Willis, David, Anne Breitbarth & Christopher Lucas. in press. Comparing diachronies of negation. In David Willis, Anne Breitbarth & Christopher Lucas (eds.), *The history of negation in the languages of Europe and the Mediterranean, volume 1: Case studies*. Oxford: Oxford University Press.

1   Comparing diachronies of negation
      David Willis, Christopher Lucas and Anne Breitbarth

Negation is one of the few truly universal grammatical categories: every language seems to have some grammaticalized means to deny the truth of an ordinary declarative sentence. Yet the expression of this category varies significantly both from language to language and historically within the same language. For the historical linguist, changes in the way that negation is expressed are therefore an ideal testing ground for theories of change, with every language having the potential to provide important data. Core phenomena in language change are amply exemplified in common developments in negation. In the emergence of new negative markers, we find grammaticalization of lexical items as new grammatical markers of negation: a noun like French *pas* 'step' comes to be reinterpreted as marking negation. We find reanalysis of syntactic structure and of syntactic category: the ancestor of English *not* was once an indefinite pronoun meaning 'nothing' and the object of the verb to which it related, while today it is a specialized negative adverb. We find interactions between syntax and semantics in the form of cyclic developments, as markers of negation are constantly being renewed and replaced by newly emerging ones. We see the results of language contact in the replication of patterns across language boundaries and the emergence of areal preferences for certain patterns of marking negation. Negation provides a wealth of material through which the mechanisms of these core phenomena may be investigated.

       The two-volume publication of which this book forms the first part aims to document these patterns of change in negation as they are found repeatedly across the different languages of Europe and the Mediterranean, examining how they can be accounted for, integrating perspectives from formal models of change grounded in language acquisition, from the study of grammaticalization and from models of language contact. This volume constitutes the first step towards that goal, concentrating on documenting in some detail the patterns of change attested in the histories of individual languages or language groups. This chapter provides an overview of the developments that we find. Thereafter, we present ten case studies that we have commissioned across seven different language groups: five Indo-European (Romance, Germanic, Celtic, Greek, Slavonic), as well as Afro-Asiatic and Uralic. The selection of languages includes a mix of those, such as French and English, with negative systems that have already been the subject of extensive research and which have served as paradigm examples in the general historical linguistic literature, and those, such as Low German or Brythonic Celtic, where research is still very much in its infancy, but whose histories may nevertheless make a significant contribution to our understanding of how negative systems change.

       While the second volume will discuss the processes involved in the diachronic development of the expression of negation in more general and more theoretical terms, the present volume aims to showcase the developments in selected languages of Europe and the Mediterranean in order to bring out the common features of these developments, as well as to highlight their differences. At the same time, it presents the state of the art of research into the development of the negation in the languages concerned. To this end, leading researchers with expertise in each of the surveyed languages or language groups have been invited to contribute and have been encouraged to integrate their own ongoing research into a

presentation of our current understanding of the development of negation in the various language groups.

The second volume is more theoretically oriented and theoretically homogeneous, and aims to generalize across the patterns of diachronic development in negation, bringing out the role of language acquisition and language contact in these developments, and assessing the contributions that formal and functional models of change can make to explaining them. However, the focus of the present volume being on the empirical phenomena in the individual languages, no uniform theoretical approach has been imposed on the individual authors. Nevertheless, a broadly unified format was chosen for the presentation of the material, assuring comparability between the chapters. All chapters begin with a discussion of the changes, where applicable, affecting the expression of sentential negation in ordinary contexts not involving indefinites in the relevant language or language group, and subsequently address any changes affecting indefinites in the scope of negation, as well as possible interactions of these with the expression of negation, including the phenomenon of negative concord. The chapters then move on to discuss other relevant phenomena such as the negation of infinitives, negative imperatives, negative complementizers and constituent negation wherever these show distinctive developments of their own.

Negation has been the subject of a vast body of scientific literature. Typological work, building on the pioneering surveys of Dahl (1979), Dryer (1988) and more recently Miestamo (2005) and van der Auwera (2010), has revealed the diverse range of ways in which negation is expressed in the world's languages. Generative work (for instance, Déprez 2000, Giannakidou 2000, 2006, Haegeman 1995, Rowlett 1998, Zanuttini 1997, among many others) has attempted to account for the distribution of the various elements found in negative contexts and to derive their semantics. There is also a long tradition of work in truth-conditional semantics on negation (Horn 1989 and the references cited therein), as well as work from a functionalist perspective (Givón 1978, 2001: ch. 8).

The approach in this volume is not specifically typological, although it is informed by much groundbreaking work in the typological tradition. Rather, it locates itself within the research paradigm of 'comparing diachronies' (cf. the title of a forthcoming collection edited by Jürg Fleischer and Horst Simon, based on a workshop of the same name at the 29th Annual Meeting of the Deutsche Gesellschaft für Sprachwissenschaft in 2008). The result is a narrower focus on a specific subset of the world's languages where detailed historical trends can be established. This commitment to in-depth yet comparative historical analysis leads us to focus in the first instance on the languages of Europe and the Mediterranean. This choice is motivated by the need to take the bulk of our data from languages whose diachronies have been or can be established on the basis of written textual sources, rather than through comparative or internal reconstruction. Such languages allow their historical developments to be established in some detail, including data on the internal progress of change, namely the rate at which changes were implemented and their relative order, facts that can never be established by reconstruction. Most Indo-European languages fall into this category and we have chosen a selection for inclusion as separate chapters in this volume. Afro-Asiatic was included, even though parts of it are not well documented historically, since north Africa (in Arabic, Berber and Coptic) manifests one of the main historical developments characteristic of European languages, namely Jespersen's cycle, providing a detailed point of comparison. We have also included a chapter on the Mordvin languages, as representative of the sorts of developments typical in the Uralic languages, partly for geographical completeness and partly to show the contrast with the relatively uniform synchronic and diachronic patterns found in western Europe. Inevitably, this means that some elements of syntactic reconstruction have been included in the volume, but not to the extent that generalizations about patterns of development will be overly dependent on the use of reconstruction. Varieties of European

languages spoken outside of Europe, descendants of European languages and creoles derived historically from European languages are not specifically included in the scope of this work, but we have adopted a pragmatic approach, and they will be referred to when they instantiate important developments. Naturally, coverage in this volume is better for languages to which a full chapter is dedicated. However, where important or unique developments have occurred in languages not the focus of a dedicated chapter, we have attempted to highlight them in the general survey that follows.

1.1 Sentential negation

Much typological work has focused on the expression of standard negation in the world's languages, defined as 'that type of negation that can apply to the most minimal and basic sentences' (Payne 1985: 198). This is essentially a morphosyntactic notion, the motivation for which is to allow the linguist to establish the main strategy for expressing negation in order to aid crosslinguistic comparison. Standard negation is typically the form of negation found in ordinary main clauses. Only negative constructions that are a productive means of reversing the truth value of a proposition can be considered expressions of standard negation (Miestamo 2005: 42). Hence, for example, the present-day French particle *ne*, which may appear in certain embedded clauses interpreted affirmatively, is not, on its own, considered to be a marker of standard negation. Standard negation is adopted as the basis for discussion in chapters 2 (French), 8 (Greek) and 11 (Mordvin).

A related, but distinct notion is sentential negation, a semantic concept that refers to any instance where an entire proposition, not just some subpart, is negated. This is used as the starting point in the remaining chapters. Sentential negation in English is identified by reference to the classic diagnostic tests of Klima (1964). Negative clauses allow neutral tags without *not*, as in (1); they allow an appositive tag beginning with *not even*, as in (2); and they may be conjoined with a clause of the form *and ... either*, as in (3).

(1)   Dogs don't like rain, do they?
(2)   Dogs don't like rain, not even in summer.
(3)   Dogs don't like rain, and cats don't either.

Conversely, a pragmatically neutral tag question attached to an affirmative/positive clause will contain *not*/-*n't*, as in (4);[1] it will take an appositive tag with *even* rather than *not even*, as in (5); and, rather than a continuation with *and … either*, only a continuation with *and … too* is possible, as in (6).

(4)   Dogs like biscuits, don't they?
(5)   Dogs like biscuits, (*not) even in summer.
(6)   Dogs like biscuits, and cats do too/*either.

While these tests will reliably identify core cases of sentential negation in English, analogues will not necessarily be available in all languages, and, even in English, there are sentences containing negation for which the tests produce unclear results. A means of identifying sentential negation which largely overcomes these difficulties is the 'performative paraphrase' suggested by Payne (1985: 200): if a clause contains sentential negation then it will be paraphrasable in the form *I say (of X) that it is not true that Y*. If we apply this to (1)–(3) for example, we get: *I say of dogs that it is not true that they like rain*. Clearly, affirmative clauses as in (4)–(6) will not be paraphrasable in this way. Here an appropriate paraphrase would be: *I say of dogs that it is true that they like biscuits*.

In Klima's (1964) original discussion of these issues (as also in Payne 1985), the label given to any instance of negation in a clause which does not pass these diagnostics is 'constituent negation'. This therefore covers both instances of morphological negation with, for example, prefixes such as *un-* and *non-* in English *unhappy* or *non-toxic*, as well as negation of some constituent in an otherwise affirmative clause, as in (7).

(7)   Not long after, I decided to go home.

It seems intuitively clear that (7) is an affirmative sentence, and this is confirmed by application of Klima's tests and the performative paraphrase.[2]

As Jäger (2008: 21) points out (see also section 5.3.1), it is rarely the case that all that a negative clause conveys is that the proposition expressed is false. Often, contrastive focus is also placed on some element within the clause, inviting the inference that replacing this element with some other member from a set of alternatives would render the proposition expressed no longer false. This is called 'focus of negation'. In the sentence in (8), for example, focus of negation may be placed variously on *burglar*, *window*, *cricket bat* or the entire verb phrase, but, in each case, we have sentential, not constituent negation, as application of Klima's tests and the performative paraphrase will attest.

(8)   The burglar didn't break the window with the cricket bat.

The above outlines the difference between sentential and constituent negation as Klima originally intended it. It is important to note, however, that in practice the term 'constituent negation' is often used more widely (and 'sentential negation' more narrowly) than this. In particular, narrow focus of sentential negation on some lexical phrasal element is often referred to as constituent negation; in English and some other languages, this is especially the case if the negator immediately precedes that element, as in (9), or if the rest of the negated clause has undergone ellipsis, as in (10).

(9)   Not everyone likes chips.
(10)   I like mashed potatoes, not chips.

Although this use blurs the otherwise clear semantic distinction between sentential and constituent negation, a powerful justification for it is that a number of languages have negators which are specialized not just for true constituent negation, but also narrow-focus sentential negation. Not unreasonably, these items are usually called simply 'constituent negators', although according to standard definitions they mark both constituent negation and focus negation. One such item is Old High German *nalles*: it is used both as a true constituent negator and to mark narrow focus of sentential negation, but not with wide focus of sentential negation (section 5.3.1). The equivalent item *nalles* in Old English has a similar distribution (section 4.2.4), as does Latin *haud* and Welsh *nid* (section 7.11).

Expression of constituent and narrow focus negation seems to be fairly stable diachronically, though changes in the inventory of constituent negators are occasionally observed. Since changes in standard and (wide-focus) sentential negation are probably more common and certainly more salient, the bulk of the focus in the remainder of this section, as in the book as a whole, is on these.

1.2   Jespersen's cycle

In a now much-cited quotation from his *Negation in English and other languages*, Otto Jespersen observed a development, repeated across various languages, in which a new negative marker emerges and replaces an existing negative marker:

The history of negative expressions in various languages makes us witness the following curious fluctuation: the original negative adverb is first weakened, then found insufficient and therefore strengthened, generally through some additional word, and this in its turn may be felt as the negative proper and may then in course of time be subject to the same development as the original word. (Jespersen 1917: 4)

This process can recur, leading to a cyclic process of constant renewal, such as that observed in the double cycle from early Latin through to Modern French. Thus, the original negator *ne* was reinforced by *oenum* '(not) one (thing)', the two elements merging as Latin *non*; *non* was reduced phonologically to *ne*, which was in turn reinforced by *pas* '(not one) step' in French (see further below) (Schwegler 1983, 1988, 1990: 151–74). Although the same basic idea had been noted earlier by Gardiner (1904), the phenomenon has generally been associated with Jespersen and was dubbed 'Jespersen's cycle' by Dahl (1979: 88). As Jespersen had already noted, such renewals are observed in other domains too, particularly demonstratives and pronouns (see van Gelderen 2009, 2011). Much linguistic change then consists of the erosion, both phonological and semantic, of existing means of expression, and the countervailing processes by which new forms of expression are created.
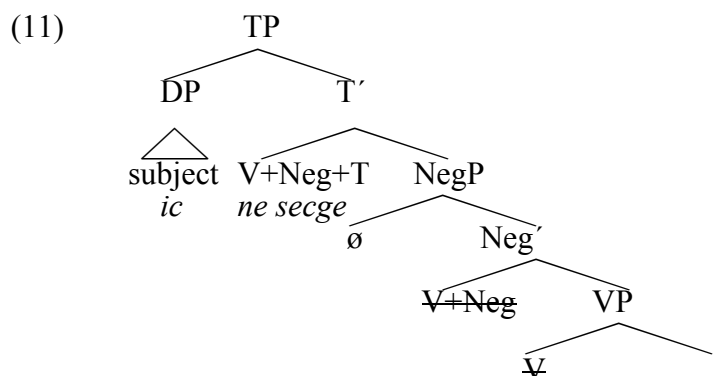
The cycle is presented schematically in Table 1.1 for the two most commonly cited languages, English and French. An early preverbal negator, in both cases *ne*, was reinforced by a newly created emphatic element. In English the source was an indefinite pronoun *not* < *nāwiht* 'nothing', while in French it was a generic noun *pas* 'step' used as a minimizer in expressions such as 'I did not go a step'. Once this element has been bleached, integrated into the negative system and has become compulsory, the language develops bipartite expression of negation. Finally, the original element is lost, with the language reverting to single marking of negation, but now with a postverbal marker distinct from the original marking. Developments specific to English, involving the emergence of *do*-support have led to the partial re-establishment of the original situation, with the negative marker *not*/*-n't* preceding the lexical verb today.
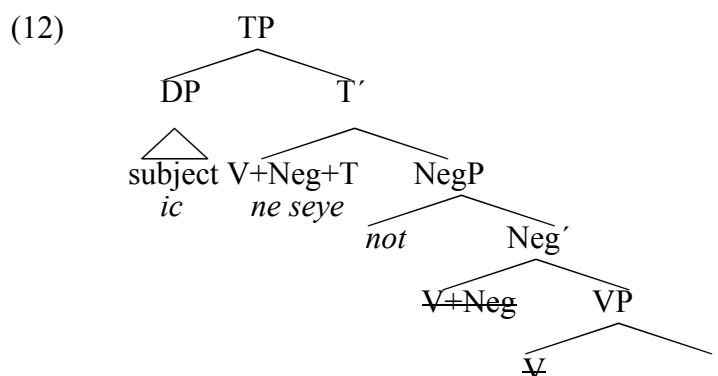
Table 1.1. Schematic representation of Jespersen's cycle

	stage I	stage II	stage III	stage I´
English	ic ne secge (Old English)	I ne seye not (Middle English)	I say not (Early Modern English)	I don't say (Present-day English)
French	jeo ne dis (Old French)	je ne dis pas (Middle and Modern written French)	je dis pas (Colloquial French)	

