Postverbal negation: Typology, diachrony, areality

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The paper sketches the state of affairs of our understanding of postverbal negation. It departs from the typological finding that there is a cross-linguistic preference for a negator to precede the verb. Nevertheless, a sizable proportion of the world's languages adhere to a pattern with a negator following the verb, and such negators are typically morphologically bound. The existence of this pattern, unfavorable from a functional perspective, calls for a diachronic explanation. The paper takes stock of diachronic processes that can lead to postverbal negation, in general, and suffixal negation, in particular. Furthermore, a language may acquire a pattern with postverbal negation through language contact, and this is yet another perspective that the paper addresses. Finally, we introduce the contributions to this volume, highlighting the new insights.

Keywords: postverbal negation, typology, diachrony, language contact, standard negation, prohibitive negation, existential negation, Jespersen Cycle, Negative Existential Cycle, Givón Cycle, negative verb

1. Setting the scene: Typological considerations

Each language has the linguistic means to express the denial (negation) of a proposition. *She kissed him! – She did **not** kiss him!* There is a vast literature on how negation is expressed in the world's languages, on the similarities and the differences. It was first noted by Jespersen (1917:5) that languages prefer to express negation early in the sentence and **before** the verbal predicate. Cross-linguistic studies on 'standard negation', i.e., the negation of main clause declarative sentences with an overt verbal predicate, have confirmed this tendency (e.g. Dahl 1979, 2010; Dryer 1988, 2013a; Vossen 2016). Thus 697 (53%) out of the 1,325 languages surveyed by Dryer (2013a) express negation with a single negative marker

placed before the verb. An identical outcome is found in Vossen (2016), whose dataset is even larger than Dryer's: 906 (53%) out of 1,715 languages examined by Vossen use a preverbal single negator. This cross-linguistic tendency has been referred to in the literature with a few different but largely synonymous terms, namely, the 'Negative-Before-Verb Principle' (Dryer 1988: 102), the 'Negative-First Principle' (Horn 2001), 'Early-in-the-sentence' (Dahl 1979: 93) and 'Neg Early' (van der Auwera et al. forthc.). It should be mentioned that typological studies differ as to what type of verb is taken as a reference point: a lexical verb, whether finite or not (e.g. Dryer 2013a), or an auxiliary, when there is one (e.g. Dahl 1979, 2010; Miestamo 2005; Vossen 2016). However, this aspect proves to have no influence on the bigger picture, since all results point in the same direction.

One explanation of the postverbal negation tendency is functional, i.e., it relates to our communicative needs, our cognition and physiology. The negative marker carries a crucial part of the message. As Dryer (1988: 102) puts it (echoing Jespersen 1917: 5) "[i]f a hearer fails to hear the negative morpheme in a sentence, they will have fundamentally misunderstood the sentence". A negator placed early in a sentence helps the hearer to avoid being lured into an unintended parsing. A pseudo-English sentence *You must kill him **not**!* illustrates this. As a hearer, one processes the sentence as it comes in, and with the final 'not' the value of the whole proposition changes to its opposite, requiring a reanalysis in our brain. However, while 53% of the world's languages avoid this, apparently driven by cognitive forces, a sizable proportion of the languages do not adhere to it and show structures with a double negative *You must **not**$_1$ kill him **not**$_2$* and with a postverbal negator *You must kill him **not***. Thus 15% of the world's languages surveyed by Dryer (2013a) have a pattern with a double negative, and about 28% of the languages always express negation with a single negative marker after the verb. The question arises as to how the latter grammatical structures emerge, and how such structures – unfavorable from a functional perspective – escape the fate of being discontinued. Dryer (1988: 102) proposes that the communicative importance of preverbal negation is simply one principle, which will be often "overridden by other factors, either synchronic or diachronic". This is also our stance. We discuss the processes and scenarios that can lead to postverbal negation in Sections 2–4.

So far we have used a general term 'negator' or 'negative marker'. Negation can be realized by different formal means. Cross-linguistically, the following are attested: negative particles, negative affixes, negative verbs, tone, stem alternations, and, finally, negation can even be marked by zero exponence (see van der Auwera & Krasnoukhova 2020).[1] These formal means of negation encoding

