biblio.ugent.be

The UGent Institutional Repository is the electronic archiving and dissemination platform for all UGent research publications. Ghent University has implemented a mandate stipulating that all academic publications of UGent researchers should be deposited and archived in this repository. Except for items where current copyright restrictions apply, these papers are available in Open Access.

This item is the archived peer-reviewed pre-publication author-version of:

Title	Incipient Jespersen's Cycle: the (non-)grammaticalization of new negative markers
Authors:	Anne Breitbarth, Christopher Lucas and David Willis

In: Jürg Fleischer and Horst Simon (eds.), Comparing Diachronies, 141-162. Berlin/Boston: De Gruyter.

Incipient Jespersen's Cycle: the (non-)grammaticalization of new negative markers

1. Introduction

Most, if not all, languages feature elements which, as arguments or pseudoarguments of a negated verb, emphasize the polarity of negation. Often, these are minimizers, such as *a red cent* or *a wink*, or indefinite pronouns used as generalizers, such as ‘anything (at all)’. This is often a stable situation, but under certain conditions these elements become grammaticalized, first as negative polarity adverbs (NPAs) and, in many cases, from there in a second reanalysis as new markers of sentential negation. These are two separate stages in the development of such items, and the process can stop at either of them. Languages in which both these developments in the expression of sentential negation have been completed are said to have progressed through the first half of ‘Jespersen’s Cycle’. This refers to the common directional, potentially cyclic, development of the expression of negation named by Dahl (1979) after an original observation by Jespersen (1917) based on a number of European languages. The cycle is illustrated with English examples in Table 1. *Not*, originally an indefinite pronoun ‘anything’ with a negative prefix (compare dialectal English *nowt* ‘nothing’), grammaticalizes as a negative polarity adverb (stage IIa), subsequently spreading to become compulsory as a marker of sentential negation (stage IIb). Later, this becomes the sole marker of sentential negation as the older preverbal marker *ne* is dropped (stage III). In English, the structure of the older stage I is re-established with the development of *do*-support, with negation, in the form of the negative ‘auxiliary’ *don’t*, coming once again to occupy preverbal position (stage I’). With this, the cycle is complete and the language has returned structurally to its starting point.

Stage I Clitic	stage IIa clitic + optional NPA	stage IIb clitic + free morpheme	stage III free morpheme	stage I’ Clitic
<i>ic ne secge</i>	<i>I ne seye (not)</i>	<i>I ne seye not</i>	<i>I say not</i>	<i>I do not say > I don’t say</i>
Old English	Middle English	Middle English	Early Modern English	Modern English

Table 1. Outline of Jespersen’s Cycle, exemplified from English (Jespersen 1917: 9–11).

While this presentation gives Jespersen’s Cycle a certain flavour of inevitability, many languages possess items that, despite appearing to have all the ingredients for these reanalyses, never reach the end of stage II of Jespersen’s Cycle. In fact, many never go anywhere at all. The goal of the present article is to establish, with reference to a range of mainly European languages, what factors or contexts favour or disfavour the reanalyses involved in the emergence of stage II of Jespersen’s Cycle, and what obstacles an incipient

grammaticalization has to overcome at each of the two reanalysis steps. The obstacles to a successful reanalysis of an emphaser as an NPA will be discussed in section 2; the restrictions on the second step, the reanalysis of the NPA as a neutral negator, are the focus of section 3.

All languages seem to use minimizers or generalizers as emphasers of negation. Generalizers – terms that indicate that the state of affairs in question does not hold for any single member of an expansive relevant set – are, by their nature, compatible with a wide range of contexts. Minimizers, on the other hand, typically begin life in a fairly restricted context. However, in some cases these may serve as ‘bridging contexts’ that open the way for the elements in question to grammaticalize as reinforcers of negation. A preliminary typology of such bridging contexts, ordered by the degree of grammaticalization or independence of the minimizer is as follows:

(i) the minimizer is restricted to occurring as the object or adverbial argument of particular verbs, often verbs connected to its original meaning:

- Dutch *geen biet* ‘not a beet’ (*snappen/begrijpen* ‘understand’, *kloppen* ‘be true/correct’, *interesseren* ‘interest’, *schelen* ‘matter’, *boeien* ‘captivate’ ...)
- English *a drop*: *I didn’t touch / drink / waste / spill / sweat a drop*; *The container didn’t leak a drop*; but **I didn’t eat / remember / know a drop*
- English *a scrap*: *We didn’t waste / leave / write / mind / care a scrap*; and *It didn’t matter a scrap*; but **We didn’t see / hear / discuss a scrap*¹
- English *a wink*: *I didn’t sleep a wink* but **I didn’t drink / cook a wink*
- English *a word*: *I didn’t understand / say / believe / utter a word* but **I didn’t drink / cook a word*
- Russian *ni slova* ‘(say, hear, understand) not a word’
- Old French (*ne voir*) *gout(t)e* ‘(not to see) a drop’ (Price 1986: 571–4, 2003 [1993]: 436) (on Old French, see also Foulet 1990 [1928], Wartburg 1971 [1946]: 46–7, 107–8, 33)]
- Russian *ni bel’mesa* ‘(know, understand) not a thing’ (< Tatar *bilmäs* ‘I don’t know’)
- Dutch *geen kip* (*zien*) lit. ‘(to see) no chicken’, ‘be unable to see anything’

Some of these are specifically associated with verbs of indifference, irrespective of their literal source:

- English *two hoots*: *I don’t care / mind / give two hoots*; *It doesn’t matter two hoots*
- German *einen feuchten Kehrlicht* ‘(concern, interest s.o.) not at all’ (lit. ‘damp sweepings’)

¹ English *scrap* has split into two items. *A scrap of* has developed as a quantifier ‘any’ (still a negative polarity item, but otherwise parallel to new grammaticalized quantifiers such as *a lot of* or *a bunch of*). As a quantifier it is freely available within an argument noun phrase in weak negative polarity contexts, for instance, *I didn’t write a scrap of software / know a scrap of English / do a scrap of work / pay a scrap of tax / see a scrap of evidence / hear a scrap of music / discuss a scrap of anything interesting*. On its own, *a scrap* has remained more restricted. It is a minimizer limited to certain verbs defined by its former literal meaning, plus verbs of indifference, as the examples in the main text demonstrate.

Other English minimizers limited to verbs of indifference (*give, care*) include *a damn, a (flying) fuck, a monkey's, a rat's ass/arse, a shit / crap*. The use of these items is so limited that it is hard to know whether they are best treated as minimizers or as part of idiomatic phrases in these contexts.

