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On the typology of negative concord¹

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Abstract

This paper has three main points. First, contrary to what is often stated, negative concord is not all that frequent and certainly not the most frequent strategy to express single clausal negation in a clause with an indefinite noun phrase or adverbial in the scope of the negation. Second, the subtype of negative concord called 'strict negative concord' is much more frequent than the subtype of 'non-strict negative concord'. These two claims are based on a world-wide sample of 179 languages. Third, it is argued that non-strict negative concord shows too much variation for it to be seen as the one choice of a two-way split between strict and non-strict negative concord. Given the relative rarity of non-strict negative concord, this claim is not based on the world wide sample, but on a survey of the research literature.

1. Introduction

Typologists ask 'what?', 'how much?', 'where?', and 'why?' questions. In this paper we will provide tentative answers to these questions relative to what has been called 'negative concord'. The 'what?' question is central in section 2.1, on the difficulty of defining negative concord, and in section 4, which deals with subtypes of negative concord. The 'how much?' question is primarily dealt with in section 3 and briefly also in section 4, with claims on the frequency of negative concord and its subtypes. The 'where?' question is summarily addressed in section 3 and the 'why?' question is central in section 4. Section 2.2 reminds the reader of the typological method.

¹ This paper is partially based on Van Alsenoy (2011, 2014: 71-108) and on Van Alsenoy & van der Auwera (2014). The main differences concern (i) the size of the sample of the languages used for the frequency claims, which is worldwide now, (ii) the interpretation of the frequencies, and (iii) the subdivision within so-called 'non-strict negative concord'. Examples without a source indication are our own responsibility. Given the purpose of the paper, glossing is kept to a minimum. The work by Van Alsenoy was supported by the Research Foundation Flanders. This paper has led to two further studies (van der Auwera & Van Alsenoy (in print), van der Auwera (2015)). Special thanks are due to Nada Gbegble (Winneba), Pierre Larrivé (Caen), and Jasmine Dum-Tragut (Salzburg) for their help on Ewe, Québec French, and Armenian, respectively.

2. Definitions and data

2.1 What is negative concord?

The basic idea behind the notion of 'negative concord' is simple: a semantically single negation is expressed both by a clause level negator and by a negative adverb, pronoun, or determiner. The phenomenon is illustrated in (1) with non-standard English.

- (1) a. *I ain't never been to jail*
 b. *You ain't seen nothing yet*
 c. *I can't get no satisfaction*

Never, *nothing* and *no* are the negative adverb, pronoun and determiner; they are all negative as well as indefinite (or non-referential)². The clause level negator is *n't*; it is attracted to the verb – in each of the examples in (1) even morphologically so. What makes for concord is that the negative indefinite and the negative verb, though they are both independently negative, do not each contribute a negative sense but partake in one negation. There is thus some kind of agreement, though, as was admitted for an early *avant la lettre* appearance of the term, it does extend the traditional notion of agreement (Mathesius 1937: 81-82).³ In (2) we see something similar, but there is a difference too: the sentence again only has one semantic negation and two exponents, but this time the exponents are both negative indefinites and there is no clausal negator.

- (2) Spanish (de Swart 2010: 46)
 Nadie ha dicho nada
 nobody has said nothing
 'Nobody has said anything'

This constellation has also been considered to be negative concord, but it has acquired a label of its own, viz. "negative spread" (since Den Besten 1986: 205).

However straightforward the idea, the huge literature, esp. on West-European languages (see e.g. Giannakidou 2006 and de Swart 2010 and the references therein), has shown that it is tricky to determine whether or not the negative indefinite and the negative verb are each truly negative. The problems can be illustrated with French. Consider first the French *rien* word. In (3a) *ne ... rien* translates as 'nothing'. This fact itself does not show whether *rien* is inherently negative. The elliptic answer in (3b), however, suggests that *rien* is negative, as does the fact that when *rien* combines with *pas* as well as *ne*, we get double negation ((3c)), yet the use illustrated in (3d) does not. In (3d) *rien* is not simply positive either, i.e., *rien* cannot mean 'something', as is

² 'Nonreferential' may be a better term, but we will follow much of the literature and use the term 'indefinite'.

³ Mathesius called it 'negation concord'. Earlier still is Jespersen's 'concord of negatives' (1922: 352).

shown in (3e). Rather, it would call for an analysis as a so-called 'negative polarity item', i.e., an element that occurs in limited sets of contexts, often different, both in number and type, for different negative polarity items – the comparative construction illustrated in (3d) is one such context.

(3) French (3d from Hansen 2013: 73)

- a. *Je n'ai rien entendu*
I NEG.have nothing heard
'I have heard nothing /I haven't heard anything'
- b. - *Qu'est-ce que tu as entendu?*
what you have heard
'What have you heard?'
- *Rien*
nothing
'Nothing'
- c. *Ceci n'est pas rien*
this NEG.is NEG nothing
'This is not nothing'
- d. *J'aime le champagne mieux que rien au monde*
I.love the champagne better than anything in.the world
'I love champagne better than anything in the world'
- e. **J'ai rien entendu*
I.have nothing heard
'I have heard something'⁴

The problematic nature of words like *rien* has divided the linguistic community.⁵ Some hold that words like *rien* are ambiguous or vague between a negatively polar and a negative meaning, some hold that *rien* is basically negatively polar and yet others are of the opinion that *rien* is basically negative. For the purpose of this study, we take the third approach and consider *rien* negative. It is clear that *rien* was once just the positive (or neutral) noun 'thing', that it then became a negatively polar element, and that it is now predominantly used with a negative sense (Hansen 2013: 67-74). The use in (3d) is a marked, frozen expression (Hansen 2013: 73) and our

⁴ In the informal register the *ne* of *ne ... rien* is dropped and thus (3e) is fine with the meaning 'I heard nothing'. But that is not the intended meaning here.

⁵ It has also led to a more neutral term, viz. 'n-word', which is often defined as the indefinite, whatever its nature, that participates in negative concord (e.g. Herburger 2001: 289; De Swart 2010: 21). It is surprising that this term reached a general acceptance, for it was coined by Laka (1994) for Romance indefinites because 'most of them start with 'n' (Laka 1994: 79). This *n*- confusingly need not be a negative *n* (thus Spanish *nadie* 'nobody' and *nada* 'nothing' owe their *n*- to a form of Latin *natus* 'born' (Laka 1994: 99)). Confusingly but understandably, if one is of the opinion that *n*-words are actually negative (e.g. Hansen 2013), then 'n-word' can be used interchangeably with 'negative indefinite'.

strategy in this paper is to disregard such marginal uses and to simply consider *rien* to be negative. We fully realize that this is problematic. Marginality comes in degrees: just how marginal does a word have to be for us to disregard it? *Personne* 'nobody/anybody' and especially *jamais* 'never, ever', words that can be argued to be in the same paradigm as *rien*, are much less marginal in non-negative contexts (Muller 1991: 265-267) and one could certainly justify treating *personne* and *jamais* differently from *rien*.⁶

Note that it does not matter for us that, at least in standard French main clause declaratives, *rien* (as well as *personne* and *jamais*) has to be accompanied by *ne*. One could take this to be a reason for denying *rien* inherent negativity and consider it negatively polar – yet still distinguish *rien* from *anything* in that the latter occurs in a much wider variety of contexts (a dimension called 'strength' or 'strictness'). If an indefinite is predominantly used for negation, with or without another exponent of negation, we consider it a negative indefinite.

One might have hoped that there is at least one diagnostic for distinguishing negative indefinites from negative polarity indefinites, viz. the question whether or not the indefinite is negative all by itself in elliptical answers. We see in (3b) that this is an argument for *rien*, and it is no less valid for *personne* and *jamais*, thus supporting our decision to treat them as negative. But the criterion does not work. Consider first Yiddish. Yiddish *keyn* 'no' is arguably no less negative than its German or Dutch cognates *kein* and *geen*, even though like French *rien* in main declaratives *keyn* needs another negative exponent, e.g. *nit* 'not' in (4).

- (4) Yiddish (van der Auwera & Gybels 2014: 206)
<i>Der</i>	<i>bokher</i>	[...]	<i>kukt</i>	<i>oyf</i>	<i>keynem</i>	<i>nit</i>
the	guy		looks	on	nobody	not
- 'The guy doesn't look at anybody'

Different from *rien*, however, in elliptical answers *keyn* needs the clausal negator *nit*.

- (5) Yiddish (van der Auwera & Gybels 2014: 207)
<i>Oyb</i>	<i>ir</i>	<i>zet</i>	<i>nokh</i>	<i>haynt</i>	<i>tsu</i>	<i>tog</i>	<i>an</i>	<i>oysgeshternten</i>
if	you	see	still	today	to	day	an	starry
<i>himl,</i>	<i>veyst</i>	<i>ir</i>	<i>vemen</i>	<i>ir</i>	<i>hot</i>	<i>tsu</i>	<i>fardanken?</i>	
sky	know	you	whom	you	have	to	thank	
<i>Keynem</i>	<i>nisht,</i>	<i>akhuts Hershl</i>				<i>Zumervintn</i>		
nobody	NEG	except Hershl				Zumervint		
- 'If you now still see a starry sky, do you know who you have to thank? Nobody but Hershl Zumervint'

Or consider Belgian Brabant Dutch. In main declarative clauses *niemand* 'nobody' shows what

⁶ This shows that the members of what is arguably a paradigm do not have to behave in the same way with respect to negative concord.

we will consider a subtype of 'non-strict' negative concord. The details are for section 4.3. Suffice it for now to make clear that 'non-strict' means that though negative concord is possible, it is not necessary and this is at least often related to the position of the indefinite relative to the verb. What is relevant here is that when *niemand* follows the finite verb, the clausal negator is optional.

(6) Belgian Brabant Dutch

<i>Ik</i>	<i>heb</i>	<i>niemand</i>	<i>(nie)</i>	<i>gezien</i>
I	have	nobody	NEG	seen

'I have seen nobody'

Niemand is negative, because it is only used with negative sense, whether there is an additional clausal negator or not, but should one want to rely on the elliptic answer test to determine whether *niemand* is 'really' negative, one will be disappointed, for the clausal negator is optional there too.