In formal syntactic approaches, Jespersen's cycle has been interpreted as the creation of a new negative specifier, which at first co-exists with the former negative head, and eventually replaces it (Rowlett 1998: 92–7, Roberts & Roussou 2003: 154–61, van Gelderen
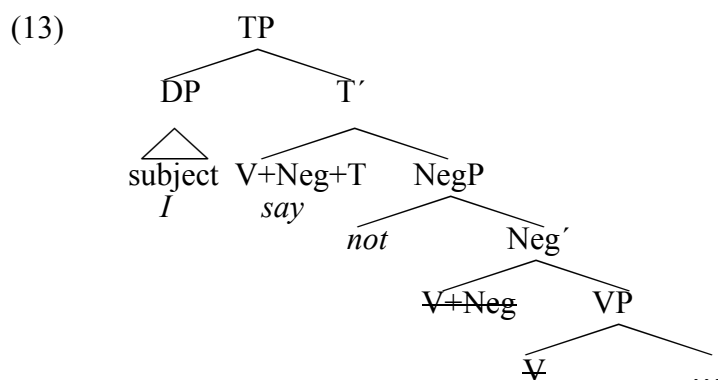
2008). Following a tradition that goes back to Laka (1990) and Haegeman (1995), and ultimately to Pollock's (1989) split-Infl hypothesis, the syntactic locus of negation is often assumed to be a dedicated negative projection, NegP. A language may vary as to whether it has a marker to fill the head position of NegP, its specifier, or both. It has also been suggested (Zanuttini 1997) that there are several different syntactic positions for NegP, higher and lower in the clause. On this approach, Old English *ne* would be a Neg-head, while *not*, once it entered the negative system, would be a specifier of NegP. At stage I, in (11), *ne* is in Neg^0, and the verb undergoes successive head movement from V to Neg to T (shown by strikethrough in the tree), yielding subject–NEG–verb order.[3]
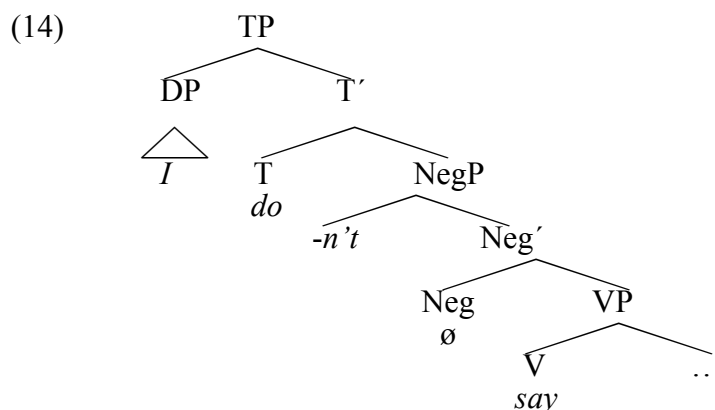
(11)

```
                TP
              /    \
            DP       T´
            /\      /  \
        subject  V+Neg+T  NegP
          ic    ne secge  /  \
                  ø      Neg´
                        /    \
                    V+Neg    VP
                            /  \
                           V    …
```

At stage II, *not* comes to express negation, as the specifier of NegP, while all other operations remain the same:

(12)

```
                TP
              /    \
            DP       T´
            /\      /  \
        subject  V+Neg+T  NegP
          ic    ne seye   /  \
                        not   Neg´
                             /    \
                         V+Neg     VP
                                  /  \
                                 V    …
```

At stage III, *ne* ceases to express the Neg^0-head, which now has zero phonological realization:

(13)

```
                TP
              /    \
            DP       T´
            /\      /  \
        subject  V+Neg+T  NegP
           I      say     /  \
                        not   Neg´
                             /    \
                         V+Neg     VP
                                  /  \
                                 V    …
```

Stage III′, shown in (14), involves the loss of verb movement, unique to English, and its replacement by *do*-insertion. At this stage, *-n't* is still the realization of the specifier of NegP, and the head is empty, but the way is open to a return to stage I, via reanalysis of *-n't* as the head of Neg.

(14)

```
                    TP
              ┌──────┴──────┐
             DP             T′
             ╱╲        ┌─────┴─────┐
            ╱__╲       T          NegP
             I         do     ┌────┴────┐
                            -n't       Neg′
                                   ┌────┴────┐
                                  Neg        VP
                                   ø     ┌────┴────┐
                                         V         …
                                        say
```

This presentation is of course highly schematic, and omits some important details and complications that will be discussed below. The situations are referred to as distinct stages in Table 1.1, with stage I representing single marking of negation in preverbal position, stage II representing bipartite negation and stage III representing single marking of negation in postverbal position. However, more stages could be postulated (see section 1.5 below) and the stages do not reflect discrete time periods in a language's development. They might in fact be better thought of as 'syntactic structures' or 'constructions' rather than 'stages', since more than one (and indeed all three) may be found in complex patterns of variation at any given time. Furthermore, the idealized stages gloss over a number of other important issues: the syntactic and semantico-pragmatic status of the new element (is it a noun (phrase), an adverb (phrase) or a negator? is it emphatic or neutral?). The speed with which a language progresses through the stages is also highly variable, with some languages showing stable, long-term variation between two or more patterns, while others shift from stage I to stage III with stage II more closely resembling a historical linguist's idealization than a distinct historical period.

1.3   The crosslinguistic distribution of Jespersen's cycle

Jespersen's cycle has occurred extensively in the languages of western Europe and north Africa and thus receives a prominent place in this volume. We find a full shift to stage III within Germanic, in English (section 4.2.1), Dutch and Low German (section 6.2), High German (section 5.1), and Scandinavian (Old Norse) (see in this section below); in Italic/Romance, in early Latin, colloquial French (section 2.2), some northern Italian dialects (section 3.2) and most Romansh varieties (Krefeld 1997); in Celtic, in Welsh (section 7.3); in Greek (section 8.2); and perhaps in the history of Hungarian (section 1.4). There is a partial cycle, with a shift to (broadly) obligatory stage II in Afrikaans, standard French (section 2.2) and Breton (section 7.4). Co-existence of stage I and stage II constructions is probably in fact very widespread (depending on how strictly stage II is defined, see section 1.5), but well-established stage II constructions are found alongside stage I in Catalan, standard Italian and some northern Italian dialects (section 3.2), and Estonian (section 1.4). Brazilian Portuguese allows all stages in some variety (Schwenter 2005: 1428–9). Finally, we find various stages of Jespersen's cycle in numerous Afro-Asiatic languages, such as Arabic (stage II throughout north African dialects, stage III in Palestinian), Berber (stage II in Morocco and Algeria, stage III in Libya), Coptic (stage III), and others besides (section 10.2). Jespersen's cycle is

often thought of as mediating a shift from preverbal to postverbal negation, and indeed the idea that the cycle allowed a language to realign its word order along more harmonic lines was crucial to some typological approaches in the 1970s (Vennemann 1974, Harris 1978). However, we take the concept to be broader than this, to include the emergence and spread of any new pragmatically marked negator along a trajectory towards possible eventual replacement of an earlier negator (cf. Schwegler 1983: 301). The defining property of Jespersen's cycle is thus the cyclic strengthening and weakening of negative markers, rather than the concomitant changes in word order that are often present.

  As a further example, let us consider the development of negation in historical Scandinavian, which underwent Jespersen's cycle not just once, but twice in its early history (Eythórsson 1995: ch. 2, 2002). In early Old Norse (prior to the 7th century), the inherited Germanic preverbal negator *ni/ne*, illustrated in (15), could already be amplified by a postverbal clitic *-(a)t/-a*. This is illustrated in (16).

(15) **ni** s solu sot uk **ni** sakse stain skorin
    NEG is sun.DAT hit.PP and NEG knife.DAT stone cut.PP
    'It is not hit by the sun and a stone is not cut with a knife.' (Eggja inscription,
      Eythórsson 2002: 196)
(16) ef Gunnarr **ne** kømr=**að**
    if Gunnarr NEG come.PRES.3SG=NEG
    'if Gunnarr does not come' (Akv 11, Eythórsson 2002: 194)

These items may have arisen historically from combinations containing an adverb 'ever', for instance *-a* from *aiwa- 'ever' and *-at* from *aiwa-wehti- 'ever anything' (Eythórsson 2002: 194) (cf. the use of Old English *nā* 'never' as a sentential negator and *nān wiht* 'no thing, nothing' as the ancestor of Modern English *not*) or may possibly derive from the numeral 'one' (**ainata* one.NEUT / **aina* one.MASC) (Eythórsson 2002: 219).

  In Old Norse (Old Icelandic), between the seventh and ninth centuries (between the Eggja inscription and the earliest eddic and skaldic poems), preverbal *ne* became optional and disappeared, as in (17).

(17) gaft=**at**=tu   ástgiafar
    give.PAST=NEG=you.SG love.presents
    'You did not give love presents.' (Rm 7, Eythórsson 2002: 199)

In negative main clauses, the finite verb would front before the subject, leaving *ne* in sentence-initial position. Eythórsson suggests that its disappearance was due to phonological deletion that affected other unstressed syllables in this position as well, cf. Jespersen's (1917: 5) suggestion that negative elements in sentence-initial position are uniquely vulnerable to loss.

  Old Norse *-at/-a* was limited to finite verbs and imperatives, and was complemented by *eigi* 'not' < (*ne*) *eitt=gi* 'not one.NEUT=at.all' (Christensen 2003) between the ninth and eleventh centuries, first in non-finite contexts (18), then generally (19).[4] The suffix *-at/-a* disappeared by the fourteenth century (Eythórsson 2002: 217).

(18) Enn Atli qvað=z   **eigi** vilia.
    but Atli say.PAST.3SG=REFL NEG want.INF
    'But Atli said that he did not want.' (Od 22, Eythórsson 2002: 194)

(19) **Eigi** má   ek þat vita.
      NEG can.PRES.1SG I that know.INF
      'I cannot know that.' (Christensen 2003: 24)

The history of the Scandinavian languages has thus witnessed two renewals of the expression of negation along Jespersen's cycle: (i) reinforcement of *ne* with *-a/-at*; and (ii) replacement of *-a/-at* by *eigi*. The latter element is the ancestor of all modern Scandinavian negators, Swedish *inte/icke*, Danish and Norwegian (bokmål) *ikke*, Neo-Norwegian (nynorsk) *ikkje*, Icelandic *ekki* and Faroese *ikki* (Eythórsson 2002: 190).

      Outside of Europe, Jespersen's cycle has been identified less frequently and may be less common. Synchronically, languages with bipartite expression of negation reminiscent of stage II of Jespersen's cycle are found sporadically across Niger–Congo languages in central and west Africa. These, along with other Niger–Congo languages which express negation using a postverbal particle, seem to have undergone Jespersen's cycle developments against the background of a protolanguage with prefixal negation (Güldemann 2011: 117). Devos, Tshibanda & van der Auwera (2010) discuss in some detail the (reconstructed) history of negation in the Bantu language, Kanincin, arguing for multiple, overlaid instances of Jespersen's cycle in its development. Kanincin negation may be expressed in a number of ways, including bipartite *ka-* … *-p(a)* or tripartite *ka-* … *-p(a)* (*kwend* etc.) (for phonological reasons, *-p(a)* mostly appears as *-ap* in the examples):

(20) (mvûl)   wù-nàk-ááŋ
      (1.rain)   1/SUBJ-rain-TAM
      'It's raining.' (Kanincin) (Devos, Tshibanda & van der Auwera 2010: 6)
(21) (mvûl)   **kà**-nák-ááŋ-**áp**   (**kwénd**)
      (1.rain)   NEG.1/SUBJ-rain-TAM-NEG NEG
      'It's not raining.' (Kanincin) (Devos, Tshibanda & van der Auwera 2010: 7)

The original (stage I) negator *ka-* was reinforced by *-pa*, originally a locative (noun-class-16) pronoun, but also used to mean 'a little':

(22) táámbúl-**àp**
      take.IMP-16.LOC
      'Take a little!' (Devos, Tshibanda & van der Auwera 2010: 14)

In the scope of negation then, this would have once acted as a minimizer 'not (even) a little, not at all', from where an emphatic negative meaning developed. The second element in (21), *kwend*, is a possessive adjective with a (class-17) pronominal prefix ('at his' hence 'as for him'), used to mark contrastive focus in affirmative sentences:

(23) à-y-á   **kw-énd**
      1SC-go-SUBJUNCT 17-POSS.1
      'He should just go.' (i.e., he should not do anything else) (Devos, Tshibanda & van
            der Auwera 2010: 20)

In negative clauses, however, as in (21), it has become part of the negation and is no longer felt to convey emphatic negation (see also Devos & van der Auwera forthcoming). This entire historical scenario parallels the western European Jespersen cycles remarkably closely.

      Similarly, the Australian (Western Daly) language Maranungku marks negation using any of the following patterns (Miestamo 2005: 62–3, Tryon 1970):

(24)   *way piya* Aux V
        piya Aux V *way* (emphatic)
        V *way piya* Aux
        piya V Aux

Both bipartite marking with *way piya* and single marking with *piya* alone are possible. *Piya* originally meant 'head' (Miestamo 2005: 63), hence has a plausible origin as a minimizer, suggesting that the language, having innovated a new negator *piya* from a minimizer source, has been generalizing it, and is currently in the transition between stages II and III of Jespersen's cycle.

      Nevertheless, the synchronic frequency of bipartite negation is not a reliable guide to the frequency of Jespersen's cycle, particularly if stage II of the cycle in inherently unstable. A language that has gone through from stage II to stage III of Jespersen's cycle ends up with a single negative marker. It may therefore be difficult to establish if a language with a poorly documented textual record has undergone Jespersen's cycle unless comparative reconstruction or internal alternations imply an appropriate etymology for the negative marker.

      Jespersen's cycle raises a number of important issues that can only seriously be addressed on a comparative basis. Many of these questions concern the internal structure of the cycle, what elements are recruited as new negators, and how the cycle moves forward. It is to these that we now turn.

