

Negative concord in Russian Sign Language

Jeremy Kuhn, Lena Pasalskaya

Institut Jean Nicod, Département d'Études Cognitives, ENS, EHESS, CNRS, PSL University

Abstract

In this paper, we provide the first systematic description of negative concord in Russian Sign Language (RSL). Although non-manual markers have been argued to participate in negative concord in sign languages, negative concord involving only manual signs has been shown to be much rarer. The RSL pattern thus fills this typological gap, providing one of the first clear cases of negative concord of manual signs in sign language. We show that RSL contributes important new data to the typology of negative concord known from spoken language. First, we show that RSL (like Hungarian) shows characteristics of both strict and non-strict patterns of negative concord. In neutral contexts without movement, NC items in both subject and object position require a negative licensor; on the other hand, in contexts with appropriate information structure, focused NC items may appear in specific structural positions without a licensor. These facts provide evidence against analyzing the strict/non-strict divide as a language-level property. Second, focusing on non-strict concord, we show that RSL diverges from other languages with respect to important macro-syntactic properties. In RSL, like in a number of other sign languages, negative elements may appear in a structure on the right edge. It is precisely this position that allows NC items to appear without a licensor; in this respect, RSL is a mirror-image of languages like Italian. These syntactic properties provide new evidence that structural hierarchy, not linear order, is responsible for explaining the presence or absence of a licensor in patterns of non-strict concord.

1. Introduction

Negative concord (NC) describes a pattern in which negative marking appears on multiple morphological items but only one negation is interpreted. NC items (elsewhere called N-words or Neg-words) are elements that are only grammatical in the presence of a negative licensor. In Russian, the sentence ‘*Marija ne videla nichego*’, (lit. ‘Mary not saw nothing’) negates the proposition that Mary saw something. The NC item *nichego*, ‘nothing,’ is only grammatical with the negative marker *ne*, ‘not.’¹

NC patterns can be classified as involving *strict* or *non-strict* concord (Giannakidou 1997). In strict concord patterns, as seen in Russian, NC items always require a negative licensor. In non-strict concord patterns, there are some syntactic positions in which NC items appear to carry negative force themselves, without an overt negation. In Italian, for example, NC items in pre-verbal position seem to carry negative force themselves, with no overt licensor. This typological variation has opened a number of theoretical questions. First, what is the nature of the divide between strict and non-strict patterns? On some theories, the strict/non-strict distinction is analyzed as a language-level property: some languages are strict concord languages and others are non-strict concord languages. On other theories, the strict/non-strict distinction arises from syntactic or semantic factors that may vary within a single language. Evidence in favor of the latter perspective comes from languages, like Hungarian, that have been argued to display both patterns (Szabolcsi 2018). Second, focusing on patterns of non-strict concord, what configurational properties are responsible for the ability of a NC item to appear without a licensor? Descriptively, patterns of non-strict concord can be characterized in one

¹ Terminologically, we use the term ‘negative marker’ to refer to an overt verbal marker of sentential negation: for example, the word *not* in English, the word *ne* in Russian, and the word glossed NOT in RSL. We use the term ‘negative indefinite’ to refer to quantificational words used to express negation: the words *nobody*, *nothing*, *never* in English, the words *nikto*, *nichego*, *nikogda* in Russian, and the words glossed NOBODY, NOTHING, NEVER1, NEVER2 in RSL. The term ‘negative element’ is used as a general term that encompasses both negative markers and negative indefinites. We reserve the term ‘NC item’ specifically for those negative elements whose grammaticality depends on the presence of a negative licensor. Thus, the Russian negative indefinite *nichego* is a NC item, but the English negative indefinite *nothing* is not.

of two ways: either in terms of linear order—whether the NC item appears before or after the verb—or in terms of structural properties—whether the NC item appears above or below the verb. Notably, in all previously described patterns of non-strict concord, these two properties are confounded; the languages in question are strongly right-branching languages, so material that is before the verb is also higher than the verb.

Sign languages present a different language modality, in which linguistic generalizations can be tested and amended. Of relevance to the case at hand, sign languages have been shown to have different macro-syntactic tendencies with respect to negation: unlike the spoken languages mentioned above, many sign languages allow negative elements to appear in a projection on the right edge of the sentence. Sign languages may thus bear new light on questions that are confounded for spoken languages. On the other hand, Zeshan (2004) and Kuhn (2020) observe that canonical cases of negative concord—in which negative indefinites combine redundantly with a manual negative marker—are typologically rare in sign language. For example, Geraci (2005) shows that in Italian Sign Language, negative indefinites never require a negative licenser, unlike spoken Italian. This lacuna makes it challenging to use sign language data to test generalizations pertaining to negative concord.

In this theoretical context, we contribute new data from Russian Sign Language (RSL). We show that RSL is a negative concord language: in many cases, the negative indefinites NOBODY, NOTHING, NEVER1, and NEVER2 require a negative licenser in order to be grammatical, as illustrated in (1).²

- (1) a. NOBODY 3-CALL-1 NOT
 ‘Nobody called me.’
 b. * NOBODY 3-CALL-1

We further show that RSL, like Hungarian, is a language with characteristics of both strict and non-strict negative concord. When NC items appear in their *in situ* position, they require a negative licenser, regardless of whether this *in situ* position is before, after, above, or below the verb. Such findings mirror the strict concord patterns observed in languages like Russian, in which both preverbal subjects and postverbal objects require a negative licenser. On the other hand, focused NC items may be dislocated to the right edge of the clause; in such cases, they may appear without any additional overt licenser, as illustrated in (2). In this respect, RSL is a mirror-image of languages like Italian, in which NC items may appear without a licenser when they appear on the left edge of the clause.

- (2) 3-CALL-1 NOBODY
 ‘Nobody called me.’

The results from RSL bear on the two theoretical questions outlined above. First, the fact that RSL displays characteristics of both strict and non-strict patterns provides further evidence that this opposition should not be analyzed as a language-level property, but instead results from factors that may vary within a single language. Second, the fact that non-strict concord in RSL involves a projection on the right edge of the clause provides evidence that structural hierarchy, not linear order, is responsible for explaining the presence or absence of a licenser in patterns of non-strict concord.