(7) Belgian Brabant Dutch

-	<i>Hebde</i>	<i>iemand</i>	<i>gezien?</i>
	have.you	somebody	seen
	'Have you seen anybody?'		
-	<i>Niemand</i>	<i>(nie)</i>	
	nobody	NEG	
	'Nobody'		

A final illustration takes us back to French. In French main clause clauses *du tout* 'at all' combines with *pas* to make the negation emphatic. *Pas* cannot be dropped.

(8) French

<i>Ce</i>	<i>n'est</i>	<i>*(pas)</i>	<i>du</i>	<i>tout</i>	<i>mon</i>	<i>avis</i>
it	NEG.is	NEG	at	all	my	opinion

'This is not my opinion at all'

However, as was pointed out by Detges & Waltereit (2002: 187) (and taken up by van der Auwera 2009: 64), in elliptic answers it can be dropped.

(9) French

-	<i>Est-ce</i>	<i>votre</i>	<i>avis?</i>
	Is-this	your	opinion
	'Is this your opinion?'		
-	<i>Du tout!</i>		
	of	all	
	'Not at all!'		

Du tout is not, of course, an indefinite, but it does show that a marker that cannot express a negative meaning by itself in a full declarative clause can do it in an elliptic answer. This shows that the elliptic answer construction has construction-specific properties which allow components to act differently from other constructions. It is our conjecture that as the elliptic answer test seems to be considered as the best criterion for inherent negativity, all other tests (with other constructions) will fare no better.

The problem of ascertaining whether some marker is truly negative is also present for *ne*, for this word too has non-negative uses, as illustrated in (10), with the second occurrence of *ne*.

(10) French (Muller 1991: 391)

<i>On</i>	<i>ne</i>	<i>peut</i>	<i>pas</i>	<i>nous</i>	<i>forcer</i>	<i>à</i>	<i>faire</i>	<i>grève</i>	[...]
one	NEG	can	NEG	us	force	to	make	strike	
<i>avant</i>	<i>que</i>	<i>nous</i>	<i>ne</i>	<i>nous</i>	<i>soyons</i>		<i>prononcés</i>		
before	that	we	NEG	is	be		pronounced		

'One cannot force us to go on strike before we make clear our position'

Furthermore, except for some archaic patterns, *ne* cannot express negation on its own: it needs *pas* (as in the first part of (10)) or a negative pronoun, adverb, or determiner (such as *rien* in (3a)). But, much like *rien*, *ne* is overwhelmingly used for negation (Grevisse 1980: 1077-1078) and for this reason we consider it inherently negative.

What the above discussion shows is that even for languages as well studied as French and, less so, Dutch dialects or Yiddish, it is difficult to identify negative concord. This admonishes the greatest caution for any typological study, for most of the world's languages have not been studied well at all. This does not make typology undoable, however.

2.2. Data

When we make frequency claims about negative concord as such, these will be based on a variety sample, more particularly a version of Miestamo's 'Restricted Sample' of 179 languages (Miestamo 2005: 36). To arrive at this sample Miestamo first randomly chose one language for every *genus* (see Dryer 2000), he ordered the *genera* according to the 'macro-areas' (see, again, Dryer 2000), he noted that the macro-areas of Australia and New Guinea only have a coverage of 43.2 %, and he then randomly suppressed languages for the better described areas so that they too are represented in the same proportion (for full details see Miestamo 2005: 27-39). To the extent that it was possible we used the very same 179 languages that constituted Miestamo's 'Restricted Sample'. This has the advantage that we can readily use Miestamo's findings, for his study, like ours, after all concerns negation. But there are, of course, differences. Miestamo studied 'standard negation', i.e. declarative verbal main clause negation, and we study negative concord. Furthermore, in roughly one third of the languages, the description of the language

simply did not supply enough details about negative concord. In those cases we replaced it with another language from the same *genus* from the same macro-area or, when that was not possible, a language from another *genus* not covered yet, but also from the same macro-area. The constitution of the sample is detailed in Appendix 1.

In the previous section we sketched the difficulty of identifying negative indefinites, even in well-described languages. We also claimed that there is no one simple diagnostic for negative indefiniteness. What is needed is a specialist's overall judgment that the negative use of this or the other indefinite is at least the dominant one, thus allowing for marginal non-negative ones. For the frequency claims on 179 languages, we thus rely on some 179 such judgments, those of the specialist grammarians, in addition to our own meta-judgments. This procedure will inevitably generate mistakes. This is the general predicament of typology. But in the case at hand, the probability of misjudgment is particularly high, because the 179 specialists that we take to have identified negative indefinites often do not explicitly deal with the question of whether or not these indefinites also have non-negative uses, and if they do, they rarely pronounce themselves on whether these are marginal or not. Also, in case one has high hopes for the elliptical answer test, one seldom finds information on how the alleged negative indefinites fare in elliptical answers. Relatedly, though most grammars explicitly deal with negation, they often say little about negative polarity. These factors make our frequency claims very tentative, and in particular, we expect our estimate of negative concord to be too high: some of the indefinites categorized as negative concord indefinites are bound to have non-marginal non-negative uses (which the grammarian simply hasn't enquired about). Somewhat paradoxically, we will turn this disadvantage into an advantage. We will see that negative concord is said to be very frequent, but we will show that even with a count that is probably too high, negative concord is not particularly frequent.

In section 4 the main point is to show that there are more types of non-strict negative concord than suggested in the literature. Here the main sources are the specialist studies. To that extent we can be more confident about the correct categorization of negative concord: the grammarian that focusses on issues of negation, negative concord, or polarity and relates his or her finding to the general debate should be more trustworthy, for these very issues, than a grammarian that has written a grammar of an entire language.

A general restriction is that for most of the languages discussed in this study we vastly 'underdescribe' the complexity of their negation and indefiniteness systems. Thus, for example, Welsh will enter the discussion with just a few examples, because these illustrate a peculiar subtype of negative concord, but this illustration is only a fraction of the full account (see Borsley & Morris Jones 2005, Willis 2013 and the references therein). Furthermore, when we describe a language, we typically just rely on one description, which, no less typically, just describes one dialect or even just the idiolects of a few speakers.

Finally, when we claim for a language that it manifests negative concord, we do not imply that it will have it for all of its indefinites. We already know from well-studied languages like French (see Hansen 2012, 2013, 2014) that the negativity of an indefinite may differ from

one indefinite to the other. For some of the sample languages we know that this is the case (see the discussion of Egyptian Arabic in section 4.3), but for many we don't. For instance, for Epena Pedee Harms (1994: 138) reports the existence of a 'nothing' word that shows negative concord, but we are left in the dark as to whether there is negative concord for 'nobody'.

3. Frequency

In the recent literature, negative concord is claimed to be the most widespread pattern of negative indefinites. Penka (2011: 14) notes that, "in fact, the great majority of the world's languages have N[egative] C[oncord] (cf. Haspelmath 2005)". De Swart (2010: 21) notes that "negative concord is a widespread phenomenon in natural languages, as Haspelmath (1997) observes". Israel (2011:43) makes a very strong claim: "while such constructions [i.e. negative concord constructions] are often considered illogical, they are not only widespread, but actually appear to be the preferred pattern for negatively quantified sentences cross-linguistically". The online Glottopedia entry on 'negative concord' refers to Haspelmath (1997) to claim that "while linguists familiar only with some of major European languages might find negative concord remarkable, it is actually the non-co-occurrence of sentential negation with negative indefinites that is remarkable".

As one can see, in three of the four cases reference is made to Haspelmath, either Haspelmath (1997) or Haspelmath (2005). Crucially, however, neither Haspelmath (1997) nor Haspelmath (2005) can be credited for this view, as noted by van der Auwera (2011: 861) (and later also Willis et al 2013: 34; Parry 2013: 114; Breitbarth 2014: 63⁷; Van Alsenoy & van der Auwera 2015: 522). The claim made by Haspelmath (1997: 202) as well as Haspelmath (2005, 2013) is that what he considers to be a combination of a negative indefinite and a negative verb seems to be most widespread cross-linguistically, but Haspelmath's notion of 'negative indefinite' has the "deliberatively vague sense of 'indefinite' [...] that has 'direct negation' as an important use" (Haspelmath 1997: 199). In this way, even the English negatively polar *anybody* as in (11) counts as a negative indefinite, as does the Swedish polarity neutral *någon* in (12).

(11) *I didn't see anybody*

⁷ Breitbarth (2014: 64), spurred by one of the predecessors of the present study (Van Alsenoy 2011), is also suspicious of the claims on the high frequency of negative concord.

(12) Swedish

- a. *Jag har sett någon*⁸
 I have seen someone
 'I have seen someone'
- b. *Jag har inte sett någon*
 I have NEG see someone
 'I have not seen anyone'

This is different from the way 'negative indefinite' is normally understood. Normally, neither *anybody* nor *någon* are considered negative indefinites. We don't either: we require the negative use not just be 'an important' use of the indefinite but 'the most important' use of the indefinite. Of course, as made clear in section 2.1, deciding on a degree of importance may be difficult. Because of this wide definition of 'negative indefinite' and because Haspelmath (1997) is not interested in any notion of an "inherently negative indefinite", he does not make any claim on the frequency of negative concord. The claim that he does make is that the presence of clausal negation is preferred to the absence of it, regardless of the nature of the indefinite used in direct negation. In his Eurocentric 40-language sample, 30 languages do not allow the absence of clausal negation and of the ten that do allow it, three do so only under some condition (Haspelmath (1997: 202). The reason is claimed to be a mismatch between the semantics and the form (Haspelmath 1997: 203): semantically, one would want the clausal negation to be marked on the verb and not on participant. To get back to negative concord, Haspelmath (1997) does not claim that the co-occurrence of what we take to be a negative indefinite and a negative verb is frequent. He only claims that the presence of a negative verb, whatever it co-occurs with, is frequent. At least one reason why he was misunderstood must have been his purposely vague definition of 'negative indefinite'.

