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7 The Typology of Negation 🔓

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Abstract

This chapter discusses a number of central phenomena in the typology of negation, building on state-of-the-art typological research. The focus lies on standard negation, prohibitive negation, existential negation, and the negation of indefinites. Cross-linguistic variation is central in the discussion, and for most phenomena the question is addressed as to what extent a certain pattern is frequent or rare. As far as it is possible, observed patterns are provided with explanations, which are often diachronic. Thus the chapter discusses the Jespersen and Negative Existential Cycles and ventures a hypothesis on the existence of an 'Ascriptive negation cycle'. For a number of phenomena it also discusses areality.

7.1. Introduction

SINCE Payne (1985) and especially Miestamo (2005) typologists have used the terms 'standard' and 'non-standard' negation.[1] 'Standard negation' is the non-emphatic negation of a lexical main verb in a declarative main clause. We exemplify it with English.

(1)

Mary does *not* love him   [standard negation]

Negation in all other functions is referred to collectively as 'non-standard negation', illustrated in (2).

(2)

a. Mary *does not* love him *at all*	[emphatic negation]
b. Mary *does not* live here *yet*	[phasal negation]
c. I urge you *not* to talk to him	[subordinate negation]
d. *Doesn't* Mary love John?	[interrogative negation]
e. *Don't* listen to him	[imperative negation]
f. Fred is *not* a teacher	[ascriptive negation]
g. There are *no* blue tigers	[existential negation]
h. There are *no* blue tigers in France	[locational negation]
i. *Nobody* believes him	[negation of indefinites]

The labels and the illustrations should be sufficiently clear. Note that it is rather common for a language to use the same formal means for several of these uses. In English, standard negation brings into play the negator *not* (or *n't*) and when there is no auxiliary or copula or when the verb is not the lexical verb *have*, we generally also get the 'periphrastic' auxiliary *do*. And the same is true for the negation in (2a–b, d–e, m). But often a language uses a different strategy, like in English (2c, i–l). Another worthwhile point is that (2k), (2l), and (2m) are not actually 'negative sentences'. In (2m) *doesn't* arguably has no meaning. (2k) and (2l) are not negative sentences, because they are positive, though the predicates they ascribe to the subject are negative. Klima (1964) is the classical discussion of tests for showing what is a negative sentence and what not. One such test for showing that (2k) is positive consists of continuing it with a positive *and so does* instead of the negative *and neither does*, appropriate for (1). A similar test works for (2l).

(3)

a. Mary does*n't* love John *and neither does* Suzy	
b. Mary *disagrees* with me *and so does* Suzy	

Section 7.2 deals with aspects of standard negation. In section 7.3 we focus on the three best-studied types of non-standard negation, viz. prohibitive negation, existential negation, and the negation of indefinites, though there will be side remarks on other types too. The issues that will come up also appear in the other chapters, and some overlap is unavoidable.[2] Of course, the approach in this chapter is typological, with the objective to lay bare some of the variation found in the world's spoken[3] languages, synchronic as well as diachronic. To some extent we also make statements on what is more or less frequent in the world's languages, on what is decidedly rare or dominant—without statistical sophistication, however—and we provide typological explanations (often partially diachronic) for these observations or hypotheses. Ideally, statements on what is universal, frequent, or rare are sample based, that is they should be based on an attempt to provide some kind of representative data. However, some of the observations and hypotheses are based on large data sets where the collection has not followed any sampling strategy.[4] These data sets are sometimes called 'convenience samples', but we will consistently refer to them as 'data sets'. They are a less trustworthy source for finding out about linguistic diversity. However, they tend to be much bigger than the samples, and for this reason the general tendencies as to what is frequent or rare are likely to be visible there too. Given the ↳ increased importance of the subfield of areal typology, we will also venture to make areal statements.

7.2. Standard negation

Negation is a superficially simple semantic operation. The negative sentence has exactly the same meaning as the positive one, except for the effect of negation. Thus a positive declarative says that some state of affairs holds and its negative counterpart presents the very same state of affairs but says that it does not hold. One would thus expect that this 'simple meaning' is expressed with a simple strategy. Intuitively, simplicity has two sides to it.[5] First, a simple meaning would require just one marker. Second, the proposition within the scope of the negation would be expressed in the same way as in the positive sentence. We discuss the first issue in section 7.2.1 and the second one in section 7.2.2. We then turn to the kinds of markers languages use for negation (section 7.2.3) and to their placement in the sentence (section 7.2.4).

7.2.1. Single vs. multiple exponence

In the world's languages standard negation is indeed usually expressed with one negator only, like in (1), and unlike in (4).

(4)

French
Marie   *ne*   le   voit   *pas*
Marie   NEG   him   sees   NEG
'Marie does not see him'

This has been confirmed in several studies. For a worldwide sample of 179 languages Van Alsenoy (2014: 190) found that 149 (83%)[6] have a single exponence strategy only. In two large data sets, we find similar results. First, in a database of 1,372 Austronesian and Sino-Tibetan languages and the languages of New Guinea, Australia, and the Americas, Vossen (2016) found single exponence in 1,180 (86%) languages.[7] Second, Dryer (2013a) has a worldwide data set of 1,324 languages of which 1,124 (83%) may well use a single negator only.[8] This still leaves a good many languages that may or must have more than one negator. The most common type has two negators, either optionally or obligatorily. Thus in ↳ Vossen's dataset of 173 languages that may not or cannot suffice with one negator, all but eight do not allow more than two and in Dryer (2013a) the numbers are very similar. The French example in (4) illustrates obligatory doubling for written standard high register French, but it also illustrates optional negation, for in all other types of French *ne* can be dropped. It is clear from Vossen (2016) that triple and quadruple negation are always optional and rare, quadruple rarer than triple, and we know of only one case of quintuple negation.

(5)

Kanyok (kany1247, Devos and van der Auwera 2013: 263)[9]
ka-tù-tùm-in-*oh'*   *bènd*
NEG1-1PL-send-TAM-NEG2   NEG3
'We have not sent'

9

(6)

Lewo (lewo1242, Early 1994a: 405; 1994b: 77)
pe-re   a-pim   *re*   *poli*
NEG1-NEG2   3PL-come.REAL   NEG3   NEG4
'They didn't come'

(7)

> Bantawa (bant1281, Doornenbal 2009: 271)
> *i*-ciŋ-*nin*   set-*nin*-ci-*n*
> NEG1-hang-NEG2 kill-NEG3-REFL[10]-NEG4
> 'He does not kill himself by hanging'
>
> 10

(8)

> Bantawa (bant1281, Doornenbal 2009: 271)
> *i*-ciŋ-*nin*   set-*nin*-Ø-*nin*-ci-*n*
> NEG1-hang-NEG2 kill-NEG3-PROG-NEG4-REFL-NEG5
> 'He is not killing himself by hanging'

Note that the Bantawa cases of quadruple and quintuple negation involve two verbs building what the specialist literature (Doornenbal 2009) calls a "compound verb." Bantawa is a central Kiranti language. Since central and eastern Kiranti languages (kira1253) all have double or triple negation (van der Auwera and Vossen 2017) and since both verbs of the verbal compound attract negative marking, we can get up to five markers.