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1. Out of purview in this article is the use of negative indefinites as in *Nothing ever happens twice.*

show a different frequency of occurrence. The most common strategies cross-linguistically are negative particles, followed in frequency by negative affixes (Dryer 2013b). Negative verbs are rare: in a world-wide sample of 1,157 languages, Dryer (2013b) finds negative verbs in only about 4% of his sample. For an additional 6% it is not possible to state with confidence whether the negator is a verb or a particle (Dryer 2013b). Negation marked by tone, stem alternation, and zero marking are exceedingly rare (idem). Interestingly, there is a correlation between the formal realization of negation and its position with respect to the lexical verb. In preverbal position, there is a strong tendency for negation to be encoded by free-standing negators, as opposed to prefixes. In postverbal position, on the other hand, there is a tendency for negation to be realized as bound markers, i.e. suffixes, as opposed to free elements (Dahl 1979: 94; Dryer 1988: 113, 2013b; Krasnoukhova & van der Auwera 2021). In principle, this is in accordance with a strong cross-linguistic tendency for suffixation as opposed to prefixation, which was already noticed by Sapir (1921: 67) and confirmed by typological studies (see Greenberg 1957; Bybee et al. 1990: 4; Dryer 2013c, among others). The position of an affix generally reflects the position of the free element from which it evolved (Dryer 1988: 113). One possible explanation for the dominance of suffixes over prefixes relates to processing mechanisms. Prefixes make lexical recognition more difficult, as it is harder to identify the beginning of stems (Cutler et al. 1985). Suffixes, on the other hand, "do not present a problem, since identifying the ends of stems is less important for lexical recognition" (Dryer 2013c). In this respect it is puzzling that negation, with all its communicative importance, nevertheless takes the shape of a suffix in a sizable proportion of the world's languages.
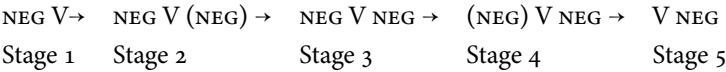
Before we turn to diachronic considerations, it is worthwhile to note that the tendency for the preverbal position of a negative marker was hypothesized to be even stronger in negative imperative clauses (viz. prohibitives) than in negative declarative sentences (Horn 2001: 450), and a cross-linguistic study by Van Olmen (2010: 492) supported this view. However, Van Olmen (this volume) returns to this issue and argues that there is no evidence for the preference for preverbal negation in imperative clauses over declarative ones.

2.   Growing postverbal negators: Diachronic paths

There is a fair understanding of the ways postverbal negation can emerge. There are two types of explanations. One relates to language-internal scenarios, the other type to language contact. Language-internal scenarios are treated in this section and the next. Language contact is discussed in Section 4.

We know of at least three kinds of language-internal processes that can lead to postverbal negation. While they are quite different, they boil down to a mechanism when a language develops a negative marker from an element that typically has a non-negative meaning and is placed after the verb. If this marker was not negative, it can become negative through collocation with (or contamination by) the preverbal negator. And this results in a construction that expresses a semantically simple negation with two negators, the so-called 'doubling stage'. In some languages, the original preverbal negator becomes optional and later disappears, leaving the 'new' postverbal negator as the sole exponent of negation (van der Auwera 2009). This scenario, known as a '**Jespersen Cycle**', can be summarized as follows:

(1) A Jespersen Cycle

NEG V→   NEG V (NEG) →   NEG V NEG →   (NEG) V NEG →   V NEG

Stage 1   Stage 2   Stage 3   Stage 4   Stage 5

This diachronic development is best described for European languages, with French being a textbook example. French originally used a preverbal single negator *ne*, inherited from Latin. From the 12th century, the preverbal *ne* started to be accompanied – for reinforcement – by a few minimizers in postverbal position, among which the lexical item *pas* 'a step' (Payne 1985: 224, referring to Price 1962, 1971: 252). The frequency of the postverbal particle *pas* increased during the Middle French period (Price 1971: 254). The fact that in present-day colloquial French the postverbal element *pas* can be the sole exponent of negation indicates that it already functions as a negator.

Besides French and some other European languages (including English), Jespersen cycles are found in many different language families and geographical regions, proving to be a worldwide phenomenon (see Vossen 2016). However, it has also been observed that a Jespersen Cycle is usually attested in one of the doubling stages (like the contemporary standard French) and much less often in Stage 5, namely that with a postverbal single negator (Van Alsenoy 2014: 190; Vossen 2016: 343). It must also be noted that interpreting postverbal single negation as the result of a Jespersen Cycle is often hazardous in the absence of diachronic materials and comparative synchronic evidence, and thus in many cases it cannot go beyond conjecture. We illustrate a possible ongoing Jespersen Cycle with the Malakula (Oceanic) languages of the Austronesian language family (see Vossen 2016: 181–185). The overwhelming majority of the Austronesian languages use a preverbal single negation pattern, but not without exceptions: some Oceanic languages and languages in East Nusantara use a double-marking strategy, as well as postverbal single marking (Klamer et al. 2008: 130). About half of the Malakula

languages exclusively use a preverbal single negator (Vossen 2016:185). Example (2) illustrates the preverbal negative marker *-sba-* in Port Sandwich.