The article is structured as follows. Section 2 introduces the typology of negative concord in spoken languages, and the theoretical questions raised by this typology. Section 3 introduces the strategies of negation

² In sign language examples, manual signs are glossed with their closest English translation in capital letters. The gloss NOT is used to indicate the particle marking sentential negation (with the exception of LIS, for which Geraci 2005 distinguishes between two forms, NON and NEG). The gloss IX is used for pronouns. Person agreement is indicated with the numbers 1, 2, or 3 separated from a pronoun or verb by a dash. (Thus, IX-1 is the first person pronoun, and CALL-1 is the predicate ‘call me.’) Two signs with the same meaning are distinguished with numbers without a dash. (Thus, NEVER1 and NEVER2 are two lexical items that mean ‘never.’) Multiple English words are combined with periods to gloss single signs with complex meanings (e.g. WANT.NOT). Non-manual markers are indicated above the glosses of manual signs, with a line to indicate which manual signs co-occur with the non-manual marker. We use ‘neg’ for non-manual markers of negation (for RSL, headshake), ‘top’ for markers of topicalization (for RSL, eyebrow raise), ‘whq’ for markers of *wh*-questions, ‘blink’ for blinks, ‘squint’ for squints, and ‘head-tilt’ for head tilts.

in sign language, including the typological tendencies that distinguish these patterns from those of spoken language. After the research methodology is outlined in Section 4, Section 5 presents the novel data and generalizations from RSL. Section 6 provides an explicit analysis of the RSL data, which is compared to alternatives in Section 7. Section 8 concludes.

2. The typology of negative concord

Natural languages can express negative quantification in at least two ways. In some languages, negative quantification is expressed with a single negative element. In English, for example, the generalized quantifier *nothing* contributes a negative meaning; no other marker of negation is needed. The sentence in (3) is true if there does not exist an entity that Mary saw.

- (3) Mary saw nothing. (English)

In languages with *negative concord*, the negative meaning may be distributed over several morphological elements in the sentence (Labov 1972; Laka 1990; Zanuttini 1991; Ladusaw 1992; Giannakidou 1997; Giannakidou 2000; Zeijlstra 2004, *i.a.*). In Russian, for example, the semantic contribution of English *nothing* is expressed by the negative indefinite *nichego*, ‘nothing,’ in conjunction with the negative marker, *ne*. Sentence (4a) provides a translation of the English sentence in (3). Example (5) shows that *ne* is a standard marker of sentential negation in Russian.

- (4) a. Marija ne videla nichego. (Russian)
 Maria not see.pst nothing.acc
 ‘Maria saw nothing.’
 b. * Marija videla nichego.
 Maria see.pst nothing.acc
- (5) a. Marija videla kot-a.
 Maria see.pst cat-acc
 ‘Marija saw a cat.’
 b. Marija ne videla kot-a.
 Maria not see.pst cat-acc
 ‘Marija didn’t see a cat.’

In negative concord languages, NC items are elements that are only grammatical in the presence of a negative licensor. In (4a), the NC item *nichego* is licensed by *ne*; the sentence becomes ungrammatical without the negative marker in (4b).

2.1 Strict and non-strict negative concord

Typologically, patterns of negative concord can be divided into two basic types: strict negative concord, and non-strict negative concord (Giannakidou 1997). In patterns of strict concord, as can be seen in Russian and Greek, NC items always require an overt licensor, irrespective of what the NC item is, what grammatical role it plays, and where it appears in the sentence. In (4), for example, the NC item is the postverbal object *nichego*, ‘nothing’; in (6), the NC item is the preverbal subject *nikto*, ‘nobody’. In both cases, the NC item needs to be accompanied by a negative marker.

- (6) a. Nikto ne videl Mariju. (Russian)
 nobody not see.pst Maria-acc
 ‘Nobody saw Mary.’
 b. * Nikto videl Mariju.
 nobody see.pst Maria-acc

In non-strict patterns, as can be found in Italian and Spanish, NC items may sometimes appear without an overt licenser. In these languages, whether or not you need a negative marker depends on where the NC item appears in the sentence. To a first approximation: post-verbal NC items require a licenser; pre-verbal NC items do not. Sentences (7) and (8) illustrate the pattern with examples from Italian. In (7), the NC item appears after the verb, so the sentence is ungrammatical without the negative marker *non*. In (8), the NC item appears before the verb, so a negative marker is not needed, and, in fact, makes the sentence unacceptable (or, for some speakers, acceptable only with a double negation reading: ‘Everybody called’). Observe that this is determined by the form of the sentence, and not by grammatical role, as the NC item in both cases is the subject of the sentence.

- (7) a. Non ha telefonato nessuno. (Italian)
not AUX called nobody
b. * Ha telefonato nessuno.
AUX called nobody
‘Nobody called.’
- (8) a. Nessuno ha telefonato.
nobody AUX called
b. * Nessuno non ha telefonato.
nobody not AUX called
‘Nobody called.’

What is the grammatical difference between strict and non-strict patterns of concord? In some theories of negative concord, the strict/non-strict distinction is described and analyzed as a language-level property: some languages are strict concord languages and others are non-strict concord languages (Zeijlstra 2004). On the analysis of Zeijlstra (2004), for example, the distinction arises from the denotation of the negative marker in a given language—whether it is interpreted with a negative meaning or not. In other theories, the strict/non-strict distinction arises as result of syntactic or semantic factors that may vary within a single language (Espinal 2007; Szabolcsi 2018). In support of this latter hypothesis, Surányi (2006) and Szabolcsi (2018) show that Hungarian in fact displays patterns of both strict and non-strict concord, as illustrated in (9). In many cases, the NC items *senki*, ‘nobody,’ and *semmi*, ‘nothing’ behave like strict NC items, as in Russian. But when focused with the particle *sem*, ‘even,’ the NC items *senki sem* and *semmi sem* act like non-strict NC items, as in Italian. Espinal (2007) argues that a similar mixed situation holds for Catalan, in which pre-verbal NC items may appear with or without a negative marker, as illustrated in (10).

- (9) a. Senki nem szólt. (Hungarian, p.c. Márta Abrusán)
nobody not spoke
‘Nobody spoke.’
b. * Senki szólt.
nobody spoke
c. Senki sem szólt.
nobody FOC spoke
‘Nobody spoke.’
- (10) a. Ningú no va menjar. (Catalan, Espinal 2007: 69)
nobody not AUX eat
‘Nobody ate.’
b. NINGÚ va menjar.
nobody AUX eat
‘Nobody ate.’