Why do languages bother about having two or more negators? The answer given by typologists refers to what is commonly called a 'Jespersen's Cycle' (or 'Jespersen Cycle') and less commonly also 'Negative Cycle'. The terms with the proper name are due to Dahl (1979) and the reference is to the opening lines of Jespersen (1917). It is important to realize, however, that (i) Jespersen was not the first to propose the explanation named after him, ↳ (ii) there is now a multiplicity of Jespersen Cycles, unimagined by Jespersen (1917), which are sufficiently different from one another to drop the singular in 'Jespersen Cycle' and to opt for a plural 'Jespersen Cycles' (van der Auwera 2009; van der Auwera, Krasnoukhova, and Vossen (forthcoming)), and (iii) not every Jespersen Cycle yields a multiple negation.

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The textbook illustration of a Jespersen Cycle shows French *ne...pas*. French inherited a preverbal *ne* from Latin, and even in Old French *ne* was often accompanied by a minimizer, an expression that refers to a small entity or quantity, like *pas* 'step', *point* 'point', or *miette* 'crumb'. The effect of adding a minimizer was pragmatic, probably emphatic: a state of affairs did not just not obtain, it did not even obtain in a minimal form. The minimizing and emphatic effect then bleached, and one of the original minimizers, viz. *pas*, became a near–obligatory component of negation. Thus the negation became double.

(9)

> *ne* > *ne*...(*pas*) > *ne*...*pas*

The three stage model in (9) is not the whole story, however. Even for the high registers of written French, which has *ne...pas*, there is a controversy as to whether *ne* is still negative (see already Jespersen 1917: 75), and, as mentioned, for some registers, *ne* is not necessary anymore. Thus we can add a fourth stage and a fifth stage.

(10)

> *ne* > *ne*...(*pas*) > *ne*...*pas* > (*ne*)...*pas* > *pas*

One hundred years after Jespersen (1917) there is a fair amount of agreement that the French scenario is just one highly specific instantiation of the general phenomenon. It is true that linguists have considered one or more properties of the Jespersen Cycle *à la française* to be definitional, but it is best to regard them as optional (see also van der Auwera, Krasnoukhova, and Vossen (forthcoming)). Here are the important features of the French *ne...pas* cycle.

(11)

a. in the middle of the cycle there are two negators, viz. *ne* and *pas*
b. the new negator is originally something other than a negator
c. the old negator disappears
d. the beginning and the end of the cycle have one negator, but it is a different one
e. the negators are syntactic elements
f. the negators are on different sides of the verb
g. the new negator is more to the right than the old one
h. a Jespersen cycle is a language-internal change
i. the reason for this process is the phonetic reduction of the first negator

We now discuss each of these properties.

ad (11a): Is doubling necessary? To answer this question it is useful to have a look at Greek. Greek replaced an old negator *ou* with a new one, the latter consisting of the old negator *ou* and the phrase *de hen*, meaning 'even one', but this phrase never became a negator. Instead it merged with the old one, giving *ouden* and it is this merger that became the new negator, later simplified to *den*. Willmott (2013) and Chatzopoulou (2012, 2018) ↳ both analyzed the diachrony of Greek negation. For Wilmott (2013), who considers doubling to be essential, Greek does not have a Jespersen Cycle, though she notes the similarities between a Jespersen Cycle and what happened in Greek. Chatzopoulou (2012, 2018) proposes a very similar analysis, but she does not consider doubling to be crucial—and neither does Schwegler (1983, 1988)—and this way she does propose a Jespersen Cycle for Greek. Both analyses are acceptable, but the better one is the Chatzopoulou–Schwegler approach, as argued by van der Auwera, Krasnoukhova, and Vossen (forthcoming).

ad (11b): Does the new negator have to come from something non-negative, like in French, which has *pas* going back to the noun 'step', or like in Avava, with *-mu* deriving from 'first'?

(12)

Avava (katb1237, Crowley 2006: 82)
na-*sa*-robit-*mu*
1SG.R-NEG1-hear-NEG2
'I didn't hear (it)' <'I didn't hear the first thing about it'>

Here the answer is uncontroversial. Nearly as classical a Jespersen Cycle as that of French is that of English, with the new *not* negator joining the older *ne* negator for emphasis, then bleaching and replacing it; this *not* derives from a pronoun meaning 'nothing'. (13) is a Middle English example showing a *ne...not* construction in which the *not* word is still emphatic.

(13)

Middle English (Ingham 2013: 126)
Ne   ic *ne*   cume to heom *nawiht*
and I   NEG   come to them NEG
'I do not come to them at all'

(14) is an example from Biak. Different from English, in Biak it is the first negator that provides emphasis and it was a clausal negator already, but in a different language, viz. in the local Malay or Indonesian (Van den Heuvel 2006: 131).

(14)

Biak (biak1248, Van den Heuvel 2006: 131)
indya *bukan* ko-kain   ko-fafyár   biasa *va*
SO   NEG   1PL.INCL-sit 1PL.INCL-tell usual NEG
'So we are not (just) sitting and telling her (but have a serious meeting).'

ad (11c): The old negator need not disappear. In some Dutch dialects it became expletive and survived as a subordination marker (van der Auwera 2012: 413, also for references, and Van de Velde and Norde 2016: 12–13 for an account in terms of exaptation).

(15)

> Katwijk Dutch (van der Auwera 2012: 413)
> Toen we bij de poort *en* kwamme...
> when we at the gate SUB came
> 'When we arrived at the gate...'

p. 97 With tripling, the old negator also does not disappear, for double exponence does not have to go back to single exponence, but can instead develop into triple exponence, as in Kanyok (5).

ad (11d): The new negator need not be different from the old one. Numerous are Jespersen Cycle analyses of a second negator being a copy of the first one. Brabantic Belgian Dutch usually negates with a single postverbal *nie* (i.e. postverbal relative to the finite verb—see *ad* 11f below) but some speakers can add a clause-final copy.

(16)

> Brabantic Belgian Dutch
> Ik heb hem *nie* gezien *nie*
> I have him NEG seen NEG
> 'I haven't seen him'

(17) shows tripling in Mandan: it is emphatic due to the clause initial doubling of the negative prefix *wa:-*.

(17)

> Mandan (mand1446, Mixco 1997: 38; Vossen 2016: 322–3)
> *wa:-wa:-*i=ra-sæk-*rįx*-oʔš
> NEG-NEG-PV=A2-do-NEG-IND
> 'You didn't work'

ad (11e): Negators involved in a Jespersen Cycle may, of course, be syntactic elements, like in French (4), English (13), Biak (14) or Dutch (15), but they may be morphological as well, just like negators that stay out of the cycle. The morphological vs. syntactic status of negators will be discussed in section 7.2.3. So far, we have seen morphological negators in Bantawa (7) and (8) and in Mandan (17), where all negators are morphological, but also in Kanyok (5) and Lewo (6), which combine morphological and syntactic negators.[11]

ad (11f): Jespersenian doubling is overwhelmingly verb-embracing, as illustrated by French (3) and English (12), but in Oneida both negators precede the verb.

(18)

> Oneida (onei1249, Abbott 2000: 20)
> *yah* *teʔ*-ho-nohale-ʔ
> NEG NEG-PRO-wash-STAT
> 'He did not wash it'

Brabantic Belgian Dutch (16) could be taken as an example of two postverbal negators (see De Swart 2010: 203 for this claim for similar structures in Afrikaans): at least both *nie* negators follow the finite verb and, as we will argue in section 7.2.4, it is the finite verb that is relevant for Jespersenian doubling. However, in (16) both negators do embrace the other verb, the non-finite one. In any case, it is clear that a claim that doubling negators should embrace a finite verb in the French way is problematic. An embrace account is also

problematic for multiple exponence: in Lewo (6), for instance, there is an embrace, but it ↳ is heavier on the right side with two separate negators contrasting with a univerbation on the left.

ad (11g): A Jespersen Cycle need not progress from left to right. From the data in Vossen (2016; see also van der Auwera and Vossen 2016) it seems that the left to right direction is the more frequent one, but we know of numerous cases of a Jespersen Cycle 'in reverse'. For example, in the Awju-Ok languages (awju1265) there is family-internal evidence for regarding the rightmost negator of double exponence structures to be the oldest one and the leftmost negator the newer one (Vossen 2016: 143–6). Thus the way negation marked in Mandobo is hypothesized to reflect an earlier stage compared to the one in Tsaukombo.