PORT SANDWICH (OCEANIC, AUSTRONESIAN)

(2) *nato-**sba**-bwi-mün-i*
     1EXCL.PL-NEG-DUB-drink-TR
     'We might not drink it.'   (Crowley 2002:658)

At least one language, Uripiv, shows a double-marking pattern, with the postverbal negator being optional. The other half of the Malakula languages have a double-marking strategy with two negators being obligatory. In most Malakula languages the preverbal negator has a form of *sV* (Vossen 2016:185). And while the preverbal negators are formally similar, the postverbal ones are formally quite different, suggesting that these constitute innovations rather than inheritance. For example, Avava (3) now shows double-marking with the negative prefix *-sa-* and a negative enclitic *-mu* occurring at the end of the verbal expression (Crowley 2006:83, 85). The enclitic *-mu* also functions synchronically as a verbal marker expressing the meaning of 'first' (Crowley 2006:99). As already discussed by Vossen (2016:194), while Crowley (2006:99) does not take a stance on the relation of this marker to the negator, a diachronic link is plausible. Just like the English *know the first thing about* works as an emphasizer in, for example *He didn't even know the first thing about checkers* (van der Auwera 2009:56, referring to J. Hoeksema p.c.), a similar use could have been possible in Avava (3), ultimately leading to its reanalysis as a second negator.

AVAVA (OCEANIC, AUSTRONESIAN)

(3) *na-**sa**-robit-**mu***
     1SG.R-NEG$_1$-hear-NEG$_2$
     'I didn't hear (it)' <'I didn't hear the first thing about it'>   (Crowley 2006:82)

Another process of negation renewal is the so-called '**Negative Existential Cycle**' (NEC) (Croft 1991; Veselinova 2014). It comprises the genesis of standard negators out of the reanalysis of negative existential constructions, with a result that a negative existential verb comes to function as a standard negation marker. Note that Van Gelderen (in print) argues that not only existential verbs, but also auxiliaries and copulas can be sources for standard negators in this cycle. The basic development is schematized in (4), but it involves intermediate (transitional) stages (see Veselinova 2014:1330; van der Auwera et al., in print):

(4)   Negative Existential Cycle
      Stage 1:
      negator X is used for both standard and existential negation
      →
      Stage 2:
      negator X is used for standard negation, and negator Y for existential negation
      →
      Stage 3:
      negator Y is used for both standard and existential negation

Numerous languages across the world show evidence for a NEC (see Croft 1991; Veselinova 2014; contributions to Veselinova & Hamari, in print; Lafkioui, this volume; Mithun, this volume). And though we are not aware of a language that would have undergone the full cycle, comparative data from related languages allow us to postulate different stages of the cycle. For example, all (main and intermediate) stages of a NEC are found in the Indo-Iranian branch of the Indo-European family (Verkerk & Shirtz, in print) and in the Berber branch of the Afroasiatic phylum (Lafkioui & Brugnatelli 2020). We illustrate the basic three stages with Nepali and Kupia (Indo-Aryan) and Kurdish (Iranian). Note that Indo-Iranian languages commonly use a preverbal negator, but many Indo-Aryan languages have changed the relative order of the negator from a preverbal to a postverbal position (Verkerk & Shirtz, in print). Example (5) from Nepali shows Stage 1 of the cycle where one and the same negative marker is used for standard negation (5a) and existential negation (5b).

NEPALI (INDO-ARYAN, INDO-EUROPEAN)

(5)   a.   *yini mahilā-le   jhyāl   phoḍ-**inan***
           DEM woman-ERG window break-NEG.PST.3SG
           'The woman didn't break the window.'
      b.   *bāri-mā   birālo-haru chha-**inan***
           garden-LOC cat-PL   be-NEG.PST.3SG
           '(He is looking outside.) There are no cats in the garden.'
                        (Verkerk & Shirtz, in print, citing Sugam Singh & Marie-Caroline
                                                                              Pons p.c.)

Northern Kurdish (6) is an example of a language showing Stage 2: standard negation and existential negation are encoded by two different markers.