1.4   Reanalysis, bridging contexts and incipient markers of negation

Consider first the initial phase of the cycle, which we refer to as 'incipient Jespersen's cycle' (following Breitbarth, Lucas & Willis forthcoming). The sources of new negators seem to be relatively constrained. New negators are overwhelmingly derived from nominal minimizers such as (*not*) *a drop* or generalizers such as (*not*) *anything* (*at all*). Noun phrases are used as minimizers when they are used to express the idea that a proposition does not hold even at the lowest point on some relevant scale (cf. Eckardt 2006). Generalizers, such a free-choice items, invite the hearer to expand the set of situations under consideration to include all possible worlds, expressing the idea that the proposition does not hold in any of them (cf. Giannakidou 2001). Nouns denoting small quantities are typical minimizers; those with a fairly generic meaning are more likely to be frequent enough to become new markers of negation. Indefinite pronouns are also plausible candidates to participate in Jespersen's cycle because they may act both as minimizers ('not even a single thing') or as generalizers when they give rise to free-choice interpretations ('not any of the things that could possibly be imagined'):

(25)   Mary didn't eat anything at all (not even a crumb) (i.e. not even the smallest thing)
(26)   Mary didn't notice anything at all (anything you could conceive of her noticing) (i.e. for any arbitrarily chosen thing she might have noticed, Mary didn't notice it)

      Generic nouns used as minimizers are the basis for a full, partial or incipient Jespersen cycle in many Romance varieties (Schwegler 1988, Muller 1991: 211): French (*pas* 'step', *mie* 'crumb', *point* 'point', *goutte* 'drop') (section 2.2.1), Occitan (*pas* 'step') (Granda 1999), Catalan, some northern Italian dialects (Italian *mica* 'crumb', Piedmontese *pa* 'step', Modenese *brisa* 'crumb') (section 3.3.2) and Romansh (Engadine *brich*(*a*) < 'crumb', cf. Italian *bricia* 'crumb', Romagnolo *brifa* 'not'; Central Romansh *betg*(*a*) perhaps < Latin *bāca*(*m*) 'berry' or a variant of *brich*(*a*); Sursilvan Romansh *buc*(*a*) perhaps < Latin *bucca*(*m*)

'mouth(ful)' or a variant of *betg(a)*) (Planta, Meicher and Pult 1939: ii. 499–507, Avery 1978, Krefeld 1997, Liver 1999: 147–8, Detges 2003). Incipient developments of this type are also found elsewhere (see below).

Indefinite pronouns are the basis for Jespersen's cycle in some Italo-Romance varieties, such as Piedmontese *nent* < *nent* 'nothing' < *ne(c) gente(m)* 'no people' (section 3.3.2), English *not* < *nāwiht* 'not anything, nothing' (section 4.2.1), German *nicht* (section 5.1.1.2) and Dutch *niet* (section 6.2) (both from *ni-eo-wiht* 'not ever a thing, nothing'), Old Norse -*at* and *eigi* (see above), Welsh *ddim* < 'anything, thing' (section 7.3.2), Greek *δen* < Classical Greek *ouden* 'nothing' (section 8.2.2), Arabic varieties -*š* < Classical Arabic *šayʔ* 'thing, anything' (section 10.2.1.1), Berber *ša* < *kra* 'thing' (section 10.2.1.2), and Hungarian *nem* < **n-* + pronoun *mi* 'what; thing', cf. Komi-Zyrian, *ńi-ņem* 'nothing' (Rédei 1970, Honti 1997: 164). Incipient developments along these lines are also common elsewhere (see below).

Languages usually have already adverbial means of strengthening the expression of negation, such as English *at all* or *for the life of me*, or Old Low German (Old Saxon) *an thesaru uueroldi* 'in this world'. Such expressions seem to form the basis for a successful Jespersen cycle only rarely, if at all. They may, however, grammaticalize to reinforce the expression of negation or negative polarity in the system of indefinites, which like the expression of sentential negation seems to be subject to cyclic renewal (see section 1.9 below). This has happened extensively in the Celtic languages, for instance, Middle Welsh *dim yn y byd* 'anything in the world' was contracted to Modern Welsh *dim byd* 'anything, nothing' (section 7.6.2), and similar developments are evident in the emergence of other elements that form negative indefinites, such as Breton *ebet* (< Middle Breton *en bet* 'in the world) (section 7.7), or form negative polarity indefinites, such as Irish *ar bith* and Scottish Gaelic *sam bith* (< Old Irish *for bith* 'on the world', *isin bith* 'in the world') (section 7.9.3).

A more successful adverbial source for Jespersen's cycle involves temporal adverbs. Use of temporal adverbs in generalizing senses ('never' > 'in no possible world' > 'not') gives rise to new emphatic negators in Jespersen-type developments in various languages, but does not often lead to full Jespersen's cycle. Lucas & Willis (forthcoming) examine how *never* in Modern English has come to be used to express sentential negation via this development in some varieties, as in:

(27)   You sure you **never** nicked it? (Cheshire 1998: 47)

A full (accelerated) development of this type is attested in Cape Verdean Portuguese Creole, where the preverbal negator *ka* derives from Portuguese *nunca* 'never' (Naro 1978: 330–3, Teyssier 1986):

(28)   Bu **ka**   paga kel   renda.
        you NEG   pay   that   rent
        'You didn't pay rent.' (Cape Verdean Portuguese Creole) (Baptista 2002: 116)

Abortive cases of this development (where the item was used as an emphatic negator for some time, but is not the majority development subsequently) include Old English *nā* 'never, not at all' (section 4.2.1) and its Old High German cognate *nio* 'never, not at all' (section 5.1.1.2).

A third option is rather different but also involves a structural reorganization, this time of a clause-final anaphoric negator 'no', 'I didn't do it, no' or resumption of the ordinary sentential negator, 'I didn't do it, not at all'. This seems to form the basis for something akin to Jespersen's cycle in Afrikaans (Biberauer 2009, 2012) and some varieties of Dutch (e.g. Brabantic, van der Auwera 2009: 49–53), Brazilian Portuguese (Schwegler 1991b, Schwenter

2005), some northern Italian dialects, notably Milanese (sections 3.2.2.1 and 3.3.2), several Modern South Arabian languages (section 10.2.1.1) and perhaps Hausa (section 10.1.2), along with various creoles, such as Palenquero (Schwegler 1991a). This development is illustrated in (29) for Afrikaans, where bipartite negation is now usual, and in (30) for Brazilian Portuguese, where it remains pragmatically marked.

(29) Ek is   **nie** ryk **nie**.
      I   be.PRES NEG   rich NEG
      'I'm not rich.' (Afrikaans) (Biberauer 2012: 3)
(30) A Cláudia **não** veio   à festa **não**.
      the Cláudia NEG   come.PAST.3SG to party NEG
      'Cláudia didn't come to the party.' (Brazilian Portuguese) (Schwenter 2005: 1429)

In Italo-Romance varieties and perhaps also in Palenquero, the anaphoric or resumptive negator comes to be increasingly integrated into the clause, coming with time to occupy an earlier syntactic position. It is unclear though if these form a unified class, since the Dutch–Afrikaans case has been analysed as arising historically from extension of negative concord from indefinites to the sentential negator (van der Auwera 2009: 49–53), and this seems at least as plausible as reanalysis of the anaphoric negator. Furthermore, the possibility that these patterns arise in some cases from replication of syntactic patterns via contact (cf. Bernini & Ramat 1996: 64–81) cannot be excluded.

In addition to identifying the possible sources of new markers, we need to consider the syntactic, semantic and pragmatic changes that they undergo and compare these from language to language. An item in a language may be said to be involved in incipient Jespersen's cycle when it first begins to stray beyond its historical semantic and syntactic environment, becoming a plausible candidate for subsequent recruitment as a new marker of negation. The way into Jespersen's cycle involves several steps. The process may stop at any one of these steps, and, in fact, often seems to stop early, leaving the new item as a marker of emphatic negation but nothing more. Such elements are often stable, and show no signs of replacing the previous exponent of ordinary sentential negation. The processes involved at the early stages of Jespersen's cycle are the same regardless of whether the item in question goes on to become the main exponent of ordinary sentential negation in the language or remains a minor adverbial means of emphasizing polarity.

Many of the typical sources for Jespersen's cycle are initially noun phrases, and hence start out as arguments of whatever class of verb is appropriate to their lexical meaning; for instance, a noun phrase meaning 'drop' is naturally restricted to acting as a minimizer as the direct object of a verb involving the manipulation of fluids, such as 'drink' or 'spill', but not another verb such as 'see' or 'read'; even a pronoun such as 'anything' begins life as an inanimate direct object, and must be reanalysed as an adverb and lose restrictions on animacy. All these items must be acquired successfully, but, in many contexts, they may be acquisitionally ambiguous between being analysed as a noun phrase object or as an adverbial, thereby providing a syntactic 'bridging context' for change. This is the case for an optionally transitive verb such as *drink* in (31) and (32).

(31) I didn't drink a drop.
(32) I didn't drink anything.

In both of these cases, there is acquisitional ambiguity, and an acquirer must consider both the possibility that *a drop* and *anything* are noun phrase objects and that they are adverbials.

If, for some reason, they opt for the latter, innovative option (reanalysis), the item will naturally extend its distribution, becoming a possible modifier of any verb type (extension) (Breitbarth, Lucas & Willis forthcoming). Alongside this, semantic bleaching occurs, replacing lexical, referential meaning with a semi-grammatical meaning conveying emphatic negation, as with *one bit* in (33).

(33)   I don't like this one bit.

The items that have formed the basis of a successful Jespersen cycle have all undergone developments of this type. Incipient Jespersen's cycle is, however, common, and there is no certainty that it will continue into Jespersen's cycle proper. Various European languages today allow indefinite pronouns in certain contexts where they are no longer direct objects, showing the potential for extension to general use as adverbials:

(34)   ¿Quieres   decir   que   no   lloró   **nada**?
       want.PRES.2SG say.INF that NEG cry.PAST.3SG nothing
       'You mean he didn't cry at all?' (Collins Spanish dictionary, s.v. *all*)
(35)   A: Eu fui   ao Japão quando era   novo.
          I go.PAST.1SG to Japan when   be.IMPF.1SG young
          'I went to Japan when I was young.'
       B: Não foste   **nada**.
          NEG go.PAST.2SG nothing
          'You didn't!' (Portuguese)
(36)   Von Freitag auf Samstag hab ich aber   fast   **nichts**   geschlafen.
       from Friday to Saturday have I   however almost nothing   slept
       'However, between Friday and Saturday I hardly slept.' (German) (Bayer 2009: 12)
(37)   Danes nisem   spal   **nič**.
       today NEG.be.PRES.1S sleep.PP   nothing
       'Today I didn't sleep at all.' (Slovene)

Estonian has a well-established negative adverb *mitte* (connected to a partitive of 'what', probably used as an indefinite emphasizer 'nothing', Mägiste 1983 s.v. *mitte*, Honti 1997: 164, cf, also Finnish *mitään* below), normally the constituent negator, but used in sentential negation too (Ehala 1996: 20–3), illustrated in (39) as compared to (38). It retains the emphatic quality of early stage II constructions (Tauli 1983: 125).

(38)   Ta ei   lähe.
       he NEG go.CNG
       'He's not going.' (Estonian) (Ehala 1996: 21)
(39)   Ta ei   lähe   **mitte**.
       he NEG go.CNG   NEG.EMPH
       'He's not going (at all).' (Estonian) (Ehala 1996: 21)

These all show the potential for full scale Jespersen's cycle, but are not sufficient for it in and of themselves.

    Details of such developments are considered for each individual Jespersen cycle in this volume. Often, contextual restrictions live on for some time: in the case of a negative polarity adverb that originated from a direct object, the adverbial use may be blocked in cases where it could be confused with its former nominal use. Thus, while Venetian *gnente* (section

3.3.2), originally 'nothing' as in (40), may now be used for emphatic negation with an intransitive verb in (41), it is still unavailable with a transitive one in (42):

(40) Nol   lavora   **gnente**.
      NEG.SCL work.PRES.3SG   nothing
      'He doesn't work.' (Venetian) (Garzonio & Poletto 2009)
(41) Nol   dorme   **gnente**.
      NEG.SCL sleep.PRES.3SG   nothing
      'He doesn't sleep.' (Venetian) (Garzonio & Poletto 2009)
(42) *Nol   leze   **gnente** i   libri.
       NEG.SCL read.PRES.3SG   nothing   the books
      'He isn't reading the books.' (Venetian) (Garzonio & Poletto 2009)

Incipient negators are often permitted in a range of negative polarity environments, such as interrogative clauses, conditional clauses and comparative clauses, and not merely in strictly negative contexts, thus acting, for a while at least, as negative polarity items (NPIs) (for a full definition of this term, see section 1.8.1 below). The details seem to depend on the properties of the item in question before it was recruited as a negator. Thus, indefinites originally restricted to negative contexts seem to grammaticalize immediately as negative reinforcers, as with English *not* and Middle High German *niht*, while other items may go through a negative polarity stage. Such a stage is documented for French *point* (section 2.2.1), illustrated in (43), Welsh *ddim* (section 7.3.2) and Breton *ket* (section 7.4), all of which subsequently become restricted to negative clauses.

(43) … il leur   fist   savoir   se nostre dit   filz le Dauphin
         he them.DAT make.PAST.3SG   know.INF   if our   say.PP   son the dauphin
      yroit   **point** en Normandie.
      be.IMPF.3SG   POINT   in Normandy
      '… he let them know if our aforementioned son the dauphin was ever in Normandy.'
      (Jean Chartier, *Chronique de Charles VII* 101) (Catalani 2001: 362)

While such uses have died out in French and Welsh, they remain available in some (southern) dialects of the generally more conservative Catalan, as the following example demonstrates:

(44) Que ho volia   fer   ella **pas**?
      that it want.PAST.3SG   do.INF she   EMPH
      'Do you think she wanted to do it (by any chance)?' (Dialectal Catalan) (Tubau 2008: 250)

Finally, in the early stages of Jespersen's cycle, the new marker of negation always seems to be emphatic, if only in virtue of being a marked option relative to the original negator alone. This makes sense if we understand linguistic emphasis, following Israel (1998, 2001), as being when the proposition expressed entails what one might normally expect to be expressed, given the context. A new negative construction also frequently cancels a presupposition explicit or implicit in the discourse that the negated proposition was in fact true, see Hansen (2009) and Hansen & Visconti (2009). Hence, the Catalan sentence in (45) with emphatic negator *pas* is appropriate only in a discourse context where it has previously been said, implied or inferred that 'It was all done badly' (see also Espinal 1993); and the marked Finnish construction with the emphatic negator *mitään* (partitive of *mikään*

'nothing') is appropriate only if the truth of 'you slept' is contextually presupposed (e.g. in response to 'How long did you sleep for?').[5]

(45) No   dic   **pas** que tot   s'   hagi   fet   malament.
      NEG say.PRES.1SG NEG that everything REFL have.PRES.1SG do.PP badly
      'I'm not (in fact) saying it was all done badly.' (Catalan) (Wheeler 1988: 199)

(46) (En)   mä   **mitään** nukkunut.
      NEG.1SG I   NEG   sleep.CNG
      'I didn't sleep (I was doing something else).' (Finnish) (Silva Nurmio pers. comm.)

Whether this is a stage found in all Jespersen cycles is a topic of ongoing investigation. It is well-attested for Old French (section 2.2.2) *ne … pas*, Italian *non … mica* (section 3.2.1), Catalan, Brazilian Portuguese *não … não* (Schwenter 2005), and the Spanish-based creole Palenquero *nu … nu* (Schwegler 1991a: 180–1), and was perhaps also found in Middle English *ne … not* (Wallage 2012).