Another factor contributing to the claim about the high frequency of negative concord is the very magnitude of the literature on negative concord. With this huge literature scholars have most certainly shown that the stigma associated with the construction is ill motivated given its status in languages such as Russian, Polish, Spanish, Japanese, etc. But the magnitude of the literature does not translate in any magnitude with regard to worldwide coverage at all, not even in Haspelmath (1997). The typological representativeness of the data discussed in most of the literature is extremely low.

A third factor is that Kahrel (1996), an early typological study on negative indefinites, is not taken account of, despite its prominence in Haspelmath (1997: 193-200) (and in van der Auwera, De Cuypere & Neuckermans 2006). One of the few recent references to his work on negative concord is Lucas (2013: 445) and he, like us, and with reference to Van Alsenoy & van

⁸ Though both *någon* and *somebody* occur in positive contexts, they are not fully equivalent. *Någon* cannot have the function which Haspelmath (1997) calls "specific known" (Nivre 2002: 14).

der Auwera (2014)⁹, takes typology to show that negative concord is not, in fact, all that frequent. Kahrel (1996) is the only typological work making a frequency claim about negative concord based on a world-wide balanced sample. The sample includes 40 languages and of the 40 languages negative concord is found in only five languages or 12.5 % of the total (Arabic, Fula, Gilyak, Hungarian and Italian). Table 1 shows this result, in terms of five types of patterns of expressing a single negation with some kind of indefinite. The types are illustrated with pseudo-English and with pronouns.¹⁰ The negative concord pattern is shown in bold. Kahrel (1996) takes 'negative indefinite' as an indefinite that has the negative use as its only use. He does not however adequately deal with the fact that some of his negative indefinites do in fact have non-negative uses (see Kahrel 1996: 50-51 on *rien*). Note that the percentages add up to more than 100 % and the reason is simply that languages may have more than one strategy. Also, the percentages – and also the ones in Tables 2 and 3 – have an air of precision about them, which the complexity of the issue and the inherent tentativeness of typology do not justify.

verbal negator & neutral indefinite	<i>John not bought something</i>	67.7 %
verb negator & negatively polar indefinite	<i>John not bought anything</i>	22.5 %
no verbal negator & negative indefinite	<i>John bought nothing</i>	12.5 %
verbal negator & negative indefinite	<i>John not bought nothing</i>	12.5 %
other	<i>There is no what John bought</i>	17.5 %

Table 1: Negative indefiniteness in Kahrel (1996: 37)¹¹

Clearly, Kahrel's figures are not in agreement with the frequency claims of the later literature. It is true that the sample contains only 40 languages, which, though still better than that of the later observers, is not very big.

⁹ The actual reference is to the 2011 conference presentation of which Van Alsenoy & van der Auwera (2014) is the write-up.

¹⁰ For reasons of space, we don't use real examples. For negative concord, the focus of this paper, the next section will have a sufficient number of 'real' examples.

¹¹ The details of the strategies other than the negative concord strategy need not concern us too much in this paper. Still, a few remarks are in order. First, a neutral indefinite is one that occurs happily in positive, negative, and negatively or positively polar contexts. To that extent the pseudo-English *something* is misleading for in real English *something* is a positive polarity item. Second, the neutral indefinite need not be a pronoun. It can also be a generic noun having a meaning like 'person' or 'thing'. This is problematic, for one would suppose that every language has this strategy. However, it is listed only if languages have nothing else. Third, Kahrel (1996: 43-45) calls *anything* a "special indefinite", but in line with current research, we relabel it as "negatively polar". We realize that negative polarity is a complex notion and possibly not the right one, the contender being non-veridicality (Giannakidou 1998). We do not enter this debate. Fourth, the last strategy is here just called "other". Kahrel (1996: 52-55) called it "existential". We do indeed illustrate the 'other' construction with an existential, but there might be other strategies.

What we have done is to replicate the Kahrel study on a bigger sample. We have used 179 languages instead of 40. We use almost the same categorization, except that our 'negative indefinites' do not have to have negation as their only use, only their dominant use. Our frequency estimates are shown in Table 2.

verbal negator & neutral indefinite	49.7%
verbal negator & negatively polar indefinite	47.5%
no verbal negator & negative indefinite	11.7%
verbal negator & negative indefinite	19%
Other	13.8%

Table 2: Negative indefiniteness in this study

When one compares the two tables one notices some differences and similarities. In the large sample the combination of the negative verb and the neutral indefinite type is still the most frequent strategy, but it is now closely followed by the negative polarity type. In the large sample the combination of a positive verb and a negative indefinite lags behind the negative concord type, but not so in the smaller sample. It is interesting that our 19% estimate of negative concord is higher than Kahrel's 12.5%. The reason is likely to be the fact we do not require that a negative use has negation as its only use. Thus some of our negative indefinites will end up in Kahrel's category of 'negatively polar indefinites'. It is also interesting that our estimate of the negative polarity strategy is much higher than that of Kahrel's. We refrain from speculating on this difference. What remains clear, across both frequency estimates, is that negative concord is not the most frequent type.¹²

Let us now make an areal observation. Table 3 lists the languages that we hypothesize to have negative concord and it also shows how they distribute across six macro-areas.¹³ The list starts with the macro-areas with the highest number of languages showing negative concord. Like in Miestamo (2005), our sample includes one Creole, which we do not place in any macro-area.¹⁴

¹² As mentioned at the end of 2.2, we don't know to what extent languages manifesting negative concord manifest it for all their indefinites. We conjecture that they often don't. At least for six languages of the 34 (which make up the 19% negative concord languages) we have found it for only one indefinite. See Egyptian Arabic in 4.2. for an illustration.

¹³ Kahrel's (1996) analysis also includes a discussion of the geographical spread of the various strategies. For reasons of space, we do not compare it with ours.

¹⁴ See van der Auwera (2015) for a study that focuses on the negative indefinites of creole languages.

Language	Family	Macro-area	n/m	%
Albanian, Eastern Armenian, Icelandic	Indo-European	Eurasia	8/15	53.3%
Mansi	Uralic			
Korean	Korean			
Japanese	Japanese			
Lezgian	Nakh-Dagestanian			
Brahui	Dravidian	South-East Asia & Oceania	5/21	23.8%
Burmese, Meithei, Lai	Sino-Tibetan			
Khasi	Austro-Asiatic			
Chamorro	Austronesian			
Degema, Ewe	Niger-Congo			
Kanuri, Kunama	Nilo-Saharan	Africa	6/29	20.7%
Egyptian Arabic, Somali	Afro-Asiatic			
Damana	Chibchan			
Páez	Paezan			
Imbabura Quechua	Quechuan			
Guaraní	Tupi-Guarani	South America	8/39	20.5%
Epena Pedee	Choco			
Mosetén	Mosetenan			
Wichí	Wichí			
Canela-Krahô	Macro-Ge			
Lakhota	Siouan	North America ¹⁵	4/36	11.1%
Huave	Huave			
Chiapas Zoque	Mixe-Zoque			
Karok	Karok			
Lavukaleve	Solomons East Papuan			
Kayardild	Australian	Australia & Papua New Guinea	2/38	5.3%
Haitian Creole	–	–	–	–

n = the number of languages that have negative concord
m = the number of language in the sample

Table 3: Sample languages which exhibit negative concord

The most striking finding shown in Table 3 is probably that negative concord is most frequent in Eurasian languages, in which it occurs in more than half of the sample languages (53.3%). It may not be worthwhile to compare the frequencies of the three areas with frequencies in the 20-24% range, viz. South-East Asia & Oceania, Africa, and South America, or to further compare them to North America and Australia & Papua New Guinea, the macro-areas with the lower frequency. That Haitian Creole exhibits negative concord is not very surprising, given its relation to French.

¹⁵ Note that Mesoamerica is put into North America.

Negative concord thus seems to be a mainly Eurasian characteristic. The fact that the languages treated in the research literature are predominantly European corroborates this conclusion. Further support comes from the fact that of the 26 non-Eurasian languages with negative concord, six have negative concord systems that are directly influenced by a European language that has negative concord, leaving us with 20 non-Eurasian languages not influenced by a European language with negative concord. These six languages are Haitian Creole, influenced by French, the South American languages Mosetén and Imbabura Quechua, the Mesoamerican languages Chiapas Zoque and Huave, and the Austronesian language Chamorro, all influenced by Spanish. That negative concord is susceptible to language contact has been mentioned sporadically before (with Catalan negative concord developing from the French type to the Spanish type, see below), but the above observation strongly suggests that its importance should not be underestimated. Also, the very fact that the languages that are central in the research literature on negative concord are Eurasian, i.e., the very type that is strong in negative concord, could have led researchers to accepting that negative concord is actually frequent even on a world-wide basis.

We have argued in the previous section that our figure for negative concord is bound to be too high, the reason being that many grammatical descriptions are suboptimal as to whether or not the indefinites used in negation would also have non-negative uses, marginal or not. These are uses in contexts like questions and conditionals. The grammarian may have noticed that an indefinite, which is like English *any*, is good in a negative context and bad in a positive context, but if (s)he hasn't also checked the felicitousness in questions etc., then his/her decision to call the counterpart to *any* negative could be wrong.

- (13) a. *I didn't notice any books*
 b. **I noticed any books*
 c. *Did she notice any books?*
 d. *If she noticed any books, then ...*

If the negatively polar uses are not marginal, like for English *any*, then our 19% is too high, and then the 47.5% for the negative polarity type is too low. A clue for the possibility of non-negative polarity uses is the etymology and the morpho-syntactic composition of the negative indefinites.¹⁶ The clue is indirect and imperfect but sensible, for the research literature suggests (Haspelmath 1997: 230-232, Willis 2011, van der Auwera & Van Alsenoy 2011: 327-328) that though negative polarity frequently changes into negativity, the opposite direction is much rarer. In Table 4 we list the sample languages that exhibit negative concord once again and we categorize the relevant 'negative indefinites' in three types: (i) a question mark for the type for

¹⁶ The etymology could be in conflict in the current morpho-syntactic composition. The idea is to try to hypothesize the nature of the components at the time of the composition. Thus Mansi has a *nem* prefix. If Honti (1997: 164) is right, it was originally positive, but at the time that it was prefixed to the indefinite, it had become negative. We thus categorize the Mansi negative indefinite as comprising a negator.

which the morpho-syntactic composition and etymology is unclear, (ii) 'NN' for the type which shows no negative in its current form or etymology, like French *rien* or English *anybody*, and (iii) 'N' for the type that contains some kind of morpho-syntactic negator, which plausibly makes the indefinite negative¹⁷, like English *nobody*. Of course, languages can have both N and NN indefinites, like English with both *nobody* (N) and *anybody* (NN).