KURMANJI KURDISH (IRANIAN, INDO-EUROPEAN)

(6)   a.   *ez   **na**=ç-im   doktor*
           1SG NEG=go.PRS-1SG doctor
           'I am not going to the doctor.'

b. *mademku zimannivîs **tune**, [...]*
as.long.as writer   NEG.COP
'As long as there are no writers, [...]'
(Verkerk & Shirtz, in print, referring to Thackston 2006: 35, 32)

Kupia (7) is a language that arguably shows Stage 3 of the NEC: the negator used for negative existentials is also used for standard negation.[2]

KUPIA (INDO-ARYAN, INDO-EUROPEAN)

(7) a. *gerr-i   ay-ile   kicco **nay***
house-LOC come-TMP what NEG
'And when they came into the house, there was nothing in it.'

b. *geeru band-i   **nay***
house build-1SG NEG
'I am not building / won't build a house.'
(Verkerk & Shirtz, in print, citing Christmas & Christmas 1973b: 83, 1973a: 309)

Relevant to us is the fact that a negative existential verb in clause-final position can become a clause-final marker for standard negation (see Mithun, this volume).

Yet another diachronic process involves the development of negators from inherently negative modality verbs, such as 'refuse', 'reject', 'deny', 'avoid', 'fail' or 'lack' (Givón 1973, 1978: 89, 2001). According to Givón (2001: 268), "[s]ince the syntactic construction in which grammaticalization occurs is that of main verb over its verbal complement, in OV languages the negative modality verb would tend to grammaticalize as a suffix, and in VO languages as a prefix." Givón (2001: 268) illustrates this with a Bantu language Bemba, a strict SVO language, where, as Givón claims, the process is currently underway, "albeit so far in restricted environments".

BEMBA (BANTU, ATLANTIC-CONGO)

(8) a. *uku-bula*
INF-avoid
'to avoid', 'to lack'

b. *uku-boomba*
INF-work
'to work'

c. *n-a-bula   uku-boomba*
1-PST-avoid INF-work
'I avoided working'

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2. Kupia, in fact, also has another negative existential marker (*nenj-*), which, as Verkerk & Shirtz (in print) suggest, can be attributed to Stage 2.

d. *n-a-bula-boomba*
    1-PST-NEG-work
    'I didn't work', 'I failed to work'   (Givón 2001: 268, 383)

Thus, Givón (2001: 267) argues that inherently negative modality verbs constitute a "universal source" for negation markers, and the process involved is grammaticalization. While there are examples of languages where such inherently negative modality verbs can be analyzed as developing into negators, it is difficult to assess how common the process is, and thus how "universal" it is. There is simply too little relevant diachronic data available to evaluate the claim. It seems safer to argue that it is one of the possible sources for negative markers. Van Gelderen (in print) discusses this diachronic process, dubbing it '**Givón's cycle**'.[3] She illustrates it with Mandarin Chinese, where the negator *mei* presumably originates in the verb 'to sink, die'. A trajectory that Van Gelderen suggests for Mandarin Chinese is a reanalysis of the negative verb ('to sink, die') into a negative existential as a first step, and a subsequent reanalysis of the negative existential into a standard negator. Thus this constitutes a two-step process: the first step being an instance of Givón's cycle and the second step an instance of the NEC (Van Gelderen, in print). However, as left implicit in Van Gelderen, it is not always necessary to have two steps. In English, the verb *failed to* is able to replace *didn't* (see also Givón 1973: 917). While this would potentially illustrate a direct trajectory from a negative verb to a standard negator, the actual uses are so limited that it would be wrong to say that the English system is undergoing change (Van Gelderen, in print).

   Macro-Jê languages spoken in South America may offer us a case of Givón's cycle. In several languages of this family clause-final negators have been hypothesized to originate in lexical verbs with 'terminative' semantics. Specifically, in Canela-Krahô (see (9)) and Pará Gavião (Northern Jê branch) the standard negators, *narɛ* and *nõrɛ~inũarɛ*, respectively, are suggested by Alves (2010: 468–469) and Maxwell Miranda (p.c) to derive from the lexical verb 'to finish', which still exists in the form of *inõrɜ* in the closely related language Kayapó (see (10)) (Alves 2010: 468; Costa 2015: 189).

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3. The choice for a term 'cycle' in Van Gelderen (in print) is obviously an analogy to a Jespersen Cycle and the NEC. However, all these developments may rather be seen as a 'spiral' (Meillet 1912), not a 'cycle', since the newly emergent negators at the end of each turn do not formally overlap with the ones at the beginning (see also Van Gelderen 2011).