Hungarian and Catalan thus appear to provide evidence that we should speak of strict and non-strict *patterns*, instead of talking of strict and non-strict *languages*. On the analysis of Szabolcsi (2018), the strict/non-strict distinction arises from the syntactic configurations in which a given NC item is allowed to appear in a given language, as will be discussed in Section 6.1.

2.2 Linear order or hierarchical structure?

Focusing on patterns of non-strict concord, a further question regards the analytical difference between the positions in which NC items require a negative licensor and the positions in which they do not.

The descriptive generalizations that we have provided here are in terms of linear order: we have described NC items as ‘pre-verbal’ or ‘post-verbal.’ In doing so, we are following common descriptive practice from the literature. And yet, the same work that provides a descriptive generalization in this way also often provides an analysis not in terms of linear order, but in terms of structural hierarchy (Rizzi 1982; Laka 1990; Zanuttini 1991; Ladusaw 1992; Déprez 2000; Herburger 2001; Zeijlstra 2004, *i.a.*); these explanations hinge on whether the NC item appears above or below the verb, not whether it appears before or after it. For Italian, of course, as a strongly right-branching language, these two properties are confounded: material to the left of the verb is also higher than the verb (Rizzi 1997).

Though they are significantly rarer in the literature, explanations in terms of linear order have occasionally been provided for polarity-sensitive phenomena (e.g. van der Wouden and Zwarts 1993). Notably, Barker and Shan (2014), building on comments in Ladusaw (1979), make a strong argument that linear order plays a role in the licensing of Negative Polarity Items (NPIs). They observe that sentence (11) has an inverse scope reading, on which nobody received any gift: on this reading, the existential quantifier is taking scope below the negative quantifier. Nevertheless, sentence (12) is ungrammatical; analogy to (11) shows that the NPI is able to take scope below *nobody* and yet it is still not licensed. According to Barker and Shan (2014), this is because it appears *before* its licensor; they provide an analysis in which a NPI must both scope below its licensor and appear linearly after it.³

(11) I gave a gift to nobody. (English)
Inverse scope reading: ‘There does not exist anybody to whom I gave a gift.’

(12) *I gave anything to nobody.

In principle, linear order and hierarchical structure can be dissociated, which would allow us to establish the role of each in the analysis of non-strict negative concord. In practice, however, the best-described languages with non-strict negative concord turn out to be few in number and very closely related. When the literature talks of non-strict negative concord, it is essentially talking about three languages: Italian, Spanish, and Portuguese. In all three of these languages, linear order is largely confounded with structural hierarchy.

One strategy to approach this confound is to examine more complex structures, in which linear order and hierarchical structure can be partially dissociated. For example, in (13b), the NC item *nessuna* appears before the verb but does not c-command it, as it is embedded within a larger structure that has been fronted. The fact that the NC item is ungrammatical without a licensor shows that linear order is not sufficient by itself to explain the appearance of licensor-free NC items in patterns of non-strict concord. On the other hand, even

³ Barker and Shan (2014) further motivate their analysis with the examples in (i), which are similarly ungrammatical when the NPI appears to the left of its licensor. However, Zeijlstra p.c. points out another possible explanation for the ungrammaticality of these sentences: for independent reasons, existentials in these constructions cannot take inverse scope under negation, as seen in (ii). This alternative explanation doesn’t seem to carry over to (12), though, as (11) does allow an inverse scope reading.

- (i) a. *Anybody didn’t come.
 b. *I gave anybody nothing.
- (ii) a. A student didn’t come. *: not > a OK: a > not
 b. I gave a student nothing. *: nothing > a OK: a > nothing

Barker and Shan (2014)'s analysis of NPIs requires linear order *and* scope. Thus, linear order still might be a necessary condition, even given the ungrammaticality of (13b).

- (13) a. Non sono venuti gli studenti di nessuna facoltà. (Italian, p.c. Carlo Geraci)
 Not AUX come the students of no_{NC} department
 'The students of no department have come.'
 b. ?*Gli studenti di nessuna facoltà sono venuti.
 the students of no department AUX come

As counterpoint, the NC item in (14) also does not c-command the verb, but the sentence is nevertheless grammatical, thus showing that c-command is not a necessary condition for NC items to appear without an overt licenser. At this point, the property of c-command could of course be weakened; in any case, there must be some grammatical difference that explains the contrast between (13) and (14). Further insight into precisely what this difference is could be revealed by continuing to expand the range of complex structures investigated.

- (14) Con nessuno ho parlato! (Italian, Rizzi 1982: 121)
 With nobody AUX talked
 'With nobody have I talked!'

But even complex structures cannot provide the full picture. First, as we have already seen above, adding syntactic complexity inherently adds extra variables, which may interact with licensing in unforeseen ways. Second, and more importantly, while some confounds can be removed in more complex structures, other confounds remain uncontrollable in Romance languages. Notably, in (13) and (14), we have seen that these languages allow structures in which an item that precedes the verb does not c-command it. However, to rule out the hypothesis that precedence is *necessary* for licenser-free NC items (if not sufficient), we need the opposite: examples in which an item that c-commands the verb appears linearly after it. For macro-syntactic reasons, it is impossible to construct any such examples in Italian, Spanish, or Portuguese.

More generally, theories of non-strict negative concord are intended to be representative of the full range of linguistic possibility, but they are currently based on a small number of languages, most of which are closely related, in which some confounds are impossible to control. The role of linear order versus structural hierarchy is the first and simplest example of such a confound. Diversifying the collection of languages that display non-strict concord is thus an essential step to understanding the grammatical principles underlying negative concord in general.

3. Sign language negation

Sign languages present a different language modality, in which linguistic generalizations can be tested or amended (see Sandler and Lillo-Martin 2017 for a recent discussion). With respect to negative quantification, while sign languages have been argued to use the same abstract systems as spoken languages (Geraci 2005; Pfau 2016a), they also show a number of typological tendencies that set them apart from spoken languages, described below (Zeshan 2004; Kuhn 2020). Of particular note here, sign languages often have different macro-syntactic properties with respect to negation: unlike the spoken languages surveyed above, in many sign languages, negative elements may appear in a projection on the right edge of the sentence (Pfau and Quer 2002; Geraci 2005; Tang 2006; Gökgöz 2011; Pfau 2016a). Sign languages may thus bear new light on questions that are confounded for spoken languages.