A number of words for units of currency fall into this category in English and in many other languages. In all cases, they seem to be restricted to verbs requiring an amount of money as an argument or to verbs of indifference or worth:

- English *a penny*: *It didn't cost a penny / I didn't pay / owe / earn a penny; I don't care a penny* but **I didn't drink / cook a penny*
- English *a brass farthing* (somewhat archaic) is limited to monetary verbs and verbs of indifference: *She didn't pay / deserve / earn a brass farthing; It didn't cost a brass farthing; It doesn't matter a brass farthing; I couldn't give a brass farthing*; but **I didn't drink / cook a brass farthing*

Other items in this group are *a groat* (archaic) and American English *a red cent* and *a dime*. Examples of currency units in this class in other languages include:

- Arabic *ryāl / frank / santīm / gərš* '(be worth) a rial / frank / centime / penny'
- Russian *ni kopejki* '(cost, earn, spend) not a kopeck', *ni groša* '(cost, earn, spend) not a groat', *ni rublja* '(cost, earn, spend) not a rouble'

(ii) the minimizer is generalized to verbs other than the original one(s), but still restricted to transitive verbs, suggesting the items in question are still DP (pseudo)arguments, albeit having undergone (a degree of) semantic bleaching. These items also maintain their historical animacy; that is, items of inanimate origin may express 'anything' but not 'anyone', and items of animate origin express 'anyone' but not 'anything'.

Inanimate items

- Arabic: *zəfta / xārya / qəlwa* '(drop of) tar / a turd / a testicle'
- English (*diddly*) *squat, jack shit / jack / shit* (Postal 2004: 145)
- (British) English *a sausage*: *I couldn't give a sausage* (= 'I don't care.') / *I didn't see / sell / find a sausage*, but **I didn't sleep a sausage*

Animate items

- Arabic: *kalb / qaṭṭūs / 'arbi / yhūdi / šitān / eṭṭāy / farṭās* 'dog / cat / Bedouin / Jew / devil / homosexual / bald man'
- English: *a (living) soul*
- German: *kein Schwein / keine Sau* 'no pig/sow'

(iii) Finally there are minimizers that no longer display this transitivity restriction. If the item in question was historically nominal, then this fact implies that it has become an (adjunct) negative polarity adverb.² Naturally, examples of this type are harder to find, as

² This same shift can sometimes be observed with historically nominal generalizers, see section 2.

such elements will already have been successful and are on the brink of being reanalysed as sentential negators. Examples include:

- English *a jot / one jot*: *The problem didn't detain us a jot; She didn't repent / move a jot.*
- English *a whit / one whit* is now rather archaic, but belonged in this category while it was used productively: *I didn't change the recipe a whit / That didn't slow us down a whit* (see also the *OED* entry for *whit*).
- Russian *nifiga* 'not a fig', *nixrena* 'not a horseradish', *nixuja* 'not a penis', *nixera* 'not a letter x'.
- Italian *mica* (though this is often already regarded as a sentential, if emphatic or pragmatically restricted, negator) < 'a crumb'

Of course, languages also possess negative polarity adverbs that do not have a nominal source:

- English *for my/your etc. life / for the life of me / to save my life; for shit / crap; for toffee; for nuts; for beans; for toss.*

While the transition from (i) to (ii) involves bleaching or generalization (semantics only), the transition from (ii) to (iii) involves a syntactic change. At stage (iii), pragmatic conditions on usage may apply, such as those proposed by Schwenter (2006) for Catalan and by Schwenter (2006) and Visconti (2007) for Italian. In order for the element to become a new sentential negator, it has to overcome these last restrictions as well.

In some cases, such original minimizers can also undergo a reanalysis from being a DP/N (or other phrase) to being a quantifier, as has happened for instance in English with *a jot of*, *a scrap of*, *fuck all* (cf. *(he knows) fuck all French*). All the Russian minimizers referred to under (iii) above have independently developed into quantifiers.

Cutting across this hierarchy of context restrictions, emphasizees differ in the extent to which they have become independent of the sentential negator. Some must co-occur with an overt sentential negator, while others, though they may still be restricted to certain verbs or to transitive verbs, can occur without a marker of sentential negation. That is, by frequently co-occurring with negation, they come to express negation independently, becoming 'negative by association' (Lawler 1974).³ An example is English *jack shit* (both elements also being found alone independently), which although formerly only occurring in the scope of a negative marker, as in (1), can now express negation alone, as in 0, being truth-conditionally equivalent to *nothing* in such contexts (Horn 2001, Postal 2004). Note that even though it has undergone this development, its status as an argument noun phrase has not been compromised: it has not developed into a negative polarity adverb.

- (1) You don't know jack / shit / jack shit about this.
 You know jack / shit / jack shit about this.

³ See also the extensive discussion of the development of inherently negative meaning for *could care less* in American English in the *Language Log*, July 2004 (<http://itre.cis.upenn.edu/~myl/language-log/archives/001202.html>).

In German, there are even cases of minimizers which seem to have passed directly to triggering sentential negation apparently without passing through a stage in which they had to co-occur with a sentential negator, such as *einen feuchten Kehricht* ‘damp sweepings’, *einen Dreck* ‘(a piece of) dirt’ or *einen Pfeifendeckel* ‘a pipe lid’ (Bayer to appear):

- (2) Das geht dich (*k)einen feuchten Kehricht an.
 this goes you a/no damp dirt at
 ‘This is none of your business.’

2. Incipient Jespersen’s Cycle

Jespersen’s Cycle, as discussed above, is the directional renewal of the expression of sentential negation by the recruitment of new material from a range of source elements. We have already seen how minimizers give rise to new emphatic negative adverbs. Besides these, another common source for new negators is generalizers. Generalizers that have been successful in developing into negators through Jespersen’s Cycle include *it/et* (‘not’ < *wiht* ‘thing’) in some Upper German dialects (Jäger 2008: 106) and Arabic *ši* (‘at all’, < ‘thing’).⁴ The term ‘incipient Jespersen’s Cycle’ includes even those cases where the grammaticalization of these elements has never, or not yet, gone past the initial minimizer or generalizer stage. This is because such cases evidently have the potential to go further along the path of grammaticalization towards becoming new markers of sentential negation. The question then arises as to why certain items in certain languages are more successful than others in reaching the later stages of Jespersen’s Cycle. Section 2 investigates possible factors permitting the first reanalysis, namely from negative polarity noun phrase (argument) to negative polarity adverb (adjunct) or directly to sentential negator.

2.1. Bridging contexts

2.1.1. Contexts with ambiguous argument structure

2.1.1.1. Optionally transitive verbs

Many verbs in English and other languages may be used either transitively or intransitively (with an implied generic patient). Examples in English include *eat*, *drink*, *read* and *write*. Even where there is a significant semantic difference between the two uses (as with *see*, *hear*, *win*, *lose*), the two may still be pragmatically equivalent in many instances of use. When the object of these verbs is a negative polarity item denoting a minimal quantity (a minimizer), there is always the potential for this item to be reanalysed simply as a marker

⁴ This element, derived from Classical Arabic *šay* ‘thing’, appears to have undergone a lexical split, whereby an old generalizer went two ways. In most varieties, it was reanalysed as an NPA and stopped there, while in others, the original item may have been subsequently reanalysed as a negator in one fell swoop without an intervening NPA stage (see section 2.1.1.1 below).

of sentential negation.