CANELA-KRAHÔ (NORTHERN JÊ, NUCLEAR-MACRO-JÊ)

(9) *i-te   a-pupun   narɜ*
     1-ERG 2-see.NFIN NEG
     'I didn't see you.'   (Alves 2004: 64, 2010: 471)

KAYAPÓ (NORTHERN JÊ, NUCLEAR-MACRO-JÊ)

(10) *ga arγp   a-kõm   ɔ inõrɜ*
     2   already 2-drink.NFIN do finish
     'You already finished drinking.'   (Alves 2010: 469)

Furthermore, the standard negator *nuk* in Krenak (Aimore branch of the Macro-Jê family) is suggested to be related to the lexical verb *nũk* 'to end' in Maxacalí (Maxacalian branch) (Nikulin 2020: 154; Nikulin & Coelho 2020: 16). In Panará (Northern Jê branch) the standard negator *piɔ~piɔw* corresponds to the lexical verb *piɔw* 'finish' (Dourado 2001: 119–120; Miranda 2015: 263, p.c.). In Xokleng and Kaingang (both members of the Southern Jê branch), the negator *tũ(-g)* seems to correspond to a lexical verb 'complete, not have anymore, finish (something)'; both the negator and the lexical verb have been reconstructed as the proto-form **tũ(-g)* by Jolkesky (2010: 215, 263). While Jolkesky (2010) does not mention the possible diachronic connection between the forms, this diachrony is not implausible taken the other parallel cases in the Macro-Jê family.

Since the Macro-Jê languages in question are verb-final at the clause level, the reanalysis of the clause-final lexical verbs with terminative semantics resulted in clause-final negative markers. Note, however, that these 'terminative' verbs are not really inherently negative in Givón's sense and were not mentioned by Givón among the possible candidates for reanalysis. It should also be noted that while there is some evidence for the origin of negators in the lexical verbs with 'terminative' semantics, the exact diachronic process from a verb to a standard negator is less clear. Van der Auwera & Krasnoukhova (forthc.) suggest that the case of Macro-Jê languages may constitute instances of Givón's cycle discussed by Van Gelderen (in print) for Mandarin Chinese, but that the intermediate stages are not the same.

3.   From syntactic to morphological negation?

As noted earlier, about 28% of the world's languages express negation with a single marker after the verb (Dryer 2013a). Among these, negators are morphologically bound markers, i.e. negative suffixes, in 15% of the languages. In the other 13%, negators are syntactic elements (i.e. non-bound morphologically) and comprise

negative enclitics, negative particles and negative verbs (Dryer 2013d).[4] Paraphrasing Givón's (1971: 413) one-liner that "today's morphology is yesterday's syntax", we can assume that some of today's negative suffixes are yesterday's negative particles or verbs. In (11) we outline a direction of change, based on discussions in earlier works (e.g. Payne 1985: 211–212, 226; Givón 2001: 268). Specifically, Payne (1985: 226) observes that in simple cases negative affixes "transparently derive from the cliticization to the verb of previously independent negative particles". In turn, negative particles can develop from negative verbs. Also, in languages which have limited morphology on the verb such a development may take place easier than in languages where verbs are inflected, since verbal inflections can hinder reanalysis (Van Gelderen, in print).

(11)   Direction of change
       negative verb >> negative particle >> negative enclitic >> negative suffix

The Macro-Jê languages discussed above can possibly illustrate a development from a negative verb to a negative particle. Verbs in Macro-Jê have an isolating morphological profile: verbal categories, such as tense and aspect, are not expressed on the verb, but by syntactically free elements. The synchronic status of the negator in Canela-Krahô (9) is unclear between a negative verb (i.e. auxiliary) and a particle, although historically, as discussed above, it used to be a lexical verb with 'terminative' semantics. In fact, in nearly all languages of the Macro-Jê stock, negators are either negative verbs or particles. The exception is Karajá, where the negator is an enclitic (Ribeiro 2012: 37). This potentially exemplifies part of the development in (11): from a negative verb to a negative enclitic.

The full trajectory schematized in (11) has been postulated by Munro (1973, 1976, 1977, per Payne 1985: 211–212) for Yuman languages of North America. Specifically, among the Yuman languages, Diegueño (12) is argued to preserve the original structure of a negative clause, since a negative verb *ma:w* is involved (Payne 1985: 212; Langdon 1970: 182). Langdon (1970: 182) mentions that the negative verb is "inflected for subject like other verbs, although it is often left uninflected" and takes on the form *əma:w*. Note that the lexical verb always carries the subject marker, and that therefore, when the negative verb is inflected, both verbs show subject agreement. In the related language Mojave (13), the negator has evolved into a negative suffix *-mo-* occurring on the lexical verb. And, as Munro (1974: 68) mentions, it is found in the form of *-m-* in a few constructions.

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4.   The term 'particle' is used here for negators that are syntactically free uninflected functional elements. 'Negative verb' refers to negators that share at least some morphological markers with regular verbs in a language.

