

This chapter is concerned with the linguistic environments in which double negation readings do and do not arise in double negation and negative concord languages. The theoretical background comes from other chapters in the *Oxford Handbook of Negation*. We briefly survey the experimental literature on the role of prosody in the comprehension of negative concord and double negation, and continue with a multilingual corpus investigation that focuses on language use. Under the assumption that all languages convey the same message in a specific context, production data in parallel corpora enable us to detect grammatical variation through translation. The examples are extracted from the parallel corpus Europarl and the languages discussed are English, Dutch, German, Italian, French and Spanish. Even though the set of languages is relatively small, the spread of grammars should be wide enough to shed light on the phenomenon of double negation in natural language.

Key words: double negation, negative concord, cross-linguistic variation, parallel corpus

## **27.1 What is a double negation reading?**

### *27.1.1 Single negation and double negation readings*

Chapters 19, 22, 24, 25, 26 introduce the theoretical background on negation markers, negative indefinites and the syntax-semantics interface, with references to Baker (1970), Payne (1985), Corblin (1986), Horn (1989/2001), Herburger (2001), Falaus (2007), de Swart (2010, 2016), etc. Depending on the language and the syntactic configuration at hand, a sequence of multiple negative expressions in the sentence can give rise to a single negation (SN) reading (either  $\neg p$  or  $\neg\exists\exists$ ), and a double negation (DN) reading ( $\neg\neg p$  or  $\neg\exists\neg\exists$ ). Compare French (1a) and English (1b):<sup>1</sup>

- |     |    |                                              |                  |
|-----|----|----------------------------------------------|------------------|
| (1) | a. | Elle <i>ne</i> vient <i>pas</i> .            | [written French] |
|     |    | she NEG comes NEG.                           |                  |
|     |    | ‘She didn’t come.’                           | SN               |
|     | b. | Carol <i>didn’t</i> dare <i>not</i> to come. |                  |
|     |    | Carol did NEG dare NEG to come               | DN               |

In the remainder of this chapter, we talk about sequences of negative expressions when dealing with multiple negative forms and DN when dealing with a double negation meaning.

### *27.1.2 Negative concord languages and double negation languages*

The frameworks introduced in chapters 19, 22, 24 and 26 build on the differences between negative polarity items (NPIs) and negative concord items (NCIs) to establish a distinction between double negation and negative concord languages. Relevant references include

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<sup>1</sup> A note on glosses: NEG=sentential negation, N-body, N-thing, etc. are negative indefinites in either double negation or negative concord languages.

Ladusaw (1979, 1992, 1996), Zanuttini (1991), Vallduví (1994), Krifka (1995), Haspelmath (1997), van der Wouden (1997), Giannakidou (1998, 2006), Zeijlstra (2004), Penka (2010), Collins & Postal (2014) and others. NPIs are non-negative expressions that typically occur under the scope of negation, for instance English *anybody*. NCIs like Italian *nessuno* are similar in form to the English negative indefinite *nobody*, but give rise to a single negation (SN) rather than a double negation (DN) reading when combined with negation or other negative indefinites. The examples in (2) (from de Swart 2016) illustrate:

- |     |    |                                     |           |
|-----|----|-------------------------------------|-----------|
| (2) | a. | <i>Non ho visto nessuno.</i>        | [Italian] |
|     |    | NEG has seen N-body.                |           |
|     |    | ‘I haven’t seen anybody.’           | SN        |
|     | b. | I haven’t seen <i>anybody</i> .     | [English] |
|     |    | $\neg\exists x$ See(I, x)           | SN        |
|     | d. | <i>Nobody</i> said <i>nothing</i> . | [English] |
|     |    | $\neg\exists x\neg\exists$ Say(x,y) | DN        |

Italian, French and Spanish are Negative Concord (NC) languages, because sequences of negative indefinites give rise to a single negation (SN) reading (2a). English, Dutch and German are Double Negation (DN) languages, because they employ regular indefinites or NPIs under negation (2b), and sequences of negative indefinites give rise to a DN reading (2c). Note that the use of NPIs is obligatory in contexts like (2b), because *something* is a Positive Polarity Item (PPI), an expression that refuses to take narrow scope under negation. Strict negative concord languages always require NCIs to cooccur with negation (standard French, at least in the higher registers). Italian and Spanish require the cooccurrence with negation only when the NCI appears in postverbal position, as in (2a); this is called non-strict negative concord. For more discussion on the optional and obligatory use of NPIs and NCIs, see Labov (1972), Zanuttini & Haegemann (1995), Szabolcsi (2004), de Swart (2010), and references therein.

Although the contrasts are typologically strong, a closer investigation of negative concord languages reveals that a sequence of negative indefinites in an NC language sometimes allows a double negation reading. The observations go back to Zanuttini (1991), Haegemann & Zanuttini (1995), Corblin (1996), Depréz (2000), Herburger (2001), de Swart & Sag (2002), Borsley & Jones (2005), Falaus (2007), de Swart (2010), Puskás (2012). See (3a) (from Corblin 1996) for an example. Similarly, a sequence of negative expressions can give rise to an SN reading in a DN language like Dutch, as in (3b), from Zeijlstra (2010).

- |     |    |                                                |          |
|-----|----|------------------------------------------------|----------|
| (3) | a. | <i>Personne n’est le fils de personne.</i>     | [French] |
|     |    | N-body NEG is the son of N-body.               |          |
|     |    | = No one is the son of anyone.                 | [NC]     |
|     |    | = Everyone is the son of someone.              | [DN]     |
|     | b. | Zij heeft <i>nergens geen</i> zin in.          | [Dutch]  |
|     |    | she has N-where N-one lust in                  |          |
|     |    | ‘She doesn’t feel like doing anything at all.’ | [SN]     |

Corblin (1996) emphasizes the role of pragmatic likelihood of the DN reading in (3a), and Zeijlstra (2010) argues that SN readings like the one in (3b) are restricted to adjacent negative expressions and create special, emphatic negations. Both examples thus have a special status in their language.