Lucas (2007) argues that the development of postverbal negation in Arabic dialects took place in this way: the indefinite pronoun *šay* 'was reanalysed as a postverbal negator (and later reduced to a clitic *-š*) in contexts where it functioned as the object of a verb for which there was also a salient referent for a null object. Consider the following:

- (3) a. akalt al-khubz
eat.PAST.2MS the-bread
'Did you eat the bread?'
- b. la mā akalt **šay** (____)
no NEG eat.PAST.1S thing/(NEG) (bread)
'No, I didn't eat anything/the bread.'

Here, the question in (3)a provides a salient referent for a potential null object in (3)b. If children acquiring this hypothetical early variety of Arabic were to posit a null object in contexts such as these, this would open the door for a reanalysis of *šay* ' in such contexts as a non-argument, such as a negator.

2.1.1.2. Predicates permitting an optional extent argument

Certain other groups of verbs also lend themselves to such a reanalysis. First of all, verbs of succeeding are problematic in many languages because they often include an optional argument indicating the extent or degree of success. It can be difficult (presumably both for the linguist and the acquirer) to establish whether this optional element is the direct object of the verb, an adverbial complement, or an adverbial adjunct. Verbs of succeeding are disproportionately used in the negative and, in some cases, are even themselves strong negative polarity items restricted to positions within the scope of negation. One hypothesis is that in the stage just before the onset of stage II of Jespersen's Cycle, a noun or noun phrase that will later become a negative polarity adverb comes to be used regularly as the optional argument of these verbs, indicating a (low or zero) degree of success. For instance, in Middle Welsh the indefinite pronoun *dim* 'anything', which in later Middle Welsh becomes a negative polarity adverb, begins to occur regularly with these verbs. This is illustrated in the following with examples of four verbs from this class (from Willis 2006: 72), namely *talu* 'pay, help', *dygrynhai* 'succeed', *tykyaw* 'succeed (impersonal)' and *grymhau* 'strengthen, help':

- (4) a. Ny thalwys idaw hynny dim...
NEG pay.PAST.3S to.3MS this anything
'And this didn't help him...' (*Ystoria de Carolo Magno* 99.23)
- b. Ac ny dygrynoes y gelynyon dim yn eu herbyn...
and NEG succeed.PAST.3S the enemies anything against-them
'And the enemies had no success against them...' (*Brut Dingestow* 135.12–13)

- c. Ac am na thygyei dim udunt, wynt a ffoassant
 and since NEG avail.IMPF.3S anything to.3P they PRT flee.PAST.3P
 y 'r ffenestri...
 to the windows
 'And since it didn't help them / since nothing helped them, they fled to the windows...' (Ystoryaeu Seint Greal 4645)
- d. ...ac ny rymhaawd idaw dim.
 and NEG strengthen.PAST.3S to.3MS anything
 '...and it did not help him.' (Brut y tywysogyon 264.8)

Similarly in Arabic, already in the Classical period we find numerous examples of *šay* 'not only with profit verbs (5), where it is potentially analysable as an adverb meaning 'at all', as in Middle Welsh, but also in more solidly monotransitive contexts (6), where it seems highly likely to be adverbial.

- (5) 'inna ẓ -ẓ anna lā yughniy min al-ḥ aqqi **šay'an**
 PRT the-conjecture NEG avails against the-truth (any)thing/at all
 'Conjecture does not avail against the truth at all.' (Qur'an 53:28)
- (6) lā yaḍurrukum kayduhum **šay'an**
 NEG harm you their cunning at all
 'Their cunning will not harm you at all.' (Qur'an 3:120)

It would appear then that *šay* 'had already, in an earlier, pre-Islamic stage of Arabic, split into two (homophonous) items, the indefinite pronoun illustrated in (3)b and the negative polarity adverb in (6), quite likely due to reanalysis of the former as the latter in contexts such as (5). However, use of an item in this function is not in and of itself predictive of a future development along Jespersen's Cycle to stage III. Several present-day Arabic dialects (for instance, Syrian) have retained this sentence-final negative polarity adverb without reanalysing it as a negator, while those that have developed a new postverbal negator appear to have done so by reanalysing the indefinite pronoun directly, as argued above.

By contrast Gothic, for instance, fails to develop a negative polarity adverb from the noun *waihts* 'thing' and the pronoun *waiht* 'anything'. Both are used together with *ni* as weak NPI pronouns (*not ... anything*). They regularly co-occur with verbs of potentially ambiguous argument structure of the 'profit' / 'succeed' class. Examples are given in (7). Their behaviour therefore parallels the Middle Welsh examples given above. However, they do not seem to spread to contexts where they are unambiguously non-arguments of the verb.

- (7) a. ahma ist saei liban taujiþ, þata leik ni boteiþ
 spirit is REL.COMP life does the flesh.NOM NEG profit.3S
waiht
 thing.ACC.SG
 'it is the spirit that gives life; the flesh profits nothing' (John 6:63)

- b. saihvip̄ patei ni boteip̄ **waiht**
 see.2P that.COMP NEG profit.2P thing.ACC.SG
 'You see that you profit nothing' (John 12:19)
- c. jah manag gapulandei fram managaim lekjam jah
 but much suffer.PTC.PRS.SG.NOM.FEM from many doctors and
 fraqimandei allama seinamma jah ni **waihtai**
 spend.PTC.PRS.SG.NOM.FEM all hers and NEG thing.DAT.SG
 botida, ak mais wairs habaida.
 profit.PTC.PST.NOM.FEM but more worse had.3SG.PT
 'Although she had been under the care of many doctors and had spent all her
 money, she had not been helped at all. Actually, she had become worse.'
 (Mark 5:26)

Similarly, Old East Slavonic sometimes uses *ničto* 'nothing' as an optional argument with verbs of succeeding, as in (8), but, as with Gothic, this never leads any further to the development of *ničto* into a negative polarity adverb.

- (8) a. ...i pomošči Pskovu ne učiniša **ničto** že.
 and help.GEN Pskov.DAT NEG do.AOR.3P **nothing.ACC** PRT
 'And they didn't did (send) help (to) Pskov at all.' (*Pskovskie letopisi* ii.61.40–1)
- b. ...i neuspěša poslove ego ničto že.
 and NEG succeed.AOR.3P envoys.NOM his **nothing.ACC** PRT
 '...and his envoys didn't succeed in any way.' (*Pskovskie letopisi* ii.67.39)

2.1.1.3. Verbs of caring and indifference

Another possible context for reanalysis involves verbs of caring or indifference, such as English *care* or *mind*. As with verbs of succeeding, these crosslinguistically often permit an optional argument indicating the extent of the caring or indifference. Furthermore, and again as with verbs of succeeding, they are used disproportionately in the negative, and in some cases are actually negative polarity items. Hoeksema (1994) notes that Dutch impersonal expressions with *kunnen* 'be able' can take two optional nonsubject arguments, one indicating the extent to which something matters, the other indicating the experiencer:

- (9) Dat kan me niets / niet veel / weinig / *niet alles/ geen bal schelen.
 that can me nothing / not much / little / *not all / no ball differ.INF
 'It makes no/no big etc difference to me.' (Hoeksema 1994: 277)

Since the extent phrase is optional, either *niet* 'not' (a non-argument) or *niets* 'nothing' (an argument) can be used in this context:

- (10) Dat kan me niet(s) schelen.
 that can me not(hing) differ.INF
 'I don't care about that.' (Hoeksema 1994: 277)

The same is found in German, Bayer (to appear: exx. (51) and (52)) quotes the following

examples from the internet:

- (11) obwohl mich das nichts stört
 although me this nothing disturbs
 ‘although I am not at all disturbed by that’
- (12) In meiner Branche gibt es allerdings etliche Händler, die
 in my field gives it however certain dealers who
 das nichts kümmert.
 that nothing bothers
 ‘In my field there are, however, certain dealers who are not worried by this in the least.’