(19)

> Mandobo (mand1473, Wester 2014: 95; Drabbe 1959: 11)
> ro   otogop-gen   do,   kerewatop   *nda*
> form see-REAL.N1SG   CONN   face   NEG
> 'He looks and they do not have faces'

(20)

> Tsaukambo (tsak1250, de Vries 2012: 174
> *bɔ-mɛlixɛ-nda*
> NEG-go.home-NEG
> 'I do not go home'

Biak (14) offers another illustration: the clausal final negator *va* is the older one, it is borrowed from surrounding Papuan languages (Reesink 2002a: 30), while *bukan* is a more recent borrowing from Malay or Indonesian (Van den Heuvel 2006: 131). These borrowing facts lead us directly to feature (11h). *ad* (11h): In French, the Jespersen Cycle is a language-internal phenomenon in the sense that there is no need for invoking influence from another language. But this is not the case for Biak. The *va* negator is borrowed from Papuan and its clause-final position is the typical one for the Papuan languages, not for Austronesian languages. The *bukan* negator is borrowed together with its position, too, in this case the Austronesian default preverbal position. For another example of the relevance of language contact, we can go to South Vietnam, where the Austronesian Chamic languages (cham1330) have been spoken in close contact with the Austroasiatic Bahnaric ones (bahn1264) for two millennia (Thurgood 1999): in these families we can have the same negators, though it is not obvious from which family they spread, and we also see doubling. This is exemplified with Chamic Jarai and Bahnaric Rengao.

(21)

> Jarai (jara1663, Lee 1996: 302)
> kāo *bu* homāo prăk   *ôh*
> I   NEG   have   money NEG
> 'I don't have any money'

(22)

> Rengao (reng1252, Gregerson 1979: 54)
> aw *bIq* loq   *Oh*
> I   NEG   know   NEG
> 'I don't know'

Van der Auwera and Vossen (2015) make the case that the doubling pattern itself was calqued (from Chamic to Bahnaric).

ad (11i): For Jespersen (1917) the reason for the appearance of the new negator is the phonetic weakness of the old one. It is not disputed that this may be at work in some languages, but at least for French, a second

and better analysis was already offered by Meillet (1912). For Meillet, *ne* itself was fine for ordinary negation, but *pas* originally realized an emphatic negation, something like 'not at all' (from 'not a step'), which then bleached and became neutral too (he took the cycle, which he called a "spiral," to illustrate the general process for which he introduced the term "grammaticalization"—in that same chapter). Also, if doubling can be calqued, the reason may just be the prestige of the donor language. Yet a fourth explanation relates to constructional asymmetry (see section 7.2.2). And, finally, there is no reason to assume that there should only be one motivation.

Areally, the Jespersen Cycle is attested over the entire globe, but it is sparse in Eurasia, except for its Standard Average European corner. The claim that the Jespersen Cycle would be one of the features characterizing Standard Average European goes back to Bernini and Ramat (1992) and we indeed see the Jespersen Cycle, for instance, in French and in Italian dialects (Vossen 2016: 49−86), but not in European Portuguese or Romanian and not in Slavic or Indo-Aryan (van der Auwera 2011: 301−2). In other areas and phyla there are concentration zones as well. For Austronesian, for instance, there are three clusters: the Chamic cluster, already mentioned, in Vietnam and Cambodia, New Guinea and especially Vanuatu, and for Sino-Tibetan the 'hotbed' is Nepal with its central and eastern Kiranti languages (Vossen 2016: 87−254).

A further comment concerns the possibility of zero exponence. Paradoxically, the simplest method of 'marking' negation is not to mark it all—and 'mark' the absence of negation instead. We will come to this in section 7.2.3 and accept the possibility of zero marking. But zero marking, that is the absence of a marker, constitutes marking too, if it contrasts with a paradigmatic alternative, which is then affirmative rather than negative. A related question is whether every language has standard negators. The answer in the literature is implicitly positive. Note there is at least one grammar that gives an implicit negative answer, viz. the grammar of Ese Ejja (esee1248), as described by Vuillermet (2012: 289−90): it would have a phasal 'not yet' and a 'never' but no standard negator. Also, we want to stress that one can express negation in a declarative clause with a lexical main clause verb without a standard negator. This is what English does with a negative indefinite, as illustrated in (2i). We will come to this in section 7.3.3.

It is important to realize that saying that a language expresses negation with a single exponent means that there can only be one exponent of a standard negator in every sentence, not that there can't be different standard negators depending on different kinds of sentences. By the same token, languages may also have alternative multiple negators. In Vossen's (2016) dataset of 1,180 languages with single exponence about 200 (17%) have this kind of alternation, but it is often difficult to judge what counts as an alternative standard negator (instead of a non-standard one). Though there is no systemic study to date, it is clear that the alternation typically depends on tense, aspect, or mood. Thus Fe'fe' has three standard negators, one double and two single negators, and they alternate depending on tense and aspect: *si…bá* for the non-past and habitual, *sì* by itself ↳ for the non-hodiernal past, and *kàʔ* for the hodiernal past and the perfective present (Ngangoum 2015: 2, 10−11).

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(23)

> Fe'fe' (fefe1239, Ngangoum 2015: 4, 4, 5)
> a. Siani *si* ká ɣé ntéė *bá*   [non-past]
>   Siani NEG1 FUT go market NEG2
>   'Siani will not go to the market'
>
> b. Siani lè *sì* ɣė ntéė   [non-hodiernal past]
>   Siani DIST.PST NEG1 go market
>   'Siani did not go the market'
>
> c. Siani *kàʔ* fhú ŋgé ntéė   [hodiernal past]
>   Siani NEG HOD.PST go market
>   'Siani has not gone to the market'

An illustration for mood alternation is offered by Nanti. It uses *te(ra)* for realis negation and *ha(ra)* for irrealis negation (Michael 2014).

(24)

> Nanti (nat1250, Michael 2014: 182, 195)
> a. *Tera* i=N-poroh-e
>   NEG.REAL 3M.SG=IRR-clear.land-IRR.I
>   'He is not clearing land'
>
> b. *Ha*=me   pi=tsot-se-na-i=ro
>   NEG.IRR=DEO 2SG=slurp.up-CLF-MAL.REP-REAL.I=3NM.O
>   'You shouldn't slurp it up'

A final point is that the doubling that is typical, though not necessary, for a Jespersen Cycle is different from the doubling in what has been called 'negative concord' constructions, such as (25).

(25)

> We *don't* need *no* education

This phenomenon as well as the link with Jespersen doubling will be discussed in section .

7.2.2. Symmetry and asymmetry

If one compares the German affirmative and its negative counterpart, one can see that the two assertions differ only in one respect. The negative sentence adds the negator *nicht*, everything else is the same and this simple strategy is not only used in the simple present, as in (26), but in all tense–aspect–mood–voice combinations.