### *27.1.3 The role of prosody in the perception of double negation and negative concord*

Recent research by Blanchette (2013) and Blanchette et al. (2018) takes the debate one step further, and suggests that the DN/NC distinction is not operative at the macrolevel of languages, but is subject to microvariation across dialects and registers. Their focus is on English, a language that is known to have both DN and NC varieties. Their experiments show that speakers of Standard Average English (a DN variety) can detect SN readings in the presence of contextual and prosodic support. These results mirror the perception experiments carried out for Afrikaans by Huddleston (2010). Standard Afrikaans assigns a DN reading to a sequence of two negative indefinites, but colloquial Afrikaans is an NC variety. Huddleston found that speakers who produce standard Afrikaans can access the SN reading in a perception experiment. Further cross-linguistic evidence that prosody plays a disambiguating role comes from experimental research on French, Catalan and Spanish comes from Déprez et al. (2015) and Déprez & Yeaton (2018), as reported in Chapter 39.

Unfortunately, the results of similar perception experiments carried out by Fonville (2013) for Dutch were inconclusive. Furthermore, Blanchette's results are duplicated for child English, but not adult English in Thornton et al. (2016) (see also chapter 35). The role of acoustic cues in the detection of DN and SN readings may well be the main open question in current experimental research.

The experimental literature raises the question when and where DN readings arise in either class of languages, and whether the grammatical distinction between DN and NC languages can be upheld. The aim of this chapter is to complement the focus on perception and prosody with a corpus approach that analyses patterns of language use. A parallel corpus allows us to compare the cross-linguistic production of negation within a single register.

### *27.1.4 Patterns of language production: monolingual and multilingual corpus research*

Fonville (2013), Fonville & de Swart (2014) carried out monolingual corpus research on double negation configurations in the Corpus of Spoken Dutch to find out what characterizes configurations like those in (3b). The Corpus Gesproken Nederlands (Spoken Dutch Corpus, CGN) is an annotated corpus consisting of 900 hours of spontaneous speech (Boves & Oostdijk, 2003). Within this corpus it is possible to perform a content search (e.g. to search for occurrences of a word), and to impose constraints on such a content search. These features make it possible to search for occurrences of two different negative indefinites near each other in the corpus. Searches were performed for all possible combinations of two negatives out of the following Dutch negative terms:<sup>2</sup> *niemand* ('nobody'), *niets/niks* ('nothing'), *nooit* ('never'), *nergens* ('nowhere'), *niet* ('not'), *geen* ('no'), within a one-word, two-word and three-word distance from each other. With just over 100 instances, the most

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<sup>2</sup> Searches were restricted to the Dutch regions, because the Flemish varieties are known to allow negative concord more easily (Haegemann & Zanuttini 1996).

frequent combination is *niet niks/niet niets* ‘not nothing’. Combinations starting with *niemand* (‘nobody’) or *nergens* (‘nowhere’) show a very low overall frequency (<10 datapoints). The corpus investigation thus reveals strong lexical constraints on sequences of negative indefinites.

For each of the combinations, the interpretation of the sentence was manually determined in terms of double negation, single negation or other. The examples in (4) illustrate:

- (4) a. Ik heb mijn kamer *niet* voor *niets* opgeruimd. [DN]  
 I have my room NEG for N-thing cleaned up  
 ‘I cleaned up my room for a reason.’
- b. Josie heeft zich in haar leven nog *nooit* door *niemand* laten inpalmen. [SN]  
 Josie has REFL in her life yet N-ever by N-body let take in  
 ‘Josie has never in her life let anybody take her in.’
- c. Er was daar *niets* wat er *niet* hoorde en *niets* ontbrak. [other]  
 there was there N-thing what there NEG belonged and N-thing lacked  
 ‘There was nothing that didn't belong there and nothing was missing.’

The category ‘other’ includes self-corrections, multiple negative expressions separated by a clause boundary as in (4c) (see Section 27.3.2 below), and other configurations that do not contribute to the research question. The results are summarized in Table 27.1 (from Fonville 2013).

<insert Table 27.1 here>

As Table 27.1 indicates, SN interpretations are much more frequent at 1-word distance than at 2-word distance. These findings are in line with Zeijlstra’s (2010) requirements on adjacency. However, adjacency may well be a strong tendency, it is not a hard rule: SN interpretations are available when the negative expressions are separated by other material, as illustrated by (4b).

In order to expand the dataset, the search for sequences of Dutch negative expressions at 1-word, 2-word and 3-word distances was repeated in the much larger EuroParl corpus, which is extracted from the proceedings of the European Parliament (Tiedemann 2012).<sup>3</sup> Of the 2,333,816 sentences in the Dutch section, we extracted 577 possible exemplars based on close proximity of multiple negations. Where chapter 38 reports a quantitative study of negative dependencies, this chapter provides the complementary qualitative perspective. By zooming in on the inventory of DN and SN configurations in EuroParl, rather than the number of their occurrences, we can relate the corpus data to linguistic theory.

EuroParl includes versions in 21 European languages: Romance (French, Italian, Spanish, Portuguese, Romanian), Germanic (English, Dutch, German, Danish, Swedish), Slavic (Bulgarian, Czech, Polish, Slovak, Slovene), Finno-Ugric (Finnish, Hungarian, Estonian), Baltic (Latvian, Lithuanian) and Greek. The EuroParl corpus is released as a source release with the document files and a sentence aligner, and parallel corpora of language pairs that include English. Some, but not all EuroParl documents indicate what

<sup>3</sup> Many thanks to Ben Bonfil for carrying out the EuroParl searches.

language the original speaker was using. Multilingual comparison reduces the risk of ad hoc findings due to translation effects, and compensates for lack of information on the original language. Not all datapoints provide translations in all the languages, so in some of the examples cited in this chapter, one or more of the languages under investigation are missing.