The motivation behind the central portion of the cycle also needs to be considered. Once an item has become established as marker of emphatic negation, how and why does it go on to replace the original marker? While Jespersen's presentation of the cycle implied a pull-chain scenario, in which change is motivated by the phonological weakness of the preverbal negation and thus its lack of fitness to act as an effective means of communication, the focus today is much more on the inflationary effects of overuse of the new negator, its initial emphatic pragmatic quality becoming devalued over time until it becomes a plain marker of negation (see Schwegler 1983: 320–1, Detges & Waltereit 2002, Detges 2003, Kiparsky & Condoravdi 2006). Having created a new marker of emphatic negation, speakers appear to overuse it 'in order to pretend that the negative assertion of some state of affairs … is particularly surprising and relevant' (Detges & Waltereit 2002: 183). Under such a push-chain scenario, the preverbal marker is only lost when the new marker takes over the function of expressing sentential negation. Once the new marker is pragmatically neutral and no long expresses emphasis, the old marker is functionally redundant and pressure is created for it to be eliminated.

The idea that change is driven by the 'weakness' of the preverbal negative marker overlooks the fact that many languages survive with a non-stress-bearing negator: for instance, the contrast between northern Italo-Romance varieties with Jespersen's cycle and south central ones without it does not correlate with any phonological difference in the preverbal negator (Posner 1985: 188, Breitbarth 2009: 85–6). On the other hand, the absence of Jespersen's cycle in Slavonic could be explained by reference to the phonological strength of the Slavonic negator, which can normally be stressed and can be stranded in clause-final position. Slavonic languages do develop emphatic negators (section 9.3), but none has ever been devalued and participated in a fullscale Jespersen's cycle. It is unclear why inflationary processes that operate in western Europe should be absent in Slavonic, but it makes sense that a stressbearing negator might be more resilient in the face of Jespersen's cycle.

'Hybrid' approaches argue that the 'weakening' (in a morphosyntactic, not necessarily phonological, sense) of the preverbal marker and the establishment of a new negator, leading to the demise of the preverbal element, go hand in hand (Wallage 2005, 2008, Breitbarth 2009, Willis 2010: 148–9).

1.5   Progression through Jespersen's cycle: how many stages and how fast?
Different linguists have come to different conclusions about the number of stages that need to be distinguished in Jespersen's cycle. At its simplest, and given in idealized form in (47), we have a three-stage cycle: at stage I, the old marker is present; a new marker emerges at stage

II, to give bipartite expression of negation; while, by stage III, this marker has entirely replaced the original one.

(47)   stage I   NEG VERB
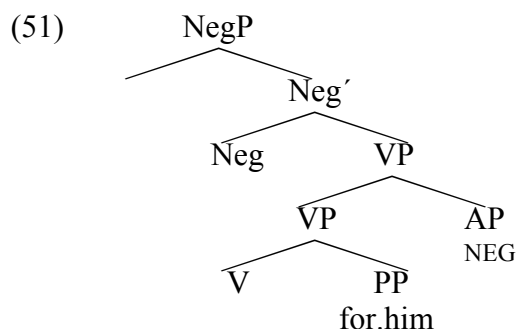   stage II   NEG VERB NEG
        stage III   VERB NEG

Under this conception, a 'stage' refers to a particular construction type, and it makes sense to say that a language at a particular time manifests both stage I and stage II (i.e. the original negator is compulsory and the new one is optional).
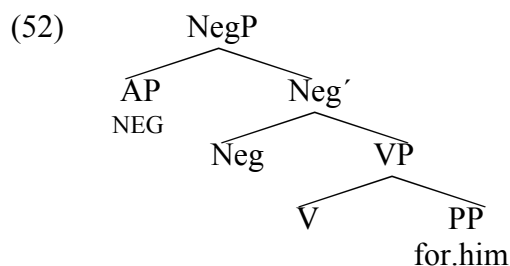
Stage II though clearly has a great deal of internal complexity, in both semantic/pragmatic and syntactic terms, with stage II constructions potentially reflecting a number of different grammatical systems. As we have seen, it seems that, in all cases, the new marker is first emphatic or carries some other special pragmatic significance, such as cancellation of presupposition. When it is pragmatically meaningful, it is naturally optional, but as it rises in frequency it becomes devalued, becoming the usual exponent of negation under all circumstances. Syntactically, its category may change from noun or pronoun to adverb, in rough schematic terms:

(48)   I did not go [DP a step] > I did not go [AP a-step] > I did not go [NegP a-step]
        It did not help [DP a bit] > It did not help [AP a-bit] > It did not help [NegP a-bit]

Its syntactic position may also change, moving from clause-late to an earlier position, a change which may reflect greater integration into the negative system proper (for instance, reanalysis of an adverb as occupying a dedicated position within a negative projection). This change is attested in Welsh (section 7.3.2) and is inferrable for Italo-Romance varieties (section 3.7). Willis (2010, 2011) treats this as reflecting a reanalysis of the new negator from VP-adverb to dedicated specifier of NegP. Hence, when pattern (49) is replaced by pattern (50) in Welsh, with the new negator now preceding prepositional phrase complements of the verb, this is interpreted as reflecting a new structural position for the negator within NegP, illustrated in the shift from (51) to (52) (assuming movement of the verb to the left of NegP).

(49)   NEG waited they for.him NEG
(50)   NEG waited they NEG for.him

(51)
```
        NegP
       /    \
           Neg´
          /    \
       Neg      VP
              /    \
            VP      AP
           /  \     NEG
          V    PP
             for.him
```

(52)

```
              NegP
            ⟋      ⟍
          AP        Neg′
          NEG      ⟋    ⟍
               Neg        VP
                        ⟋    ⟍
                     V         PP
                            for.him
```

For Zanuttini (1997), this would represent a shift in the locus of negation from a lower to a higher specifier position.

The broadest conception of stage II encompasses all of the following: the initial grammaticalization of a new marker as an optional means of expressing emphatic or presuppositional negation, a shift in the locus of negation from the old to the new marker, and the early signs of the loss of the older marker. Completion of this loss amounts to the transition to stage III. The breadth of stage II under this conception means it is sometimes useful to recognize substages, where the new negator has a different semantic or syntactic status (cf. Schwegler 1988):

(53) stage IIa   NEG VERB NEG.EMPH
      stage IIb   NEG VERB NEG

This, superimposed on (47), would effectively lead to a four-stage cycle.

Other linguists prefer to treat the stages of Jespersen's cycle as characterizing the entire language, so that, for instance, a separate stage is recognized where NEG VERB and NEG VERB NEG co-exist. This leads to a five-stage system such as the following, cf. also van der Auwera's (2009: 39) six-stage system:

(54) stage 1   NEG VERB
      stage 2   NEG VERB (NEG/NEG.EMPH)
      stage 3   NEG VERB NEG
      stage 4   (NEG) VERB NEG
      stage 5   VERB NEG

Zeijlstra (2004: 56) adopts this articulated system, but with an additional stage at the end where the new negator attaches to the verb (see section 8.2.3, especially Table 8.1 for details). Another schematization might allow for the possibility of NEG VERB co-existing alongside NEG VERB NEG and NEG VERB, a synchronic combination which cannot be described in (54), and would need an expansion of the system:

(55) stage 3′   NEG VERB ~ NEG VERB NEG ~ VERB NEG

This would be described as a language permitting all stages according to the taxonomy in (47).

To some extent the different configurations are a matter of taste and do not reflect different conceptualizations of the processes involved. For a fuller exposition of the possibilities and linguists that have used them, see van der Auwera (2009: 37–40) and Breitbarth (2009: 81–9). Nevertheless, there are very real differences between different language histories, and any comparative perspective on Jespersen's cycle will have to recognize these differences and seek to account for them. We have not imposed a uniform system on individual chapters, allowing authors to follow whatever system seems appropriate

to their language and preferred analysis. Hence, the chapters on German, Dutch and Low German, Brythonic Celtic (Welsh and Breton) and Afro-Asiatic use the classic three-stage system (stages I–III) in (47), while, for French, Italo-Romance and English, five-stage systems, differing in details that reflect the attested histories of these languages, are adopted (stages 1–5). For Greek, complexities of the changes involved, combined with gaps in attestation, seem to defy straightforward idealization into even a five-stage development (section 8.2).

Languages vary considerably in the rate at which they progress through Jespersen's cycle, and, indeed, as we have seen, an item which shows signs of incipient grammaticalization as a new negator may remain an optional, pragmatically marked emphasizer indefinitely. For instance, the grammaticalization of Italian *mica* '(not) at all' < 'crumb' as an adverbial reinforcer denying a presupposition dates already to the medieval period, but, in many varieties including the standard language, it has not yet been reanalysed as a neutral expression of negation, and is still subject to pragmatic restrictions (section 3.2.1), see also Cinque (1976) and Visconti (2009).

Not all languages go through a stage where bipartite negation is the norm, hence what is a well-defined stage in the history of one language may be an unstable transitional stage with much variable usage in another. While some languages undergo a complete change in the expression of negation within a relatively short space of time, others stop at varying points in the development and live through periods of relative stability.

For instance, within the Continental West Germanic languages, there are significant differences between Dutch, High German and Low German in terms of the duration of stage II (stages 2–4 according to (54)). While Jäger (section 5.1.2.2) does not find a clearly delimited stage II in the history of High German, arguing that stage III is essentially reached by 1300, the bipartite construction accounts for the majority of instances of sentential negation in Middle Low German (section 6.2.1) and especially Middle and (Early) Modern Dutch for several hundred years, with southern Dutch varieties being particularly conservative (section 6.2.2). In Welsh, Willis (section 7.3.3) finds a rapid transition from stage I to stage III, with a very poorly attested stage II and co-existence of constructions from all stages for a short period. While stage II is well-attested in English, all three types co-existed briefly and the shift from stage I to stage III seems to have proceeded rapidly (section 4.2.1). In French (Section 2.2.3), while *pas* 'not' < 'step' had already grammaticalized as the expression of sentential negation by the 14th century at least in some dialects, and pushed other regional reinforcers such as *mie* 'not < crumb' out of use during the 15th century (Catalani 2001), the old preverbal negator *ne* only begins to be dropped in the 19th century (Martinet & Mougeon 2003). Breton (section 7.4), like French, retains stable stage II for several centuries. Concerning Arabic (section 10.2.1.1), the fact that Maltese exhibits exactly the same stage II construction as the north African Arabic dialects to which it is most closely related (most of which have no stage III construction) suggests that this has been a stable feature of these varieties since before contacts between Maltese speakers and speakers of north African Arabic varieties were severed in the 13th century (Lucas 2009).

These diverse facts raise a very real ongoing research question: why do some languages progress quickly through Jespersen's cycle while others have stable stage II, and why do some have quite distinct stages, while others mix all three stages together for a period of time? Prescriptive pressure has been cited as a reason for the slow pace of the French development (cf. Armstrong & Smith 2002: 39–40), but this is unlikely to be the whole story, as a number of Arabic dialects pattern with French in their leisurely rate of change.

1.6   Croft's cycle

While Jespersen's cycle is the best known historical pathway for the development of sentential negation, it is not the only cyclic development to be found. Croft (1991) infers the existence of a second negative cycle, dubbed Croft's cycle by Kahrel (1996), on the basis of the typological distribution of certain negative markers. He notes three synchronic relationships between the expression of negation in existentials and that of ordinary sentential negation:

Type A: an existential predicate is negated by the verbal negator
Type B: there is a special form for a negative existential predicate (NEGEX)
Type C: there is a special negative existential predicate, identical to the verbal negator

Some languages also show synchronic variation of types A~B, B~C and C~A, suggesting a diachronic pathway from type A > B > C > A in a negative-existential cycle. According to this account, a special negative existential form arises (A > B), comes to be used as an ordinary sentential negator with lexical verbs (B > C), replacing the original negator in that context; finally, the negative of the existential itself is reformed using the special negative existential, now evidently reanalysed as a simple marker of negation, plus the existential verb itself (C > A′). The ultimate result is that the language returns structurally to its original configuration (symmetric marking of the existential and of other verbs), but has replaced its original negative marker (NEG) with a new one based on the negative existential (NEGEX). This development is schematized in Figure 1.2.

Figure 1.2. Croft's cycle

Stage A	Stage B	Stage C	Stage A′
NEG existential	NEGEX	NEGEX	NEGEX existential
NEG V	NEG V	NEGEX V	NEGEX V

Croft's cycle is not a common development in Europe. Type A is the dominant pattern in western Europe and generally shows no evidence of having emerged from earlier stages via a Croft cycle. So, in French, existential *il y a* 'there is' and non-existential *je sais* 'I know' form parallel negations *il (n')y a pas* and *je (ne) sais pas* respectively. The transition to stage B has occurred in various Slavonic (see section 9.3) and many Uralic languages. For Uralic, stage B is illustrated in (56) for Hungarian (from Croft 1991: 8), where affirmative existential *van* is negated, not by the usual sentential negator *nem*, but by replacing it with a suppletive negative existential *nincs*.

(56)   **Van** jó   vanat?
        EX   good   train
        'Is there a good train?' (Hungarian) (Whitney 1944: 12)
(57)   Itt   **nincs**   taxi.
        here   NEGEX~PRES   taxi
        'There's no taxi here.' (Hungarian) (Whitney 1944: 32)

Similarly, Udmurt has a special existential negator *övöl* 'there isn't' which functions mostly as a verb, contrasting with the ordinary verbal negator *u-* (Hamari 2010):

(58)   Otyn jegit   pi   **övöl**.
      there young boy   NEG
      'There is no young boy there.' (Udmurt) (Hamari 2010)

Such forms typically arise via phonological fusion of the usual negator with the adjacent existential verb, a phenomenon found also with other verb types, especially modals, auxiliaries and copulas. One complication is that special forms of 'be' are often found in the negative, irrespective of whether 'be' expresses existential or copula meaning. This is true, for instance, of Latvian *nav* 'isn't', the negative of *ir* 'is' (Mathiassen 1997: 164) and of Middle Welsh *nyt* (section 7.3.1).

      At stage C, this negative existential becomes the normal negator, but no additional existential verb is required in the negative existential. This is the case in Tongan (Polynesian), where *'ikai* (*ke/te*) functions both as a negative existential verb, as in (59), and as a negative marker accompanying a finite verb in (60) (Croft 1991: 12).

(59)   'Oku   'ikai   ha faiako 'i   heni.
      PRES   NEGEX   a   teacher at here
      'There isn't a teacher here.' (Tongan) (Churchward 1953: 56–7)
(60)   Na'e 'ikai [ke]   'alu   'a   Siale.
      PAST NEGEX   go   ABS   Charlie
      'Charlie didn't go.' (Tongan) (Churchward 1953: 56)

Within Europe, some Welsh dialects show a version of the shift to type C, having innovated a new negative auxiliary from a former negative existential (variously *sa*, *so*, *smo* etc. < *nid oes dim o* 'there isn't any…') (Borsley & Jones 2005: 62–4). Udmurt too shows signs of the transition from type B to type C, with *övöl*, used originally as a negative existential verb and some other related environments, as seen in (58) above, spreading to a few non-existential contexts, such as the second past tense in (61) (Hamari 2010):

(61)   Övöl myn-em-ed.
      NEG   go-PAST2-2SG
      'You didn't go, haven't gone.' (Udmurt) (Hamari 2010)

Hamari notes similar developments in Komi and Mari.
      The cycle turns full circle when this new negative marker recombines with the affirmative existential verb, and the symmetrical distribution of a type A language is reasserted, as is happening today in Marathi (Croft 1991: 12), and may have occurred historically with the Erzya Mordvin marker of nonverbal predicates *avol'* (section 11.5.2).