3.1 Manual and non-manual strategies to mark negation

Sign languages have a number of ways to mark negation, some of which are shared with spoken languages, others of which are specific to the sign language modality. Some of these differences involve the fact

result in a typological landscape in which it is rare to find negative concord between negative markers and negative indefinites.

3.2 The rarity of negative concord involving only manual signs

Kuhn (2020) defines NC items as elements that (a) require a negative licenser in order to be grammatical and that (b) do not contribute any additional negative meaning when they appear under such an operator. We have seen that these criteria are satisfied for negative indefinites in Russian and Italian. For example, the Russian word *nichego* ‘nothing’, is ungrammatical in any full sentence without a negative marker. In sign language, however, it is harder to find manual elements that similarly require the presence of a negative licenser (Zeshan 2004; Kuhn 2020). For example, while spoken Italian displays a canonical case of non-strict negative concord, Geraci (2005) shows that LIS does *not* exhibit patterns of negative concord. In LIS, negative indefinites appear by default in clause final position, as in (17), but they may appear *in situ* with appropriate non-manual markers, as in (18). In neither order, however, does the sentence need, or even allow, a negative marker. LIS also disallows the appearance of two negative indefinites in the same sentence, as seen in (19). LIS is thus not a language in which negative indefinites participate in negative concord.

- (17) a. CONTRACT SIGN NOBODY (LIS; Geraci 2005: 223)
 ‘Nobody signed the contract.’
 b. * CONTRACT SIGN {NON/NEG} NOBODY
- _____ neg
- (18) a. NOBODY CONTRACT SIGN
 ‘Nobody signed the contract.’
 b. * NOBODY CONTRACT SIGN {NON/NEG}
- (19) * SIGN NOBODY NOTHING

Kuhn (2020) reports similar facts for French Sign Language (LSF). Whereas spoken French is a negative concord language, in which multiple NC items can co-occur in a sentence with a single negative meaning, LSF is not a negative concord language, so does not allow this redundancy. Based on similar data across a range of sign languages, Kuhn (2020) proposes that these patterns reflect a general bias for sign languages to not have negative concord with manual signs, due to an iconic pressure to use space to represent discourse referents, which cannot be satisfied for NC items, which can only appear in antivindicical environments.

3.2.1 Negative concord vs. doubling

In some sign languages, a negative element may be doubled, possibly resulting in an emphatic interpretation. In sentence (20a), from ASL, the quantifier NOTHING is doubled, but only a single negative meaning is interpreted (Wood 1999). Similar such examples appear across a number of sign languages, including at least New Zealand Sign Language (McKee 2006) and Chinese Sign Language (Yang and Fischer 2002). Nevertheless, several properties distinguish such cases from canonical negative concord. First, both negative indefinites are associated with the same semantic role in the sentence—this is the sense in which these are cases of *doubling*. Second, in these examples, there is no dependence on a licenser; removing either instance of the quantifier results in a grammatical sentence, as seen in (20b-c). This is very different from cases of negative concord in languages like Russian or Italian, in which the NC item is ungrammatical without a negative licenser. Finally, we have reason to believe that these cases are an instance of a phenomena independent of negation, since similar doubling occurs for *wh*-words, modals, quantifiers, and verbs (Petronio 1993; Petronio and Lillo-Martin 1997), as illustrated in (21).

- (20) a. JOHN NOTHING FIND PAPER NOTHING (ASL; Wood 1999: 63)
 b. JOHN NOTHING FIND PAPER
 c. JOHN FIND PAPER NOTHING
 ‘John did not find any paper.’

- (21) a. whq
 WHAT JOHN BUY YESTERDAY WHAT? (ASL; Petronio and Lillo-Martin 1997: 30)
 ‘What did John buy yesterday?’
 b. MY HIGH SCHOOL FIVE DEAF KID FIVE
 ‘My high school had (only) five deaf kids.’

Wood (1999) reports a few cases of apparent negative concord in ASL that can’t be reduced to doubling. In (22), for example, the negative indefinites NEVER and NOTHING associate with distinct semantic arguments, but only a single negation is interpreted. These cases nevertheless differ from canonical cases of negative concord in that no negative licenser is needed: either negative indefinite can appear as the only negative element in a sentence of ASL. The pattern is also restricted to certain syntactic configurations: like cases of doubling in ASL, one of the negative elements must appear on the right edge of the clause.

- (22) JOHN NEVER EAT FISH NOTHING (ASL; Wood 1999: 62)
 ‘John never eats any part of the fish.’

Synthesizing these results, sign languages show a number of cases in which multiple negative elements may appear with a single negative meaning, but there are no previously recorded cases in which a negative manual sign is only grammatical in the scope of a negative marker. This hallmark property of negative concord—dependence on a negative licenser—appears to be much rarer in sign language than it is in spoken language.

3.2.2 “True” negative concord in Turkish Sign Language?

The one previously discussed sign language that is most likely to display a pattern of negative concord on the definition provided here is that of Turkish Sign Language (TİD). Zeshan (2006b), Gökgöz (2011) and Pfau (2016a) report data in which negative indefinites sometimes appear alongside a negative marker, as in (23a), and sometimes appear alone, as in (23b). More precisely, Dikyuva et al. (2017) make the generalization that in preverbal position, the sign HİÇ (roughly ‘never’) is only grammatical when it appears in the scope of a negative marker, as in (24a-b), but that in postverbal position, the sign may appear as the only marker of negation, as in (24c) (see also Karabüklü and Wilbur 2021).

- (23) a. neg
 NONE(2) APPEAR NO-NO (TİD; Zeshan 2006b: 158, 157)
 ‘Nobody appeared.’
 b. neg
 COUNTRY INDIA INDEX1 LOOK NONE(1)
 ‘I have never seen India.’

- (24) a. ebr,ht
 IX-1 HİÇ SEE NOT (TİD; Dikyuva et al. 2017: 225)
 ‘I haven’t ever seen (it).’
 b. * IX-1 HİÇ SEE
 c. IX-1 TRY HİÇ
 ‘I have never tried (it).’

As we will see, these examples share some very strong similarities with the RSL data that we will see below. In particular, in both TĪD and RSL, when negative indefinites appear without a negative marker, they generally appear on the right edge of the sentence. A number of questions nevertheless remain open about the patterns in TĪD. In the RSL data we present below, we document other important properties of negative concord, such as sentences with multiple NC items, and we also pay attention to the structural configurations that allow a NC item to appear without a licenser. It is quite likely that follow-up elicitation work on TĪD would reveal a pattern similar to the RSL pattern presented here.