Under the assumption that the same message is conveyed in all languages, EuroParl enables us to investigate cross-linguistic variation in the realization of negation in the highest register of spoken language. The formal register of EuroParl is clearly reflected in the negation system of French, for instance in the negative use of *ne* (8f, 18e, 22f). Negative indefinites always cooccur with *ne* in our data (10f, 19f, 21f), whereas it is well known that *ne* is mostly dropped in colloquial French (Godard 2004 and references therein). Based on these stylistic features, we take it that we are comparing the production of DN languages (Dutch, English, German) with that of NC languages (French, Spanish, Italian) within a single register.

## 27.2 In which contexts do DN readings arise in all languages?

### 27.2.1 Morphological negation

Note that morphological negation does not participate in negative concord, so the combination NEG + negative affix gives rise to a DN reading in all languages (Horn 2001). In English, we see this in *not impossible*, *not unhappy*, etc. In NC languages we see this in French *pas incompetent* ('not incompetent') or Italian *non impossibile* ('not impossible'). See Chapter 6 for theoretical background and discussion of relevant examples. We did not search for DN readings with morphological negation in EuroParl.

### 27.2.2 Constituent negation

Negation is sensitive to focus (Chapter 19), so its domain may be smaller than the clause, in which case we are dealing with constituent negation (Klima 1964, Horn 2001). Constituent negation is like morphological negation in the sense that it does not participate in negative concord, so DN readings are found in all languages. As illustrated in (5) (ep-97-09-16.xml), a typical configuration in EuroParl is *not only* + negated verb.<sup>4</sup>

- |        |                                                                                               |           |
|--------|-----------------------------------------------------------------------------------------------|-----------|
| (5) a. | (...) it seems to us that <i>not only</i> has Title 4 <i>not</i> been revoked, but (...)      | [English] |
| b.     | Ons komt voor dat (...) titel 4 <i>niet</i> alleen <i>niet</i> ingetrokken is, maar (...)     | [Dutch]   |
| c.     | Es erscheint uns, dass Titel 4 <i>nicht</i> nur <i>nicht</i> aufgehoben wurde, (...)          | [German]  |
| d.     | A noi pare che <i>non</i> solo <i>non</i> sia stato revocato (...)                            | [Italian] |
| e.     | A nosotros nos parece que <i>no</i> sólo <i>no</i> se revocó (...)                            | [Spanish] |
| f.     | Nous avons le sentiment que <i>non</i> seulement le titre 4 <i>n'a pas</i> été révoqué, (...) | [French]  |

French (5f) marks constituent negation with *non*, so the distinction with sentential negation *ne...pas* is visible in the form. In the remainder of this chapter, we leave morphological and constituent negation aside, and concentrate on DN readings with sentential negation and/or

<sup>4</sup> Data cited from the EuroParl corpus are coded for their origin, for instance, the datapoint ep-97-09-16 in (5) is from a discussion in the European Parliament in the year 1997, month 09, day 16.

negative indefinites. Even there, constituent negation may come into play (see Herburger 2001 and Section 27.3.3 below).

### 27.2.3 Clause boundedness of negative concord

In line with Linebarger (1980), Zanuttini (1991), Progovac (1994), Haegeman (1995), we take negative concord to be a clause bound phenomenon, similar to quantifier scope (Farkas & Giannakidou 1996). Laka (1990) and Déprez (1999) identify exceptions to clause boundedness in complex sentences related to the lexical semantics of the matrix predicate (inherently negative predicates vs. others), finiteness and mood of the subordinate clause (subjunctive vs. indicative) and subject/object asymmetries. Modulo these extended locality effects, we expect all languages to display DN readings in complex sentences where the sequence of negations crosses a clause boundary. This was the reason why we classified example (4c) as ‘other’. DN readings across clause boundaries constitute a substantial portion of the DN readings found in the CGN as well as EuroParl.

Negation in the main clause may combine with negation in a coordinated clause, a disjunction, a conjunction, a complement clause, a relative clause, an infinitival complement, etc. Example (6) (ep-04-09-14.xml) illustrates with the combination of two markers of sentential negation in the main clause and a complement clause. The continuation introduced by *but* brings out the litotes style figure that is frequently associated with DN readings (Horn 1989/2001, Blutner 1998, 2000). The example further shows that negations in two coordinated main clauses give rise to a DN reading:

- (6) a. This is *not* to say that we should *not* react to violations of human rights wherever they may occur in the world, but that is *not* Parliament’s job. [English]
- b. Dit betekent *niet* wij *niet* moeten reageren wanneer de rechten van de mens, waar ook ter wereld, worden geschonden, maar daar is het Europees Parlement *niet* voor. [Dutch]
- c. Das soll *nicht* heißen, dass wir *nicht* auf Menschenrechtsverletzungen, wo auch immer in der Welt sie geschehen, reagieren sollten, aber das ist *nicht* die Aufgabe des Parlaments. [German]
- d. Esto *no* significa que *no* debemos reaccionar ante las violaciones de los derechos humanos siempre que se produzcan en el mundo, pero eso *no* es tarea del Parlamento. [Italian]
- e. Je *ne* veux *pas* dire par là que nous *ne* devons *pas* réagir aux violations des droits de l’homme où qu’elles se produisent dans le monde, mais ce *n’est pas* le boulot du Parlement. [French]

Example (6) shows that the grammar of sentential negation is quite stable across the languages under consideration. Example (7) (ep-97-10-22.xml) shows that indefinites lead to more variation in language use. In the English version (7a), the chain of a negation marker licensing an NPI is itself embedded under a higher negation operator. The Dutch and German versions (7b,c) resort to the coordination of negation and a negative determiner under the main clause negation operator.