1.7   Other pathways

Another, rather different pathway for change is characteristic of the Uralic languages. These typically express negation via negative auxiliaries, a minor but robustly attested type worldwide, found in 40 (17%) out of 240 languages in Dahl's (1979) sample, in 47 (4%) out of 1159 languages in Dryer's (2011) sample (excluding undetermined cases), and in 16 (5%) out of the 297 languages in Miestamo's (2005) sample. In such languages, while an affirmative clause contains a lexical finite verb, the corresponding negative clause contains a negative auxiliary inflected for person and number plus a nonfinite participial (connegative) form. For instance, in Finnish, person–number inflection, such as first person singular *-n* in (62) and second person singular *-t* in (63), appears on the lexical verb in the affirmative but on the auxiliary in the negative.

(62) Luen.   En   lue.
      read.PRES.1SG   NEG.1SG   read.CNG
      'I am reading.'   'I'm not reading.' (Finnish) (Dahl 1979: 84)
(63) Luet.   Et   lue.
      read.PRES.2SG   NEG.2SG   read.CNG
      'You are reading.'   'You aren't reading.' (Finnish) (Dahl 1979: 84)

Across Uralic, the extent to which such verbal categories are expressed on the auxiliary varies from language to language. For instance, in Finnish, while person–number is expressed on the auxiliary, tense is expressed on the connegative; contrast *lue* in the present connegative in (62) and (63) above with *lukenut* in the past connegative in (64).

(64) En   lukenut.
      NEG.1SG   read.CNG.PAST
      'I didn't read.' (Finnish) (Dahl 1979: 85)

Originally, Uralic tense, mood and person–number marking appeared on the negative auxiliary, while the lexical verb appeared in some kind of nominalization in *-k (Honti 1997: 170–1, 249). The negative auxiliary itself probably arose from a negative copula via Croft's cycle (Honti 1997: 173). However, diachronically, the typical pattern is for the number of features expressed on the auxiliary to decline, often but not always with those features coming to be expressed on the lexical participial verb (Tauli 1966, Comrie 1981, Honti 1997, Miestamo 2011). Comrie (1981: 354) posits the hierarchy in (65) regulating which categories appear on the lexical verb and which on the auxiliary. Categories towards the right of the hierarchy are those most likely to be expressed on the lexical verb and diachronically to be lost from the auxiliary.

(65) imperative > tense / person / number > mood > aspect > voice

Standard Finnish, as seen above, retains person–number marking and some tense marking on the negative auxiliary, but has abandoned other categories. Estonian, along with certain Finnish dialects (Miestamo 2011), has taken this process further, and the auxiliary has lost all verbal categories, acquiring an invariant morphological form based on the historical third person singular (Estonian *ei*) (Dahl 1979: 85, Honti 1997: 83). However, in this pattern, illustrated in (66) and (67), the lexical verb has not yet acquired person–number marking, and so presumably should continue to be considered nonfinite, with finiteness remaining on the negative auxiliary (Miestamo 2011: 90).

(66) Loen.   Ma   ei   loe.
      read.PRES.1SG   I   NEG   read.CNG
      'I am reading.'   'I'm not reading.' (Estonian) (Miestamo 2011: 90)
(67) Loed.   Sa   ei   loe.
      read.PRES.2SG   you NEG   read.CNG
      'You are reading.'   'You aren't reading.' (Estonian) (Miestamo 2011: 90)

The extreme development is found in Mansi, where the negative auxiliary has become an invariant particle, *at*, and the lexical verb inflects fully in negative clauses (Miestamo 2005: 218–19). The now-extinct Finnish dialect of Värmland underwent the same development,

perhaps under contact with Swedish, using fully finite verbs alongside an invariant negative particle *ei*:

(68) Ei   minä   lyö-n   sinua.
      NEG I   hit-PRES.1SG   you.PART
      'I will not hit you.' (Värmland Finnish) (Miestamo 2011: 97)

For further details of all these developments, see Tauli (1966), Honti (1997), Miestamo (2000, 2011).

1.8   Indefinites: basic concepts

Cyclic renewal does not only affect the expression of sentential negation. Indefinites, including both indefinite pronouns such as *anything* or *nothing* and indefinite adverbials such as *ever* or *never*, are also frequently subject to directional changes which Ladusaw calls the 'argument cycle':

The development of negation-expressing argument phrases from regular indefinite arguments has the following stages: first the argument is a regular indefinite argument, then it becomes a co-occurring 'supporter' of the clausal negation, and finally it becomes an independent expressor of negation. We could call these the 'one thing', 'anything', 'nothing' stages of the Jespersen argument cycle. (Ladusaw 1993: 437–8)

That is, indefinites starting out as contextually unrestricted items are often observed to become restricted to 'more negative' contexts, being restricted first to 'weak' negative polarity contexts such as questions or conditional protases alongside negative clauses, later being restricted to stronger negative polarity contexts like comparatives, and indirect and direct negation. The development of French *personne* 'no one' and *rien* 'nothing' is a famous case in point, as they developed from originally contextually unrestricted generic nouns, namely Latin *persona* 'person' and *rem* 'thing.ACC' respectively. They are now restricted to negative clauses, but historically were once also attested in weaker negative polarity contexts such as questions (section 2.3). Recognizing that these developments may apply to any indefinite, whether or not it is an argument, we shall refer to this pathway of change as the 'quantifier cycle' (see section 1.9.1 below).

   A significant difficulty encountered in discussions of the development of indefinites in the scope of negation is the large amount of associated terminology, much of which is used ambiguously or inconsistently. Before examining typical historical developments in the next section, we will set out the key terms, along with the definitions assumed in the present work, highlighting any variation in usage among the contributors of the various chapters.

1.8.1   Negative quantifiers and negative polarity items

Negative quantifiers are inherently semantically negative indefinites (de Swart and Sag 2002). Classic, uncontroversial examples come from non-negative-concord languages, for example Classical Latin *nemo* 'nobody', standard German *nichts* 'nothing', and standard English *nothing*, *nobody* and *never*. The presence of one of these items in a clause is always sufficient to render it negative:

(69)   John never arrives on time.

The fact that all of these items contain a morphological marker of negation (at least from an etymological point of view) makes their analysis as semantically negative especially

uncontroversial, but containing such an overt morpheme is not usually thought of as a necessary feature of negative quantifiers. Indeed, being marked negative morphologically need not be seen as sufficient to guarantee that an indefinite is a negative quantifier either (see section 5.2.4, where Jäger argues against an analysis of the morphologically negative indefinites of High German as negative quantifiers).

Negative polarity items (NPIs), by contrast, are usually assumed not to be negative. The crucial property of an NPI is that it is restricted to appearing in 'non-assertive' contexts such as negation, interrogatives, the protases of conditionals, and comparative clauses. A clear example of an NPI is the English temporal indefinite *ever*. This is evidently not negative and is grammatical in all of the aforementioned contexts; but it is ungrammatical in affirmative declarative sentences:

(70)   John doesn't ever arrive on time.
(71)   Does John ever arrive on time?
(72)   If John ever arrives on time, I'll eat my hat.
(73)   John arrived earlier than we could ever have expected.
(74)   *John ever arrives on time.

According to the older so-called Fauconnier–Ladusaw Hypothesis (Fauconnier 1975, Ladusaw 1979), the defining property of contexts which permit (license) NPIs is that they are downward entailing (monotone decreasing); that is, they have the property of reversing the entailment relations of expressions in their scope. For instance, while the affirmative *John ran fast* entails that *John ran*, the opposite is true if the sentence contains a downward-entailing operator such as sentential negation: *John did not run* now entails *John did not run fast*. More recently, the notion of downward entailment has been argued to be inadequate to capture the whole range of contexts licensing NPIs and has been challenged by the broader concept of non-veridicality (Zwarts 1995, Giannakidou 1998). A sentence containing a non-veridical operator does not entail the proposition the operator modifies, for instance, an imperative *Tell Paul to wait!* does not entail that the addressee does in fact tell Paul to wait (or that Paul will actually wait). Interrogatives and conditional clauses are also non-veridical. Sentential negation is a subtype of non-veridical operator – an anti-veridical operator, that is, one that entails that the proposition that it modifies is false. This is defined formally in (75).

(75)   Let *Op* be a monadic propositional operator. The following statements hold:
        a.   *Op* is veridical just in case $Op\ p \to p$ is logically valid. Otherwise *Op* is non-veridical.
        b.   A non-veridical operator *Op* is antiveridical just in case $Op\ p \to \neg p$ is logically valid. (Giannakidou 1998: 106)

Note, however, that many NPIs are licensed in comparative clauses, as with *ever* in (73) above, and these are not obviously non-veridical (cf. Giannakidou 1998: 151–3), though they are downward-entailing (von Stechow 1984: 29), suggesting that we need both concepts: while some NPIs require a downward-entailing context, others require a non-veridical one.

Furthermore, some NPIs are restricted to a subset of non-veridical or downward-entailing contexts. NPIs that are licensed only in the context of negation are referred to as 'strong' NPIs (NPIs which are not strong are called 'weak'; Zwarts 1998). An example of a strong NPI is *one bit* in English (contrast the grammaticality of the weak NPI *at all* if substituted into (77) or (78)):

(76)   Mary didn't like it one bit.

(77)   *Did Mary like it one bit?
(78)   *If Mary likes it one bit, then buy it.
(79)   *Mary liked it one bit.

Intermediate distributions are also possible, suggesting the need for other means to define the contexts for certain NPIs (van der Wouden 1997).

Historically, items that formerly had no restrictions on their distribution sometimes come to be restricted to negative-polarity contexts and thereby acquire the status of NPIs. During this period, they can be referred to as 'semi-NPIs' (Hoeksema 1994, 2009), that is, items that may occur in veridical, upward-entailing contexts but which are more frequent in downward-entailing contexts, especially in the context of negation (see section 10.3.1 for discussion of a number of such items in Arabic).

Finally, we also need to distinguish in this connection positive polarity items (PPIs). PPIs are items which cannot be interpreted in the scope of a non-veridical/downward-entailing operator. For instance, (81) is ungrammatical on the most natural interpretation with *some cakes* within the scope of negation; and is only grammatical on a reading with the scope of negation inside that of the indefinite ('There were some cakes that Mary didn't bring.').

(80)   Mary brought some cakes.
(81)   *Mary didn't bring some cakes.

1.8.2   Negative concord and n-words
Next, we consider the terms 'negative concord' and 'double negation'. Although 'negative concord' has the flavour of a technical term with a precise meaning, in fact it is usually used rather impressionistically, as in the following from Giannakidou (2000: 458):

Generally, we talk about 'negative concord' in situations where negation is interpreted just once although it seems to be expressed more than once in the clause.

The impression that negation is expressed more than once in such situations is created by the co-occurrence of two or more items which would intuitively be judged to be negative. For instance, Lithuanian is shown to be a negative-concord language in (82), since a negative indefinite *nieko* 'nothing' requires the verb to bear negative marking in the form of the negative prefix *ne-*. Spanish shows the same property in (83).

(82)   Jis **nieko**   **ne**sakė.
       he   nothing   NEG.say.PAST.3SG
       'He said nothing.' (Lithuanian) (Mathiassen 1996: 80–1)
(83)   **No**   dijo   **nada**.
       NEG   say.PAST.3SG   nothing
       'He said nothing.' (Spanish)

Traditionally (e.g. Jespersen 1917: 62–80), and even today among non-specialists, negative concord tended to be called 'double negation'. In the scholarly literature on negative concord, however, 'double negation' is now used to refer to situations where two (or an even number of) negative expressions in a sentence cancel one another out, such that the sentence is truth-conditionally (but usually not pragmatically) equivalent to an affirmative one. This is as in propositional logic, where two negatives equals a positive: $\neg \neg p \leftrightarrow p$.

Indefinites that appear to be negative, and which participate in negative-concord structures are often called 'n-words' (or 'n-indefinites' or 'n-items'), after Laka (1990: 107–

9). Laka coined the term as a label for the Spanish indefinite series containing *nadie* 'n.one' (= 'anyone/no one'), *nada* 'n.thing', *ningún* 'any/no', *nunca* '(n)ever' etc. The label 'n-word' was simply chosen to highlight the fact that most of these items in Spanish, as well as parallel items in Italian, Portuguese and other Romance varieties, begin with /n/. However, the presence of a morphological expression of negation is not a necessary condition for an item to be an n-word. Laka (1990: 108) makes this clear when she points out that *nadie* and *nada* originate in (*homines*) *nati* 'born men' and (*res*) *nata* 'born thing', respectively, and have thus never been morphologically negative.

Like similar items in other languages, these indefinites manifest a combination of apparently contradictory properties. On the one hand, they appear to be non-negative (and hence negative-polarity items, akin to English *anyone*); on the other they appear to be negative (and hence negative quantifiers, akin to English *no one*).

Consider first their non-negative properties. If n-words were straightforwardly inherently negative items, then the combination of two n-words, or an n-word with a sentential negator, as in the Lithuanian example in (82), would be expected to result in logical double negation, as in does in English (cf. the double-negation interpretation, in standard English, of *He didn't say nothing* as synonymous with *He said something*). However, (82) means 'He said nothing' rather than 'He didn't say nothing.' Furthermore, some n-words can appear in non-negative environments such as comparatives. While this is not the case with n-words in the Slavonic or Baltic languages, it is often the case in Romance and Celtic. Thus Spanish *nunca* '(n)ever' appears in a comparative in (84), a fact that cannot be straightforwardly accounted for if it is negative:

(84) Juan ha   llegado   más   tarde que   **nunca**.
      Juan have.PRES.3SG arrive.PP more late   than n.ever
      'Juan has arrived later than ever.' (Spanish) (Herburger 2001: 298)

On the other hand, if n-words were straightforwardly non-negative, other properties would be mysterious. N-words can convey a negative in a fragment answer, and permit modification by 'almost', generally incompatible with existential contexts. Contrast the behaviour of Spanish *nadie* and English *anyone* with respect to fragment answers in (85) and (86); and the behaviour of Spanish *nunca* and English *ever* with respect to the 'almost'-test in (87) and (88).

(85) A: A   quién   viste?
          ACC who   see.PAST.2SG
          'Who did you see?'
      B: A   **nadie**.
          ACC n.one
          'No one.' (Spanish) (Herburger 2001: 300)
(86) Who did you see? #**Anyone**.
(87) Carlos no   bebe   casi   **nunca**.
      Carlos NEG   drink.PRES.3SG almost n.ever
      'Carlos almost never drinks.' (Spanish) (Aranovich 2007: 196)
(88) a. *Mary doesn't almost **ever** drink.
      b.   Mary almost **never** drinks.

In synchronic work on indefinites, the criteria for considering an item to be an n-word are not always made explicit and applied consistently. A widely adopted definition of n-words, which is consistent with Laka's original usage, is given in (89). This takes the

apparent contradiction between negative concord in (82)–(83) and the availability of negative interpretations of fragment answers in (85) to be the central (and sufficient) defining property.