4. Methodology

4.1 Corpus Data

Initial investigation into negative concord in RSL was conducted using the RSL corpus (Burkova 2015), by searching for every instance of the Russian translations of *nobody* (11 items), *nothing* (27 items), and *never* (21 items). Among these examples, there are six occurrences of the negative indefinite NOTHING with an idiomatic meaning (roughly, ‘It’s not a big deal’). We exclude such examples from our generalizations below, but they are included in Supplemental Materials 1 along with all other examples from the corpus. Similarly, when a sentence or a negative indefinite is repeated multiple times in a row, we also exclude all instances except the first from our counts (four items thus excluded).

Among the remaining 49 examples, sentential syntax (and even sentence boundaries) is not always clear. There are nevertheless a number of clear cases in which the negative indefinites appear with a negative marker, as in (25), and a number of cases in which they appear without negation, as in (26). See Kimmelman (2017) for further discussion of some of these examples.

- (25) a. NOBODY LET-IN NOT RSLM-n1-s44-d-std, 1:47
‘Nobody is being let in.’
- b. MOTHER NOTHING NEED.NOT RSLM-n2-s54-d-std, 3:18-3:20
‘Mother answered: there is no need to buy anything.’
- (26) LOOK-arc ENGLISH NOBODY RSLM-n1-s40-d-std, 1:08
‘Looking around, there were no English.’

Of note, these corpus examples show regularity: negative indefinites tend to appear without a negative licenser exactly when they appear in clause-final position. Specifically, we find 20 examples of negative indefinites occurring with another negation, either with the negative marker NOT, as in (25a), or negation incorporated into a suppletive form of a verb, as in (25b). Among these examples, the large majority of negative indefinites—17 of them—are not in phrase-final position, as in (25); only three examples have negative indefinites in phrase-final position. One of these exceptions is provided in (27). We note that all three exceptions to the generalization involve the negative indefinite NEVER2.

- (27) IX POSS-1 DAUGHTER DOLL PLAY NO2 NEVER2 RSLM-n2-s54-d-std, 2:23-2:27
‘My daughter never plays dolls.’

There are 29 cases of negative indefinites occurring alone, without another negation, as in (26). Among these examples, all sentences except one have the negative indefinite in clause-final position. The one exception is provided in (28).

- (28) IX-1 GO NEVER1 IX RSLN-n2-s1-h-std, 0:29-0:37
‘I have never been there [to America].’

The corpus data thus invites a clear generalization: licensor-free instances of negative indefinites tend to appear clause-finally (with the caveat that clause boundaries are not always evident). Without direct negative evidence, however, it is impossible to determine whether gaps in the data are due to chance or ungrammaticality, thus making it hard to make strong generalizations.

4.2 Grammaticality judgments

In order to target this question more directly, we thus supplemented the corpus data with elicited data. Elicitation was conducted with four Deaf native signers of RSL (age range 20-35 years old; three female). All consultants were Deaf children of Deaf parents.

Elicitation was conducted entirely in RSL by the second author, a proficient signer of RSL. Signers were told that they would be asked to sign sentences and then judge them as grammatical or not. Two consultants had prior experience with linguistic judgments, so were familiar with the notion of grammaticality; the other two were instructed that grammatical sentences are those that one could produce oneself while signing with another Deaf person. In the course of elicitation, there were a few cases in which consultants indicated intermediate judgments (not clearly grammatical or ungrammatical), which were also noted.

Elicitation of each paradigm began with a conversation between the researcher and the consultant, resulting in a sentence involving a target construction that the consultant judged as a grammatical utterance. This sentence then served as a point of departure for further variations of the sentence (e.g. changing word order; adding or removing negation). These manipulations were elicited by the researcher via metalinguistic prompts: either asking the consultant to change something in their production, or directly proposing another variation of the sentence. Consultants were asked to produce each sentence in the most natural way possible and then to judge their own production. (If this reproduction “corrected” the target manipulation of the researcher, the new sentence was judged anyway, but the ungrammatical sentence was re-elicited in order to be judged.) For most of the elicitation, non-manuals were not explicitly manipulated; signers chose non-manual markers to be as natural as possible for a given sentence. The only exceptions, where signers were asked to manipulate non-manuals, are discussed in Sections 7.1 and 7.4, and are coded in Supplemental Materials 2 as “nmms”. Throughout elicitation, consultants were welcome to discuss the sentences that they had produced, either by giving meta-linguistic comments about sentences that were proposed (e.g. “It sounds like a calque of spoken Russian”), or by proposing alternative formulations of sentences that would be more natural, which were also recorded and judged. After each paradigm of sentences was recorded and judged, the process began again, starting with a new sentence that the consultant judged as a grammatical utterance.

For the most part, signers judged their own productions, although in a few cases, we showed videos of one signer to another signer in order to judge them. Since we had only a few sessions with each consultant, we did not get repeated judgments from a single signer on the same sentence. Instead, in order to ensure robustness of the data, we repeated each structural paradigm several times with different lexical items (i.e. different verbs and nouns) for each consultant. Because consultant availability varied as the project developed, not all sentence types were tested with all consultants, but the core paradigms of the paper were tested with all four signers.

Several observations can be made about this elicitation process. As described above, sentences were collected in paradigms. Eliciting sentences in paradigms has several advantages. First, it focuses the consultant’s attention on the relevant manipulations, thereby minimizing the effect of irrelevant factors (e.g. the choice of lexical item). Second, when differences are found within a paradigm (i.e., some sentences judged as grammatical and other as ungrammatical), this can be clearly interpreted as arising from the specific factors with respect to which the sentences differed (see also Smith and Little 2018 on individual “thresholds” for perceptual judgements). Together, these factors have been shown to detect grammatical contrasts in work involving small numbers of consultants (e.g. Schlenker 2011; Davidson 2020; Marty et al. 2020 on “joint presentation”).

Confidence of the interpretation of the data is also increased by testing lexical items with a wide variety of grammatical properties (cf. Schütze and Sprouse 2014 on “multiple lexicalizations”; Davidson 2020). If a grammatical distinction is found, one wants to ensure that it is a general property of a grammatical construction, and not the result of the specific lexical items used. In our elicitation sessions, the sentences tested involved transitive and intransitive verbs (both unaccusative and unergative); agreeing and plain verbs; with regular and irregular negative forms. All 27 verbs used can be found in Supplemental Materials 2.