Since the two items can be used interchangeably in contexts such as (9) and (10), the way is open for *nichts* / *niets* to be reanalysed as a marker of sentential negation. In Dutch, this reanalysis appears to have occurred historically, producing a sentential negator *niks*, which may have subsequently died out. Zeijlstra claims that its use is now felt to be archaic (Zeijlstra 2007: 93–4), but was common as emphatic negation in the eighteenth and nineteenth centuries. Bayer (to appear), however, discusses present-day uses of *nichts/niets* as negative polarity adverbs in both colloquial German and Dutch.

2.1.1.4. Modals

The potentially ambiguous argument structure of modals in some languages may also provide the basis for reanalysis. For instance, in Middle Welsh, two ‘premodal’ verbs, *gallael* ‘be able, can’ and *dylu* ‘have a right to, have an obligation to, should’ could be used either transitively with a nominal direct object, illustrated in (13), or with a clausal complement (Willis 2006):

- (13) A manac ditheu y mi pa furyf y gallwyf hynny.
 and show.IMPER.2S you to me what way PRT can.PRES.SUBJ.1S that
 ‘And show me how I can [do] this.’ (Pedeir Keinc y Mabinogi 3.5–6)

As in other languages, the clausal complement of these verbs could undergo ellipsis, giving sentences such as (14):

- (14) ...minheu a allaf dy rydhau ditheu o ’r geireu hynny.
 I PRT can.PRES.1S2S release.INF you from the words these
 Sef ual y gallaf...
 FOCUS how PRT can.PRES.1S
 ‘I can release you from those words. This is how I can...’
 (Pedeir Keinc y Mabinogi 69.24–6)

Now consider a sentence such as (15).

- (15) ...yr yttoed yn gyn vlinet ac na allei dim.
 PRT be.IMPF.3S PRED so tired.EQ as NEG.COMP can.IMPF.3S anything
 '...he was so tired that he could [do] nothing.' (Ystoryaeu Seint Greal 1986)

Here an acquirer faces two possible analyses for the word *dim*. One possibility, the historically conservative analysis, is to treat *dim* as the direct object of the verb *allei* 'could'. There is, however, an alternative, historically innovative analysis that could be entertained. If ellipsis is posited, then *dim* cannot be the direct object. Instead it must be some kind of adverb. If this hypothesis is maintained, a reanalysis of *dim* as a negative polarity adverb will take place. In this particular instance, this reanalysis may have been favoured by the fact that both premodals lost their ability to take nominal direct objects. A child who has failed to understand that these verbs may take a nominal direct object will be forced to interpret *dim* in (15) as adverbial.

2.1.2. Adnominal quantifiers

Languages frequently develop new quantifiers from earlier nouns, for instance, English *a lot of*, *a bunch of*, or pronouns, for instance, Welsh *dim bwyd* ‘any, no food’ < *dim* ‘anything’ + *bwyd* ‘(of) food’. Quantifiers nearly always allow empty or null complements. This can be exemplified, for instance, with English *any* or *some* as in *Some (people) like it hot* or *I don’t want any (food)*. Instances where the new quantifier has an empty complement may be open to reanalysis as a pronoun. In negative or non-assertive negative polarity contexts, the pronoun can be the input to further reanalysis as an adverb, or in a structure with an overt (complement) NP, the quantifier is reanalysed as a negator. Thus, there are three possible steps of reanalysis:

- (16) (a) NP (of/gen) NP > Q NP
(b) Q $\emptyset$ > pronoun
(c) pronoun > adverb

Reanalysis of such quantifiers is therefore a further pathway to the development of a new negative polarity adverb. This has occurred, via reanalyses (16)a and (16)b, in those varieties of English that permit use of *any* as a reinforcement of negation:

- (17) It is a good tune – you can't improve it any.
(Mark Twain, *The innocents abroad* iv.45) (*OED any*) (1869)
- (18) He's not worked any sin' June. She can't sit up any. (Cole 1886: 7) (*OED any*)

It is also possible to conceive of a reanalysis involving a major structural adjustment reinterpreting a negative quantifier as a marker of sentential negation, as would happen, for instance, if *no* in *I have no money* were to be reanalysed as a sentential negator to replace *not*:

- (19) [V [Q NP]] > [V Neg NP]

While the reanalyses listed in (16) are attested, this last reanalysis is more doubtful.⁵

In the remainder of this section, we consider evidence to suggest that Gothic and Old High and Low German attest incipient grammaticalization of an indefinite pronoun, Gothic *waiht* and Old High / Low German *wiht*, as an adnominal quantifier, instantiating step (a) in (16). Whether such a grammaticalization took place rests on two empirical questions: first, whether the original genitive complement of *waiht*, *wiht* is more likely to be a direct argument of the verb than *waiht* or *wiht* itself; and secondly, whether a case shift ACC > GEN is more generally possible, allowing for reinterpretation of *waiht* or *wiht* as directly as an adjunct, instantiating (19), or as an adnominal quantifier, instantiating (16)a.