(26)

> a. Marie liebt ihn
> b. Marie liebt ihn *nicht*

p. 101   Miestamo (2005) calls this a negation strategy that is "symmetric" both "constructionally," because the two constructions differ only as to whether *nicht* is present or absent, and "paradigmatically," because it is found in the entire verbal paradigm. This is a simple system, but languages can be more complex, both constructionally and paradigmatically. Constructional 'asymmetry' can be illustrated with Carib.

(27)

> Galibi Carib (gali1262, Mosonyi, Mosnoyi, and Medina Tamanaico 2000: 425, 427;
> Miestamo 2005: 78)
> a. m-oonaae
> 2SG-cultivate.PRS
> 'You cultivate'
>
> b. oona-*ja*   maana
> cultivate-NEG COP.2SG
> 'You don't cultivate'

(27b) differs from (27a) not only in having a negator *ja*, but also in that the lexical verb now appears in a non-finite form accompanied by a copula. This is not too different from English: in the translation of (27b) the form *cultivate* is an infinitive and there is a periphrastic *do* verb, absent in the positive sentence.[12] An illustration of paradigmatic asymmetry is given with Kresh. In the affirmative the language distinguishes between a perfective, an imperfective, and a perfect, but in the negative there is only a perfective, which negates not just the positive perfective, but the positive imperfective and perfect as well.

(28)

Kresh (kres1240, Brown 1994: 166; Miestamo 2005: 304–5)
a. kôkó   ānjā   mömō
   Koko   he.go   home
   'Koko went home'

b. kôkó   ānjā   mömō   īshí
   Koko   he.go   home   he.have
   'Koko has gone home'

c. kôkó   ă   yănjā   mömō
   Koko   at   act.of.going home
   'Koko is going home'

d. kôkó   ānjā   mömō   'dī
   Koko   he.go   home   NEG
   'Koko didn't go / hasn't gone / isn't going home'

Both asymmetry types come in subtypes and have been argued to need a variety of language-particular, diachronic, and/or functional explanations. Thus the appearance of the non-finite verb with a copula in (27b) has been claimed to be a reflection of the stative character of negation (Givón 1978: 105; Hagège 1995: 87–8; Miestamo 2005: 196–7, 206–7): ↳ when one denies a state, one gets a state, but when one denies an event, one typically gets a state too. See the examples in (29), taken from Miestamo (2005: 196).

p. 102

(29)

a. Chris knows the song   [state]
b. Chris doesn't know the song   [state]
c. Chris drank the coffee   [event]
d. Chris didn't drink the coffee [state]

The neutralization illustrated in Kresh may be a reflection of the fact that negative sentences typically occur in contexts in which a corresponding positive sentence is present or assumed. Thus the aspect neutral (28d) will typically occur in a context which contains or assumes one of the three aspect specific positive sentences (28a–c), and thus there is less of a need to repeat this information in the negative.

Asymmetry is by no means rare in the languages of the world. In his 179-language sample Miestamo (2005: 172) finds the constructional type in 46% of his languages and the paradigmatic type in 30%. The dominance of constructional asymmetry over paradigmatic asymmetry holds for the whole world, except for the larger Pacific area (with Southeast Asia, Oceania, Australia, and New Guinea), in which the two types are equally common (Miestamo 2005: 193; see here for more areal observations).

A final point takes us back to the Jespersen Cycle. In constructional asymmetry, the negative sentence is distinguished from the positive one by the negative marker as well as by one or more other markers, not themselves originally expressing negation. But these markers may be reanalyzed, not unlike how French *pas* 'step' was reanalyzed. This is illustrated with Arizona Tewa.

(30)

Arizona Tewa (ariz1237, Kroskrity 1984: 95)
Sen   kʷiyó   *we*-mán-mun-*dí*
man   woman   NEG-3>3.ACT-see-NEG
'The man did not see the woman'

Originally, restating Kroskrity (1984) using Miestamo's asymmetry framework, (30) was a constructionally asymmetric sentence, with a negator *we* forcing a subordinator *dí* on the lexical verb. This subordinator was later reinterpreted as a negator in its own right.

7.2.3. Types of expression

In the preceding sections, the examples have already shown that there are different ways of marking negation. Mandobo (19), for instance, has a syntactically free negator and Tsaukambo (20) a bound one. The former is more frequent than the latter and globally so, with concentration zones for the bound ones in central Africa, north-east India and Nepal, and northern South America, an estimate based on Dryer (2013a) and Vossen (2016).[13] On a total of 944 languages with a single negative marker which he feels confident ↳ about classifying,[14] Dryer (2013a) has 549 (58%) languages with a free exponent and 395 (42%) with a bound one. The syntactically free negators are usually particles (502 languages (91%)) but negators can also be auxiliaries, which is typical for northern Eurasia (Dryer 2013a), as illustrated with Evenki (31).

(31)

> Evenki (even1259, Nedyalkov 1994: 8)
> Eveŋki-l   e-ŋki-tin   utele   gule-l-ve   ō-ra
> Evenk-PL   NEG-HAB.PST-3PL   formerly   house-PL-ACC   make-FFNLV
> 'The Evenks did not build houses previously'

An example of a language that expresses negation by tone is Eastern Oromo, but tonal expression is rare and even rarer if it is the sole exponent of negation. Out of a total of 1,324 languages Dryer (2013b) found tone on the verb only in seven languages, all of them African—the tone is marked with the accent symbol on *jír*.

(32)

> Eastern Oromo (east2652, Owens 1985: 66, 73; Miestamo 2005: 131, 331)
> a. innií   deem-úu   jira
>   he   go-NMLZ   exist.IPFV
>   'He is going'
> b. innií   deem-úu-ti   n-jír-u
>   he   go-NMLZ-MRKR   NEG-exist-DEP
>   'He is not going'

Dryer (2013b) also mentions stem alternation (attested in Berber, Lafkioui and Brugnatelli forthcoming) and infixation (as in Bantawa (7) and (8)) and they are very rare. What he does not mention is exponence by nothing or, better, by a zero morpheme. There is no question that it exists, be it on a very limited scale. Thus in Havyaka Kannada—and elsewhere in South and Central Dravidian, the negation of a non-past subjunctive is expressed by the absence of a filler of the tense slot, a phenomenon that has attracted scholarly attention since at least Master (1946).

(33)

> Havyaka Kannada (nucl1305, van der Auwera and Bhatt 1999: 5, 15, 17)
> a. ma:'sTrakko   kate   o:du-g-u
>   teachers   story   read-SUBJ.NPST-3PL
>   'The teachers may be reading a story'
> b. ma:'sTrakko   kate   o:d-Ø-avu
>   teachers   story   read-SUBJ.NEG-3PL
>   'The teachers may not be reading a story'

It has also been proposed as a more general strategy. After all, if the difference between an affirmative and a negative main clause declarative can be marked by something in the negative, why couldn't it be marked by something in the affirmative?

(34)

Form	Difference marked in the	
Meaning	negative	affirmative
'Mary loves him'	Mary love him	Mary AFF love him
'Mary doesn't love him'	Mary NEG love him	Mary love him

Affirmative marking, in the sense described above, however, either does not exist or is exceedingly rare. The case discussed most widely is the one illustrated with Karitiána (35). This language does have a negator (*padni*) but it is frequently omitted (Storto 2018; Everett 2006: 328–9). A non-occurrence of mood markers in negative clauses in Karitiána coupled with the elision of the negator results in sentences like (35b) (see Miestamo 2010 for a typological discussion of negatives without negators).