- (7) a. I am *not* saying that it should *not* be supported under *any* circumstances but (...). [English]
- b. Ik zeg *niet* dat die *niet*, en onder *geen* enkele voorwaarde, gesteund moeten worden, maar (...). [Dutch]
- c. Ich sage *nicht*, dass die *nicht* und unter *keiner* Bedingung unterstützt werden sollen, aber (...)

[German]

- d. Io *non* dico che essi *non* debbano, in *nessuna* circostanza, essere sostenuti, ma (...) [Italian]
- e. No digo yo que *no* habría que apoyarlas *nunca* de *ninguna* de las formas, pero (...) [Spanish]
- f. Je *ne* dis *pas* qu'il *ne* faut les soutenir sous *aucune* condition, mais (...) [French]

As expected, the Romance languages use NCIs in the embedded clause. The repetition of NEG in the complement clause in (7e-f) confirms the clause boundedness of negative concord in Italian, Spanish and French, where the embedding establishes a DN reading for the complex sentence as a whole.

Although in most examples of DN readings across clause boundaries the highest negation is a sentential marker, we also find instances of DN with negation in a relative clause depending on a negative indefinite in the main clause, as in example (8) (ep-97-03-13.xml):

- (8) a. (...) the joint motion for a resolution which has been tabled by six groups contains *nothing* that we have *not* been saying for a long time already. [English]
- b. (...) in de door zes fracties gezamenlijk ingediende ontwerpresolutie staat *niets* wat wij *niet* al sedert lang zeggen. [Dutch]
- c. Der von sechs Fraktionen gemeinsam eingereichte EntschlieÙungsantrag enthält *nichts*, was wir *nicht* schon längst gesagt haben. [German]
- d. (...) la proposta di risoluzione avanzata congiuntamente da sei gruppi *non* contiene *nulla* che *non* sia stato già detto da lungo tempo (...). [Italian]
- e. (...) la enmienda presentada conjuntamente por seis Grupos *no* contiene *nada* que *no* hayamos dicho nosotros hace mucho tiempo (...). [Spanish]
- f. (...) la proposition de résolution introduite conjointement par six groupes *ne* contient *rien* que nous *n'*ayons dit depuis longtemps. [French]

Note that the equivalence of meaning under translation with the DN languages in (8a-c) makes the treatment of the negation markers in the relative clause of (8d-f) in terms of expletive negation an unlikely option. See chapter 15 for more on expletive negation.

The EuroParl data discussed in this section are in line with the overall distinction between DN and NC languages in the literature, and confirm the clause boundedness of negative concord. It should be kept in mind that some analyses allow subclausal negation domains different from constituent negation (Zeijlstra 2004, Puskás 2012), so the boundaries of a negative concord chain may be difficult to determine exactly, as we will see in Section 27.3.3 below.

#### 27.2.4 Beyond double negation: triple negation and avoidance strategies

The markedness of negation (Horn 1989/2001, de Swart 2010) suggests that piling up negations is something speakers might avoid in language production data. Yet M. Devos, M. Kasombo Tshibanda & van der Auwera (2010) indicate that we do not only find double negation, but even triple negation. As expected, such configurations are rare in actual language use, but they can be found in EuroParl, as we already saw in the Dutch and German (6b,c). Example (9) (ep-99-11-03.xml) displays triple negation across clause boundaries (subordination and coordination) in English, Dutch and Spanish (9a,b,e). However, German

(9c) and Italian (9d) reduce the processing complexity by turning the last negation into an affirmative.

- (9) a. I do *not* know why it is *not* rigorously applied but it is *not*. [English]
- b. Ik weet *niet* waarom ze *niet* strikt wordt toegepast, maar het gebeurt gewoon *niet*. [Dutch]
- c. Ich weiß *nicht*, warum sie *nicht* streng durchgesetzt wird, aber es ist so. [German]
- d. *Non* conosco il motivo per cui questa misura *non* viene fatta rispettare, ma così stanno le cose. [Italian]
- e. *No* sé por qué *no* se aplica rigurosamente, pero *no* se aplica. [Spanish]

Triple readings can also be avoided by bringing conjuncts under the scope of negation, as in example (10) (ep-98-03-09.xml).

- (10) a. But a democracy *cannot* exist *without* respect for human and women 's rights. [English]
- b. Maar een democratie kan *niet* bestaan waar *geen* mensenrechten en *geen* vrouwenrechten gerespecteerd worden. [Dutch]
- c. Aber eine Demokratie kann *nicht* bestehen, wo Menschenrechte und Frauenrechte *nicht* respektiert werden. [German]
- d. (...) ma la democrazia *non* può esistere laddove *non* vengono rispettati i diritti umani e i diritti delle donne. [Italian]
- e. Pero una democracia *no* puede existir cuando *no* se respetan los derechos humanos *ni* los derechos de la mujer. [Spanish]
- f. Mais *aucune* démocratie *ne* peut exister là où les droits de l'homme et des femmes *ne* sont *pas* respectés. [French]

Note the use of Spanish *ni* in (10e) as an instance of negative concord across coordinated noun phrases.

In parallel corpora, we regularly find instances of DN in one language, mirrored by an affirmative construction in one of the other languages. Example (11) (ep-04-11-18.xml) shows DN in Dutch and an inherently negative noun in the English version (see also 13 below):

- (11) a. Mr President, where there are systems there will be failures, and (...). [English]
- b. Mijnheer de Voorzitter, er bestaan *geen* systemen die *nooit* haperen, (...). [Dutch]

As both DN and NC languages regularly avoid the piling up of multiple negations in language use, we take the markedness of negation to be a stable cross-linguistic property.

We conclude that DN readings occur in all languages with sequences of negations that cross clause boundaries. The markedness of negation is in line with the avoidance strategies of multiple negation we find in all languages. We are now ready to turn to contexts in which the availability of a DN reading correlates with the distinction between DN and NC languages.