DIEGUEÑO (YUMAN)

(12)   *ⁿyaː-č ʔ-aːm-x   ʔ-maːw*
       1-SBJ   1-go-IRR 1-NEG
       'I didn't go.'   (Payne 1985: 212)

MOJAVE (YUMAN)[5]

(13)   *ⁿyeč ʔ-iyem-mo-t-m*
       1   1-go-NEG-EMPH-TNS
       'I didn't go.'   (Payne 1985: 212)

Other examples of this grammaticalization path include the Pomoan, Yukian and Wintuan languages, as shown by Marianne Mithun (this volume), and the Saliban languages (Mako and Piaroa) discussed by Jorge Rosés Labrada (this volume).

Interestingly, there are exceptions to the development from syntactic to morphological negation. The Pekodian and Pemón groups of the Cariban family of South America have undergone a change of the negator from a morphologically bound – suffixal negation is typical for this family – to a syntactically free element (Gildea & Meira 2016).

4.   Acquiring postverbal negation through language contact

As mentioned in Section 1, postverbal negation is a functionally dispreferred structural pattern. One would expect that unfavorable patterns are unstable: once they emerge, it will not last long before a language will dispose of them. This is not always the case, however. It has been argued that some of those patterns, for instance, ergative/absolutive case marking, 'survive' by the grace of language contact (Bickel 2013). Such an 'event-based' explanation, i.e. the copying of a structure from other languages, irrespective whether the structure adheres to the way our brain or our communication works, is likely to be relevant for postverbal negation too. What evidence do we have so far? First of all, a good number of languages with postverbal negation cluster in areas. Three geographic areas stand out as hubs of postverbal negation: the 'Macro-Sudan Belt' in Africa (Güldemann 2007), New Guinea (Reesink 2002; Klamer et al. 2008: 130; Vossen 2016: 121, 321), and the continent of South America as a macro-area (Dryer 2013a; Muysken et al.

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5. Munro (1974: 68) gives *-mot* as the negative suffix; however, she notes that the *-t-* is "the ubiquitous 'emphatic', which has been effectively fused to the negative in Mojave and several other Yuman languages". Diachronically, the vowel *o* is a "reflex of the Proto-Yuman negative verb, which took a sentential subject", and the *m* was "originally a switch-reference suffix on the preceding negated verb, since the subject of that verb was always different from the subject of the negative" (1974: 68).

2014; Vossen 2016; Krasnoukhova & van der Auwera 2021). At least for the first two areas language contact has indeed been argued to play a role in the emergence of postverbal negation.

The 'Macro-Sudan belt'[6] was proposed by Güldemann (2007). It comprises languages from different genealogies. One of the structural features found in the languages of the area is the postverbal negation pattern. This pattern is particularly salient in Bongo-Bagirmi, Moru-Mangbetu, Chadic, Benue-Congo and Adamawa-Ubangi families spoken here (Güldemann 2007). Crucially, as identified in Dryer (2009) (referred to in Güldemann 2007; Idiatov 2018: 116) languages spoken in central Africa in an area stretching from Nigeria across to the Central African Republic and down into the northern Democratic Republic of Congo, stand out on a global scale as exceptions to the general tendency of SVO languages to place negation marker before the verb. Languages spoken in this area are typically SVO, but have postverbal negation (see Dryer 2009). This areal clustering of postverbal pattern is likely to be spurred by language contact (e.g. Idiatov 2012, 2015, 2018). Individual cases of a contact-driven change support this assumption. For example, in the southeastern group of Bamana (Bambara) languages (Mande language family), a postverbal negator (which occurs in addition to a preverbal negator) is demonstrated to be modeled on the neighboring Senufo languages (Idiatov 2012: 185).

Furthermore, in North Africa (including Sahara and Northern Sahel), contact with Berber – which has postverbal negation since ancient times – is probably the parameter that triggered the development of postverbal negators in North African Arabic (see Lafkioui 2013; Lafkioui & Brugnatelli 2020; Lafkioui, this volume).

The other geographical area takes us to the Austronesian languages spoken on the coast of New Guinea, as well as most smaller islands in Maritime Southeast Asia. Austronesian languages are rather homogeneous with respect to a negation pattern: standard negation is typically expressed with a preverbal single negator (Reesink 2002: 244; Klamer et al. 2008: 130; Vossen & van der Auwera 2014: 61; Schapper 2015: 120; van der Auwera et al. forthc.). Nevertheless, there are Austronesian languages with double, triple and even quadruple negation, as well as languages with postverbal single negation. According to van der Auwera et al. (forthc.), for some languages with double negation (e.g. Tetun, Naueti) and languages with postverbal single negation (e.g. Western Cham), one can invoke a Jespersen Cycle scenario, in which postverbal negators are newcomers. However, for