(35)

Karitiána (kari1311, Landin 1984: 237)
a. Y   *ta*-oty-j   ỹn
    I   AFFIRM-bathe-TAM   I
    'I will bathe'

b. Y   oty   ỹn
    I   bathe I
    'I will not bathe'

7.2.4. Position

It has been suggested as early as by Jespersen (1917: 5) that

> [T]here is a natural tendency, also for the sake of clearness, to place the negative first, or at any rate as soon as possible, very often immediately before the particular word to be negatived [*sic*] (generally the verb).

This statement contains a few hedges (*at any rate*, *as soon as possible*, *very often*, *generally the verb*) and some unclarity. That there are these hedges makes sense, because the paragraph immediately follows Jespersen's observation that French developed a postverbal negative *pas*. The unclarity concerns the notion of verb: in case a sentence has both an auxiliary and a lexical verb, it is not made explicit what the reference point is for calling a negator preverbal or postverbal. The context, however, undoes the unclarity: Jespersen must have meant the finite verb: it is because *pas* follows a finite verb, whether a lexical verb or an auxiliary, that Jespersen considers *pas* postverbal. Another problem is that to propose that there would be a natural tendency for an early placement of the negator Jespersen had few data, and neither had Horn (1989), who canonized Jespersen's conjecture with the term 'Neg-First' (principle). But meanwhile the conjecture/principle did get cross-linguistic support. Thus in Vossen's (2016) dataset of 1,180 languages with single exponence, something close to 832 languages (71%) have the negator in preverbal position.[15]

p. 105 Some support ↳ can also be found in Dryer (2013b), with the proviso that 'preverbal' is here defined relative to the lexical verb: of the 1,076 languages in Dryer's dataset that mark their single negation consistently either before or after the verb, 695 (64%) have the negator in preverbal position.[16] Nevertheless, there are families like Altaic that have a lot of postverbal negation, as well as areas, including New Guinea (Reesink 2002b; Klamer, Reesink, and van Staden 2008; Vossen 2016: 121, 321), the 'Macro Sudan Belt' (Güldemann 2007), and South America (Muysken et al. 2014: 305–6; Vossen 2016: 320). There are also correlations between the position of negation and other word order properties of the languages as well as with the presence of a Jespersen Cycle. Thus, for example, Dryer (2013c) reports the following tendencies: in SVO languages the dominant positions of negation are SNegVO and SVONeg; in SOV languages SONegV and SOVNeg are dominant; in verb-initial languages NegVSO and NegVOS patterns prevail, and the ONegVS pattern is most common among object-initial languages (cf. Dryer 2013c for discussion and some tentative explanations, as well as Dahl 1979: 93–5; Dahl 2010: 23–6; Dryer 1988: 94–104; and Dryer 2013b).

7.3. Non-standard negation

Making a distinction between standard and non-standard negation is to some extent making a distinction between the type of context the negator occurs in. For all types of non-standard negation except for expletive negation, the meaning is still the same, although it would have to be discussed in more general terms than, for example, saying that negation reverses the truth-value. The negator in (36) obviously does not change any truth-value, for imperatives do not have truth-values.

(36)

Do *not* believe him

In non-standard negation the properties of the negators may be identical or similar to those found in standard negation. Thus the *not* in (36) is very similar to that in (37).

(37)

I do *not* believe him

In both contexts the form is the same, *not* allows the short form *n't* in both contexts, and it appears between the *do* auxiliary and the lexical verb, the latter appearing in the infinitive. But note that the two *not* negators are still different. In a declarative the copula does not allow *do*, but in prohibitives *do* is obligatory.

(38)

a. You are *not* happy
b. Do*n't* be happy

Also, when the prohibitive has a subject, this only allows the short form of the negator, which furthermore allows a univerbation with the subject pronoun.

p. 106

(39)

a. You do *not* believe him
b. You do*n't* believe him
c. *Do *not* you believe him
d. Do*n't* you believe him
e. *Dontcha* believe him

In the following sections we will discuss some of the non-standard negation uses with a focus on how they affect the properties on their negators. We will start with the type illustrated in the above, that is the prohibitive.

7.3.1. Prohibitive negation

In English the differences between standard and prohibitive negators are subtle. In most languages, however, the differences are obvious. Van der Auwera and Lejeune (2013) offered a four way typology, based on whether the verb of the prohibitive is the same as the verb of the imperative and on whether the negator is the same as the one in standard negation. English imperatives and prohibitives have identical verb forms and, despite the subtle differences, both prohibitive and standard negation use identical negators. In a data set of 495 languages, 113 (29%) languages are like English, and, they claim, like Standard Average European. So in most languages either the verbs in imperatives and prohibitives are different or the negators in standard and prohibitive negation are different, or both are different. In their data set the most common type has a special negator only (182 languages or 37%), as illustrated in (40).

(40)

Vietnamese (viet1252, Thompson 1965: 221; Victoria Rosén, p.c.)
a. Uông   ruou!
   drink   alcohol
   'Drink alcohol!' or 'I/you/he/etc. is/are drinking alcohol'

b. *Chó*   uônr   ryou!
   NEG   drink   alcohol
   'Do not drink alcohol!'

c. *Không*   uông   ruou.
   NEG   drink   alcohol
   'I/you/he/etc, is/are not drinking alcohol'

Then comes the type with both special negators and verb forms (145 languages or 29%).

(41)

Zulu (zulu1248, Poulos and Bosch 199;
a. Shay-a   inja!
   hit-IMP.SG   dog
   'Hit the dog!'

b. *Mus-a*   uku-shay-a   inja
   PROH-2SG   INF-hit-INF   dog
   'Do not hit the dog!'

c. U-ya-shay-a   inja
   2SG-IND.PRS-hit-PRS   dog
   'You hit the dog'

d. *A*-wu-shay-*i*   inja
   NEG-IND.PRS-hit-NEG.IND.PRS   dog
   'You do not hit the dog'

The last type has special forms only (55 languages or 11%).

(42)

Spanish
a. Pedro   canta
   Pedro   sing.IND.PRS.3SG
   'Pedro sings'

b. Pedro   *no*   canta
   Pedro   NEG   sing.IND.PRS.3SG
   'Pedro does not sing'

c. Canta!
   sing.IMP.2SG
   'Sing!'

d. *No*   cantes!
   NEG   sing.SUBJ.PRS.2SG
   'Don't sing!'

A variety of partial explanations for this distribution have been offered. Thus the Spanish subjunctive in (42d) has been claimed to be more indirect than the imperative and thus, to vary on what Horn (1991: 97) wrote about negative modality, "'cushions the iron fist' of prohibition 'in the velvet glove' of the description of what is merely wished for" (van der Auwera 2006: 20). The greater need for indirectness and securing it through renewal would also explain why prohibitives exhibit more variation than imperatives (Van Olmen 2011: 675; Devos and Van Olmen 2013).

For reasons of space, several issues remain untouched. Thus we do not discuss first and third person constructions, such as (43), though they are sometimes treated as imperatives and prohibitives, too.[17] Furthermore, we do not discuss tense aspect issues, the question of ↳ whether a Jespersen Cycle operates in the same way for prohibitives or what the result of a Miestamo (a)symmetry study would be like (Miestamo and van der Auwera 2007).

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(43)

a. Let's talk!
b. Let's *not* talk!
c. Do*n't* let's talk!