Finally, ongoing discussion with the consultants throughout elicitation is useful in several respects. First, it builds rapport between the researcher and the consultant, in a relationship that acknowledges the consultant as an expert user of a real language (Fischer 2009). Second, such discussion provides ongoing feedback that the judgments are indeed tracking the relevant variables (as opposed to spurious factors, such as a mispronounced word). Finally, examples proposed by consultants may call attention to interacting factors that would have otherwise been overlooked.

Unless indicated otherwise, all sentences and grammaticality judgements below come from these elicitation sessions. The Appendix provides a by-participant summary of the core paradigm presented here, and Supplemental Materials 2 provides glosses and judgments of all elicited sentences referenced in the paper. A link to some example videos is also provided in the Appendix. Generally, judgments were relatively consistent across participants (see the Appendix for summaries), although a few exceptions are discussed in the article when relevant. Finally, although we focus on elicited data below, it is notable that the data from the RSL corpus generally fall into the descriptive generalization established via elicitation.

5. Negative concord in RSL

5.1 Sentential negation

Basic sentential negation in RSL can be expressed with the sign NOT, as well as two forms that specify tense, FUT.NOT and PAST.NOT. The sign NOT is exemplified in (29) and shown in Figure 1. Additionally, there are a variety of predicates that convey a negative existential meaning, such as EXIST.NOT, DEFICIT, NULL, and EMPTY. We do not discuss these further here, but examples are provided in the Supplemental Materials.

- (29) GIRL THIS SMOKE NOT (RSL; Pasalskaya 2018: 4)
 ‘This girl doesn’t smoke.’

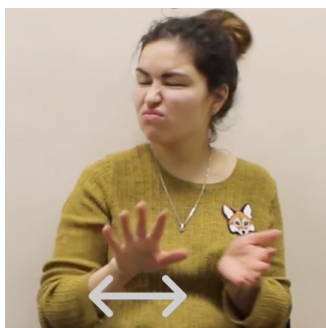


Figure 1: NOT

Pasalskaya (2018) shows that negation in RSL is associated with a number of morphological and syntactic changes in the structure of the sentence. In sentences without negation, basic word order in RSL is S-V-O (Kimmelman 2012).⁵ In sentences with negation, there is a general preference for a negative element to appear in clause-final position. Additionally, whereas standard word order in RSL has an V-O order, negation often induces a word-order change resulting in a sentence with order S-O-V-Neg (with the V to the right of the O), as seen in (30). In some cases, this change in order is optional, also allowing S-V-Neg-O (in which the V remains to the left of the O), though this word order is dispreferred.

⁵ Although Kimmelman (2012) also frequently finds the order S-O-V, this order is mostly restricted to sentences in which the verb is a classifier construction, and is further dispreferred when situations are reversible—when the semantics alone cannot disambiguate the argument structure. None of the elicited examples in the present paper involve classifier constructions.

- (30) a. MOTHER BUY BOOK (RSL; Pasalskaya 2018: 13)
 ‘Mother bought a book.’
 b. MOTHER BOOK BUY NOT
 ‘Mother didn’t buy a book.’

Pasalskaya (2018) argues that the Verb-Neg sequence in these sentences (above, ‘BUY NOT’) has undergone a syntactic process to become a single morphological unit—via compounding, cliticization, or a related process. (See Pasalskaya 2016 for compounding in RSL in general.) First, as has been previously reported for ASL and LIS, complex word formation may result in the loss of repetition in one of the roots (Brentari 1998, Geraci 2009); in RSL, the verb EAT normally consists of a repeated movement towards the mouth, but in the sequence ‘EAT NOT,’ repetition of the sign is deleted. Second, sign language words may be signed with a specific mouthing (often, the spoken language translation of the word); for complex words like compounds, it has been observed that the mouthing may be specific to the complex word, as opposed to being the word-for-word mouthings of the component signs (Pasalskaya 2016, Santoro 2018). For example, the RSL sign for QUOTATION is the compound SENTENCE^TITLE, but the mouthing of the compound sign is the Russian word for ‘quotation’ instead of the words for ‘sentence’ and ‘title.’ Such mouthing mismatches also appear for Verb-Neg sequences, in which the mouthing reflects the word order of spoken Russian instead of RSL. Thus, the sequence ‘BUY NOT’ in (30b) is accompanied by the mouthing /nje kupila/, literally ‘not buy’ in spoken Russian. Together, these facts motivate an analysis on which Verb-Neg sequences are a complex morphological unit resulting from compounding or cliticization. The word order changes illustrated in (30) can be explained if this complex Verb-Neg unit moves to a position on the right edge of the syntactic structure.

5.2 Negative concord items under negative licensors

As foreshadowed above, RSL also contains an inventory of NC items that in many contexts are only grammatical under negation. Figure 2 shows the four negative indefinites NOBODY, NOTHING, NEVER1, and NEVER2 as signed in RSL.



Figure 2: a. NOBODY b. NOTHING c. NEVER1 d. NEVER2

Sentences (31) to (35) present the basic pattern of negative concord. As in spoken Russian, these NC items require the presence of a negative marker—without NOT, the sentences are ungrammatical.⁶ This is the characteristic pattern of negative concord. (34) shows that this pattern holds both when the V-Neg unit moves to the right edge, as in (34a), as well as when all words appear *in situ*, as in (34b). (35) makes the same point in an example where the direct object is a NC item, although one signer judges (35b) as ungrammatical, perhaps reflecting the general preference to move the V-Neg unit to the end of the clause. (Below, the % sign indicates divided judgments between signers.) In contrast, when uttered in an ‘out of the blue’ context, sentence (35c) is judged as ungrammatical for all signers, thus displaying the same dependence on a licenser that is shown in (31) to (34). As we will see in Section 5.4, however, (35c) does in fact become grammatical when a context puts focus on the NC item. We will argue that cases with focus involve movement of the NC item to the right, but that this movement doesn’t affect the word order of the sentence when the direct object originates in clause-final position.