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6. Geographically the 'Macro-Sudan belt' is found south of the Sahara and is "sandwiched between the Atlantic Ocean and the Congo Basin in the south and the Sahara and Sahel in the north, and spans the continent from the Atlantic Ocean in the west to the escarpment of the Ethiopian Plateau in the east" (Güldemann 2007: 152).

some other Austronesian languages there is substantial evidence that a postverbal single negator has emerged through contact with Papuan languages,[7] spoken in most of the interior of New Guinea, part of its coast and some island areas. In Papuan languages the postverbal negation pattern prevails (see Vossen 2016: 321). Concretely, a contact-driven change has been suggested for Austronesian languages spoken close to New Guinea's Bird's Head (Reesink 2002; Klamer et al. 2008: 130–134). This is also the case for the Flores-Lembata languages (Fricke 2019, per van der Auwera et al. forthc.).

Besides these geographical areas, yet other examples of areal clustering of postverbal negation include languages of Northern California, as shown by Marianne Mithun (this volume).

The next section presents the contributions to this volume and the insights advancing the current state of affairs.

5.   The present volume: New insights

The present volume contributes to the current understanding of postverbal negation from a number of perspectives: typological, diachronic, and areal. Importantly, the scope of the volume is not limited to standard negation but comprises a number of types of non-standard negation such as imperative negation and existential negation.

A general typological perspective is taken by Daniel Van Olmen, whose contribution sets out to test Horn's (2001) hypothesis that the 'Negative-First Principle' is stronger in imperative negation than in standard negation. Based on a large and representative world-wide sample Van Olmen demonstrates that there is no cross-linguistic evidence for any difference in the negator's position between imperative and declarative negation. Van Olmen suggests this can be accounted for, although partly, by the typically asymmetric nature of imperative negation: the ambiguity – with a non-intended positive reading instead of a negative one of a negative imperative clause – simply does not arise. Languages with symmetric positive and negative imperatives, however, do not show any significant differences either. Another observation emerging from Van Olmen's study is that much like standard negation, imperative negation shows a correlation between postposed negation, object-verb order and affixal negation, on the one hand, and preposed negation, verb-object order and the use of particles (instead of affixes), on the other hand. Yet another finding concerns the operationalization of the dis-

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7. Note that 'Papuan' is a group defined negatively and refers to languages spoken in this area that are not Austronesian.

tinction between a main (lexical) verb, whether finite or not, and an auxiliary (when there is one) as a reference point for the negator's position: Van Olmen illustrates that this distinction does not matter. This finding is in line with our earlier observation that despite different approaches to a reference point found in typological studies, they all argue for the cross-linguistic tendency towards preverbal negation.

A new perspective on the conditions of use of postverbal negators in standard negation is offered in the contribution by Liina Lindström, Maarja Liisa Pilvik & Helen Plado. These scholars examine synchronic and diachronic data from South Estonian Seto, with East Seto (spoken in present-day Russia) as their main focus. Seto is exceptional in the Uralic family to which it belongs, as it shows a strong tendency towards postverbal negation. This is surprising not only because most Uralic languages have preverbal negation, but also because all of the main contact languages surrounding Seto (such as Standard Estonian, Russian and Latvian) only use preverbal negation as well. While the postverbal position of the negator is the most common pattern in East Seto (in about 74% of the cases), there is considerable variation in the position of the negator, with the occurrence of preverbal and double marking as well, although with limited functionality. On the basis of statistical analyses of factors conditioning the choice between pre- and postverbal negation in East Seto, Lindström, Pilvik & Plado show that some conditions significantly increase the likelihood of a choice. First and foremost, the choice turns out to be conditioned by "the frequency and repetition of specific structural forms" – structural persistence. Thus the position of the negator most recently activated in discourse is demonstrated to have the strongest effect. Functional and grammatical factors, on the other hand, turn out to be less important. The scholars suggest that this implies that the choice for one or another negation pattern is dependent on the speakers' individual linguistic background. Another instance of interpersonal structural persistence is the use of frequent fixed expressions (such as *ma=i tiijä* 'I don't know'), which are, for instance, most likely to be used with a preverbal negator and in the present tense rather than in the past. Lindström, Pilvik & Plado suggest in this respect that copying fixed expressions that include new syntactic forms can drive linguistic innovation. The authors find still other factors to affect the variation in the negator's position: thus a shift from default postverbal position to preverbal one occurs more often with first and third person reference, and with nominative subjects. They note that since these are the most common representatives of their functional categories, we see here a close association with repetition in discourse or the language as the whole.

The remainder of the contributions provide synchronic accounts of postverbal negation hypothesizing diachronic developments responsible for it. Areal pressure is a factor in some of these cases.