### 27.3. DN readings restricted to DN languages

#### 27.3.1 Expected multiple negative expressions within a single clause

The core criterion which decides whether a language has an NC or DN grammar is whether multiple negative expressions within a single clause give rise to a SN reading or a DN

reading (see Section 27.1.2). The key examples are in (2), but of course, these are constructed examples from the literature. The question is whether we can find attested instances of such configurations in EuroParl. The answer is positive. Configurations we are after are of the type in (12) (ep-98-11-16.xml), which shows a robust contrast between DN languages and NC languages.

- |         |                                                                                               |           |
|---------|-----------------------------------------------------------------------------------------------|-----------|
| (12) a. | I am in favour of minimal censorship but <i>not of none</i> .                                 | [English] |
| b.      | Nu ben ik voor minimale censuur, maar <i>niet</i> voor <i>geen enkele</i> .                   | [Dutch]   |
| c.      | Ich bin für minimale Zensur, <i>nicht</i> jedoch für gar <i>keine</i> .                       | [German]  |
| d.      | Soy partidario de una censura mínima, pero <i>no</i> de la <i>inexistencia</i> de la censura. | [Spanish] |
| e.      | Je suis en faveur d' une censure minimale mais <i>pas inexistante</i> .                       | [French]  |

English, Dutch and German convey a DN reading with the combination of sentential negation and a negative pronoun (*none* in 12a) or a negative determiner (*geen* in 12b, *keine* in 12c). Spanish and French (12d,e) convey DN through the combination of sentential negation and morphological negation, which, as we know from Section 27.2.1, does not participate in negative concord. NC language thus avoid the use of an NCI in this context.<sup>5</sup>

As noticed in Section 27.2.4 above, the combination *niet niets* ('not nothing') is the most frequent DN configuration in the CGN, and it also occurs quite regularly in EuroParl. We find an example in (13) (ep-09-05-06-015.xml).

- |      |                                                                                                                                                                                                                                     |           |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| (13) | Context: I think, Mrs ***, that you can be proud of helping to establish what I call establishing and charging the power lines between citizens and the European institutions – new power lines, drawing them up and charging them. |           |
| a.   | I think that is quite something.                                                                                                                                                                                                    | [English] |
| b.   | (...) dat is <i>niet niets</i> .                                                                                                                                                                                                    | [Dutch]   |
| c.   | Ich finde, das ist eine erstaunliche Leistung.                                                                                                                                                                                      | [German]  |
| d.   | <i>Non</i> è cosa da poco, a mio avviso.                                                                                                                                                                                            | [Italian] |
| e.   | Creo que <i>no</i> es una tarea fácil.                                                                                                                                                                                              | [Spanish] |

It is easy to see that (13b) conveys DN, because the English and German (13a,c) are affirmative sentences, and show that the DN reading is used as an instance of litotes (see Section 27.2.3 above). Italian (13d) and Spanish (13e) express this style figure through the combination of negation and an expression that refers to the low end of a scale: *not a small thing, not an easy task*. Of course, DN languages can make use of the 'not small' strategy as well, but in NC languages it is an efficient way to compensate for the inability of NCIs to participate in litotes. The avoidance strategies in (12) and (13) suggest that the distinction between DN and NC languages can be upheld.

### 27.3.2 Cardinality zero readings

The semantics of negative indefinites in NC languages is heavily contested (see Chapters 22, 24, 26 for discussion). It would be interesting to see if we can use the EuroParl corpus to test

<sup>5</sup> We thank an anonymous reviewer for the suggestion that constraints on nominal ellipsis might come into play in example (12). As far as we can see, the point remains that morphological negation constitutes a universal strategy to achieve DN readings, and thus can be profitably exploited in NC languages. Lack of space prevents us from delving further into the issue, so we leave the interaction of nominal ellipsis with negation as an open question.

some of the hypotheses that have been advanced in the literature. In most cases, the existing analyses provide different semantic explanations of the same production data, so a usage-based approach cannot discriminate between them. One possible exception is the analysis of NCIs as numeral expressions referring to cardinality zero (Déprez 1997, 2000, Espinal 2000). As cardinal expressions easily lend themselves to cumulative interpretations (Scha 1984), this analysis explains why sequences of negative indefinites in NC languages lead to SN readings: zero plus zero amounts to zero.

As both DN and NC languages have dedicated cardinal expressions referring to zero (e.g. English *zero*, Spanish *cero*), the semantic difference between negative indefinites in DN and NC languages should lead to a difference in distribution between dedicated cardinality zero expressions in the two groups of languages under the zero cardinality hypothesis in combination with Horn's (1984) division of pragmatic labor. More specifically, if sequences of negative indefinites are used to convey a SN reading in NC languages, we predict these languages to combine dedicated cardinality zero expressions with negation in DN contexts. At first sight, example (14) (ep-08-03-11-017.xml) supports this view because Italian (14d) and Spanish (14e) use *zero* rather than a negative indefinite.

- |         |                                                                         |           |
|---------|-------------------------------------------------------------------------|-----------|
| (14) a. | However, we are <i>not</i> starting from zero: (...)                    | [English] |
| b.      | We hoeven dan <i>niet</i> helemaal met <i>niets</i> te beginnen : (...) | [Dutch]   |
| c.      | Wir fangen bei dem Thema <i>nicht</i> bei Null an.                      | [German]  |
| d.      | <i>Non</i> iniziamo da zero.                                            | [Italian] |
| e.      | <i>No</i> arrancamos de cero.                                           | [Spanish] |
| f.      | Nous <i>ne</i> partons <i>pas</i> de <i>rien</i> .                      | [French]  |

Unfortunately, as English (14a) and German (14c) also use *zero* in this context, we cannot use the data in (14d, e) as support for a difference in the distribution of dedicated cardinality zero expressions between DN and NC languages. Note that the use of an NCI in the French version (14f) might seem unexpected, but is in fact less of an issue (see Section 27.3.3 below).