¹⁷ This condition is necessary to exclude positive indefinites of the 'dunno' type, like Swedish *någon* < 'I NEG know who', and the 'no matter type', like French *n'importe qui* (lit) 'NEG matters who' (Haspelmath 1997: 130-132, 140-141).

Language	Family	Macro-area		
Albanian	Indo-European	Eurasia	N	
Eastern Armenian			N	
Icelandic			N & NN	
Mansi			Uralic	N
Korean	Korean		NN	
Japanese	Japanese		NN	
Lezgian	Nakh-Dagestanian		NN	
Brahui	Dravidian		NN	
Burmese	Sino-Tibetan		South-East Asia & Oceania	NN
Meithei				N & NN
Lai		NN		
Khasi		Austro-Asiatic		N
Chamorro	Austronesian	NN		
Degema	Niger-Congo	NN		
Ewe		NN		
Kanuri		NN		
Kunama	Nilo-Saharan	Africa	?	
Egyptian Arabic	Afro-Asiatic		N	
Somali			NN	
Damana	Chibchan		South America	?
Páez	Paezan	?		
Imbabura Quechua	Quechuan	N		
Guaraní	Tupi-Guarani	NN		
Epena Pedee	Choco	N & ?		
Mosetén	Mosetenan	NN		
Wichí	Wichí	?		
Canela-Krahô	Macro-Ge	?		
Lakhota	Siouan	North America	N	
Huave	Huave		N	
Chiapas Zoque	Mixe-Zoque		N	
Karok	Karok		N	
Lavukaleve	Solomons East Papuan	Australia & Papua New Guinea	?	
Kayardild	Australian		N	
Haitian Creole	–	–	NN	

Table 4: Morpho-syntactic composition and etymology

Table 4 clearly shows that many languages do indeed make negative indefinites from non-negative source expressions. The risk therefore that some of the languages categorized as showing negative concord are miscategorized is real too. Notice again that the two types are not distributed evenly over the macro-areas and families. Of course, the coverage with just 34

languages is too small to say anything definite. Nevertheless it might not be a coincidence that North America only has type N, and that Africa, South-Asia & Oceania, and Eurasia are predominantly NN, with the Indo-European languages as the exception.

4. Strict vs. non-strict negative concord

4.1. Introduction

Since Giannakidou (1998: 186), one distinguishes between strict and non-strict negative concord. Not surprisingly, given that negative concord is a strongly Eurasian feature and given that European languages are best studied, the distinction between strict and non-strict negative concord made in the literature is mainly based on data from European languages, in particular, from Romance and Slavic languages. Sentences (14) and (15) illustrate strict and non-strict negative concord from Polish and Spanish, respectively.

(14) Polish (Haspelmath 1997: 201)

- a. *Nikt* *nie* *przyszedł*
 nobody NEG came
 'Nobody came'
- b. *Nie* *widziałam* *nikogo*
 NEG saw nobody
 'I saw nobody'

(15) Spanish (Haspelmath 1997: 201)

- a. *Nadie* *vino*
 nobody came
 'Nobody came'
- b. *No* *vi* *a* *nadie*
 NEG saw to nobody
 'I didn't see anybody'

In Polish negative concord is obligatory – this is 'strict' negative concord. In Spanish negative concord depends on the word order, viz. on the position of the negative indefinite relative to the position of the finite verb.¹⁸ In (15a), the negative indefinite is preverbal, while it is postverbal in (15b), and it is only in the latter case that the clause contains the clausal negator and obligatorily so. The reason for the presence of the clausal negator in (15b) is sometimes (most strongly in Haspelmath 1997: 211 and de Swart 2010: 163-168), a version of what has been called, after Horn (1989: 293), the 'Negative First' principle, credited to Jespersen (1917: 5):

¹⁸ Thus the verb in 'preverbal' and 'postverbal' is also the finite verb. More on this below.

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

As the quote from Jespersen shows, "Negative First" is not the best term: the expected tendency is not to have the negative first, but early. So we will call it the "Negative Early" principle. Let us now look at (15) again. In (15a), the preverbal negative indefinite makes for an early negation 'or at any rate' (to use Jespersen's hedge), to satisfy the Negative Early principle, there is no need to add a clausal negator, which will have to come before the verb but after the negative indefinite. In (15b), however, the negative indefinite does not come early, but the clausal negator does. In the following two sections we will discuss strict and non-strict negative concord separately.

4.2. Strict negative concord

(16) illustrates strict negative concord with the sample language Kanuri.

- (16) Kanuri (Hutchinson 1981:128)
a.	<i>ndú-má</i>	<i>lèzâ-nyí</i>
	who-NEG	went-NEG
	'Nobody went'	
b.	<i>àbí-má</i>	<i>búkà-nyí</i>
	what-NEG	ate-NEG
	'I didn't eat anything'	

The most important point about strict negative concord is that strict negative concord may well be much more frequent than non-strict negative concord. It was found in 31 out of the 34 sample languages. It is to be readily admitted that the information in the grammars will not always be complete. In particular, while it is rather certain that each of the 31 languages allow the occurrence of both a verbal negative and a negative indefinite, independently of the position of the negative indefinite relative to the finite verb, it is not guaranteed that this double occurrence is obligatory. Nevertheless, even if the figure of 31 out of 34 is too high, it is likely that strict negative concord is indeed more frequent than non-strict negative concord (cp. also Bickerton 1981: 66, 194).

We cannot compare this finding with Kahrel (1996), for the simple reason that he does not distinguish between strict and non-strict negative concord. We cannot compare it with Haspelmath (1979) either, for two reasons. First, his notion of negative indefinite is much wider than ours. Second, his sample is heavily Eurocentric. We can, however, appeal to his explanation of the preference for clausal negators, viz. his hypothesis, already mentioned in section 3, that when a clause is negative it should *ceteris paribus* be more marked at the clausal level, i.e., on the verb and not a participant (Haspelmath 1997: 203). With strict negative concord we have a

partial mismatch: there is no need for a negative indefinite in addition to the clausal negator. However, in non-strict negative concord, the situation is worse, for there are circumstances without a clausal negator, and in this respect non-strict negative concord joins the dispreferred strategy which always only uses a negative indefinite.

The relative rarity of non-strict vs. strict negative concord might also be due to its lack of homogeneity. Non-strict negative concord is in fact a mix of two strategies, viz. the strategy with negation on both the verb and the indefinite for when the indefinite is postverbal and the strategy with negation on the verb only when the indefinite is preverbal. One could further argue that mixed strategies are unstable¹⁹ and, indeed, at least the Spanish type non-strict negative concord system has been argued to a transitional system, as will be clarified around Table 6 in 4.3. However, it will there also be shown that there is a language, viz. Catalan, which is changing from a supposedly stable strict negative concord system to the unstable Spanish non-strict negative concord system. We conjecture that no system is fully stable. Yet stability will come in gradations, non-strict negative concord could well be less stable than strict negative concord, hence it makes sense that non-strict negative concord seems so much less frequent than strict negative concord.

In Table 5 we characterize the 31 sample languages with strict negative concord in terms of two ordering properties. The first is the position of the negator, whether morphological or syntactic, relative to the finite verb, with as values preverbal, marked as 'NEG V', postverbal 'V NEG', and verb embracing 'NEG V NEG'. 'NEG V NEG' is attributed when this order is either optional or obligatory. The default assignment is the one found in Dryer (2013b), except for Imbabura Quechua, in which case we follow van der Auwera & Vossen (2016). The second parameter is the basic word order in terms of the position of the subject (S), object (O) and verb (V). This is not an easy matter and there is a strong risk of oversimplification. We just base ourselves on Dryer (2013a). The values for Mauritian Creole are those of Fattier (2013).

¹⁹ This argument is similar to De Swart's (2010: 173) approach to what she considers to be transition stages between strict and non-strict negative concord and what we take to be subtypes of non-strict negative concord. See section 4.3.

Language	Family		
Albanian	Indo-European	NEG V	SVO
Eastern Armenian		NEG V	SVO/SOV
Mansi	Uralic	NEG V	SOV
Korean	Korean	NEG V	SOV
Japanese	Japanese		V NEG SOV
Lezgian	Nakh-Dagestanian		V NEG SOV
Brahui	Dravidian		V NEG SOV
Burmese		NEG V NEG	SOV
Meithei	Sino-Tibetan		V NEG SV/OV
Lai			V NEG SOV
Khasi	Austro-Asiatic	NEG V	SVO
Degema	Niger-Congo	NEG V	SVO
Ewe		NEG V NEG	SVO
Kanuri	Nilo-Saharan		V NEG SOV
Kunama			V NEG SOV
Somali		NEG V	SOV
Damana	Chibchan	??	free
Páez	Paezan		V NEG SOV
Imbabura Quechua	Quechuan	NEG V NEG	SOV
Guaraní	Tupi-Guarani	NEG V NEG	SVO
Epena Pedee	Choco		V NEG SOV
Mosetén	Mosetenan	NEG V	SVO
Wichí	Wichí	NEG V or V NEG	SVO
Canela-Krahô	Macro-Ge		V NEG SOV
Lakhota	Siouan		V NEG SOV
Huave	Huave	NEG V	SVO
Chiapas Zoque	Mixe-Zoque	??	SVO
Karok	Karok	NEG V NEG	free
Lavukaleve	Solomons East Papuan		V NEG SOV
Kayardild	Australian		V NEG free
Haitian Creole	Creoles	NEG V	SVO

Table 5: Some ordering properties of the sample languages with strict negative concord

As one can see, negative concord does not seem to be related very strongly to any particular word order regularity (cp. also Van Alsenoy & van der Auwera 2014). The following two observations carry some weight, however. First, when a sample language with strict negative concord has the V NEG order it is almost always SOV. The least one can say is that an SOV language with the negative after the verb does not score well for the Negative Early principle, so it should be relatively fertile soil for negative concord. Second, there is not a single V-initial language in the list. It is true that V-initial languages are relatively rare: in the WALS data set

this order occurs in less than 10% of the languages (Dryer 2013a). Still, with this percentage there could have been two or three negative concord languages in our sample, but there aren't. The reason could be that V-initial languages overwhelmingly go with preverbal negatives (Dryer 2013b). They thus score well for the Negative Early principle and have no need for negative indefinites.

