oxford: Blackwell.
- Lahiri, Utpal. 1998. Focus and negative polarity in Hindi. *Natural Language Semantics* 6. 57–123.
- Laka, Itziar. 1990. *Negation in syntax: On the nature of functional categories and projections*. Massachusetts Institute of Technology PhD dissertation.
- Larivée, Pierre. 2014. L'unidirectionnalité irréversible du changement linguistique comme conséquence de l'acquisition? Le cas d'expressions négatives déliquescentes en français ancien. In Franck Neveu,

- Peter Blumenthal, Linda Hriba, Annette Gerstenberg, Judith Meinschaefer & Sophie Prévost (eds.), *Congrès Mondial de Linguistique Française 2014*, 297–311. SHS Web of Conferences.
- Larrivée, Pierre. 2021. Turning negative: Micro-steps from negative polarity item to negative-word. *Language Sciences* 85. <https://doi.org/10.1016/j.langsci.2021.101382>.
- Larrivée, Pierre & Amel Kallel. 2020. The empirical reality of bridging contexts. Strong polarity contexts as the transition between NPIs and n-words. *Journal of Historical Linguistics* 10(3). 427–451.
- Longobardi, Giuseppe. 2014. Theory and experiment in parametric minimalism: The case of Romance negation. In Rob Pensalfini, Myfany Turpin & Diana Guillemin (eds.), *Language description informed by theory* (Studies in Language Companion Series 14), 217–262. Amsterdam: John Benjamins.
- Michelena, Luis. 1985. *Fonética Histórica Vasca* [Basque Historical Phonetics]. San Sebastián: Publicaciones del Seminario Julio de Urquijo de la Excma. Diputación Foral de Guipúzcoa.
- Penka, Doris. 2011. *Negative indefinites*. Oxford: Oxford University Press.
- Penka, Doris & Hedde Zeijlstra. 2010. Negation and polarity: An introduction. *Natural Language and Linguistics Theory* 28. 771–786.
- Progovac, Liljana. 1994. *Positive and negative polarity: A binding approach*. Cambridge: Cambridge University Press.
- Puskás, Genoveva. 2012. Licencing double negation in NC and non-NC languages. *Natural Language and Linguistic Theory* 30. 611–649.
- Quirk, Randolph, Sidney Greenbaum, Geoffrey Leech & Jan Svartvik. 1973. *A grammar of contemporary English*. London: Longman.
- de Rijk, Rudolf P. G. 1972. *Studies in Basque syntax: Relative clauses*. Massachusetts Institute of Technology PhD dissertation.
- de Rijk, Rudolf P. G. 1996. *Nunc* in old Basque. In José Ignacio Hualde, Joseba A. Lakarra & Robert L. Trask (eds.), *Towards a history of the Basque language*, 295–312. Amsterdam: John Benjamins.
- de Rijk, Rudolf P. G. 2008. *Standard Basque. A progressive grammar*. Cambridge, MA: The MIT Press.
- Sauerland, Uli. 2000. No ‘no’: On the crosslinguistic absence of a determiner ‘no’. In Uli Sauerland (ed.), *Tsukuba workshop on determiners and quantification*, 415–444. Tsukuba: Tsukuba University.
- Temmerman, Tanja. 2012. *Multidominance, ellipsis, and quantifier scope*. University of Leiden PhD dissertation.
- Tottie, Gunnel. 1991. *Negation in speech and writing*. San Diego: Academic Press.
- Tovena, Lucia. 2020. Negative polarity items. In Viviane Déprez & M. Teresa Espinal (eds.), *The Oxford handbook of negation*, 391–406. Oxford: Oxford University Press.
- Tsurska, Olena Anatoliyivna. 2010. *Clausal architecture and sentential negation in Slavic*. Arizona State University PhD dissertation.
- Tubau, Susagna, Urtzi Etxeberria & M. Teresa Espinal. 2023. A new approach to negative concord: Catalan as a case in point. *Journal of Linguistics* 1–33. <https://doi.org/10.1017/S0022226723000233>.
- van der Wouden, Ton. 1994. *Negative contexts*. University of Groningen PhD dissertation.
- Zeijlstra, Hedde. 2004. *Sentential negation and negative concord*. University of Amsterdam PhD dissertation.
- Zeijlstra, Hedde. 2022. *Negation and negative dependencies*. Oxford: Oxford University Press.
- Zwarts, Frans. 1995. Nonveridical contexts. *Linguistic Analysis* 25. 286–312.
- Zwarts, Frans. 1996. A hierarchy of negative expressions. In Heinrich Wansing (ed.), *Negation. A notion in focus*, 169–194. Berlin: Walter de Gruyter.
- Zwarts, Frans. 1998. Three types of polarity. In Fritz Hamm & Erhard Hinrichs (eds.), *Plurality and quantification*, 177–238. Dordrecht: Springer.