It has long been suspected that Gothic may, at least optionally, have had genitive of negation (Dal 1952: 338, Delbrück 1893, Grimm 1898). Dal (1952: 22) remarks that Gothic often uses (partitive) genitive on arguments of negated verbs, ‘auch bei Verben, die in positiven Aussagen nicht mit Gen. verbunden werden können’ (‘even with verbs which in positive statements cannot be used with the genitive’), and gives the following example contrasting the positive accusative and the negative genitive:

- (20) jabaihvīs broþar gedauþnai jah bileipai qenai jah
 if someone’s brother die and leave wife.DAT.SG and
 barne ni bilipai
 child.GEN.PL NEG leave
 ‘if a man’s brother dies, and he leaves a wife, but no children’ (Mark 12:19)

In the Gothic Bible, there is one example of a profit predicate where *waiht* is in the accusative and has what looks like a genitive complement (*botos*):

- (21) ni **waiht** **botos** mis taujau
 NEG thing.ACC use.GEN me.DAT does
 ‘it profits me nothing’ lit. ‘it does me nothing of use’ (1 Corinthians 13:3)

If Gothic had genitive of negation, then the genitive case of *botos* in examples such as (21) could have been interpreted as being due to genitive of negation, rather than because *botos* is the complement of *waiht*. Thus, it would have been open to reinterpretation as ‘it doesn’t do me (any) use’, with a genitive of negation (*botos*) and an adnominal quantifier (*waiht*), instead of ‘it does me nothing of use’. In Old High German this genitive of negation is rare, according to Dal, until the rise of postverbal strengtheners like (*nio*)*wiht*, where it ‘eigentlich ein adnominaler Gen. ist, abhängig von dem Substantiv *wiht*’ (‘it is an adnominal genitive, really, dependent on the noun *wiht*’).⁶ Indeed, a cursory inspection of the Tatian, the OHG Isidor, and the lesser OHG canonical texts confirms that, in most OHG texts, the genitive is used under negation only with those predicates with which it would

⁵ For a possible example, see Davies (1981) on Egyptian Arabic.

⁶ *Wiht* actually behaves like an indefinite pronoun in most cases. For dialect examples, see Grimm (Grimm 1898: 727).

also be used in affirmative clauses. The grammar of Otfrid, however, occupies an advanced position within OHG. In his Gospel book, composed between 863 and 871, Otfrid already employs negation strengtheners such as *drof* and *wiht*, very early compared to other OHG texts. Examples of the type mentioned by Dal, with *wiht* + genitive, are easily found in the Gospel book:⁷

- (22) lógnit es álles, \quad ni wésti **wiht thes mánnes**.
 denied it.GEN all said NEG knew.SJCT anything this.GEN man.GEN
 'He (Peter) denied everything, he said he didn't know anything about this man'
 (Otfrid, *Evangelienbuch* 4 18, 10)

Similar examples are found in the Old Low German (Old Saxon) *Heliand* (ca. 830):

- (23) thoh he **is** ni mahti giseggean **uuht**
 but he it.GEN NEG would say anything
 'but he would not say anything about it' (Heliand 189)

However, one might be able to argue for a genitive of negation with an adnominal quantifier. First, there are examples like the following, where the negated verb has only a genitive argument:

- (24) er **wihtes** úngidan ni líaz
 he **thing.GEN** undone NEG let.PAST
 'he left nothing undone' (Otfrid, *Evangelienbuch* 5 4, 46)

The minimizer *drof*, which in most cases (16 out of 20 cases in *Otfrid*) behaves like an adverbial negation strengthener similar to Italian *mica*, and therefore is not an argument of the verb, also occurs with genitives that presumably are arguments of the verb:

- (25) **Drof** ni zuívolot ir **thés**
drop NEG doubt you **this.GEN**
 'do not doubt this in the least' (Otfrid, *Evangelienbuch* 3 23, 37)

Secondly, in some cases, *wiht* is highly unlikely to be an argument of the verb, but the genitive could very well be. In (26), '(any)thing' is not a very plausible gloss; rather it seems to mean something like 'not any/no ... whatsoever', and is thus a negative adnominal quantifier.

- (26) Ih ni háben, quad siu, in wár / **wiht gommánnes** sár
 I NEG have said she in truth **thing husband.GEN** at.all
 'In truth, I do not have, she said, any husband at all' (not: '(any)thing of a husband')
 (Otfrid, *Evangelienbuch* 2 14, 49)

⁷ Old High German data from Otfrid's *Evangelienbuch* were extracted using the TITUS database, <http://titus.fkidg1.uni-frankfurt.de/texte/etcs/germ/ahd/otfrid/otfri.htm>.

way case system, which one would expect to inhibit the reanalysis of the indefinite pronoun as a negative polarity adverb. However, as we have seen, this reanalysis had taken place already in the Classical period. This was made possible by a different kind of syncretism whereby the suffix marking indefinite accusative case in nouns and adjectives was identical to the adverb-marking suffix, *-an*:

- (29) zurtu rajul-an mirār-an
 visited.1S man-ACC.INDEF repetition-ADV
 'I visited a man repeatedly.'

A postverbal element in Classical Arabic would thus have been readily interpretable as either an indefinite object or an adverb, despite obligatory case marking, given an ambiguous context such as that provided by predicates permitting an optional extent argument.

2.2.2. Independent use in non-NPI contexts / retention of core meaning

A further factor that facilitates successful reanalysis of a minimizer as an NPA is the loss of the original core meaning, especially when this is taken over by a new word. In Welsh, for example, *dim* becomes obsolete in its core meaning 'thing'. The same is true of Arabic dialects today: the word for 'thing' in many North African Arabic dialects is *ḥaja* < 'need', with *šay* or its derivatives restricted to grammaticalized functions. Retention of a core lexical meaning in general seems to be a strong barrier to further development along Jespersen's Cycle: Dutch *geen kip* 'no chicken' (section 1) will not likely grammaticalize as a negator as long as *kip* is still used productively to mean 'chicken'. French *pas* appears to go against this trend, retaining its core meaning, but see section 3.2 below.

3. The development of postverbal negators from (indefinites and) minimizers

3.1. Pragmatic aspects

The classic functionalist approach to the triggering of Jespersen's Cycle rests on the intuition that speakers always try to provide evidence that what they are saying is interesting. This leads to a constant need for renewed means of expressing emphasis, as discussed by Schwegler (1988) and Detges & Waltereit (2002).⁹

⁹ Opinions differ on the driving forces behind Jespersen's Cycle. Jespersen's original approach has recently been followed by Abraham (1999, 2003), according to whom it is the weakening of the preverbal marker that creates the need to create an emphasisizer. This can be called a pull-chain approach. Approaches like that of Detges & Waltereit (2002), in which grammaticalization of a new phrasal negator weakens the old preverbal marker, ultimately making it superfluous, can be called push-chain approaches. Another approach, put forward by Wallage (2005, 2008), views the rise of a postverbal negator and the loss of the preverbal marker as two separate changes, the

It has furthermore been observed that some newly grammaticalized negative markers can retain a pragmatic meaning in addition to negation, sometimes for an extended period of time. Schwenter (2006), for example, argues that Catalan *pas* is subject to information-structure constraints; it can be used only in contexts in which the proposition denied is discourse-old and ‘activated’. Similarly, Mosegaard Hansen (2007) argues that new reinforcers start in specific contexts in which they contrast the negative proposition with both the immediately preceding and following contexts (‘janus-faced (non-canonical) negation’). They exemplify this citing the textual behaviour of Old French *mie* (‘crumb’), Old/Middle French *pas* (‘step’) and Italian *mica* (‘crumb’). The pragmatic meaning of these items or the contextual restrictions on their use may in fact help them to persist without developing into plain sentential negators. While pragmatic factors may favour reanalysis, they are presumably equal across all languages, raising the question as to why such changes do not occur in every language.