Note that negative concord can occur perfectly well when the clausal negator has two exponents. In this case negation is necessarily marked three times. Ewe illustrates this phenomenon.

(17) Ewe (Nada Gbegble, p.c.)

<i>Ame</i>	<i>adeke</i>	<i>me-fe</i>	<i>le</i>	<i>abɔ</i>	<i>la</i>	<i>mee</i>	<i>o</i>
person	no	NEG-play	at	garden	the	in	NEG

'Nobody played in the garden'

Since negative indefinites can arise in more than one way (Haspelmath 1997: 221-233) a language can have more than one paradigm with negative concord. We already know this from the literature, with e.g. Hungarian (de Swart 2010: 193-194). The sample contains one such language too, viz. Meithei. It has a series of negative indefinites that contain a suffix *-ta* and another one with the suffix *-su*, as shown in (18).

(18) Meithei (Chelliah 1997: 396, 208)

a.	<i>Páw</i>	<i>əsi</i>	<i>nɪŋthəwnə</i>	<i>tarədónə</i>	<i>mí</i>	<i>kəna-mə-ta</i>
	news	this	king	having.fallen	man	who-one-NEG

háy-dok-tə
say-out-NEG
'On hearing this news, the king disclosed the news to nobody.'

b.	<i>əynə</i>	<i>kəna-bu-su</i>	<i>tuhətpə</i>	<i>pam-de</i>
	I	who-PAT-also	torture	like-NEG

'I don't like to torture anyone'

4.3. Non-strict negative concord

In this section we first discuss the three sample languages that manifest non-strict negative concord, and we also use a variety of non-sample languages to show that non-strict negative concord is not the homogeneous phenomenon that the literature on languages like Spanish and Italian could make one think.

Spanish type non-strict negative concord, it will be remembered, depends on the position of the negative indefinite relative to the finite verb. When the negative indefinite precedes the verb, there is no clausal negator, but when the negative indefinite follows the verb, there is a clausal negator, and at least in the languages that are typically used to illustrate non-strict

negative concord, the clausal negator is in front of the finite verb. It will be useful for what follows to have a 'formula' for the various subtypes of non-strict negative concord, with 'I' for 'indefinite', 'N' for 'negative', 'V' for 'finite verb', and '>' for simple linear precedence.²⁰ Thus (19) characterizes the classical system of Spanish. 'N I > V' is the subformula for when the negative indefinite is preverbal: the verb is positive then (V). 'NV > N I' is the subformula for when the N I is postverbal: the verb is negative then (N V).²¹

(19)	N I preverbal	N I postverbal
	<hr/> N I > V	<hr/> N V > N I

The three sample languages with non-strict negative concord are Chamorro, Egyptian Arabic, and Icelandic. They are special not only because they show non-strict negative concord. To start with Chamorro, it is a VSO language, so one would not expect there to be a preverbal indefinite. But this is possible anyway, as is shown in (20a), and we see that that it is negative (*ni unu*) and that there is no clausal negator. In (20b) a negative indefinite (*ni háfafa*) follows the verb, which is also negative.

(20) Chamorro (Chung 1998: 268, 94)

- a. *ni unu istaba guini gi paingi*
 NEG one AGR.be here LOC last.night
 'No one was here last night'
- b. *ni ma-akka' yu' ni háfafa ha'*
 NEG AGR.PASS-bite I NEG anything EMP
 'I wasn't bitten by anything'²²

The second point is that Chamorro borrowed the negative indefiniteness marker *ni* from Spanish. It seems likely that Chamorro also borrowed the non-strict negative concord pattern and that this is the reason why it can bypass the VSO restriction. If this is correct, then we see again that negative concord is not immune to language contact.

The second sample language with non-strict negative concord is Egyptian Arabic. What is special here is that of the various indefiniteness constructions there is only one that shows non-

²⁰ These formulas resemble the ones used in Haspelmath (1997: 201), when he compares 'NV-NI', 'V-NI', and '(N)V-NI' types of co-occurrences between negative indefinites and verbal negation. But there are two differences. First, our conception of what counts as a negative indefinite is different (see section 3). Second, we symbolize the domains where the negative indefinite precedes or follows the verbal negator separately. The Haspelmath formulas only show whether or not a negation on the verb is obligatory or not, but they do not show whether this applies to the preverbal or the postverbal domain – or even, as we will see, to both.

²¹ For a simple constellation as that in (19) the representation is redundant in that the preverbal and postverbal position of the negative indefinite is registered both on top and below the line. In schemes where there is either nothing below the line (see (26)) or more than one pattern (see Table 6) the format will help the understanding.

²² An alternative analysis could have *ni ... ni* as a discontinuous Jespersen negation and *háfafa* as a negative polarity item. There is, however, no independent evidence that Chamorro went through a Jespersen cycle.

strict negative concord, viz. the scalar indefinite determiner *wala*, which has the scalar meaning 'not even'. *Wala* expresses negation on its own when used preverbally, as in (21a), but it requires the presence of the verbal negator when it occurs postverbally, as one can see in (21b) (Lucas 2009: 211-212, also 2013: 433-434).

(21) Egyptian Arabic (Lucas 2009: 212, 210, based on Woidich 2006: 342)

- a. *wala* *taxi* *wiʔif*
 not.even taxi stop.PRF.3MSG
 'Not a single taxi stopped'
- b. *miš* *sāmiʕ* *wala* *kilma*
 NEG hear.PTCP.MSG not.even word
 'I can't hear a single word'

The other indefinite markers do not exhibit negative concord, neither non-strict nor strict. *Maḥaddiṣ*, for example, is truly negative; in (22a) it is preverbal and there is no additional verbal negator (in fact the verbal negator *ma ... š* is part of the pronoun), so there is no strict negative concord. And there is no non-strict negative concord either, for *maḥaddiṣ* cannot occur postverbally. Instead we get negation on the verb and a negatively polar indefinite (see (22b)).

(22) Egyptian Arabic (Lucas 2009: 206, 207)²³

- a. *maḥaddiṣ* *aja*
 nobody come.PRF.3M.SG
 'No one came'
- b. *ma* *šaf-nī-š* *ḥadd*
 NEG see.PRF.3MSG-me-NEG anyone
 'No one saw me'

The third sample language is Icelandic. Icelandic has two paradigms of negative indefinites. The first set always goes without the verbal negator, independently of word order.

(23) Icelandic (Neijmann 2001: 130)

- a. *Enginn* *er* *eins*
 nobody is alike
 'Nobody is alike'
- b. *Ég* *heyri* *ekkert*
 I hear nothing
 'I hear nothing'

²³ (22a) is actually Palestinian Arabic, but in this respect it functions like Egyptian Arabic. Lucas (2013: 431) cites this example as *maḥadāš ʔaja*.

The second set goes with the verbal negator only when the negative indefinite follows the verbal negator.

- (24) Icelandic (Nejmann 2001: 130)
Ég vissi ekki sjá neitt
 I did NEG see nothing
 'I didn't see anything'

This is what is expected of strict negative concord, but what makes it special and thus non-strict is that the negative indefinites of the second type cannot occur preverbally at all.

- (25) Icelandic (based on Haspelmath 1997: 214)
 **Neinn sag (ekki) mig*
 nobody saw NEG me
 'Nobody saw me'

This un-Spanish non-strict negative concord can be symbolized as in (26); the asterisk means that there is no NI preverbal pattern.

- (26)

N I preverbal	N I postverbal
*	N V > N I

The Icelandic case shows that Spanish style non-strict negative concord is not the only type of non-strict negative concord. Of course, one could argue that the Icelandic constellation is strict in the sense that when *nein* or *neitt* can occur (i.e. postverbally), the clausal negator is obligatory. But then it is non-strict – our approach – in the sense that for the strict variety the concord should not depend on word order, but with *nein* and *neitt* the concord does depend on word order. One could also rule out, by definition, anything other than the Spanish constellation as non-strict negative concord and thus be forced to say the Icelandic constellation is something else. Indeed, Haspelmath (1997: 214, 253) had already drawn attention to the special Icelandic pattern, and he did not deal with it in the same way as he did with Spanish. But he did not integrate it in any wider or other account either – it was just mentioned in a footnote, as an exception. With the wisdom of hindsight, we propose to consider the Icelandic pattern as non-strict negative concord. The reason is that there are many more constellations deserving to be considered non-strict negative concord, different from Spanish – and Icelandic, for that matter – and that these patterns do fall into a pattern. A good starting point for discussing these non-Spanish non-strict negative concord cases is actually the Haspelmath (1997) book itself, for he mentions six more languages that call for this analysis.

The first language or set of languages is 'older Slavic' (Haspelmath 1997: 211). In older Slavic, postverbal negative indefinites always go with a clausal negator ((27a)), which is

accounted for by the Neg Early principle, for the clausal negator precedes the verb. Preverbal negative indefinites, however, allow clausal negators (compare (27b) with (27c)) – if they were strict in the way illustrated with Spanish, the older Slavic preverbal negative indefinites should forbid clause negators.