Alternatively, we can use the analysis of NCIs as denoting cardinality zero to establish a difference in the distribution of negative indefinites in the two groups of languages. If negative indefinites in DN languages are genuine negative quantifiers, and do not denote cardinality zero, we do not expect them to participate in cumulative interpretations. Under Horn's division of pragmatic labor, we then predict sequences of cardinality zero expressions to be the preferred expression of a cumulative interpretation in DN languages. This prediction is not borne out. Example (15) (ep-99-01-12.xml) shows that regular cumulative interpretations of negative indefinites are available in both DN and NC languages:

- |      |                                                                                                                                                              |           |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| (15) | Context: Agenda 2000 only provides ECU 5 million, which is also <i>nothing</i> ,                                                                             |           |
| a.   | and <i>nothing</i> plus <i>nothing</i> will continue to produce <i>nothing</i> , until a sensible sum is provided which can achieve something.               | [English] |
| b.   | <i>Niets</i> plus <i>niets</i> is <i>niets</i> en zal <i>niets</i> blijven als er geen politieke rekensom wordt gemaakt om werkelijk iets te verwezenlijken. | [Dutch]   |
| c.   | und <i>nichts</i> plus <i>nichts</i> wird weiter <i>nichts</i> ergeben.                                                                                      | [German]  |
| d.   | Fintantoché <i>non</i> si introdurrà un importo politico che permetta di concretizzare qualche cosa,                                                         |           |

- continuando a sommare al *nulla* il *nulla* si otterrà sempre *nulla*. [Italian]
- e. *Y nada más nada* seguirá dando *nada*. [Spanish]
- f. *Rien plus rien égale rien*. Jusqu'à ce qu'on introduise un chiffre politique qui donne quelque chose. [French]

We infer from these data that cumulative interpretations are cross-linguistically available for a larger class of weak quantifiers than just cardinals. Confirmation for this claim comes from the parallelism between negative and non-negative determiners in DN and NC languages in an example like (16) (ep-06-06-13.xml).

- (16) a. *No* researchers means *no* research, few researchers means little research, and many researchers means a great deal of research. [English]
- b. *Geen* onderzoekers betekent *geen* onderzoek, weinig onderzoekers betekent weinig onderzoek en veel onderzoekers komt neer op veel onderzoek. [Dutch]
- c. *Keine* Forscher bedeutet *keine* Forschung, wenige Forscher heißt wenig Forschung und viele Forscher viel Forschung. [German]
- d. *Niente* ricercatori significa *niente* ricerca, pochi ricercatori poca ricerca e molti ricercatori molta ricerca. [Italian]

In sum, we cannot use differences in the corpus distribution of negative indefinites and dedicated cardinality zero expressions between DN and NC languages to test the cardinality zero hypothesis of negative concord. The overall conclusion is that theories of negative concord are hard to test through parallel corpus research, and we have to look elsewhere to find semantic differences between DN and NC languages.

### 27.3.3 Unexpected DN readings

Most frameworks treat NCIs as a special type of NPI, and assign them a non-negative interpretation. This explains the SN reading of (2a), and accounts for the avoidance of Italian, Spanish and French negative indefinites in the DN configurations in Section 27.3.1.

However, the empirical situation is more complex than the patterns in (13) and (14) suggest. Example (17) (ep-98-05-12.xml.gz) shows that English (17a) and Dutch (17b) can use DN to convey the style figure *litotes*, as we already know from (13). Whereas Italian (17c) and Spanish (17d) resort to the ‘not small’ strategy we noticed in (13d,e), French (17e) patterns with the DN languages.

- (17) a. Half a million deaths in the European Union as a result of addiction to smoking is *not nothing*. [English]
- b. Een half miljoen doden in de Europese Unie als gevolg van rookverslaving is *niet niets*. [Dutch]
- c. mezzo milione di morti all' anno nell' Unione europea a causa del fumo *non è poca cosa*. [Italian]
- d. Medio millón de muertos en la Unión Europea como consecuencia de la adicción al tabaco *no es poca cosa*. [Spanish]
- e. Un demi-million de morts dans l' Union Européenne à cause de l' assuétude tabagique, cela *n'est pas rien*. [French]

In modern continental French, the marker of sentential negation *pas* does not participate in negative concord, so the combination of *pas* plus a negative indefinite always conveys DN (Tovena, Déprez and Jayez 2004). This also explains why French can use a negative indefinite in the DN configuration (14f), in contrast to Spanish and Italian (14d,e).

The example in (18) (ep-09-11-11-013.xml) is harder to explain, though.

- (18) Context: It should be possible to put this right, and if Mr \*\*\* had seen fit to remain here, I would have liked to have asked him how the Swedish Presidency intends to acquire a stronger mandate ahead of the Copenhagen Summit,
- a. (...) because this must *not* come to *nothing*. [English]
  - b. (...) want die top mag *niet* op *niets* uitdraaien. [Dutch]
  - c. *Non* dobbiamo permettere che si concluda con un *nulla* di fatto. [Italian]
  - d. (...) pues esto *no* debe quedar en *nada*. [Spanish]
  - e. (...) parce que celui-ci *ne* peut se solder par un échec. [French]

French (18e) uses the inherently negative word *échec* ('failure') as an avoidance strategy suitable for an NC language. Italian (18c) introduces a clause boundary between the two negative expressions, so the DN reading is expected, but note the absence of *non* in the embedded clause. Spanish *nada* (18d) is very close to English *nothing* and Dutch *niets* in (18a,b), so Herburger (2001) might treat this as an instance of constituent negation. Alternatively, we can assume that Spanish (18d) depends on two different subclausal negation domains (Zeijlstra 2004, Puskás 2012). After all, it is well known that infinitival complements lead to a permeable boundary in some cases, but not in others (compare Horn 1989/2001, Collins & Postal 2014 and Chapter 12 on NEG raising).