(89)   n-word
       An expression α is an n-word iff:
       a.   α can be used in structures containing sentential negation or another α-expression yielding a reading equivalent to one logical negation; and
       b.   α can provide a negative fragment answer. (Giannakidou 2006: 328)

By these criteria, both Spanish *nadie* and Lithuanian *nieko* are n-words, even though they differ in other crucial properties (e.g. in their ability to appear in various weak negative polarity environments). Consequently, n-words do not necessarily form a natural class. Rather, 'n-word' is a label applied to items which are problematic in that they have one property that is consistent with their being inherently negative – (89)b – and another that apparently is not – (89)a. Once an item is identified as an n-word according to the definition in (89), therefore, it is still in need of an analysis as to how it manages to exhibit these apparently contradictory properties. It is for this reason that negative concord, and n-words in particular, are typically seen as a theoretical problem in need of further analysis.

The two simplest analyses of a given series of n-words in a given language are that they are either negative quantifiers (for Spanish and Catalan, Espinal 2000) or NPIs (for Spanish, Laka 1990). Another possible analysis (for Spanish, Herburger 2001) is that they are ambiguous between the two.

Not everyone uses the term 'n-word' in accordance with the definition in (89), however. For example, de Swart (2006) is representative of a number of authors who adopt a wider definition that encompasses both uncontroversial negative quantifiers and n-words on the definition in (89). Hansen adopts this usage in her discussion of French indefinites (section 3.2.1). Giannakidou (2006) herself, in fact, despite giving the definition in (89), also appears to lapse into this usage, in that she periodically refers to the 'n-words of standard West Germanic languages', despite the fact that the languages in question lack negative concord, that is, none of their indefinites satisfies both clauses of (89).

Another key terminological distinction concerns the two subspecies of negative concord known, following den Besten (1986), as 'negative doubling' and 'negative spread'. Negative doubling, shown schematically in (90), obtains when negation is expressed by both the sentential negator and an indefinite in the scope of negation, that is, when that indefinite is an n-word according to the criteria in (89). The standard cases of negative concord given above in (82) and (83) are instances of negative doubling. In negative spread, if more than one indefinite is present in the scope of negation, then negation is expressed on each and very one of them:

(90)   John NEG saw n.thing. (negative doubling)
(91)   John saw n.thing n.where. (negative spread)
(92)   John NEG saw n.thing n.where. (negative doubling and negative spread)

For instance, Latvian is both a negative-doubling language and a negative-spread language. Example (93) shows that an n-word co-occurs with the ordinary marker of sentential negation (i.e. *nekad* 'never' co-occurs with *ne-* on *nerunā* 'NEG.talk.PRES.3SG'), hence negative doubling is manifested. Furthermore, two n-words may co-occur in the same sentence (*nekad* 'never' and *ne par vienu* 'about no one'), yielding a single negative reading, hence negative spread is manifested. These patterns are obligatory in the language.

(93)   Viņs **nekad** <u>ne par vienu</u> **nerunā**.
         he   never NEG about anyone NEG.talk.PRES.3SG
         'He never talks about anyone.' (Latvian) (Mathiassen 1997: 72)

Normally, a language shows either both negative doubling and negative spread or neither, but some Germanic varieties have negative doubling without negative spread or negative spread without negative doubling, as in the following example from West Flemish:

(94)   T ee   **niemand niets**   gezeid.
         it have.PRES.3SG no.one   nothing say.PP
         'Nobody said anything.' (West Flemish) (Zeijlstra 2004: 62)

     Negative concord (negative doubling) can be further differentiated into 'strict' and 'nonstrict' negative concord (Giannakidou 1998, 2000, Zeijlstra 2004). In a strict negative-concord language, ordinary full clauses containing an n-word always contain the sentential negator too, irrespective of the relative position of the two items. On the other hand, in a non-strict negative-concord language, the sentential negator must be omitted when the n-word precedes the finite verb.[6] The same basic observation is made by Haspelmath (1997: 201) in his classification of languages into three types:[7]

(95)   (i)   NV-NI (negation marker – verb – negative indefinite) (broadly equivalent to strict negative concord)
        (ii) (N)V-NI (the negation marker sometimes co-occurs with a negative indefinite) (non-strict negative concord and similar systems)
        (iii) V-NI (the sentential negation marker is absent in sentences containing a negative indefinite) (no negative concord).

Strict negative concord is found in today's Slavonic and Baltic languages, as well as in Romanian, Greek, Hungarian and Maltese. Non-strict negative concord is found today in Spanish, Portuguese and Italian, while Catalan allows both patterns. So, in Romanian (Falaus 2007: 75), omission of the negative particle *nu* leads to ungrammaticality in both (96) and (97), that is, irrespective of whether the n-word precedes the verb/negative marker, as in (96), or follows it, as in (97).

(96)   **Nimeni nu** ştie   ce   se   întâmplă.
         n.one   NEG know.PRES.3SG what REFL happen.PRES.3SG
         'No one knows what's happening.' (Romanian)
(97)   **Nu** am   aflat   **nimic**   nou.
         NEG have.PRES.1SG find.out.PP nothing new
         'I didn't find out anything new.' (Romanian)

Contrast this with the Spanish examples in (98) and (99) (from Laka 1990: 107): where the n-word precedes the verb in (98) there is no marker of sentential negation, and its presence would lead to a double-negation interpretation 'No one isn't coming'; where the n-word follows the verb, as in (99), *no* is obligatory.

(98)   **Nadie** vino.
         n.one   come.PAST.3SG
         'No one came.' (Spanish)

(99) **No**   vino   **nadie**.
      NEG   come.PAST.3SG   n.one
   'No one came.' (Spanish)

The non-strict distribution further exacerbates the n-word problem, since, in (98), *nadie* appears to contribute a negative by itself, while, in (99), the negation appears to be contributed by *no* rather than *nadie*. In the current context, there is also the issue of how negative-concord systems develop over time, a question which will be discussed further below (section 1.10).

1.9   Cyclic developments in indefinites

Indefinites normally occur in series, such as the English *any*-series, whose members include *anyone*, *anything*, *anywhere* and *ever*. These are often morphologically regular and are generally referred to by the element common to all, or most, members of the series. Where the forms are morphologically irregular, a convenient convention is to refer to the series using the member used for persons, for instance, the French *personne*-series includes the items *rien* 'nothing' and *nulle part* 'nowhere', which are morphologically unrelated to *personne* 'no one', the item that gives the series its name. It is often useful to generalize across an entire series, since items tend to behave alike. Diachronically, however, new items sometimes join a series while existing items may leave. Furthermore, during periods of change, not all members of a series change their behaviour at the same time. For instance, French *jamais* 'ever, never' and Catalan *mai* 'ever, never' are rather more conservative than the other items in their series, appearing in a range of non-negative environments from which the other members of its series have disappeared (see section 2.3, especially Table 2.3).

Haspelmath (1997) proposes a semantic map, given in Figure 1.1, regulating the distribution of indefinites in a particular language. Generalizing across the patterns found in a sample of 40 languages, he proposes that all functions of a given item must be located in a contiguous space on the semantic map. Discussion here will be focused on those items involved in negation and negative polarity, that is, the six environments to the right in Figure 1.1, along with items that move into that area during the course of their historical development.

Figure 1.1. Haspelmath's (1997) semantic map of indefinites
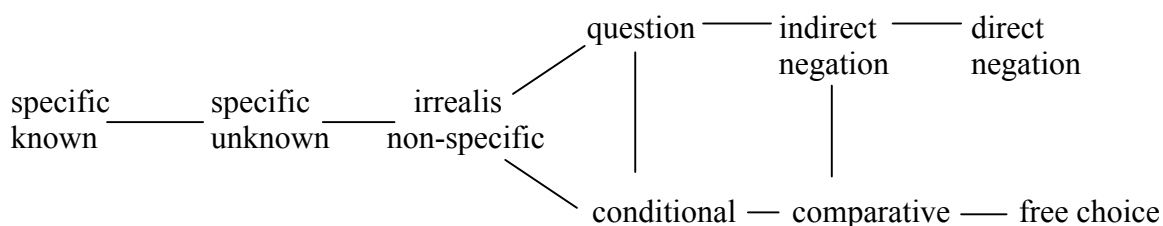
Direct negation refers to clausemate negation, as in (100), while indirect negation refers to a range of rather disparate syntactic environments, including superordinate negation (negation in a higher clause), as in (101)a; pseudonegative contexts such as 'without'-clauses, the scope quantifiers such as 'hardly' or 'few', or the complement of adversative predicates such as 'deny' or 'be annoyed', in (101)b (Klima 1964: 314). In English, direct negation allows both the *no*-series and the *any*-series, while the other contexts generally require the *any*-series, illustrated in (102)–(105). Questions and conditionals also allow *some*-series items under certain interpretations. While questions, conditionals and comparatives are syntactic contexts,

free choice is a meaning (the proposition holds of an arbitrarily chosen member of a set), and hence may co-occur with some of the other syntactic contexts.

(100)   I saw no one. / I didn't see anyone. (direct negation)
(101)   a.   I didn't admit that I had seen anyone.
          b.   I denied that I had seen anyone. (indirect negation)
(102)   Did you see anyone? (question)
(103)   If you see anyone, hide. (conditional)
(104)   Mary is taller than anyone. (comparative)
(105)   Anyone can ride a bike. (free choice)

Haspelmath's system makes clear diachronic predictions, specifically that 'where markers gradually acquire new functions, they will first be extended to those functions that are adjacent to the original functions on the map, and only later to functions that are further away' (Haspelmath 1997: 63). The two commonest types of development seem to be the quantifier cycle and the free-choice cycle.

1.9.1   The quantifier cycle
In terms of Figure 1.1, the quantifier cycle represents a contraction in the range of environments available for an item, so that it is ultimately available only under direct negation. As it retreats to this environment, some other (possibly innovated) element takes over its former functions. The best-known example of this phenomenon involves the French *personne*-series (section 2.3), a number of whose members were generic nouns in Latin (e.g. *persona* 'person', *rem* 'thing (acc.)' etc.) and early Old French. These items entered the indefinite system when they were reanalysed and recruited as indefinite pronouns in Old French, becoming restricted first to negative polarity environments and then to direct negation (along with some indirect negative contexts). As they became 'more negative', their former functions were taken over by a newly innovated *quelque*-series (e.g. *quelqu'un* 'someone'), based on an original free-relative structure ('whichever one it may be'). Similarly, Middle High German *dehein* 'any' was found in non-negative NPI environments, while its present-day equivalent (Modern German *kein* 'no') is restricted to direct negation, with its former functions having been taken over by the indefinite article *ein* or by other indefinites such as *irgend*(*ein*) 'any' (sections 5.2.2–4).

In general, modern Romance negative indefinites are expressed using composite series of items, constructed from a mixture of etymologically negative and etymologically non-negative sources. The merger into a single series led to the emergence of (broadly) parallel properties, with etymologically negative items initially spreading to weak NPI contexts in the medieval languages (Haspelmath 1997: 232–3). Their subsequent development, however, has generally been towards becoming restricted more and more to negative environments.

For instance, in Italian (section 3.7), an etymologically non-negative item, *alcuno* (< Latin *alicunum* < *aliquem unum* 'any one') became restricted to negative contexts as 'no, no one'. Negative polarity environments have been partially taken over by *qualche* 'any', also originally a free-relative marker. Non-negative uses of the originally negative items *nessuno* 'anyone, no one' and *niente* 'anything, nothing' were permitted more freely in medieval Italo-Romance than today, and they have retreated in particular from conditional clauses.

Spanish n-words (the current *nadie*-series) once showed a wider range of NPI properties than today, appearing, for instance, in conditional clauses, where they are no longer possible:

(106) Si **ningun uillano**   viniere   ala   uilla   del   Rey…
      if   any   commoner come   to.the town   of.the king
      'If any commoner should come to the king's town…' (Old Spanish) (*Fuero General de Navarra*, 13th c.) (Poole 2009: 32)

These items have retreated from conditionals and, to a lesser extent from questions (Herburger 2001: 299), and have acquired a negative interpretation in fragment answers (Poole 2011). Again, this means that items that were originally affirmative, such as *nada* 'anything, nothing' (< *res nata* 'a born thing'), have undergone a straightforward development from generic noun > weak negative polarity item > negative quantifier.[8] As originally negative items, such as *ningún* 'no' < Latin *nec ūnus* 'nor one'), joined the series, they seem to have taken on the properties of the other members, extending their use to non-negative contexts to match the distribution of the other items in the series (cf. (106) above). Similar kinds of developments, albeit less advanced, are found in Catalan, with items such as *res* 'anything', having gone from being generic nouns to n-words occurring in questions, conditionals and negative contexts and originally negative *ningú* 'any, no' becoming an n-word (Sandanya 2004).

Countervailing changes in German also seem to be the result of the merger of items with different etymologies. German (section 5.2.2) merges *etwas*, originally an ordinary indefinite, and *jemand*, originally a negative polarity item, creating a new series with the properties of an ordinary indefinite. As a consequence, *jemand* has become 'less negative' in its history, going from negative polarity item to ordinary indefinite.

Some Celtic developments have closely parallelled Romance: the Welsh *neb*-series has innovated new items on the basis of generic nouns such as *dim* 'thing', and the series as a whole has increasingly disappeared from non-negative NPI environments (section 7.6, especially 7.6.5). Broadly similar developments have occurred with the Breton *den*-series, probably accelerated by contact with French (section 7.7). As in French, the new indefinite that replaces the old one in negative polarity contexts is derived from a former free relative.

1.9.2   The free-choice cycle

A second common development is the tendency for original free-choice items (cf. (105) above) and free-relative markers to spread, becoming ordinary indefinites, whether unmarked affirmative indefinites, or, of more interest in the current context, indefinites specialized for negation or negative polarity (Haspelmath 1997: 149–50, Willis 2012: 336–9). We have already seen that French *quelqu'un*, Italian *qualcuno* and Breton *unan bennak* originally participated in free relatives, but have now become ordinary indefinites available in non-negative environments. The West Slavonic *si/ś*-series (Czech *kdo-si*, Polish *ktoś* 'someone') may also be an example of this pathway, having ultimately become an affirmative indefinite (positive polarity item) like English *someone*.

In a second variant, the items enter the negative system, becoming weak negative polarity items. We find repeated examples of this kind of development in Slavonic languages, where an original free-choice items or free-relative marker spreads to all negative polarity environments except negation, producing what is often referred to as a 'bagel' distribution. Synchronically, this is often seen as problematic, since it seems odd that an item should be associated with negation, apparently being a negative polarity item, but absent from the prototypical negative environment; however, it makes sense as the diachronic development of an item extending its distribution from free-choice or free-relative environments, but which has not (yet) reached negative contexts. The general development is perhaps most clearly seen with Polish *kolwiek*-items, such as *ktokolwiek* 'anyone' (section 9.5.7). These began as free relatives 'whoever' etc., but spread to all non-negative NPI contexts in the history of

Polish. A range of other examples of this type is discussed in sections 9.5.5 (Russian) and 9.5.8 (Serbian). The general encroachment of the English *any*-series items onto negative clauses, that is, the increasing use, since Middle English, of patterns like (108) in place of patterns like (107) (section 4.4), might also be seen as an instance of the free-choice cycle.

(107)   I have seen no one.
(108)   I haven't seen anyone.