(27) Old Russian (Haspelmath 1997: 211-212, based on Křížková 1968: 24)

- a. *i ne idjaše s nimi nikto že*
 and NEG went with him nobody PRT
 'and nobody went with him'
- b. *ničego že sja bojat' běsi*
 nobody PRT self fear demons
 'The demons are afraid of nothing'
- c. *jako svoego nikto že ne xulit'*
 because self.ACC nobody PRT NEG abuses
 'because nobody abuses his own'

On a strictness scale, older Slavic is thus stricter than e.g. Spanish, Chamorro, or Egyptian Arabic. We represent the non-strictness of older Slavic in (28). The brackets indicate that the negator in the preverbal pattern is optional.

(28)	<u>N I preverbal</u>	<u>N I postverbal</u>
	N I > (N) V	N V > N I

Note that one can argue that older Slavic does not actually document a subtype of non-strict negative concord but rather a transition between strict and non-strict negative concord. From this perspective the account of negative concord will be simpler but one will have to complement it with an account of transitions or 'mixed' systems (cp. De Swart 2010: 173-175). From our perspective, there is only the one account of negative concord, but a more complex one. The choice is partially terminological. We prefer our perspective for two reasons. First, it is not the case that mixed systems are necessarily short-lived and thus marginal. For example, because French preverbal *ne* can remain absent in a *ne rien* construction, we will in what follows treat even French as illustrating a type of non-strict negative concord. The *ne* deletion process is certainly not a short-term phenomenon: it has been going on for ages (Martineau & Mougeon 2003) on the disappearance of French preverbal *ne*). So it is not correct to make a strong link between mixed systems and instability – or, for that matter, between pure systems with stability (for they also change). Second, non-strict negative concord is itself a mixed system, for it has one strategy for the preverbal domain and another one for the postverbal domain. We propose treating all mixed systems in the same way, to wit, as types of non-strict negative concord.

The second language is Catalan (Haspelmath 1997: 259). The kind of non-strictness in Catalan is synchronically the same as that in older Slavic, at least with respect to what is possible and what is necessary.

(29) Catalan (de Swart 2013: 173)

- a. *Ningú* (*no*) *ha* *vist* *Joan*
 nobody NEG has seen John
 'Nobody has seen John'
- b. *En* *Pere* *no* *ha* *fet* *res*
 the Peter NEG has done nothing
 'Peter has done nothing'

The diachrony is different, however. The non-strictness of older Slavic led to strictness in the modern Slavic languages, but in current Catalan the evolution is from strictness, found in the formal register, as in formal French, to Spanish style non-strictness, found in the informal register (Haspelmath 1979: 259, referring to specialist studies). So the directionality is the opposite from what we find in older Slavic.

The third language alluded to in Haspelmath (1979: 212-213) and taken to exhibit non-Spanish non-strict negative concord is older Romance. Here there is no direct evidence; the argumentation derives on what is known about Latin and the Romance vernaculars. Latin had a pattern that did not combine negative indefinites with any clausal negators. The hypothesis is that older Romance introduced clausal negators first with postverbal indefinites and - this is our assumption - this did not happen overnight but was first optional. This gives us the type symbolized in (30).

(30)

N I preverbal	N I postverbal
N I > V	(N) V > N I

The fourth language is African American Vernacular English. Here the negative indefinite may occur with a verbal negative both when the negative indefinite precedes the verb and when it follows.

(31) African American Vernacular English (Haspelmath 1997: 213, 213; Howe 2005: 188, 194)

- a. *Nobody don't know where it's at*
 b. *Nobody fights fair*
 c. *I ain't got no dough anyway*
 d. *Say goodbye, you got no class*

It is true, as Haspelmath (1997: 213) claims, that when the negative indefinite comes first, one normally gets negative concord, and this is not the case with the opposite order, yet in neither is negative concord obligatory (Howe 2005). Thus the African American Vernacular English pattern is that of (32).

$$(32) \quad \frac{\text{N I preverbal}}{\text{N I} > (\text{N}) \text{ V}} \quad \frac{\text{N I postverbal}}{(\text{N}) \text{ V} > \text{N I}}$$

This is also the pattern for the fifth language, viz. French.

(33) French

- a. *Jamais je (n')ai vu une chose pareille*
 never I NEG.have seen a thing similar
 'Never have I seen anything similar'
- b. *Je (n')ai vu personne*²⁴
 I NEG.have seen nobody
 'I haven't seen anybody'

The French pattern is discussed in connection with the influence of the Jespersen Cycle (Jespersen 1917, van der Auwera 2009). This is fully appropriate. Thus the preference relations in French are different from the ones holding for African American Vernacular English: in French concord is the norm for the formal written register and *ne* drop characterizes the informal register. But making abstraction of what is preferred and just focusing on what is possible, the pattern is (32).

The sixth language, finally, is Georgian, and for this language Haspelmath (1997: 211) admits that he does not know what explains its non-strict negative concord, nor does he give a good description. We will come to Georgian later.

It is important to stress that Haspelmath (1997) acknowledges the additional types only as 'asides'; there is no integrated account for them, the two basic types being Haspelmath's counterparts to strict negative concord and Spanish style non-strict negative concord. Two of them, older Romance and older Slavic, however, are integrated in a diachronic hypothesis, shown in Table 6. Shading and lining mark where each stage differs from the preceding one.

²⁴ When the verbal negator is absent, *je* is reduced to *j'*.

Stage	N I preverbal	N I postverbal	Romance	Slavic
1	N I > V	V > N I	Latin	
2	N I > V	(N) V > N I	older Romance	
3	N I > V	N V > N I	Spanish	
4	N I > (N) V	N V > N I		older Slavic
5	N I > N V	N V > N I	Romanian	modern Slavic

Table 6: A negative concord diachrony for Romance and Slavic

From Latin with only negative indefinites, the scenario shows the verbal negative showing up first with the postverbal negative indefinite, optionally at first (Stage 2), obligatorily later (Stage 3), after which the verbal negative also appears with the preverbal negative indefinite, again first optionally (Stage 4) and then obligatorily (Stage 5). Languages like Spanish stopped at Stage 3 but languages like Romanian went all the way.

The scenario in Table 6 has much to commend it – and probably for this reason it is still discussed in Willis et al (2013: 40). There are five positive features. First, the patterns given for Latin, Spanish, and Romanian at Stages 1, 3, and 5 are correct. Second, there is a principled reason why the scenario is the way it is, viz. the combination of the preference of clausal negation appearing as verbal negation (from its absence in Stage 1 to its obligatoriness in two patterns in Stage 5) and the Negative Early principle (explaining why the verbal negative first appears when the negative indefinite is postverbal). A third positive feature, a little less obvious, is that the Slavic facts testify to the reality of change from Stage 4 to Stage 5. A fourth positive feature is that though the attribution of older Romance to Stage 2 is questionable (see below), the very existence of such a stage, we hereby claim, is not at issue. Brabantic Belgian Dutch illustrates it – and so does Western (Montreal) Québec French with *pas* as verbal negator (Pierre Larrivée p.c.).

(34) Brabantian Belgian Dutch

- a. *Niemand heeft mij (*nie) gezien*
 nobody has me NEG seen
 'Nobody has seen me'
- b. *Ik heb niemand (nie) gezien*
 I have nobody NEG seen
 'I have seen nobody'

And, fifthly, a development from stage 3 to 5 has now been supported for Romance with data from Romanian (Falaus 2008: 125-126).

But then there are problems too. Just because East Romance shows a progression from non-strict to strict negative concord does not mean that West Romance went this way. Indeed, one finds specialists claiming that (some) older Western Romance had strict negative concord, i.e., the alleged Stage 5 pattern (Posner 1984, Martins 2000: 193-194, Parry 2013: 112) or the pattern shown at Stage 4 (Molinelli 1988: 55; Parry 2013: 112). If either hypothesis is right for a language like Spanish, then one must assume that a language can go backwards on the trajectory, i.e., from strict negative concord to Spanish style non-strict negative concord. Haspelmath (1997: 213) rules it out, as it would go against the principle that clausal negation should be verbal negation. But on this point, Catalan is relevant, for a development from strict negative concord to Spanish style non-strict negative concord is precisely what is going on. So independently of whether older Romance should be at stages 2, 4, or 5, the Catalan facts show that the scenario is wrong or, at least, incomplete in that there is no one direction.

To conclude the discussion about Haspelmath (1997), we have seen that Spanish style non-strict negative concord is joined by four different types of non-strict negative concord. They are listed in Table 7.

N I preverbal	NI postverbal	Examples
N I > V	(N) V > N I	Belgian Brabant Dutch, Western Québec French ²⁵
N I > (N) V	(N) V > N I	African American English, French
N I > (N) V	N V > N I	Older Slavic, Catalan
*	N V > N I	Icelandic

Table 7: Additional subtypes of non-strict negative concord

Then there is also Georgian, which Haspelmath (1997: 211) left aside, though acknowledging its non-strict negative concord. It must have been too late for Haspelmath (1997) to take account of King (1996). What is relevant in this language is not whether the negative indefinite appears before the finite verb, but whether the negative indefinite immediately precedes the finite verb. If that is the case, then the verbal negator is optional. In all other cases, the verbal negator is obligatory. This is illustrated in (36), and the pattern is (37), with '>>' standing for immediate precedence.

²⁵ Pierre Larrivée (p.c.) points out that in Eastern Québec French, the variant of Québec City, a preverbal negative indefinite does allow negative concord with the verbal negator *pas*. It is rather plausible to see the Eastern variant as the more progressive one. It paradoxically joins European French, but while the latter does its concord with *ne*, Québec French does it with *pas*.