3.2. Interactions with definiteness

Déprez (1997, 2000), along with work building on hers (Postma 2005, Roberts & Roussou 2003), argues that indefinites ((pro)nouns, minimizers), which in Jespersen’s Cycle-languages have fed into the development of post-verbal negators, are eligible for quantificational interpretation only once the original noun has undergone a specific syntactic reanalysis, namely N-to-Num incorporation and subsequent loss of movement. In the history of French, this happened with *pas* and other items because the null indefinite determiners of Old French were lost and D came to be obligatorily filled. Determinerless nouns in negative contexts survived as bare forms because they incorporated into D/Num, as illustrated for *rien* ‘thing, anything, nothing’ in (30). Such DPs with null determiners were interpreted as non-referential, for example, as negative quantifiers. The ‘generic’ descriptive content of the noun was reinterpreted as the restriction on the quantifier (the ‘semantic bleaching’ part of grammaticalization) (Déprez 1999: 416). In all other contexts, determiners became obligatory.

former following a pull-chain, the latter a push-chain scenario, see Breitbarth (forthcoming) for further discussion.

- (30) a.
- b. $\lambda x(\text{thing/person}(x)) \rightarrow (\text{thing/person}(x))$

In other incipient grammaticalizations, such as Italian *mica*, we find the same lack of determiners required in NPI contexts. Apparently, *mica* is no longer transparent as a noun meaning ‘crumb’ for speakers, Tomaselli and Schwartz (1990) glossing it as ‘never’:

- (31) (Io) non vedo mica Gianni.
 (I) NEG see.1S never John
 ‘I never see John.’ (gloss as in Tomaselli & Schwartz 1990: 9)

Arabic has never had an indefinite article. As such, a non-referential or quantificational interpretation of a noun of minimal quantity in Classical Arabic, such as *šay*’ ‘thing’, is available synchronically in NPI contexts (presumably as a result of N-to-Num incorporation), while in affirmative contexts apparently the same item retains its referentiality:

- (32) a. laqad ji'ta **šay'an** nukran
 PRT done.3MS **thing.ACC** horrible.ACC
 ‘You have done a horrible thing’ (*Qur'an* 18:74)
- b. khalagtuka min qablu wa-lam taku **šay'an**
 I created you before and-NEG you.were **anything.ACC**
 ‘I created you before, when you were not anything (/nothing).’ (*Qur'an* 19:9)

The synchronic availability of this quantificational interpretation of *šay*’ in NPI contexts would appear to be an essential precondition, together with the syncretism outlined in section 2.2.1, for the further development of *šay*’ as both an NPA and a negator.

3.3. Transitivity

We suggested in section 2.1.1 above that optionally transitive verbs or verbs with optional

extent arguments could form bridging contexts for incipient grammaticalizations of negative polarity adverbs. In some cases, it seems that grammaticalizing negative polarity adverbs go through a state of being restricted to intransitive verbs. This restriction held at one stage for both Middle Welsh *dim* (Willis 2005: 10) and Middle French *pas* (Foulet 1990 [1928]: 260, Roberts & Roussou 2003: 156). Such a restriction might arise in the following way. If optionally transitive verbs are the bridging context for the reanalysis of a nominal minimizer as an adverb, then all the input sentences in the primary linguistic data which support the adverbial analysis will have the general form subject + optionally transitive verb + nominal minimizer object. The optionally transitive verb will be understood as intransitive and the minimizer understood as adverbial. All instances of the newly grammaticalizing negative polarity adverb will therefore be with intransitive verbs (that is, optionally transitive verbs (mis)analysed as intransitive). If this distribution is observed and retained by subsequent generations of learners, a transitivity restriction will be imposed. These items only become fully adverbial once they become entirely independent of the argument structure of the verbs they can occur with.

However, while Welsh *dim* and French *pas* underwent successful extension to transitive contexts, elements in similar environments in other languages, despite clearly being used as incipient emphatic negators, are still restricted with respect to the transitivity of the verbs they can occur with. For example, those northern Italian dialects that have grammaticalized a presuppositional negative marker *gnente/niente* < ‘nothing’ allow it with intransitive agentive verbs expressing the extent of the action, but it is still unable to co-occur with the direct object of a transitive verb or with the subject of an unaccusative verb. The following examples are from Venetian (Poletto 2008):

- (33) Nol lavora gnente.
NEG.he works nothing
‘He doesn’t work.’
- (34) Nol dorme gnente.
NEG.he sleeps nothing
‘He doesn’t sleep.’
- (35) *Nol leze gnente libri.
NEG.he reads nothing books
‘He doesn’t read books.’
- (36) *Nol magna gnente la roba dolse.
NEG.he eats nothing the stuff sweet
‘He doesn’t eat sweets.’
- (37) *Nol vien gnente.
NEG.he comes nothing
‘He’s not coming.’
- (Poletto 2008: 3–4)

3.4. Tense

In informal and non-standard varieties of British English, various uses of *never* can be found, in which it no longer has a temporal meaning, but increasingly one of emphatic sentential negation (Cheshire 1999 and references cited therein, Cheshire, Edwards & Whittle 1993, 1995). A particularly widespread use is illustrated in (38).

- (38) a. You're never her mother.
b. That's never a penalty.

In some varieties however, *never* seems to develop into a neutral past tense negator. In the Survey of British Dialect Grammar, for instance, respondents at 85% of schools surveyed reported use of sentences of sentences like (39) in their area (Cheshire, Edwards & Whittle 1995: 77)

- (39) a. I never stole your wallet this morning.
b. And for once, he never complained.

Crucially, this use is only available in the past tense in many varieties. In present and future, the original temporal meaning of *never* becomes salient and gives rise to the conservative interpretation 'at no time (in the future)'.

3.5. Contact

A final factor which may help to complete the grammaticalization of a minimizer or generalizer as a negator is language contact. The fact that Jespersen's Cycle features in the histories of Welsh and Breton, as well as in a range of Romance varieties spoken in France, Switzerland and northern Italy, but not prominently in Spain or Portugal, prompts Price (1999), for example, to posit a Gaulish (Celtic) origin for stage II negation, which was then spread through contact only to those Romance varieties for which Gaulish was the substrate. Tanase (1986), on the other hand, argues for the contact-induced spread of the stage II construction from German to French. An in-depth appraisal of the relative merits of these kinds of claims is beyond the scope of this article, but suffice it to say that the striking areal clustering of Jespersen's Cycle in the histories of virtually all languages spoken in central northwestern Europe makes it probable that contact is responsible for the spread of the cycle to a certain extent at least.

Turning to Jespersen's Cycle in Arabic, however, the case for contact appears more clear-cut. Many features of Classical Arabic (lack of indefinite article, N-to-Num incorporation, syncretism of the indefinite accusative and adverbial morphemes, and optional null objects) conspire to create a situation which is apparently highly conducive to the development of a stage II negative construction. However, it is only in a subset of the modern dialects (broadly, those spoken in North Africa and Palestine) that this development has actually taken place. It appears, then, that none of these internal syntactic factors, presumably also present in early varieties of spoken Arabic, represented truly sufficient conditions for the triggering of Jespersen's Cycle. One must look elsewhere, therefore, for a genuine sufficient condition, and the most likely candidate appears to be contact with Coptic in the formation of Egyptian Arabic.