7.3.2. Existential negation

Languages may express the negation of existence with a marker that is different from the standard negator. In Veselinova's sample of ninety-five languages (2013: 116) this is the case in forty-two languages (44%). Turkish is a case in point. In (44a) the *-me* affix is the standard negator, and in (44d) there is an existential verb-like negator *yok-*.

(44)

Turkish (Van Schaaik 1994: 38–9, 44–5; Veselinova 2013: 112–13)
a. Gel-ecek
   come-FUT
   'She will come'

b. Gel-*me*-yecek
   come-NEG-FUT
   'She will not come'

c. Su   var-dı
   water   exist-PST
   'There was water'

d. Su   *yok*-tu
   water   NEGEX-PST
   'There was no water'

In another twenty-one languages, the negator is the same but, depending on the function, it has different morphological or syntactic properties. Kannada illustrates how the morpho-syntax can distinguish the two uses. In standard negation *illa* is an affix, but in existential negation it is a free form.

> (45)
>
> Kannada (nucl1305, Sridhar 1990: 112, 220; Veselinova 2013: 113)
> a. Anil ka:le:jige   ho:gu-vu-*illa*
>   Anil college.DAT   go-NPST.GER-NEG
>   'Anil won't/doesn't go to college' (< 'There is no Anil going to college')
> b. Khaja:neyalli haNa   *illa*
>   treasury.LOC   money NEGEX
>   'There is no money in the treasury'

On the basis of this ninety-five-language sample one might thus hypothesize that roughly two-thirds of the world's languages have negators used for existential negation that differ from standard negators. That does not mean that these negators are uniquely used for existential negation. Veselinova (2013: 118) identifies as many as twenty-one uses, different ↳ from standard negation, that may be shared by the negators that are used for existential negation. For instance, it is common for negators that deny existence to also deny possession (53 of 63 languages), less so location (33 of 63 languages) and sometimes they also have the prosentential 'No!' use (16 of 63 languages). Veselinova (2013: 117) also shows that the negators used for existential negation but not for standard negation are widely spread across the globe, more so than grammaticalized expressions for existence, and that there is no evidence that the constructions for existence and the negation of existence are related in any strong way. These negative existentials have two types of origin: they either result from a univerbation of a (standard) negator and an existence marker or they result from a lexical item with a negative meaning such as 'lack' or 'empty' (Veselinova 2013: 136−7).

What has been studied most is what is called the 'Negative Existential Cycle', first proposed by Croft (1991), then extensively studied by Veselinova (2010, 2013, 2014, 2016 and Veselinova and Hamari, forthcoming). The Cycle is summarized in (46).

> (46)
>
> one negator is used for both standard and existential negation
> →
> one negator is used for standard negation and another one expresses existential negation
> →
> one negator is used for both standard and existential negation, but it is the one that was previously only used as the existential negator and so for standard negation it is a 'new' one

Just like the Jespersen Cycle, the Negative Existential Cycle has two intermediate stages, for a language can be on the move between the three stages of (46). In terms of this typology, Turkish is thus in the second stage and Kannada has been analyzed as either in stage 3 (for literary Kannada) or in between stage 2 and 3 (for spoken Kannada) (Veselinova 2016: 168−70, 181−2). Veselinova's ninety-five-language sample suggests that some 8% of the languages complete the cycle, 33% have not started it, and the rest are in between (Veselinova 2016: 150). Veselinova (2016: 151) also shows that the presence of the Negative Existential Cycle is strongly family based: where stage 1 is the worldwide winner, it is 'as good as absent' in Turkic, Dravidian, and Polynesian.

Unlike for the Jespersen Cycle, there is no evidence that existential negators allow multiple exponence, though standard negators deriving from existential negators may be involved in multiple exponence, that is for standard negation (van der Auwera, Krasnoukhova, and Vossen, forthcoming). As for standard negators, languages may have more than one existential negator.

Currently under discussion is whether privative and ascriptive negation also enter into Cycles like the Negative Existential Cycle. At least for Arawakan languages (araw1281) and perhaps also in the Takanan language Tacana (taca1256) it has been claimed that standard negators derive from privative negators (see Michael 2014 for Arawakan and Guillaume 2016 for Tacana). The similarity between privatives and negative existentials is obvious: when a state of affairs is without something then this something does not exist in the state of affairs. In ten of the ninety-five languages of Veselinova's sample, privatives and negative existentials are the same (Veselinova 2013: 118). One could thus consider a Privative Cycle to be a subtype of the Negative Existential Cycle.

There could well be a 'Negative Ascriptive Cycle' too. If (47) sketches the reanalysis of the Negative Existential cycle, then (48) would be the reanalysis of a hypothesized 'Negative Ascriptive Cycle'.

(47)

[there is no] Anil going to college   ->   Anil does [not] go to college

(48)

Anil is a [not-goer] to college   ->   Anil does [not] go to college

Given that Barnes (1994: 336) considers the negation in (49) to be "sentence negation," which must be our "standard negation," and given her ascriptive paraphrase, the possibility of a 'Negative Ascriptive Cycle' (see Krasnoukhova and van der Auwera, under review) seems real enough.

(49)

Tuyuca (tuyu1244, Barnes 1994: 336)
atí-*e*-go   nɨ̃-ã-wõ
come-NEG-NMLZ.F.SG   be-REC-EV
'She never came' [Literally: 'She is (habitually) a not-coming one.']

7.3.3. Negation of indefinites

From the point of view of simplicity and constructional symmetry, the indefiniteness strategy illustrated in (2i), repeated as (50a), should be considered less than optimal. (50a) is truly a negative clause, it is a main clause with a lexical verb, so this construction would count as standard negation if it wasn't for the fact that the sentence contains no standard negator. It is constructionally asymmetric as well. The positive counterpart is (50b). (50a) 'hides' the clausal negation in the negative quantifier—we will call it a 'negative quantification' pattern—and to that extent it is misleading (Haspelmath 1997: 203). (50a) does not ascribe a property to a subject referred to as 'nobody'. From the points of view of simplicity and symmetry, the better strategy is the one illustrated in (50c).

(50)

   a. *Nobody* believes him
   b. Somebody believes him
   c. Somebody does *not* believe him

In English, (50c) is not ungrammatical but it has a special, pragmatically marked reading. Then the indefinite outscopes the negation and (50c) is about somebody in particular not believing him. However, this is only English. There are up to now two typological and sample-based studies on negative indefiniteness and both show that the strategy illustrated in (50c) is the most common strategy.[18] In Kahrel

(1996: 39) it is found in 67% of a forty-↳ language sample; in van der Auwera and Van Alsenoy (2016: 483;

2018: 113), based on Van Alsenoy (2014), it occurs in 50% of a 179 language sample. Nasioi illustrates this strategy.

(51)

<pre>
Nasioi (nasi1247, Rausch 1912: 134; Kahrel 1996: 39)
a. Nanin   nánu-i
   someone   go-REC.PST
   'Someone went'

b. Nanin   nánu-ari-i
   someone   go-NEG-REC.PST
   'No one went'
</pre>

In comparison, the strategy shown in (50a) occurs in only 12% of the world's languages in both samples. There is an areal skewing as well, from being the most common (33%) in North America to very rare (3%) in Africa (van der Auwera and Van Alsenoy 2018: 114). There are no figures on whether the worldwide favorite, the strategy shown in (50c), has concentration or avoidance zones; Standard Average European, however, seems to be a strong avoidance zone (van der Auwera, Decuypere, and Neuckermans 2006: 315).