(35) Georgian (King 1996: 234)

- a. *šeni cigni versad (ver) vnaxe*
 your book nowhere NEG 1.see.3
 'I couldn't see your book anywhere'
- b. *versad šeni cigni ver vnaxe*
 nowhere your book NEG 1.see.3
 'I couldn't see your book anywhere'
- c. *nu gagzavnit nursed²⁶*
 neg 2.send.3 nowhere
 'Don't send it anywhere'

(36)	N I preverbal		N I postverbal
	NI >> (N) V	&	NI > N V
			N V > N I

In (35b) the negative indefinite *versad* certainly comes early and even first. So for the Negative Early principle there is no need for a verbal negator. However, *versad* does not go immediately in front of the verb, and this is the crucial factor. Jespersen (1917: 5) seems to have been aware of the relevance of this point - see the original quote, repeated below, but with the double hedge in bold (cp. also Dahl 2010: 23 and van der Auwera 2011: 853²⁷).

There is a natural tendency, also for the sake of clearness, to place the negative first, or at any rate as soon as possible, **very often** immediately before the particular word to be negated (**generally** the verb).

That this immediate preverbal position of the verbal negator is relevant is also visible in the non-strict negative concord in most of the Romance languages and all of the Slavic languages with strict negative concord: in these languages the verbal negator is also in the immediate preverbal position. Note that the hedge with 'in these languages' is important. Table 4 lists many languages with strict negative concord with no preverbal negator and Brabantian Belgian Dutch, shown in (34), has non-strict negative concord with a postverbal negator (at least when we take the finite verb, as we have always done up to now).

In the post-Haspelmath period, it is mostly Catalan that engages researchers, with e.g. Zeijlstra (2004: 133-134), followed by Penka (2011: 17), treating the informal and formal varieties separately, Giannakidou (2006: 358) using it to show that Romance negative concord is not uniform and Willis e.a. (2013: 40) calling it 'optionally strict'. The Catalan subtype is also claimed for non-West Saxon Old English by Ingham (2006: 248), and even for Middle English,

²⁶ King (1996) does not give a declarative example, so we have to do with a prohibitive one and the assurance (King 1996: 241) that Georgian is not a strict verb-final language.

²⁷ It is also interesting that De Swart (2010: 94-96) renders the Jespersen quote as "Negation precedes the finite verb".

though by this time the language is very nearly strict (Ingham 2006: 248, 253) and de Swart (2010: 163-175) reports it for Brazilian Portuguese, Basque Spanish, and Argentinian Spanish. The literature furthermore documents three additional types of non-strict negative concord. One is documented with Western Armenian. The type is similar to Catalan, in that a preverbal negative indefinite goes with an optional verbal negator, but then it is also different in that the language does not seem to tolerate a postverbal negative indefinite (Khanjian 2010, 2012).

(37) Western Armenian (Khanjian 2010:5)

votf-intf (*t/i*)-desa
no-what (NEG)-saw
'I didn't see anything'

(38)
$$\frac{\text{N I preverbal} \quad \text{N I postverbal}}{\text{N I} > (\text{N}) \text{ V} \quad *}$$

The reason that negative indefinites do not occur postverbally must be that the language is strongly verb-final. The contrast with Eastern Armenian is interesting. Western Armenian is much more verb-final than Eastern Armenian (J. Dum Tragut, p.c.), 'probably' because of contact influence from Turkish (Johanson 2002: 113) and Eastern Armenian has strict negative concord (Dum-Tragut 2009: 529), due to contact influence from Russian (J. Dum Tragut 2002: 199).

We are aware that one could argue that a constellation like that of Western Armenian should not be given a place in the typology of non-strict negative concord, for the impossibility of postverbal negative would be due to a general word order property of the language. There are two reasons why we do not go along with this line of thinking. First, if non-strict negative concord means that a language shows negation on both the verb and the indefinite in some constructions but not in all, then this description fully applies to Western Armenian. Second, description is different from explanation. For the explanation, a general word order property such as verb-finality does indeed deserve full credit, next to other factors, such as the form meaning mismatch hypothesis, the Negative Early principle, or language contact. Note also that verb-finality, just like negative concord and like verb-initiality, for that matter, also comes in strict and non-strict types. In Western Armenian verb-finality is strong, strong enough in any case to forbid postverbal negative indefinites, but not, we understand, strict.

The second language is Welsh and to some extent it is the mirror image of Western Armenian.²⁸ Welsh is verb-initial and there are therefore no preverbal indefinites. With the obligatorily postverbal negative indefinite, the verbal negator is optional.

(39)
$$\frac{\text{N I preverbal} \quad \text{N I postverbal}}{* \quad (\text{N}) \text{ V} > \text{N I}}$$

²⁸ The facts discussed below are based on de Swart (2010: 186-193, further based on Borsley & Morris Jones 2005), and on Willis (2013: 242-272).

Welsh is also very similar to the pattern shown for Icelandic, viz. (26). There too the relevant negative indefinite cannot occur preverbally, and when the negative indefinite occurs postverbally there is concord. The difference is that this concord is obligatory for Icelandic but optional in Welsh.

(40) Welsh (de Swart 2010: 187, based on Borsley & Morris Jones 2005: 22, 29)

- a. *Ni soniodd neb am y digwyddia*
 NEG mentioned nobody about the event
 'Nobody mentioned the event'
- b. *Welish i neb*
 saw I nobody
 'I saw nobody'

The pattern without the verbal negator is informal Welsh and the one with the verbal negator is formal Welsh (de Swart 2010: 187). Welsh is interesting for yet another reason. Welsh underwent the Jespersen cycle, informal Welsh most strongly so. The new negator is a postverbal *ddim* word. With a simple verb *ddim* does not combine with a negative indefinite (Willis 2013: 270).

(41) Welsh (Willis 2013: 270)

- Welodd neb (*ddim) Dafydd*
 saw nobody NEG Dafydd
 'Nobody saw Dafydd'

But the situation is different when we have a compound verb, i.e., a construction with an auxiliary and a lexical verb. What matters is the position of the negative indefinite relative to the lexical verb. When it precedes there is no negative concord and when it follows, there is negative concord.

(42) Welsh (de Swart 2010: 189)

- a. *Fuo' fo erioed yn gweithio*
 was he never PROG work
 'He has never worked'
- b. *Fuo' fo ddim yn gweithio erioed*
 was he NEG PROG work never
 'He has never worked'

The pattern can be symbolized in (43) – with V_L for lexical verb of the compound construction.

- (43) N I preverbal N I postverbal
 NI > V_L N V_L > N I

This pattern is actually very similar to Spanish style non-strict negative concord, except that the reference point is not the finite verb but the compound lexical verb.

The third additional type of non-strict negative concord is documented for Yiddish (but compare Posner 1984: 3-4 on Spanish and Italian). In Yiddish the conditioning factor does not relate to word order, but to emphasis.

- (44) Yiddish (van der Auwera & Gybels 2014: 208 for 44a)
- a. *Keyner* *iz* *nit* *gekumen*
 nobody is NEG come
 'and nobody has come'
- b. *Fargest* *nit,* *az* *ir* *zayt* *nit* *keyn* *yungermantshik!*
 forget NEG that you are NEG no young.man
 'Don't forget that you are not a young man!'

What we see in (44) looks like strict negative concord, for in (44a) the negative indefinite follows the finite verb, and in (44b) it is the other way round. However, there is an observation in the literature, originally by Mark (1978: 394), approvingly cited by Jacobs (2005: 252) and confirmed in van der Auwera & Gybels (2014: 208-209), that the absence of negative concord creates emphasis, which furthermore does not seem to depend on word order.

- (45) Yiddish (van der Auwera & Gybels 2014: 209)
- Ober* *men* *ken* *dokh* *tsum* *keyser* *nit* *firn* *a* *yidn*
 but one can surely to.the emperor NEG bring a Jew
mit *bord* *un* *peyes*
 with beard and earlocks
 'But surely one cannot bring to the emperor any Jew with beard and earlocks'

With the addition of Georgian, Western Armenian, Welsh and Yiddish we now have a fair number of subtypes of non-strict negative concord, in addition to the Spanish subtype. This finding suggests strongly that we should no longer think in terms of a two-way split. This split dates back to the time when the negative concord literature was focused on Western Romance and Slavic. We now have wider data, which, though still very Eurocentric, gives us a more complex picture, with no pride of place to Spanish type negative concord. The following parameters are important. First, is the absence of negative concord meaningful?²⁹ In most of 'our' languages it is not, but Yiddish shows that it can be meaningful. Second, is the verb that the

²⁹ What we do *not* have in mind is the out-of-scope reading of a positive indefinite as *I did not see somebody* meaning 'there is this somebody that I did not see'.

negative concord relates to the finite verb? In most of our languages it is but Welsh shows that it can be the non-finite lexical verb. Third, does the verbal negator precede the verb (usually the finite verb)? In most of our languages it does, but in Belgian Brabant Dutch it does not. Is it sufficient for the verbal negator to precede the verb (usually the finite verb), whether immediately or not? In most of our languages that is sufficient, but not in Georgian. And finally, for the cases of non-strict negative concord parametrized as to the relative position of a finite verb and a negative indefinite there are at least 7 subtypes. The first parameter is whether the negative indefinite can both precede and follow the finite verb. In most of our languages it can, but not, in some constructions, in Icelandic, Welsh, and Western Armenian. In Icelandic and Welsh the negative indefinite cannot precede the finite verb, while in Western Armenian the negative indefinite cannot follow the finite verb.

N I preverbal	N I postverbal	N I preverbal	N I postverbal
*	(N) V > N I	N I > (N) V	*
	⋮		
*	N V > N I		

Table 8: Additional subtypes of non-strict negative concord

Note that a construction with an impossible postverbal negative indefinite and a preverbal negative with negation obligatorily doubling on the verb has not been attested (?yet). And when the negative indefinite can both precede and follow the finite verb, there are another four patterns, from e.g. Belgian Brabant Dutch on the top of Table 9 to Older Slavic at the bottom, with either French or Spanish in the middle (with French on the left and Spanish on the right).

N I preverbal	N I postverbal	N I preverbal	N I postverbal	N I preverbal	N I postverbal
		N I > V	(N) V > N I		
N I > (N) V	(N) V > N I			N I > V	N V > N I
		N I > (N) V	N V > N I		

Table 9: Additional subtypes of non-strict negative concord

Observe that from the perspective of Table 9 it is not e.g. the Older Slavic subtype that is intermediate but the Spanish one, and also that it shares the intermediate position with French.