- (31) a. NOBODY 3-CALL-1 NOT
‘Nobody called me.’
b. * NOBODY 3-CALL-1
- (32) a. NOTHING HAPPEN NOT
‘Nothing happened.’
b. * NOTHING HAPPEN
- (33) a. IX-1 NEVER2 SEE NOT WOLF
‘I have never seen a wolf.’
b. * IX-1 NEVER2 SEE WOLF
- (34) a. NOBODY CHICKEN EAT NOT
‘Nobody ate chicken.’
b. NOBODY EAT NOT CHICKEN
‘Nobody ate chicken.’
c. * NOBODY CHICKEN EAT
- (35) a. M-A-R-Y NOTHING EAT NOT
‘Mary didn’t eat anything.’
b. % IX-3 EAT NOT NOTHING
‘He didn’t eat anything.’
c. * IX-3 EAT NOTHING

Many verbs in RSL also show irregular negation, incorporating negation into a suppletive form. Such irregular alternations include the pairs LOVE / LOVE.NOT, KNOW / KNOW.NOT, WANT / WANT.NOT, and NEED / NEED.NOT. Examples (36)-(38) show that these irregular negative forms may serve as licensers of NC items. As above, these licensing facts hold regardless of the syntactic position of the V-Neg unit. As above, the judgments on (36c) and (37c) reflect the fact that the sentences are ungrammatical without focus.

- (36) a. IX-3 NOTHING NEED.NOT
‘He doesn’t need anything.’

⁶ Both NEVER1 and NEVER2 allow dependent uses, as shown in (i) for NEVER1, but there seems to be a preference for some signers to use NEVER2 in dependent uses, and to use NEVER1 on the right edge without a licenser, as discussed in Section 5.3. One signer also indicated that licensing NEVER1 with a negative marker sounded like a calque—a word-for-word translation from Russian that was unnatural in RSL.

- (i) IX-1 ENGLISH NEVER1 NOT.UNDERSTAND.
‘I never understand English.’

- b. IX-3 NEED.NOT NOTHING
'He doesn't need anything.'
 - c. * IX-3 NEED NOTHING
- (37)
- a. MOTHER NOTHING WANT.NOT
'Mother doesn't want anything.'
 - b. POSS-1 MOTHER WANT.NOT NOTHING
'My mother doesn't want anything.'
 - c. * MOTHER WANT NOTHING
- (38)
- a. NOBODY KNOW.NOT ENGLISH
'Nobody knows English.'
 - b. * NOBODY KNOW ENGLISH

Of note, the examples described so far display characteristics of *strict concord*. Specifically, in (34b) and (38a), the NC item subject precedes and is at a higher structural position than the negative marker, which remains in its *in situ* position. The negative marker is nevertheless required to license the NC item. Such examples are parallel to the case of Russian, in which NC items that appear above and before a negative marker may nevertheless be licensed by it.

In languages with negative concord, another distinctive property is that multiple NC items may appear in the same sentence, licensed by the same negative operator. In the Russian sentence in (39), for example, the NC items *nikto*, 'nobody' and *nichego*, 'nothing,' may both be licensed by the negative marker, *ne*. The sentence carries a single negative meaning.

- (39) Mne nikto nichego ne dal. (Russian)
 1sg.dat nobody nothing neg give.pst
 'Nobody gave me anything.'

RSL shows identical behavior, allowing multiple negative indefinites in the same sentence. In (40), both NOBODY and NOTHING are licensed by NOT, with a single negative meaning.

- (40) NOBODY NOTHING GIVE-1 NOT
 'Nobody gave me anything.'

5.3 Negative concord items without licensors

Additionally, in some constructions, NC items can appear without a negative marker. In certain discourse contexts (described further in Section 5.4), NC items may appear in clause-final position. In such configurations, the NC item may appear without negation, as illustrated in (41) and (42). Indeed, in these cases, the NC item can no longer combine redundantly with a negative marker; the sentence is either ungrammatical, as in (41), or receives a double negation reading, as in (42), discussed further below.

- (41)
- a. 3-CALL-1 NOBODY
'Nobody called me.'
 - b. * 3-CALL-1 NOT NOBODY
- (42)
- a. IX-1 ENGLISH UNDERSTAND NEVER1
'I never understand English.'
 - b. % IX-1 ENGLISH UNDERSTAND.NOT NEVER1
'I always understand English.'

Notably, these examples instantiate a pattern of *non-strict concord*. In this specific configuration, in which the NC items appear on the right edge of the clause, no other marker of negation is needed. Such examples are similar to the case of Italian, in which pre-verbal NC items do not require a negative marker. The difference is that, while in Italian, the structural position that allows these uses is on the left, in RSL, the relevant position is on the right.

As in spoken languages, these licensor-free NC items may license further NC items in their scope. In Italian, we have seen that pre-verbal *nessuno* does not require a negative marker; additionally, the presence of such a NC item satisfies the needs of further NC items downstream. In sentence (43), the fact that *nessuno* can appear with no overt licensor means that *niente*, which appears in its scope, also does not require an overt negative marker in order to be licensed. In RSL, a similar situation holds. When clause-final NC items appear without a negative marker, they thereby license the presence of further NC items in their scope. In (44), the adverb NEVER1 licenses the subject NOBODY. In (45), the clause-final NEVER1 licenses the earlier instance of the adverb: the sentence becomes ungrammatical when only the first occurrence is present.

- (43) Nessuno ha visto niente. (Italian)
 nobody AUX seen nothing
 ‘Nobody saw anything.’
- (44) NOBODY CAR GIVE-1 NEVER1
 ‘Never has anyone given me a car.’
- (45) a. IX-1 NEVER1 ENGLISH UNDERSTAND NEVER1
 ‘I never ever understand English.’
 b. * IX-1 NEVER1 ENGLISH UNDERSTAND

In spoken languages, when a NC item appears in a position that does not require an overt negative licensor, it may nevertheless sometimes appear in the same clause as a negative marker. In these cases, though, instead of being redundant, the combination of the two negative elements generates a meaning of double negation (Zanuttini 1991, Déprez 2000, Espinal and Prieto 2011, *i.a.*). The Italian sentence in (46), for example, can be uttered to indicate that everybody called (Zeijlstra 2004).

- (46) Credo che nessuno non ha telefonato (Italian; Zeijlstra 2004: 269)
 believe.1sg that nobody not AUX called
 ‘I believe that nobody didn’t call’ = ‘I believe that everybody called.’

In RSL, similar cases can be found, but the data is rather mixed. Sentences (47) and (48) are accepted by one signer under the interpretation provided, but similar sentences are rejected as simply ungrammatical by other signers. Even for the signer that accepts these sentences, there appear to be certain factors that make such readings more easily available. First, all such examples involve verbs with irregular negation. Second, all such examples involve the NC item NEVER1, which in general appears very frequently in clause final position with no licensor.