English has more to offer, though. A second and a third negative indefinite strategy are shown in (52a) and (52b): the former is standard English and the latter is widely found in English vernaculars and Creoles, though not in all (van der Auwera 2017) and, on a global scale, it is most typical for Eurasia (van der Auwera and Van Alsenoy 2016: 484).

(52)

<pre>
a. I did not see anybody
b. I did not see nobody
</pre>

Both are simpler than the negative quantification pattern of (50a), in the sense that they contain the standard negator, but both are still constructionally asymmetrical. In (52a) the standard negator is accompanied by a negative polarity item. In (52b) it is accompanied by an item that is negative by itself or at least looks like one—a construction that is commonly called 'negative concord', a term once again harking back to Jespersen (but to Jespersen 1922: 352, not 1917). Cross-linguistically, the negative polarity pattern appears to be more widespread than negative concord—22% (Kahrel 1996: 39) or 47% (van der Auwera and Van Alsenoy 2016: 483) vs. 12% (Kahrel 1996: 39) or 19% (van der Auwera and Van Alsenoy 2016: 483).[19] The reason why negative concord fares worse than the negative polarity pattern could be that it involves a kind of negative doubling, not unlike Jespersenian doubling. In Van Alsenoy's sample Jespersenian doubling is found in 17% of the world's languages; the figure for negative concord is similar.

In languages like French the similarity between Jespersenian doubling and negative concord is strong. First, just as the French Jespersen Cycle is currently undoing the doubling of *ne… pas* 'not' to just *pas* 'not', French negative concord is dissolving in that it is replacing *ne…personne* 'nobody' by *personne* 'nobody'.

(53)

<pre>
a. Je ne   te   vois pas > Je te   vois pas
   I NEG you see   NEG   I you see   NEG
   'I don't see you'   'I don't see you'

b. Je ne   vois personne > Je vois personne
   I NEG see   nobody   I see   nobody
   'I see nobody'   'I see nobody'
</pre>

For this reason the development from *ne…personne* to *personne* has even been called a 'Jespersen Argument Cycle' (Ladusaw 1993: 438). Second, *personne* 'nobody' derives from a noun 'person' via a negative polarity

use (which is still around[20]). We find the same with the negator *pas*. It also comes from a noun, this time a noun meaning 'step', which turned negative via a negative polarity use. However, there are differences too. For *personne* the end point is a negative pronoun, but for *pas* it is a standard negator (or part of one). For *personne* the evolution goes from a relatively minor construction to another relatively minor construction, while for Jespersenian doubling a relatively minor construction is heading towards the world's dominant one. Furthermore, the change for *personne* is not a cycle or a spiral in the sense that the last stage takes us back to the first stage: *pas* is a single negator like *ne* was, but *personne* 'nobody' is not a noun meaning 'person'.[21]

Cross-linguistically, Jespersenian doubling and negative concord do not co-occur very often. In Van Alsenoy's sample of 179 languages only twelve have both (Van Alsenoy 2014: 187) and only two are like French, in having negative concord independently of word order (see below), in having negative concord for a set of pronouns (rather than just one), and in forbidding Jespersenian doubling and negative concord to co-occur in one sentence and yield a simple negative sense. (54), pragmatically strange though grammatical, does not mean that nobody played in the garden. In Ewe, a language that also has both negative concord and Jespersenian doubling, the counterpart does have the single negation use and the combination of Jespersenian doubling (*me…o*) and negative concord of this double negator with an indefinite (*ame aɖeke*) actually yields tripling.

(54)

> Personne *n'* a *pas* joué dans le jardin
> nobody NEG has NEG played in the garden
> 'Nobody has not played in the garden'

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(55)

> Ewe (ewee1241, Nada Gbegble p.c.)
> Ame *aɖeke* *me*-fe le abɔ la me *o*
> person no NEG-play at garden the in NEG
> 'Nobody played in the garden'

Another difference between Jespersenian doubling and negative concord is that the latter comes in subtypes. Since Giannakidou (1998: 186), one distinguishes between strict and non-strict negative concord. 'Strict' means that negative concord is obligatory, and 'non-strict' that negative concord is found when the negative indefinite follows the finite verb, and is impossible when the order is reversed.[22] The former is illustrated with Russian, the latter with Chamorro.

(56)

> Russian
> a. *Nikto* zdes' menja *ne* znajet.
> nobody here me NEG knows
> 'Nobody knows me here.'
> b. Ja zdes' *ne* znaju *nikogo*.
> I here NEG know nobody
> 'I know nobody here.'

(57)

> Chamorro (cham1312, Chung 1998: 268, 94)
> a. *ni* unu istaba guini gi paingi
>   NEG one AGR.be here LOC last.night
>   'No one was here last night'
> b. *ni* ma-akka' yu' *ni* háfafa ha'
>   NEG AGR.PASS-bite I NEG anything EMP
>   'I wasn't bitten by anything'

To the extent that one can see from a data set of thirty-four languages in van der Auwera and Van Alsenoy (2016: 489), strict negative concord is more frequent than non-strict negative concord. Perhaps the reason is that strict negative concord is a simple system: the doubling is independent of word order. The non-strict system lacks this simplicity, although it has been argued to be functionally motived too. It is the independently needed Neg-First principle that comes into play (Haspelmath 1997: 206). When Chamorro *ni unue* appears in front of the verb, Neg-First is satisfied and there is no need for a preverbal *ni*, but when something like *ni unu* (like *ni háfala*) follows the verb, the negator comes relatively late and the preverbal *no* satisfies it. Non-strict negative concord is also more complex in the sense that there are various subtypes. Catalan illustrates one of these: with a preverbal negative indefinite the clausal negator *no* is optional or better; since the versions ↳ with and without *no* differ with respect to register, the two versions are semantically equivalent.

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(58)

> Catalan (de Swart 2010: 173)
> a. *Ningú* (*no*) ha vist Joan
>   nobody NEG has seen John
>   'Nobody has seen John'
> b. En Pere *no* ha fet *res*
>   the Peter NEG has done nothing
>   'Peter has done nothing'

Or take Georgian. What is relevant in this language, according to King (1996), is not whether the negative indefinite merely precedes the finite verb, but whether the negative indefinite immediately precedes the finite verb. If that is the case, then the verbal negator is optional. In all other cases, the verbal negator is obligatory. This is illustrated in (59).

(59)

> Georgian (King 1996: 234)
> a. šeni cigni *versad* (*ver*) vnaxe
>   your book nowhere NEG 1.see.3
>   'I couldn't see your book anywhere'
> b. *versad* šeni cigni *ver* vnaxe
>   nowhere your book NEG 1.see.3
>   'I couldn't see your book anywhere'
> c. *nu* gagzavnit *nursed*
>   neg 2.send.3 nowhere
>   'Don't send it anywhere'

There are also patterns of so-called 'negative spread', patterns with two or more negative indefinites with or without a standard negator yielding one semantic negation, as in Korean.

(60)

> Korean (Hwang 2008: 92)
> *Amwuto amwuto-lul mol*-n-ta
> nobody nobody-ACC NEG.know-PRS-DECL
> 'Nobody knows anyone'

Based on a data set of some twenty-five languages Zeijlstra (2004: 63) claims that all negative concord languages have negative spread.

A final point takes us back to negative quantification, as in (50a), repeated as (62a) below. The strict vs. non-strict parameter standardly applied to negative concord applies to negative quantification too. To see this, we don't have to go further than Dutch and English. Dutch illustrates the strict type: the indefinite is negative, there is no standard negator, and the negative indefinite can occur both before and after the finite verb. In English these options also exist but there is a word order dependent alternative and so the ↳ pattern can be called 'non-strict': if the indefinite occurs after the finite verb, it can be a negative polarity item and occur with a standard negator.