The question of emphasis has been raised in this context by Kiparsky & Condoravdi (2006) for Greek (see also section 8.2.3). They argue that Greek *típote* 'anything, nothing', historically deriving from *ti* 'something/anything' and *pote* 'ever', a formation often found with free-choice items and free-relative markers (cf. Polish *cokolwiek* < *co* 'what' + *koli* 'ever' + *wiek* 'ever' or English *whatever*), was originally emphatic, but lost its emphatic quality to become the ordinary form of the indefinite pronoun in a development entirely parallel to the inflationary processes in the Jespersen cycle. Such differences may also have driven the expansion of the English *any*-series into negative contexts, with (108) originally being in some sense emphatic in comparison to (107), and perhaps the Slavonic cases too. Old Hungarian underwent a cyclic renewal of indefinites, reminiscent of Jespersen's cycle too, creating reinforced negative indefinites such as *semmi* 'nothing, anything' from *es* 'even' + *nem* 'not' + *mi* 'what' (Kiss forthcoming) (cf. also pan-Slavonic formations of the type Serbian *niko* < *ne* 'not' + *i* 'even' + *kŭto* 'who'). In all these cases, overuse of the emphatic option leads to its devaluation and reinterpretation as the neutral indefinite in negative clauses.

1.9.3   Motivating the developments
As with Jespersen's cycle, the most important historical question with all of the patterns of change found in indefinite systems is the question of motivation: does an indefinite like French *personne* come to be 'felt' to be too negative to appear in non-negative environments, requiring speakers to resort to some other element (a pull-chain mechanism); or does *quelqu'un* come to be overused beyond its original free-relative/free-choice meaning, and begin to compete with *personne* once it becomes an unmarked indefinite (a push-chain mechanism). Comparing diachronies seems to show that both scenarios are possible: with English, only the push-chain seems likely, since *no one* was already limited to direct negation even when it began to be pushed out by *anyone* (cf. the inflationary scenario outlined in section 1.9.2); with other cases, the ambiguity of the old indefinite in conditionals and interrogatives once Jespersen's cycle is underway may favour a pull-chain account. Clauses of the type 'if you see n.thing' will be ambiguous between a negative interpretation 'if you see nothing' and a positive one 'if you see anything'. This ambiguity can be avoided by using another indefinite for the positive interpretation; however, doing so reduces the frequency of the old n-indefinite in conditionals, leading a subsequent generation to fail to acquire this as a grammatical pattern at all.

1.10   Shifts in strict and nonstrict negative concord
Today, within Romance, Romanian and Standard French[9] show strict negative concord; Spanish, Portuguese and Italian show nonstrict negative concord; while Catalan has optionally strict negative concord (that is, the sentential negator is optional with a preverbal n-word, and compulsory with a postverbal one). Within Slavonic and Baltic, all standard languages show strict negative concord.

While negative concord was not present in Classical Latin, it developed in informal Latin and early Romance. There was much variation in medieval Romance varieties, with

many varieties seemingly like modern Catalan, treating the negative particle as optional when a negative indefinite preceded (in other words, allowing both strict and non-strict negative concord) (section 3.8). Different linguists have assumed different historical pathways: Haspelmath (1997) assumes extensive variation in the medieval languages, but a broad pathway from Latin V-NI to (N)V-NI in the medieval languages and in some modern languages, with the more innovative modern languages having fully implemented negative concord and reached NV-NI. Martins (2000: 193–6) notes the existence of preverbal indefinites preceding the negative marker in all the medieval western Romance languages and concludes that they were once strict negative-concord languages, some of which have shifted to non-strict negative concord. Posner (1984) is more circumspect, noting much medieval variation. While she considers that 'the regular omission of *non* after INDEF-NEG is an innovation of Italian, Sardinian, Spanish and Portuguese' (Posner 1984: 13), for her, this is a development from an initial stage where both patterns were widely attested. Parry discusses the evidence for this in section 3.8, suggesting that both strict negative concord and the mixed system allowing both options were found in medieval Italy.

Earlier stages of Slavonic (section 9.5.1) attest non-strict negative concord alongside the strict pattern, again seemingly like modern Catalan. Foreign influence for the presence of this pattern cannot be excluded, but, if it reflects vernacular usage, this means that there has been a general shift towards strict negative concord in Slavonic. Hungarian presents a very similar picture: non-strict negative concord is also found in Old Hungarian (Kiss forthcoming), although, again, the question of foreign (Latin) textual influence makes it difficult to interpret its significance. If we treat the texts at face value, there has been a shift towards strict negative concord. Finally, Ingham (section 4.4) suggests that some non-West Saxon Old English has non-strict negative concord, while West Saxon had strict negative concord.

Haspelmath (1997: 211–12) suggests that a shift from (N)V-NI (non-strict negative concord) to NV-VI (strict negative concord) is motivated by the Neg-First Principle in conjunction with pattern uniformity; that is, NEG … indefinite is motivated by the need for negation to occur as early as possible, while indefinite … NEG is motivated by an economy principle, the need to maintain a uniform expression of negation. This makes extension of negative concord the natural development.

Counterdevelopments are found in Welsh and French, but only under rather special circumstances. In French (section 2.3), negative concord between *ne* and n-words was required, but did not develop between *pas* and n-words when *pas* replaced *ne* as the main expression of sentential negation. Similarly, in Welsh (section 7.6.6), there has been a shift towards a form of non-strict negative concord (albeit not the classic one).Welsh once showed strict negative concord between the sentential negator *ni(d)* and n-words. However, it has not developed strict negative concord between the new negator *ddim* and n-words, adopting instead a rule by which there is negative concord between *ddim* and an n-word only if the two would be non-adjacent. Although these cases go against the idea that negative concord tends to extend its domain, this only happens when the language develops a completely new negator that fails to spread to all clauses containing indefinites. These counterdevelopments thus involve interactions with Jespersen's cycle, a topic to which we turn in the next section.

1.11 Interactions between negative concord and Jespersen's cycle

As Ladusaw's term 'Jespersen argument cycle' (Ladusaw 1993: 438) suggests, a close connection is often perceived between Jespersen's cycle and negative concord: just as the expression of negation is reinforced by new negative material, so indefinites in the scope of negation are also affected by cyclic renewal. Some (e.g. Kiparsky & Condoravdi 2006) see n-

words explicitly as negation strengtheners on a par with the adverbial elements that feed into Jespersen's cycle, that is, the renewal of the expression of sentential negation.

One interpretation of this relationship is that Jespersen's cycle is a pathway for a language to eliminate negative concord. Absence of negative concord in languages with apparently negative indefinites seems to be a crosslinguistically rare property. Haspelmath (2011) finds 11 languages that use this pattern exclusively and 13 with mixed behaviour in a sample of 206 worldwide. This raises the question of how this property should arise in the first place. Haspelmath (1997: 203–5) observes, building on a proposal by Bernini & Ramat (1996: 184), that, in Europe, absence of negative concord is restricted to languages with postverbal negators which arose under Jespersen's cycle, namely most West Germanic languages and French. Languages at stage II of Jespersen's cycle often do not use the new marker of negation with indefinites. For instance, standard French, at stage II of Jespersen's cycle, uses *pas* as its new negator, but *pas* does not co-occur with an indefinite pronoun in subject or direct object position. In general, clauses containing indefinites as objects seem to be an unfavourable context for the new negator. Haspelmath links this to the emphatic function of indefinites, suggesting that reinforcement is not needed, hence the new negator is not necessary with indefinites. Consequently we witness the development of the patterns illustrated in (109) and (110) for French.

(109)   NEG   V   NEG
       Je   ne   dis   pas.
       I   NEG   say.PRES.1SG   NEG
       'I don't say.' (French)
(110)   NEG   V   N-INDEFINITE
       Je   ne   dis   rien.
       I   NEG   say.PRES.1SG   nothing
       'I say nothing.' (French) (Haspelmath 1997: 204)

It might be added that, since new markers of negation typically arise from reanalysis of direct objects, particularly reanalysis of indefinite pronouns used as direct objects, there is also a syntactic reason why indefinites would initially not co-occur with the new marker of negation. French and, to an extent, Welsh (see section 7.6.6) currently exemplify this configuration, but comparable situations obtained at the relevant stages in the history of various West Germanic languages (see, for instance, section 5.2 on this in Middle High German and section 6.3.1 on Middle Low German). Middle English, for instance, shows a dispreference for co-occurrence of *not* with *no*-indefinites ('Jack's law', Jack 1978a, 1978b, Iyeiri 2001, cf. also Wallage 2005: 225–6), see section 4.4.2. This notwithstanding, English seems to be a special case, since the loss of negative concord (negative doubling and negative spread) is additionally due to the spread of the *any*-series spread into negative contexts (Iyeiri 2002a, Iyeiri 2002b, Wallage 2005, Nevalainen 2006, see also section 1.9.2 above).

As the language reaches stage III of Jespersen's cycle, losing the old preverbal negator, negative concord (negative doubling) disappears (NEG V N-INDEFINITE > V N-INDEFINITE). The result is a non-negative-concord language. Jespersen's cycle is thus a possible scenario for how such a typologically rare pattern as non-negative-concord can arise.

Another commonly made connection between Jespersen's cycle and negative concord is to relate the syntactic status and diachronic changes in the sentential negator in a language to the availability, rise or disappearance of negative concord. Jespersen, citing Old English, Russian, Greek and Hungarian as examples, originally noted that 'repeated negation [negative concord – DW] seems to become a habitual phenomenon only in those languages in which the ordinary negative element is comparatively small in regard to phonetic bulk'

(Jespersen 1917: 71–2), an observation that has come to be known as 'Jespersen's generalization'. Recent treatments have taken this to mean that there is a positive correlation between a language having a negator that is a Neg-head and negative concord (negative doubling). Two specific formulations are available, either as a bidirectional implication (nonphrasal negation <=> negative concord), as in (111), or a unidirectional one (head negation => negative concord), as in (112).[10]

(111) 'A language is an NC language iff the regular marker of pure sentential negation is not associated with SpecNegP.' (Rowlett 1998: 87, 100)
(112) 'All languages with a negative marker X^0 are NC languages.' (Zeijlstra 2004: 165)

Such generalizations make clear diachronic predictions: both formulations predict that, if a language reanalyses a phrasal negative marker as a head, the language will innovate negative concord (if it does not already have it, which is a possibility allowed under (112)). Furthermore, under (111), if a language replaces an existing head negator with a new phrasal marker, the language should lose negative concord; however, under (112), such a language is free either to retain negative concord or to give it up. As with Haspelmath's proposals above, these approaches suggest that we can expect later stages of Jespersen's cycle to be associated with a move away from negative concord. A return to the start of the cycle, however, is associated with the (re)introduction of negative concord.

     Zeijlstra (2004: 278–9) proposes nonstandard English negative concord as an example of this last development, innovation of negative concord due to reanalysis of a phrasal marker as a head. Many varieties of English are in fact negative concord languages, allowing patterns such as (113).

(113) I didn't do nothing.

Zeijlstra proposes that this is an innovation triggered by reanalysis of the negative marker from phrasal *not* to a head *-n't* (head status, for instance, being shown by its obligatory attachment as a suffix to an auxiliary). By (112), the end of Jespersen's cycle, namely reanalysis of a negative phrase as a head (cf. discussion of (14) above), automatically triggers introduction of negative concord.[11] For fuller discussion of the historical facts, see section 4.4.2.

     French, as already discussed above with reference to Haspelmath's proposals, instantiates the second development. Loss of the head negator *ne* in colloquial French (the shift to obligatory stage III of Jespersen's cycle), as in (114), allows the language to abandon negative spread. Hence, sentences like (115) may be interpreted by some speakers as negative concord (negative spread) with a single semantic negation, while other speakers have abandoned negative concord entirely and treat them as involving two negations that cancel each other out (see section 2.3).

(114) Jean mange   rien.
       Jean eat.PRES.3SG n.thing
       'Jean isn't eating anything.' (Colloquial French) (Zeijlstra 2004: 278)
(115) Personne dit   rien.
       n.one   say.PRES.3SG   n.thing
       'No one is saying anything.' or 'No one is saying nothing.' (Colloquial French)
           (Zeijlstra 2004: 278)

Whether Jespersen's generalization holds more widely is a subject that requires further research. Mordvin (section 10.8), along with other Uralic languages, appears to a clear counterexample, having a negative auxiliary head, but no inherently negative indefinites and hence no negative concord.

1.12 Negative imperatives and prohibitives

Many languages have special ways of negating imperatives, either using a different negative marker in the imperative (and sometimes in other modal contexts) or else disallowing negative imperatives entirely and adopting some kind of alternative expression involving a subjunctive or an infinitive. Forms that are specialized for expressing negative imperatives are termed prohibitives.

In the *World Atlas of Language Structures*, van der Auwera & Lejeune (2011) identify four types of language with respect to prohibitive marking: those with no special marking (normal imperative + normal negative); those with a special negative marker but the normal imperative; those with a special verbal form replacing the imperative but the normal negative marker; and those with both. Worldwide, special prohibitives of some kind predominate, as can been seen from Table 1.2 (based on data from van der Auwera & Lejeune 2011).

Table 1.2. Frequency of different types of negative marking with imperatives worldwide

type	no. of languages	%
no special marking	113	23%
normal imperative + special negative	182	37%
special imperative + normal negative	55	11%
special imperative + special negative	145	29%

However, within Europe, they are a minority. Two large groups, Germanic and Slavonic, typically have no special marking for negative imperatives and negative imperatives have therefore not been covered extensively in the chapters covering these languages.

A number of languages have negative markers specialized for use in imperatives and often for other semantically related contexts, notably subjunctives. Such a distinction is found in Goidelic Celtic (Irish *ná*, Scottish Gaelic *na*) and historically in Brythonic Celtic too (section 7.3.1), hence must be reconstructed for Common Celtic. In Greek, negative particles found in the imperative (Ancient Greek *mē* and Standard Modern Greek *min*) also have a wide range of uses in subjunctive and subjunctive-like contexts, but are distinct from negation of indicative clauses (section 8.3). In Modern Greek, the imperative is replaced by a subjunctive in the negative with *min*, as in other southern European languages discussed below. The imperative/subjunctive vs. indicative contrast has its roots in distinctive marking of the two types in Proto-Indo-European (section 8.4), cf. also Sanskrit (*mā* in imperatives, instead of *na*, Joseph 2002), Latin (*nē* instead of *non* in subjunctives and subjunctives standing in for imperatives in Classical Latin and with true imperatives in early and colloquial Latin, Woodcock 1959: 84–6, 96–7), and Albanian (*mos* instead of *nuk*, Tomić 1999: 204–5) etc. Outside of Indo-European, such a distinction is found in Hungarian (*ne*

instead of *nem*) (Kenesei, Vago & Fenyvesi 1998: 22, Zeijlstra 2006: 418–19), and in some historical and dialectal varieties of Bizkaian Basque (*ze* instead of *ez*) (Trask 1997: 209). In Maltese, which lacks an indicative/subjunctive distinction, imperatives are negated with a postverbal (stage III) construction that is unavailable in other contexts, or (archaically) with a bipartite construction whose preverbal element *la* occurs only with imperatives and coordinated negative sentences, *ma* being the usual preverbal negator (Borg & Azzopardi-Alexander 1997: 27).