In contrast to these syntactic domain explanations, Sag & de Swart (2002) and de Swart (2010) take the DN readings in (14f, 17e) and (18d) to weaken the support for NCIs as a special type of NPI with an inherently nonnegative interpretation. They assign NCIs a lexical semantics in terms of  $\neg\exists$ , and analyze negative concord as resumptive negative quantification, whereby multiple variables are subsumed under the same negative quantifier. Note either way that the configurations in which DN readings arise display variation across NC languages: different features are at stake, ranging from the morpho-syntactic makeup of the negative indefinite (Déprez 2000) via lexical features of an item like French *pas* (Sg & de Swart 2002) to the importance of information structure in Hungarian (Puskás 2012).

In sum, naturally occurring data like (18) are not incompatible with a nonnegative semantics of NCIs, but require a special domain analysis under such an approach. The nonnegative semantics would be under serious attack if EuroParl revealed regular examples of DN readings with multiple negative indefinites along the lines of (3a). Such examples did not turn up in our searches, though. The fact that we do not find datapoints like (3a) in a fairly large corpus like EuroParl does not mean that the observation is incorrect, but speakers apparently make little use of such configurations, even in the higher registers.

The results raise the question whether we can find SN readings in DN languages of the type illustrated in (3b).

## 27.4 SN readings in DN languages

### 27.4.1 Neither..nor configurations

*Neither..nor* configurations in Dutch, German and English always give rise to an SN reading and are seemingly NC constructions within a DN language. Example (19) (ep-01-06-12.xml) illustrates.

- (19) a. For your information, I can point out that I am wearing *neither* a tie, shirt *nor* jacket. [English]  
b. Ter informatie deel ik u mee dat ik vandaag geen jasje *noch* stropdas *noch* overhemd draag. [Dutch]  
c. Zu Ihrer Information möchte ich mitteilen, dass ich heute *weder* Schlips *noch* Hemd oder Jackett trage. [German]  
d. Per sua informazione, le faccio notare che in questo momento *non* indosso *né* camicia, *né* cravatta, *né* giacca. [Italian]  
e. Para su información señalo que *no* llevo corbata, *ni* camisa, *ni* americana. [Spanish]  
f. Je tiens à vous signaler que je *ne* porte aujourd'hui *ni* veston, *ni* chemise, *ni* cravate - mais j'ai un jeans. [French]

*Neither..nor* constructions may well be remnants from earlier negative concord stages of languages here classified as DN (Mazzon 2004, Jäger 2008, Zeijlstra 2004, Breitbarth & Haegeman 2010). Note that the *neither..nor* constructions in (19d-f) are accompanied by an obligatory marker of sentential negation, which is missing in (19a-c), so there is evidence of a longer negative concord chain in the NC languages, but not in the DN languages.

It is difficult to determine whether *neither...nor* involves wide scope of negation over a disjunction, or a conjunction of negations, because *not(p or q)* is equivalent to *not p and not q* under the De Morgan Laws. The complexity of this construction has led to various proposals for its semantics (see de Swart 2001, Szabolcsi & Haddican 2004, Doetjes 2005 and references therein). Example (20) (ep-00-09-07.xml) shows that the Dutch, German and Italian constructions correlate with a single negation expression scoping over *or* in English:

- (20) a. I would like to comment on the Technical Group of Independent Members' amendment, which does *not* include any sensible or new requirements apart from (...). [English]  
b. Graag wil ik nog de aandacht vestigen op een amendement van de Technische Fractie van Onafhankelijke Leden, dat *geen* zinvolle *noch* nieuwe eisen bevat, maar (...). [Dutch]  
c. Erlauben Sie mir noch, auf einen Änderungsantrag der Technischen Fraktion der unabhängigen Abgeordneten hinzuweisen, der *weder* sinnvolle *noch* irgendwelche neue Forderungen enthält außer (...). [German]  
d. Consentitemi ancora di parlare di un emendamento del gruppo TDI, che *non* contiene richieste *né* giuste *né* nuove e (...). [Italian]

Example (21) (ep-05-12-15.xml) shows that both DN and NC languages can alternate between *neither..nor* (Dutch 21b, Italian 21d) and a conjunction of two negations (English 21a, German 21c, French 21f).

(21) Context: The president of the sitting also saw fit to make a comment following one of my colleagues speeches,

- a. even though it contained *no* personal attacks and *no* insulting comments. [English]
- b. zij het dat deze *geen* persoonlijke aanval *noch* beledigende woorden bevatte. [Dutch]
- c. obwohl diese *keine* persönlichen Angriffe und *keine* beleidigenden Bemerkungen enthielten. [German]
- d. perché *non* contenesse *alcun* attacco personale *né* *alcun* commento offensivo. [Italian]
- e. a pesar de *no* contener *ninguna* acusación personal *ni* *ninguna* palabra insultante. [Spanish]
- f. alors qu'elle *ne* comportait *aucune* mise en cause personnelle et *aucun* propos insultant. [French]

It is beyond the scope of this chapter to investigate the conditions under which we find disjunctions under negation or conjunctions of negation in each of the languages under investigation. However, the data presented in this section show that both are used as translation equivalents of *neither..nor*, and the alternations cut across the DN/NC dichotomy.

#### 27.4.2 Emphatic multiple negative expressions

Aside from *neither..nor* constructions, it proved fairly difficult to find sequences of negative expressions with SN readings for DN languages other than Dutch. The presence of multiple negative expressions of the type illustrated in (22b) suggests that such sequences are not restricted to the informal Dutch of the CGN. Zeijlstra's (2010) observation that examples like (3b) have an emphatic SN reading is confirmed by the use of NPIs or free choice expressions (underlined) in the counterparts of (22b) (ep-01-02-15.xml) in both DN and NC languages.