Several points speak in favour of a Coptic origin for Jespersen's Cycle in Arabic. First of all, Coptic itself had undergone Jespersen's Cycle, developing a bipartite negative construction consisting of one of its many original preverbal negators, *ən* and a

grammaticalized postverbal, or post-predicate, element *an* < Late Egyptian *iwn3* ‘indeed, certainly’ (Gardiner 1904, Lash & Lucas in prep):

- (40) *ən* *ti-sooun* *an* *pe-hoou*
 NEG I-know NEG the-day
 ‘I do not know the day.’ (*Paese and Thecla* 82Vi)

Secondly, it is widely acknowledged that Coptic exerted a significant substrate influence on Egyptian Arabic in other domains, the best-known syntactic outcome of which is perhaps the lack of movement of *wh*-objects in both languages (Bishai 1962), but not, apparently, in any other Arabic variety. Finally, the geographical distribution of the Arabic varieties that have undergone Jespersen’s Cycle is consistent with an Egyptian origin followed by spread via dialect contact: Jespersen’s Cycle has spread westwards from Egypt throughout coastal North Africa. This follows the prevailing flow of migration of Arabic-speaking peoples in this region and is in keeping with the sphere of influence of Cairo as the capital of Fatimid empire in the tenth to twelfth centuries, Egypt having been conquered by the Arabs in the seventh century. Jespersen’s Cycle is also a feature of dialects spoken in Palestine, western Jordan and southern Lebanon, those parts of the Levant closest to Egypt.

This contact-induced change would have arisen through successive generations of native Coptic speakers acquiring Arabic as a second language and finding evidence in strings such as (3)b (section 2.1.1.1 above) for a bipartite negative construction in Arabic similar to that found in their L1 Coptic. That is, they essentially make the same reanalysis proposed above for children acquiring Arabic as an L1, given extra impetus to do so by their familiarity with the parallel Coptic construction. Children acquiring Arabic as an L1 will then, in turn, also make this reanalysis, encouraged to do so for their part by the fact that now at least part of their primary linguistic data will contain the innovative construction, if they are exposed to the L2 Arabic of the (majority) Coptic-speaking population. The origin of Jespersen’s Cycle in Arabic thus lies in imposition, in the sense of Van Coetsem (1988, 2000), of the bipartite negative construction by native speakers of Coptic.

4. Conclusion

This article has sought to establish what factors or contexts favour or disfavour the reanalyses involved in the emergence of new negators in the early stages of Jespersen’s Cycle, and what obstacles an incipient grammaticalization of this kind has to overcome. While most languages have lexical means to emphasize negation such as minimizers, few go on to reanalyse these as sentential negators. We have argued that the process of grammaticalizing new negators in Jespersen’s Cycle consists of two separate steps, at either one of which the development may stop. First, minimizers have to be generalized from the restricted contexts in which they usually originate. We have discussed a number of bridging contexts that may favour reanalysis of an old minimizer as a negative polarity adverb that is then freer in distribution. The new NPA must then overcome several further constraints in order to become fully grammaticalized as the new neutral sentential negator of a language. We have seen that, often, former contextual restrictions live on. For instance, if an element

started out as an object of a verb, its new adverbial use may be blocked where it could still be interpreted as such, namely with transitive or unaccusative intransitive verbs.

Texts cited

- Ali, Ahmed (ed.) (1988) *Al-Qur'an*. Princeton, N.J.: Princeton University Press.
- Jones, Thomas (ed.) (1955). *Brut y tywysogyon or the chronicle of the princes*. Red Book of Hergest version. Cardiff: University of Wales Press.
- Jones, Thomas (ed.) (1992). *Ystoryaeu Seint Greal*. Cardiff: Gwasg Prifysgol Cymru.
- Lewis, Henry (ed.) (1942). *Brut Dingestow*. Llandysul: J. D. Lewis a'i Feibion.
- Nasonov, A. (ed.) (1967) [1941]. *Pskovskie letopisi*. Düsseldorf, The Hague [Moscow]: Brücken-Verlag, Europe Printing [Izdatel'stvo Akademii Nauk SSSR].
- Kleiber, Wolfgang (ed.) (2004). *Otfrid von Weissenburg. Evangelienbuch*. Vol. 1. Tübingen: Niemeyer.
- Reymond, Eve & John Barns (eds) (1973). *Four martyrdoms from the Pierpoint Morgan Coptic codices*. Oxford: Clarendon Press.
- Sievers, Eduard (ed.) (1878). *Heliand and Genesis*. Halle: Buchhandlung des Waisenhauses.
- Snædal, Magnús (1998). *A Concordance to Biblical Gothic*. 2 Volumes. Reykjavík: Institute of Linguistics, University of Iceland; University of Iceland Press.
- Williams, Ifor (ed.) (1930). *Pedeir Keinc y Mabinogi*. Cardiff: Gwasg Prifysgol Cymru.
- Williams, Stephen J. (ed.) (1930). *Ystoria de Carolo Magno*. Cardiff: Gwasg Prifysgol Cymru.

References

- Abraham, Werner. 1999. 'Jespersen's Cycle': The evidence from Germanic. In Gerald F. Carr, Wayne Harbert & Lihua Zhang (eds.), *Interdigitations: Essays for Irmengard Rauch*, 63–70. New York: Peter Lang.
- Abraham, Werner. 2003. Autonomous and non-autonomous components of 'grammatic(al)ization': Economy criteria in the emergence of German negation. *Sprachtypologie und Universalienforschung* 56, 325–65.
- Bayer, Josef. to appear. Nominal negative quantifiers as adjuncts. *Journal of Comparative Germanic Linguistics*.
- Bishai, Wilson. 1962. Coptic grammatical influence on Egyptian Arabic. *Journal of the American Oriental Society* 82, 285–9.
- Breitbarth, Anne. forthcoming. A hybrid approach to Jespersen's Cycle in West Germanic. *Journal of Comparative Germanic Linguistics*.
- Cheshire, Jenny. 1999. English negation from an interactional perspective. In Ingrid Tieken-Boon van Ostade, Gunnel Tottie & Wim Van der Wurff (eds.), *Negation in the history of English*, 29–53. Berlin: Mouton de Gruyter.
- Cheshire, Jenny, Viv Edwards & Pamela Whittle. 1993. Non-standard English and dialect levelling. In James Milroy & Lesley Milroy (eds.), *Real English: The grammar of English dialects in the British Isles*, Li8, 53–96. London: Longman.
- Cheshire, Jenny, Viv Edwards & Pamela Whittle. 1995. Urban British dialect grammar: The question of dialect levelling. In Iwar Werlen (ed.), *Verbale Kommunikation in*