In conformity with their typical patterns of negation generally, most Uralic languages retain a special negative auxiliary going back to Proto-Uralic *elV- for use in the imperative (see section 11.3.2) (in the second person singular Estonian *ära*, Finnish *älä*, Saami *alę*, Erzya *iľa*, Khanty *ääł* etc.). This auxiliary is today variously followed by an imperative or a connegative form of the lexical verb (the latter often itself historically an imperative) (Erelt 2009: 17, Karlsson 1999 [1983]: 165–8, Abondolo 1998: 73, 112, 380):[12]

(116) Sööda!   Ära   sööda!
       feed.IMP.2SG   NEG.IMP.2SG feed.IMP.2SG
       Söötke!   Ärge   söötke!
       feed.IMP.2PL   NEG.IMP.2PL feed.IMP.2PL
       'Feed!' 'Don't feed!' (Estonian) (Viitso 1998: 141)
(117) Laula!   Älä   laula!
       sing.IMP.2SG   NEG.IMP.2SG sing.CNG
       Laulakaa!   Älkää   laulako!
       sing.IMP.2PL   neg.IMP.2PL sing.IMP.CNG
       'Sing!' 'Don't sing!' (Finnish) (Miestamo 2011: 88)

The main aspects of this type appear to have been historically stable.

In much of southern Romance, true negative imperatives are today impossible and are replaced by negative subjunctives (Spanish, Catalan, Sardinian) or infinitives (standard Italian, Romanian). This is illustrated for Spanish below, where the expected negation with *no* plus the imperative in (118) is ungrammatical and instead replaced with *no* plus the present subjunctive in (119).

(118) *¡No   lee!
         NEG   read.IMP.2SG
       'Don't read!'
(119) ¡No   leas!
        NEG   read.PRES.SUBJUNC.2SG
       'Don't read!' (Spanish) (Zeijlstra 2006: 406)

The modern Romance situation emerges from complex patterns of historical and dialectal variation. The general historical direction has been increasing movement away from use of true negative imperatives. Latin already shows signs of this by using periphrases with *noli* / *nolite* 'do not wish (2sg./2pl.)' alongside symmetrical negation for imperatives. In the history of Italo-Romance and in today's dialects, negative imperatives are variously formed from negative marker + infinitive, negative marker + imperative and negative marker + subjunctive, with the infinitive structure dominating (see section 3.6.1). Zanuttini (1994, 1997) correlates the absence of true negative imperatives with the position and type of the negative marker in a given variety. Within Romance, varieties with postverbal negative markers (Piedmontese, Valdôtain, Milanese) allow true negative imperatives, while those with preverbal ones, with some exceptions, do not. She suggests that preverbal markers are

heads that select for a mood phrase with mood features that must be checked, and that the Romance imperative, being a bare form, does not bear the features needed to satisfy this requirement. Such an approach naturally raises historical and comparative issues: this generalization does not hold outside of Romance, where preverbal markers of negation are often compatible with imperatives (cf. Slavonic, Goidelic Celtic). Conversely, Welsh developed special negative marking in imperatives (a new negative auxiliary *paid* followed by *â* 'with' and an infinitive) just after it innovated postverbal negation (see section 7.12).

      Languages may develop prohibitive markers, without abandoning their regular, symmetrical strategy for negating imperatives. Thus, some South Slavonic languages have developed new prohibitive markers, such as Serbian *nemoj* (< *ne* 'not' + imperative of *moći* 'be able'), and Hungarian has an emphatic prohibitive *nehogy* (< *ne* 'not' + *hogy* 'that (complementizer)':

(120)   Nehogy   le-masól-d   a   kulcsot!
           NEG.IMP PFX-copy.IMP-DEF.OBJ the key.ACC
           'Don't you copy the key, or…!' (Hungarian) (Kenesei, Vago & Fenyvesi 1998: 22)

In these languages though, both this and a regularly formed negative imperative are available. These developments may represent a form of renewal of negation that has not yet led to the replacement of the earlier pattern.

      From a diachronic perspective, the important question is how and why new prohibitive markers emerge and how and why old ones disappear. Negative imperatives seem to be more subject to the Neg-First principle than other verbal forms, presumably for the very functional reason that misinterpretation of a prohibition as a positive command could have serious practical consequences. While this is a promising line of reasoning for the emergence of new preverbal marking of prohibition in Welsh, it does little to address the complex historical patterns of variation found in Romance, or the pressure to create new markers of prohibition more generally.

1.13   Contact-induced change in negation

Finally, we turn to the question of how much commonalities of patterning in negation and the existence of common historical developments within Europe are due to contact between languages. This is a question which takes us beyond any individual chapter of the current volume, but is one that will be taken up further in volume 2. Bernini & Ramat (1996: 49–51) argue that, since bipartite negation is rare and arose via similar processes in the histories of different languages across western Europe and north Africa, Jespersen's cycle must be an areal feature, but one of a rather abstract kind, arising via transfer of a structural model without speakers equating particular items in their two languages. The frequency of bipartite negation is no reliable guide to the frequency of Jespersen's cycle in the histories of the world's languages. However, the observed high frequency of Jespersen's cycle itself in western Europe and north Africa, but not in eastern Europe, does mean that we should take contact explanations for Jespersen's cycle in Europe seriously. Nevertheless, as Bernini and Ramat concede, the chronology is far from straightforward, with languages undergoing the transition from one stage to another at radically different times. A language whose Jespersen cycle has run to completion (stage III) offers no particular model for another language: it is therefore unlikely that, for instance, the Old Norse Jespersen cycle provided a model for, German, Dutch or English to imitate. Furthermore, the lexical material used often differs from language to language ruling out direct replica grammaticalization in the sense of Heine & Kuteva (2005): the homonymy of Old French *pas* as 'not' and 'step' would provide no particular spur for English to develop *nawiht* 'nothing' into plain 'not'. Contact as an

overarching explanation for all of Jespersen's cycle in western Europe and north Africa is therefore not convincing. However, there are a number of individual cases where a more considered case for the role of contact can be made.

Dutch, Low German and High German clearly form a continental West Germanic dialect continuum, with High German being most advanced in terms of Jespersen's cycle, and Dutch most conservative. Contact overlays the general spread of Jespersen's cycle from south to north, apparently accelerating innovation in the northeast: the varieties of Low German that reach stage III of Jespersen's cycle quickest are those spoken in Hanseatic cities (Lübeck and Stralsund) in colonial areas formerly inhabited by Slavonic speakers. Here contact between different Low German dialects and the formation of an urban *koine* (Peters 2000a: 1414) accelerated change, as did contact with Scandinavian and High German due to Hanseatic trade (section 6.2.1).

In northern Italy, neighbouring dialects innovate in similar ways, introducing new markers of negation, but from different lexical sources, encompassing minimizers, indefinite pronouns and the anaphoric negator *nò* 'no!' (section 3.4). The prevalence of these developments suggests diffusion of a structural model (reinforcement of negation) even though the lexical means used to implement that model vary, perhaps favoured by conditions of balanced bidialectalism (Trudgill 1994: 19).

Within Celtic, the Welsh Jespersen cycle is probably internally motivated, being chronologically out of step with the English one. However, the Breton Jespersen cycle shows close parallels with French, both in using a range of reinforcers based on minimizers, and in the relative stability of its stage II. Similarities in the use of negative reinforcers between Cornish and Breton suggest transfer from Breton into Cornish (section 7.5). Both Breton and Cornish show direct loans of negative markers and indefinites from Romance (Latin or French) and English respectively (sections 7.7 and 7.8).

In Uralic, the inherited pattern of a richly inflected negative auxiliary with the lexical verb in a special connegative form is best retained in the eastern Finno-Permic languages. In the west, Saami, Finnish and, especially, Estonian have limited the extent of inflection, moving towards an invariant negative particle like most Indo-European languages, and this development may well be due to contact with Indo-European. Hungarian uses a negative particle followed by an ordinary finite verb, the standard Indo-European pattern, which may be an innovation postdating contact with Indo-European (Sammallahti 2011: 206).

In Afro-Asiatic, the evidence points to the occurrence of Jespersen's cycle in a subset of Arabic dialects, Coptic, Berber and Modern South Arabian all being linked by contact (section 10.2), with internal changes in Modern South Arabian and Coptic triggering parallel developments in the Arabic dialects of the southern Arabian Peninsula and north Africa respectively, and stage II negation then spreading from north African Arabic varieties to Berber. The relative chronologies of Jespersen's cycle in north Africa and western Europe suggest that there is no link between the two.

The role of contact is of course not limited specifically to sentential negation. As with sentential negation, in those cases where contact influence can be identified in indefinites, it is normally structural, concerning the distribution of items, rather than involving borrowing of individual forms, which seems to occur only under particularly intense contact (Haspelmath 1997: 184).

Such structural borrowing is evident in Celtic. Cornish originally showed no sensitivity to negative polarity in its indefinites, but latterly created a new series of items, the *veeth*-series, showing just such sensitivity, modelled on the English *any*-series (section 7.8). The Welsh *unrhyw*-series is currently adopting the distribution of English *any*-series (section 7.6.5). Replica grammaticalization (Heine & Kuteva 2005) is evident in the emergence of the

Breton *bennak*-series from a free relative structure mirroring the grammaticalization pathway of French *quelqu'un* 'someone' etc. (section 7.7).

In the Balkans, Romanian negative indefinites have a distribution remodeled on Slavonic, with a central distinction between negative and non-negative (including NPI contexts), and with strict negative concord, rather than the nonstrict system found extensively elsewhere in Romance. Romanian never extended generic nouns into the indefinite system, and instead developed a *ni*-series from a mixture of existing material (*nimeni* < Latin *neninem* 'no one (acc.)') and new items parallel to Slavonic (*nimic* 'nothing' < *nec mica* 'not even a crumb') (Haspelmath 1997: 263–5). Conversely, a realignment in the distribution of indefinites in some Bulgarian dialects seems to have been due to contact with Greek (section 9.5.8).

The details of the scenarios by which these structural transfers have taken place have yet to be fully established.

1.14 Summary

This chapter has set out the kinds of development that are characteristic of changes in negative systems. With markers of sentential negation, we see extensive and repeated renewal in western Europe and north Africa via Jespersen's cycle, while much of eastern Europe shows relative stability, and the negative auxiliaries found in the Uralic languages go through their own processes, often leading towards the emergence of uninflected negative particles. Detailed comparison of individual cases reveals much commonality, but also significant differences that need to be accounted for.

In indefinite systems, we also see forms of cyclic renewal: in some languages, items become restricted to more negative contexts, being replaced in other contexts by existing or newly created items. New items that interact with the negative system develop from such sources as generic nouns, free-choice items and free relative markers. The interaction between developments among indefinites and those involving sentential negation is itself complex and will only be understood properly once more language histories have been fully investigated on a comparative basis.

We have also tried to sketch the general concepts used to analyse negation more generally, and to see how those concepts have been applied to propose explanations for the typical historical patterns of development that we witness. These set the context for detailed investigations by individual contributors to which the remainder of this volume is devoted.

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[1] The alternative without *-n't*, namely *Dogs like biscuits, do they?* is of course possible, but is not pragmatically neutral: it presupposes the truth of the proposition, while treating it as new, possibly surprising, information.

[2] Note, however, that appositive tags with (*not*) *even* are only grammatical with generic statements as in (1)–(6), not with episodic clauses as in (7).

[3] For simplicity, these structures abstract away entirely from the verb-second system of earlier forms of English.

[4] There may also be some dialect and stylistic variation, with *-at/-a* characteristic of West Norse (Icelandic and Norwegian) poetry, while *ekki* is characteristic of East Norse and prose (Eythórsson 2002: 195–6).

[5] Fronting of the negative auxiliary in (46) also contributes to this meaning. The usual emphatic negative would be as in (i), without the new negator *mitään*, and without fronting of the negative auxiliary *en*:

(i)   (Mä)   en   nukkunut   yhtään.
             I   NEG.1SG sleep.CNG at.all
             'I didn't sleep at all.'

[6] Since this distinction centres on the presence of sentential negation, we are clearly dealing with two varieties of negative doubling, so the term '(non-)strict negative doubling' is more appropriate. Note, however, that the majority of authors, including those in this volume, use the term '(non-)strict negative concord' to describe this phenomenon. A closely related distinction is Déprez's (2000) 'symmetrical' versus 'asymmetrical' negative concord. Asymmetrical negative concord (a term employed for Italo-Romance in section 3.8) is identical to nonstrict negative doubling. Symmetrical negative concord encompasses both strict negative doubling and negative spread in the absence of negative doubling, as found in informal spoken French.

[7] Note, however, that, for Haspelmath, any indefinite in the scope of negation is a negative indefinite, even if that indefinite is incapable of expressing negation on its own. Hence, applying his definition, English *any*-series items, when in the scope of *not*, instantiate the pattern NV-NI, which we would not consider to be an instance of negative concord.

[8] This of course assumes that n-words in modern Spanish should be analysed as negative quantifiers, as argued, for instance, by Espinal (2000). However, even on other analyses, the broad direction of change is clear. Thus, according to Herburger's (2001) analysis, Spanish n-words are ambiguous between NPIs and negative quantifiers, but, historically they began as NPIs and developed as negative quantifiers only later (Herburger 2001: 323–6).

[9] Strictly speaking, negative concord (negative doubline) needs to be defined for each marker of negation. Standard French shows strict negative concord between *ne* and indefinites, and no negative concord between *pas* and indefinites:

(i)   Personne n'   est   (*pas) venu.
             n.one   NEG be.PRES.3SG   NEG come.PP
             'No one came.' (French)
(ii)   Jean n'   a   (*pas) vu   personne.
             Jean NEG have.PRES.3SG   NEG see.PP   n.one
             'Jean saw no one.' (French)

[10] The weaker prediction in (112) is to allow for various West Germanic varieties, such as West Flemish and Bavarian, with negative concord (negative doubling), but clearly phrasal sentential negators; see Rowlett (1998: 126–31) and Zeijlstra (2004: 255–7).

[11] Formally, for Zeijlstra (2004, 2008), negative concord obtains in languages with a covert negative operator in SpecNegP. This operator triggers negative agreement on any uninterpretable negation features in its scope, including the head of Neg and any indefinites. A separate NegP projection is posited by language acquirers only if necessary, so is absent from languages where the negator is a phrasal adverb, which is assumed to adjoin to VP. So nonstandard English has reanalysed VP-adverb *not* as Neg^0 -*n't*, thereby innovating NegP in the language, forcing the postulation of a null negative operator in NegP and the introduction of negative concord. Conversely, loss of a Neg^0 head from a language removes much of the evidence for postulating NegP, leaving open the possibility that it may fail to be acquired, thereby eliminating negative concord. See section 5.2.4 on the application of this analysis to German.

[12] In (117), the form *laula* does not change when negated, and hence could be the second-person singular imperative even in the negated clause. However, in all other person–number

combinations, we find *laulako*, which is clearly connegative. Furthermore, *laula* is also the form of the connegative in the present indicative, where it is distinct from the affirmative inflected forms. It thus seems justified to treat *laula* here as a present connegative, rather than as an imperative, hence the glossing (cf. Miestamo 2011: 88).