- (22) a. Context: a new era is dawning in the Balkans,
- a. and it must *not* be marred by violence from any source whatsoever. [English]
  - b. waarin *geen* plaats meer is voor geweld, van *niemand* *niet*. [Dutch]
  - c. wo es *keinen* Platz für Gewalt geben darf, von wem auch immer sie ausgeht. [German]
  - d. in cui *non* può più esserci posto per la violenza, da qualunque parte essa provenga. [Italian]
  - e. donde *no* puede haber sitio para la violencia, venga de donde venga. [Spanish]
  - f. dans laquelle il *ne* peut y avoir de place pour la violence, quelle que soit son origine. [French]

Given the obligatory use of *any* type NPIs under negation in English, and the standard use of negative indefinites in NC languages under non-emphatic negation, we can argue that the presence of NPIs and expressions like *whatsoever*, which widen the domain of quantification (Kamon & Landman 1993, Dayal 1997) is licensed in this context to strengthen the negation.

Based on lexical constraints, the requirement on adjacency and emphatic negation, Zeijlstra (2010) takes examples like (22b) to be fundamentally different from negative concord in NC languages. The CGN data discussed in Section 27.1.3 confirm the lexical constraint, but recall that adjacency turned out to be a preference, not a hard rule. Example (23) (ep-08-02-18-027.xml.gz) also illustrates that SN readings can arise with intervening material, but it further shows that not all examples of multiple negative expressions in Dutch express emphatic negation.

- (23) a. I am *not* playing anyone off against anyone - it is just that, in the real world, people do have different interests, and they have different viewpoints and different needs. [English]  
 b. Ik speel *niemand* tegen *niemand* uit - het is alleen zo dat (...) [Dutch]  
 c. Ich spiele *niemanden* gegen einen anderen aus, es ist einfach so (...) [German]  
 d. *No* estoy enfrentando a *nadie* con *nadie*, tan sólo sucede que , (...) [Spanish]  
 e. Je *ne* joue *personne* contre *personne*, c'est juste que (...) [French]

Interestingly, the counterparts of (23b) do not show any signs of emphatic negation: the NC languages use NCIs (23d-f), English uses *any* NPIs, and German a plain indefinite. Non-emphatic readings are even found with triple negation, as in (24) (ep-09-11-11-023.xml).

- (24) Context: I would like to recall an image from a book by Italo Calvino entitled *Cosmicomics*, in which the big bang is described as an indistinct mass of matter
- a. in which *nothing* is known about anyone or about anyone's origins. [English]  
 b. waarin men *niets* van *niemand* weet, ook *niet* van iemands oorsprong. [Dutch]  
 c. in der *nichts* bekannt ist über irgend jemand oder über den Ursprung von irgend jemand. [German]  
 d. dove *non* si sa *niente* di *nessuno* e *niente* della provenienza di *nessuno*. [Italian]  
 e. donde *nadie* sabe *nada* de *nadie* ni de dónde procede. [Spanish]  
 f. dans laquelle on *ne* sait *rien* de *personne* ni de l'origine de *personne*. [French]

German *irgend* in (23c) conveys ignorance, one of the effects of free choice (Kratzer & Shimoyama 2002), but none of the other languages use anything but the expected non-emphatic NPIs or NCIs under negation.

The data in this section show that the use of multiple negative expressions to convey a SN reading is productive in Dutch. For the DN languages English and German, no such configurations have been attested in EuroParl. Based on the data collected so far, it seems fair to conclude that SN readings in DN languages are extremely rare or even nonexistent in the formal register, with limited and language specific exceptions, such as Dutch.

## 27.5 Conclusion

The aim of this chapter was to investigate the linguistic environments in which double negation readings arise. Starting from the basic distinction between DN and NC languages, we searched for sequences of negative expressions in the CGN and in the Dutch part of the EuroParl parallel corpus. No manual annotation of the sentence meaning is necessary for the EuroParl data, because the intended meaning is inferred through multilingual comparison. The corpus data reveal language use in production, and thereby complement the recent experimental literature which has focused on comprehension.

On the basis of EuroParl data, we confirmed that DN readings occur with constituent negation, and negative concord is a clause bound phenomenon. For Dutch, German and English, DN readings are also attested with sequences of negative expressions in clause internal configurations, mostly as exemplifications of the litotes style figure. Although the dataset is not that large, the fact that Italian, Spanish and French switch to morphological negation, inherently negative nouns or a 'not small' strategy to convey litotes confirms that

sequences of negations and negative indefinites do not lend themselves to a DN reading within a single clause. This finding lends support to the overall distinction between DN and NC languages.

Attempts to test hypothesis about the analysis of negative indefinites advanced in the linguistic literature against EuroParl data have been unsuccessful so far. Instead, we focused on unexpected DN readings in NC languages, and SN readings in DN languages. Unexpected DN readings in NC languages are indeed attested, and can be handled either by finetuning the notion of syntactic domain, or switching to an account of negative concord in terms of resumption. Unexpected SN readings are attested with *neither..nor* in all languages under investigation. SN readings for sequences of negative expressions within a single clause are only attested for Dutch. The corpus data do not support obligatory syntactic adjacency, and multilingual comparison indicates that an emphatic negative meaning for the Dutch configuration is not always present. SN readings have not been attested for the DN languages German and English, but this may well be due to the formal register of EuroParl.

Although the parallel corpus data do not provide the final solution to the puzzle of negative indefinites and DN vs. NC, multilingual comparison provides an interesting additional methodology to investigate cross-linguistic variation in the grammar of negation. Furthermore, the dataset can easily be expanded: the interested reader can extend the parallel corpus investigation to other languages present in EuroParl for further empirical support.