- der Stadt*, 67–109. Tübingen: Gunter Narr.
- Coetsem, Frans van. 1988. *Loan phonology and the two transfer types in language contact*. Dordrecht: Foris.
- Coetsem, Frans van. 2000. *A general and unified theory of the transmission process in language contact*. Heidelberg: Winter.
- Cole, Robert Eden George. 1886. *A glossary of words used in south-west Lincolnshire*. London: English Dialect Society.
- Dahl, Östen. 1979. Typology of sentence negation. *Linguistics* 17, 79–106.
- Dal, I. 1952. *Kurze deutsche Syntax*. Tübingen: Niemeyer.
- Davies, Humphrey. 1981. *Seventeenth-century Egyptian Arabic: A profile of the colloquial material in Yusuf Al-Sirbini's Hazz al-quhufi sharh qasid Abu Saduf*. dissertation, University of California, Berkeley.
- Delbrück, B. 1893. *Vergleichende Syntax der indogermanischen Sprachen*. Strassburg: Trübner.
- Detges, Ulrich & Richard Waltereit. 2002. Grammaticalization vs. reanalysis: A semantic-pragmatic account of functional change in grammar. *Zeitschrift für Sprachwissenschaft* 21, 151–95.
- Déprez, Viviane. 1997. Two types of negative concord. *Probus* 9, 103–43.
- Déprez, Viviane. 1999. The roots of negative concord in French lexifier creoles. In Michel Degraff (ed.), *Language creation and language change: Creole, diachrony and development*, 375–427. Cambridge, Mass.: MIT Press.
- Déprez, Viviane. 2000. Parallel (a)symmetries and the internal structure of n-words. *Natural Language and Linguistic Theory* 18, 253–342.
- Foulet, Lucien. 1990 [1928]. *Petite syntaxe de l'ancien français*, 3rd edn. Paris: Librairie Honoré Champion.
- Gardiner. 1904. The word iwn3. *Zeitschrift für ägyptische Sprache und Altertumskunde* 41, 130–5.
- Grimm, Jakob. 1898. *Deutsche Grammatik*, vol. iv.2 Syntax. Gütersloh: Bertelsmann.
- Hoeksema, Jack. 1994. On the grammaticalization of negative polarity items. In Susanne Gahl, Andy Dolbey & Christopher Johnson (eds.), *Proceedings of the twenieth annual meeting of the Berkeley Linguistics Society*, 273–82. Berkeley, Calif.: Berkeley Linguistics Society.
- Horn, Laurence R. 2001. Flaubert triggers, squattative negation and other quirks of grammar. In Jack Hoeksema, Hotze Rullmann, Victor Sanchez-Valeria & Ton Van der Wouden (eds.), *Perspectives on negation and polarity items*, 173–200. Amsterdam: Benjamins.
- Jespersen, Otto. 1917. *Negation in English and other languages* (Historisk-filologiske Meddelelser 1). Copenhagen: A. F. Høst.
- Jäger, Agnes. 2008. *History of German negation* (Linguistik Aktuell / Linguistics Today 118). Amsterdam: Benjamins.
- Lash, Elliott & Christopher Lucas. in prep. Contact with Coptic in the development of Arabic negation.
- Lawler, John M. 1974. Ample negatives. In Michael W. La Galy, Robert A. Fox & Anthony Bruck (eds.), *Papers from the Tenth Regional Meeting, Chicago Linguistic Society, April 19–21, 1974*, 357–77. Chicago: Chicago Linguistic Society.

- Lucas, Christopher. 2007. Jespersen's Cycle in Arabic and Berber. *Transactions of the Philological Society* 105, 398–431.
- Mosegaard Hansen, Maj-Britt. 2007. On the diachrony of reinforced negation in Old and Middle French. Paper presented at 18th International Conference on Historical Linguistics, Université du Québec à Montréal.
- Poletto, Cecilia. 2008. On negation splitting. Paper presented at NORMS workshop on negation, University of Oslo.
- Postal, Paul. 2004. The structure of one type of American English vulgar minimizer. In Paul Postal (ed.), *Skeptical linguistics essays*. New York: Oxford University Press.
- Postma, Gertjan. 2005. On the nature of grammaticalization: *Pas* and the negative polarity of bare singulars in older French. Paper presented at Workshop on the grammaticalization of heads in the verbal domain, Amsterdam, Meertens Institute.
- Price, Glanville. 1986. Aspects de l'histoire de la négation en français. *Morphosyntaxe des langues romanes: Actes du XVIIe Congrès International de Linguistique et Philologie Romanes (Aix-en-Provence, 29 août – 3 septembre 1983)*, 567–75. Aix-en-Provence: Université de Provence.
- Price, Glanville. 1999. A possible Celtic influence in Romance syntax. In Ronald Black, William Gillies & Roibeart O'Maolalaigh (eds.), *Celtic connections: proceedings of the 10th International Congress of Celtic Studies*, i.126–32. East Linton: Tuckwell Press.
- Price, Glanville. 2003 [1993]. *A comprehensive French grammar*, 5th edn. edn. Oxford: Blackwell.
- Roberts, Ian & Anna Roussou. 2003. *Syntactic change: A minimalist approach to grammaticalization*. Cambridge: Cambridge University Press.
- Schwegler, Armin. 1988. Word-order changes in predicate negation strategies in Romance languages. *Diachronica* 5, 21–58.
- Schwenter, Scott. 2006. Fine-tuning Jespersen's Cycle. In Betty J. Birner & Gregory Ward (eds.), *Drawing the boundaries of meaning: Neo-Gricean studies in honour of Laurence R. Horn*, 327–44. Amsterdam: Benjamins.
- Tanase, Eugène. 1986. Sur les origines de la négation à deux termes du français. In Jean-Claude Bouvier (ed.), *Morphosyntaxe des langues romanes: Actes du XVIIe Congrès International de Linguistique et Philologie Romanes (Aix-en-Provence, 29 août – 3 septembre 1983)*, 577–90. Aix-en-Provence: Université de Provence.
- Tomaselli, Alessandra & Bonnie D. Schwartz. 1990. Analysing the acquisition stages of negation in L2 German: Support for UG in adult SLA. *Second Language Research* 6, 1–38.
- Wallage, Phillip. 2005. *Negation in Early English: Parametric variation and grammatical competition*. PhD dissertation, University of York.
- Wallage, Phillip. 2008. Jespersen's Cycle in Middle English: Parametric variation and grammatical competition. *Lingua* 118, 643–74.
- Wartburg, W. v. 1971 [1946]. *Évolution et structure de la langue française*. Berne: Éditions A. Francke.
- Willis, David. 2005. A minimalist approach to Jespersen's Cycle in Welsh. http://people.pwf.cam.ac.uk/dwew2/negation_digs.pdf
- Willis, David. 2006. Negation in Middle Welsh. *Studia Celtica* 40, 63–88.

Zeijlstra, Hedde H. 2007. Emphatic multiple negative expressions in Dutch. *ACLC Working Papers* 2, 77–103.