The contribution by Henrik Rosenkvist focuses on clause-final negative particles in Swedish dialects. These negators are quite conspicuous, but they have remained understudied. They occur in Swedish varieties that form a coherent area around the Baltic Sea. Rosenkvist puts forward a hypothesis that these negators developed from the Old Swedish negation *ej*. This negator could occur before and after the verbal predicate (just like the modern Swedish negator *inte*), and only the preverbal part was replaced with *inte/icke* around the 16th century. The clause-final negative particles survived as a doubling element in dialectal Swedish. Rosenkvist suggests that a replacement of preverbal *ej* by *inte/icke*, a non-cyclical lexical shift, led to a reshaping of the remaining clause-final negator *ej* in a process of exaptation. Thus the clause-final negators are simply relics and not negation-reinforcement elements which are typically used when the older negator starts to weaken semantically. Thus, Rosenkvist argues against treating this development as an instance of a Jespersen Cycle, suggesting that this involves a different mechanism, resulting in clause-final negation.

The study by Jorge Emilio Rosés Labrada gives an in-depth account of negative markers in the Jodï-Sáliban languages spoken in Northwest Amazonia. What strikes the eye is that negation is consistently verb- or predicate-final in all languages of the family and for all negation types. This shows that this negation pattern is stable in this language family.

Mena Lafkioui deals with postverbal negation in Rif Berber and Moroccan Arabic (Oujda). She investigates the grammatical origin of the postverbal negative form *b̲u*. Lafkioui argues against an earlier claim that this negator is a Berber borrowing from Arabic, presenting evidence for the view that the negator in Moroccan Arabic is an innovation induced by contact with Rif Berber. Lafkioui argues that the negator *b̲u* and the corresponding negation patterns have emerged from an existential through a system-internal grammaticalization process. She also discusses a quadruple negation pattern (i.e. involving four negative markers), showing that Berber continually innovates its cyclical negation system where such mechanisms as a Jespersen Cycle and a Negative Existential Cycle are intertwined.

The contribution by Marianne Mithun demonstrates that a 'Negative Existential Cycle' has been highly prominent for some North American languages spoken in Northern California. The languages under focus (from the Wintuan, Yukian, Pomoan and Utian families) are genealogically diverse but have been in contact for prolonged periods. As Mithun shows, the actual negative forms are different even within these families, but they all have emerged from clause-final negative existential verbs. Mithun further demonstrates the role of language contact in the rise of postverbal negation. Crucially, she shows that it is the semantic patterns of expression that can be replicated and not necessarily formal constructions.

Concluding we can make the following points. First, paths leading to postverbal negation that were discussed in Section 2 can constitute separate developments in some languages, but they may be interlaced in others (see van der Auwera et al., in print; Van Gelderen, in print; Lafkioui, this volume). We still need more studies exploring possible interactions among these mechanisms, as well as alternative scenarios for the diachronic paths that we currently know. Rosenkvist (this volume) illustrates this for Swedish dialects. Second, as demonstrated by Lindström, Pilvik & Plado (this volume) for East Seto, where postverbal single negation prevails but is not the only pattern, the choice is influenced by structural persistence, i.e. the position of the negator most recently activated in discourse. Functional and grammatical factors, on the other hand, prove to be of less importance. More similar studies would be welcome to widen current understanding of the role of structural persistence in other languages, and the role of other discourse factors more generally. Third, we have made a big step forward towards a clearer view on the interdependence of a postverbal pattern and other internal structural features of a language from a cross-linguistic perspective. Thus, language-specific, micro-studies, can contribute to further explanation of the finding by Van Olmen (this volume) that the Negator-First principle is not stronger in prohibitive negation than in standard negation. Fourth, it remains to be seen how stable the postverbal single pattern is from the genealogical and the areal perspective. Ongoing research (Krasnoukhova & van der Auwera 2021) suggests that this pattern can be rather stable genealogically. This is also confirmed by the study by Labrada (this volume) for the Saliban language family. However, it is also clear that the negation pattern is prone to contact: areal clusters of languages with postverbal negation are the pieces of evidence. And, as shown by Mithun (this volume), contact influence is not necessarily form or pattern borrowing but rather polysemy copying.

Abbreviations

1	first person	NEG	negative
2	second person	NFIN	nonfinite
3	third person	PL	plural
COP	copula	PRS	present
DEM	demonstrative	PST	past
DUB	dubitative	R	recipient
EMPH	emphatic	SBJ	subject
ERG	ergative	SG	singular
EXCL	exclusive	TMP	temporal
INF	infinitive	TNS	tense
IRR	irrealis	TR	transitive
LOC	locative		

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