5. Conclusion

In this paper we explored the typology of negative concord, on the basis of the research literature and on a variety sample of 179 languages. We hold that negative concord is not that frequent, particularly not the non-strict variant. The latter does show a significant amount of variation, more than acknowledged in the literature, and more systematic than previously thought. We also devoted attention to the areal distribution of negative concord and on the explanatory side we gave pride of place to a form meaning mismatch hypothesis, to the Negative Early principle, and to language contact.

Abbreviations

AGR 'agreement', AUX 'auxiliary', EMP 'emphatic', I 'indefinite', LOC 'locative', N 'negation', NEG 'negation', O 'object', PASS 'passive', PAT 'patient', PRF 'perfective', PROG 'progressive', PRT 'particle', PST 'past', PTCP 'participle', S 'subject', SG 'singular', V 'verb'

Appendix 1. The sample

For every macro-area, languages are listed alphabetically, first according to the family they belong to and then to the genus within that family. When the language constitutes the genus and the genus constitutes the family, we repeat the names.

Africa: Beja (Beja, Afro-Asiatic), Tera (Biu-Mandara, Afro-Asiatic), Somali (Eastern Cushitic, Afro-Asiatic), Arabic (Semitic, Afro-Asiatic), Iraqw (Southern Cushitic, Afro-Asiatic), Hausa (West-Chadic, Afro-Asiatic), Nama (Central Khoisan, Khoisan), Ju'huan (Northern Khoisan, Khoisan), Bagirmi (Bongo-Bagirmi, Nilo-Saharan), Kresh (Kresh, Nilo-Saharan), So (Kuliak, Nilo-Saharan), Kunama (Kunama), Ngiti (Lendu, Nilo-Saharan), Ma'di (Moru-Ma'di), Mana (Maban, Nilo-Saharan), Lango (Nilotic, Nilo-Saharan), Nubian (Nubian, Nilo-Saharan), Koyraboro Senni (Songhay, Nilo-Saharan), Majang (Surmic, Nilo-Saharan), Kanuri (Western-Saharan, Nilo-Saharan), Yoruba (Defoid, Niger-Congo), Degen (Edoid, Niger-Congo), Supyire (Gur, Niger-Congo), Igbo (Igbo, Niger-Congo), Ijo (Ijoid, Niger-Congo), Ewe (Kwa, Niger-Congo), Diola-Fogny (Northern Atlantic, Niger-Congo), Nupe (Nupoid, Niger-Congo), Gbeya-Bossango (Ubangi, Niger-Congo)

Eurasia: Albanian (Albanian, Indo-European), Basque (Basque, Basque), Brahui (Northern Dravidian, Dravidian), Armenian (Eastern, Armenian, Indo-European), Hindi (Indic, Indo-European), Icelandic (Germanic, Indo-European), Japanese (Japanese, Japanese), Korean (Korean, Korean), Khalkha (Mongolic, Mongolian), Hunzib (Avar-Andic-Tseciz, Nakh-

Dagestanian), Lezgian (Lezgian, Nakh-Dagestanian), Nivkh (Nivkh, Nivkh), Evenki (Tungusic, Tungus), Finnish (Finnic, Uralic), Mansi (Ugric, Uralic)

South-East Asia and Oceania: Khasi (Khasian, Austro-Asiatic), Khmu' (Paluang-Khmuic, Austro-Asiatic), Khmer (Mon-Khmer, Austro-Asiatic), Nicobarese (Nicobarese, Austro-Asiatic), Pacoh (Katuic, Austro-Asiatic), Vietnamese (Viet-Muong, Austro-Asiatic), Seediq (Atayalic, Austronesian), Kambera (Central Malayo-Polynesian, Austronesian), Chamorro (Chamorro, Austronesian), Gayo (Gayo, Austronesian), Tagalog (Meso-Philippine, Austronesian), Lewo (Oceanic, Austronesian), Biak (South-Halmahera-West New Guinea, Austronesian), Muna (Sulawesi, Austronesian), Rukai (Tsouic, Austronesian), Tibetan (Bodic, Sino-Tibetan), Burmese (Burmese-Lodo, Sino-Tibetan), Cantonese (Chinese, Sino-Tibetan), Lai (Kuki-Chin, Sino-Tibetan), Meithei (Meithei, Sino-Tibetan), Thai (Kam-Tai, Tai-Kadai)

Papua New Guinea and Australia: Nasioi (East Bougainville, East Bougainville), Ambai (Lower Mamberamo, Lower Mamberamo), Mende (Middle Sepik, Sepik-Ramu), Abau (Nor-Pondo-Ramu, Sepik-Ramu), Yimas (Upper Sepik, Sepik-Ramu), Skou (Western Skou, Skou), Lavukaleve (Lavukaleve, Solomons East Papuan), Arapesh (Kombio-Arapesh, Torricelli), Makalero (Makasae-Fataluku-Oirata, Timor-Alor-Pantar), Usan (Adalbert Range, Trans-New-Guinea), Menya (Angan, Trans-New-Guinea), Kobon (East New Guinea, Trans-New-Guinea), Orokolo (Eleman, Trans-New-Guinea), Nabak (Finisterre-Huon, Trans-New-Guinea), Kunimaipa (Goilalan, Trans-New-Guinea), Koiari (Kioarian, Trans-New-Guinea), Amele (Madang, Trans-New-Guinea), Mauwake (Madang, Trans-New-Guinea), Abun (North Central Bird's Head, Trans-New-Guinea), Kilmeri (Northern Trans-New-Guinea, Trans-New-Guinea), Mian (Ok, Trans-New-Guinea), Sentani (Sentani, Trans-New-Guinea), Inanwatan (South Bird's Head, Trans-New-Guinea), Gooniyandi (Bunuban, Australian), Gaagudju (Gaagudju, Australian), Garrwa (Garrwan, Australian), Binin-Gun Wok (Gunwinyguan, Australian), Wardaman (Gunwinyguan, Australian), Maung (Iwaidjan, Australian), Mara (Maran, Australian), Bardi (Nyulnyulan, Australian), Ngiyambaa (Pama-Nyungan, Australian), Kayardild (Tangkic, Australian), Tiwi (Tiwian, Australian), Djingili (West Barkly, Australian), Murrinya Patha (Western Daly, Australian)

North-America: Cheyenne (Algonquian, Algonquian), Wiyot (Wiyot, Algonquian), Slave (Athapaskan, Na-Dene), Haida (Haida, Na-Dene), Karok (Karok, Hokan), Eastern Pomo (Pomoan, Hokan), Seri (Seri, Hokan), Washo (Washo, Hokan), Maricopa (Yuman, Hokan), Huave (Huave, Huave), Oneida (Northern Iroquoian, Iroquoian), Koasati (Muskogean, Muskogean), Chinook (Chinookan, Penutian), Klamath (Klamath-Modoc, Penutian), Chiapas Zoque (Mixe-Zoque, Mixe-Zoque), Tetepotutla Chinantec (Chinantecan, Oto-Manguean), Mam (Mayan, Mayan), Chalcatongo Mixtec (Mixtec, Oto-Manguean), Otomí (Otomian, Oto-Manguean), Chocho (Popolocan, Oto-Manguean), Northern Sierra Miwok (Miwokan, Penutian), Nez Perce (Sahaptian, Penutian), Siuslaw (Siuslawian, Penutian), Takelma (Takelman, Penutian), Purépecha (Tarascan, Tarascan),

Tshimsian (Tsimshianic, Penutian), Bella Coola (Bella Coola, Salishan), Squamish (Central Salishan, Salish), Lakshota (Siouan, Siouan), Upper Necaxa Totonac (Totonacan, Totonacan), Mecayapan Nahuatl (Aztecan, Uto-Aztecan), Nevome (Tepiman, Uto-Aztecan), Huichol (Corachol, Uto-Aztecan), Makah (Southern Wakashan, Wakashan), Wappo (Wappo, Wappo-Yukian), Yuchi (Yuchi, Yuchi)

South-America: Andoke (Andoke, Andoke), Paumarí (Arauan, Arauan), Mapuche (Araucanian, Araucanian), Baure (Arawakan, Arawakan), Jaqaru (Aymaran, Aymaran), Awa Pit (Barbacoan, Barbacoan), Chayahuita (Cahuapanan, Cahuapanan), Wai Wai (Cariban, Cariban), Wari; (Chapacura, Wanham, Chapacura-Wanhan), Damana (Aruak, Chibchan), Border Kuna (Kuna, Chibchan), Rama (Rama, Chibchan), Teribe (Talamanca, Chibchan), Tehuelche (Chon Proper, Chon), Epena Pedee (Choco, Choco), Sikuaní (Guahiban, Guahiban), Pilagá (Guaicuruan, Guaicuruan), Aguaruna (Jivaroan, Jivaroan), Kwazá (Kwazá, Kwazá), Chiquitano (Chiquitano, Macro-Ge), Canela-Krahô (Gei-Kaingang, Macro-Ge), Wichí (Matacoan, Matacoan), Mosetén (Mosetenan, Mosetenan), Pirahã (Mura, Mura), Hup (Nadahup, Nadahup), Páez (Paezan, Paezan), Shipibo-Konibo (Panoan, Panoan), Yagua (Pebe-Yaguan, Pebe-Yaguan), Puinave (Puinave, Puinave), Imbabura Quechua (Quechuan, Quechuan), Araona (Tacanan, Tacanan), Trumai (Trumai, Trumai), Tuyuca (Tucanoan, Tucanoan), Guaraní (Tupian, Tupi-Guarani), Urarina (Urarina, Urarina), Chipaya (Uru-Chipaya, Uru-Chipaya), Waorani (Waorani, Waorani), Warao (Warao, Warao), Yanomámi (Yanoman, Yanoman)

Creoles: Haitian Creole

The identification of the sources would significantly extend the size of this paper. See Miestamo (2005: 241-252), Van Alsenoy (2014: 559-567) as well as Van Alsenoy & van der Auwera (2014: 41-45).

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