(61)

    Dutch
    a. Ik geloof *niemand*
       I believe nobody
       'I believe nobody'

    b. *Niemand* gelooft mij
       nobody believes me
       'Nobody believes me'

(62)

    English
    a. *Nobody* believes him
    b. *Anybody did*n't* see me
    c. I believe *nobody*
    d. I do*n't* see anybody

There are again subtypes of non-strictness (see van der Auwera and Van Alsenoy 2018). As to frequency, it seems that the non-strict type is more frequent (van der Auwera and Van Alsenoy 2018: 118): the strict type only uses the misleading pattern, the one without the standard negator (see top of section 7.3.3), whereas the non-strict type allows the standard negator in one of the two word order constellations.

7.4. Postscript

This chapter has surveyed recent and ongoing work on the typology of negation, with a focus on standard, prohibitive, and existential negation and on the negation of indefinites. For some phenomena we ventured claims on what is frequent or rare and on why this should be the case. Typology of the last decades of the previous century aimed to relate phenomena with implicational universals ('if a language has this, then it will also have something else'). This is still a goal of current typology but the implicational approach was not given pride of place here. There are several reasons for this. First, we often simply don't have enough data to confidently propose an implicational universal. Second, sometimes the claim is trivial and so we didn't bother the reader with saying that when a language is isolating the negator will not be morphological. Third and most importantly, linguistic reality is a 'battlefield' of competing motivations and a matter of tendencies rather than of simple implicational universals of the type that were common twenty to forty years ago. This is most clearly visible in discussions of how the position of negators correlates with other word order properties of a language (Dryer 2013b).

Another property of modern typology is the interest in the geography of the phenomena. Our materials did allow some areal statements, but we rarely commented on whether areal convergence is due to contact, to the fact that the area only has genetically related ↳ languages, or to chance. In some instances contact did play a role, as is clear for the Cham Bahnaric negative doubling discussed in section 7.2.1. But even if an areal

convergence is due to chance, it is good to be aware of the areal dimension. Thus if it is true that negative concord is a typically Eurasian phenomenon (section 7.3.3), this will make linguists speaking and studying Eurasian languages prudent in generalizing too much too soon about human language as such.

Notes

1 Typological survey chapters similar to this one are Dahl (2010) and Miestamo (2017). Dahl (2010) allots more space than either Miestamo (2017) or us on expression types and word order. Miestamo (2017) is recommended for a brief historiography of the typology of negation, an elaborate discussion of (a)symmetry and brief discussions on subordinate, interrogative, derivational and prosentential negation. Our survey stands out for its focus on multiple exponence, negative indefiniteness, and on interlacing synchrony with diachrony.

2 Phasal negation may well stay under the radar in this book. See Van Baar (1997) and Kramer (forthcoming).

3 On signed languages, see Zeshan (2006a), Zeshan (2013), and Oomen and Pfau (2017).

4 On sampling for typology, see Miestamo, Bakker, and Arppe (2016) and the references therein.

5 Despite this appeal to intuition, simplicity in grammar is not an easy matter. On simplicity and complexity in typology, see Miestamo, Sinnemäki, and Karlsson (2008).

6 We simplify percentages to full digit numbers.

7 Here and elsewhere we are grateful to Frens Vossen for having calculated figures on the database underlying Vossen (2016).

8 The hedge with *may well* is due to the fact that Dryer's numbers are not restricted to standard negation. He would seem to include interrogative, ascriptive, existential, and locational negation and perhaps also emphatic negation.

9 In the glosses the Leipzig glossing rules (<https://www.eva.mpg.de/lingua/resources/glossing-rules.php>) are used, but we stay as close as possible to the original description. We keep the orthography of the example as found in the source. For less familiar languages and language families we supply 'glottocodes' (<http://glottolog.org/glottolog/glottologinformation>) for unique identification, since many languages and language families have different names. When there is no source indication, the grammaticality judgments are ours.

10 See Doornenbal (2009: 173) on why we find 'REFL' to be a good gloss.

11 In Lewo (6), moreover, the syntactic *pe-re* negator morphologically breaks down in the two negators *pe* and *re*.

12 Miestamo (2005: 226–7) does not analyze English this way, however, because there is also an emphatic use of *do*, as in *You do cultivate*, which (27b) is constructionally symmetric with.

13 The number does not tell us anything about the in-between category of clitics, for they are included in the figures for free negators in Dryer (2013a), our main source.

14 For an additional 73 languages it is unclear whether the negator is free or bound and a further 21 languages have both a free and a bound negator.

15 The hedge with *something close to* is due to the fact that Vossen (2016: 44) includes negative verbs/auxiliaries.

16 Dahl (2010: 24) judges an earlier count by Dryer, viz. Dryer (1988), and is mildly optimistic that some version of the Neg-First principle does indeed hold.

17 There is, for instance, the question whether past 'prohibitives' such as Estonian (a) are truly prohibitives. See Van Olmen (2018) for a typologically sustained negative answer.

(a)

Estonian (Van Olmen 2018: 152)
No   är-*nud*   too-nud   siis,   keegi   *ei*
PRTC   PROH-PST.PTCP   bring-PST.PTCP   then   nobody   NEG
käski-nud   ju
command-PST.PTCP   PRTC
'Well, you/he/ . . . should not have brought it, no one told you/him/ . . . !'

18 This strategy need not employ a dedicated pronoun like English *someone*. It may be a noun meaning 'person'. What is important is that the strategy used for (50b) combines with a negator to yield the meaning corresponding to (50a). Also, the types mentioned in what follows are the major ones, but they do not exhaust the typology treated in our sources (Kahrel 1996; Van Alsenoy 2014).

19 This time the samples show a big divergence. The sample by van der Auwera and Van Alsenoy is more than four times the size of the sample by Kahrel and should therefore be more trustworthy.

20   These marginal uses could be taken to show that *personne* is still a negative polarity item. Neither Kahrel (1996) nor van der Auwera and Van Alsenoy (2016) do that, but if one did, and not just for French then the higher frequency of the negative polarity indefinites vs. the negative ones would be even more pronounced.

21   This is a claim about French *personne* and we are not saying that negative indefinites never develop further. There can be both semantic and formal further developments. We find a meaning-initiated change in French *rien* 'nothing', when it developed the sense of 'insignificant thing' (as in *un petit rien* 'a small insignificant thing') or in Jamaican Creole *nobadi* 'nobody' when it developed a free choice use (as in *Nobadi we kil nobadi, dem a-go go a kuot ous* 'Anybody who kills anybody has to go to court')—van der Auwera and De Lisser 2019). A form-initiated change can be witnessed in some dialects of Brabantic Belgian Dutch, when the negative pronoun *niemand* 'nobody' in a negative concord construction (as in *Ik heb niemand niet gezien* 'I have not seen anybody') dropped the initial *n-* and became the positive *iemand* 'somebody' (*Ik heb iemand niet gezien* 'I have not seen anybody', but literally 'I have not seen somebody')—van der Auwera, Decuypere, and Neuckermans. 2006).

22   This glosses us over that (non-)strictness could be a cline, with negative concord being more or less strict. In Jamaican Creole, for instance, negative concord is overwhelmingly strict for e.g. *nobadi* 'nobody', yet the system 'leaks' (van der Auwera and De Lisser 2019).