- (47) % IX-1 CAR WANT.NOT NEVER1
 ‘I never don’t want a car.’ = ‘I always want a car.’
- (48) % IX-1 ENGLISH UNDERSTAND.NOT NEVER1
 ‘I never don’t understand English.’ = ‘I always understand English.’

There thus may be constraints on double negation readings in RSL. It is notable that, even in sign languages without negative concord, double negation readings have been reported to be difficult. Schlenker (2011) reports that sentence (49) has a double negation reading in ASL, but elsewhere Wood (1999) reports that

double negation readings do not exist for similar sentences.⁷ For LIS, like for RSL, double negation readings are degraded, and are reported to only be possible when they involve irregular verbs (Geraci 2005). For LSF, Kuhn (2020) reports that combining two NC items results in ungrammaticality, not double negation. Since double negation readings are always synonymous with a positive sentence, it is possible that competition with this alternative rules out the more complex and possibly iconically less transparent form (Kuhn 2020).

- (49) IX-1 NOT THINK NO ONE WILL GO MARS. (ASL, Schlenker 2011: 377)
 ‘I don’t think that nobody will go to Mars.’ = ‘I think that somebody will go to Mars.’

This being said, even spoken languages like Italian require a very precise context in order to produce double negation readings. It is thus not yet clear that there is anything fundamentally different between spoken languages and sign languages on this front.

Finally, in both languages with strict concord and those with non-strict concord, NC items can systematically appear without an overt negative licenser when they appear in fragmentary answers. (50) provides a discourse from spoken Russian in which the NC item *nikto* is used without an overt licenser in a fragmentary answer. In RSL, an exactly parallel pattern can be found, as shown in (51).

- (50) Q: kto prishe-l? A: nikto (Russian)
 who come-pst nobody
 ‘Who came?’ ‘Nobody.’
- (51) Q: COME IX WHO? A: NOBODY
 ‘Who came?’ ‘Nobody.’

5.4 Information structure constraints on rightward movement of negative concord items

In the previous subsection, we saw that NC items may appear without a negative marker when they undergo the movement to the right edge. Here, we show that the general availability of this construction depends on information structure (cf. Kimmelman 2019). While all signers judged that licenser-free NC items may be used grammatically, the availability of these sentences sometimes required a supporting context.

Licenser-free uses were most easily accessible for NC items in subject position. Three of the four consultants judged sentence (52a) as simply grammatical, without needing a supporting context. The fourth consultant displayed a different but systematic pattern, in which the acceptability of the sentence depended on the context in which it was uttered. The pattern of judgements for this signer is illustrated in (52). Out of the blue, sentence (52a) was judged as ungrammatical. However, the sentence became acceptable when preceded by a context that caused the NC item to be in focus. Specifically, in (52b), the context establishes a scenario in which it is very likely that at least one person called the speaker (their birthday). In such a context, asserting the surprising fact that nobody called motivates focus-marking on the negative indefinite, just as in English.

- (52) a. [No context.]
 % CALL NOBODY
- b. [Context: Today is my birthday. I was waiting for congratulations during the whole day, but nobody called me.]
 CALL NOBODY
 ‘Nobody called me.’

The pattern that we see for one signer with NC items in subject position can be seen across all signers when we look at NC items in object position. Specifically, all consultants judged (53a) and (54a) to be ungrammatical when uttered out of the blue. However, the judgments changed when consultants were provided with a context that put the NC items in focus, as in (53b) and (54b). Here, we note that the word order does not

⁷ The Schlenker example includes a clause boundary while the Wood examples do not, which might also facilitate the double negation reading.

change since the position of the direct object is already sentence final; the parallel pattern is nevertheless observable in the ability of the NC item to appear without a negative marker.

- (53) a. [No context.]
 * MARY LOVE NOBODY
 b. [Context: Mary is a popular student in the school. Everybody loves her. Vasya loves her, Petya loves Mary, and Sasha loves her. But Mary loves nobody.]
 MARY LOVE NOBODY
 ‘Mary loves nobody.’
- (54) a. [No context.]
 * IX-3 EAT NOTHING
 b. [Context: Mary was on a plane, and during the whole flight she ate nothing.]
 IX-3 EAT NOTHING
 ‘She ate nothing.’

Comparing the judgments of (52) and (53)-(54), we observe that subjects in sentence-final position without negation are more widely accepted out of the blue than objects in the same position without negation. We propose that the clause-final subject is in focus even in these out-of-the-blue contexts, but that the necessary information structure is more easily accommodated for focused subjects than for focused objects. This asymmetry may be due in part to a clearer cue for subject focus, since focusing the subject changes the overall word order while focusing the object does not. Similar subject/object asymmetries have been previously observed for information structure other languages. For example, Zimmermann (2006) for Tangale and Bole and Zerbian (2007) for Northern Sotho show that while objects can be focused in their canonical post-verbal position, subjects cannot be focused in canonical pre-verbal position, instead requiring inversion to a post-verbal position. A similar asymmetry may exist in RSL. Subjects can easily be focused by moving them to the right, but objects require an additional supporting context.

Finally, we observe that the role played by information structure is highly similar to examples already seen for spoken languages. In RSL, we have seen that NC items must be in focus in order to be able to appear without a negative marker. This closely parallels patterns described for Catalan and Hungarian, as described in Section 2.1. In Hungarian, for example, the particle *sem*, ‘not even’, takes an argument in focus. In most cases, Hungarian shows a pattern of strict concord. It is exactly when a NC item is focused with *sem* that pre-verbal NC items may appear without a negative marker, as in (55), thus displaying a pattern of non-strict concord (Surányi 2006).

- (55) a. * Senki szólt. (Hungarian; p.c. Márta Abrusán)
 nobody spoke
 b. Senki sem szólt.
 nobody FOC spoke
 ‘Nobody arrived.’

In both Hungarian and RSL, patterns of non-strict concord can thus be found, and it is focus marking that makes it possible for a NC item to appear without an overt licenser.

6. Proposal

Let us summarize our descriptive generalizations. We have seen that Russian Sign Language shows characteristics of both strict and non-strict negative concord. When NC items appear in their *in situ* position, they require a negative licenser such as NOT or an irregular negative verb, though, as in Russian, this negative licenser need not appear at a higher structural position. On the other hand, when focused NC items appear on the right edge of the clause, they may appear without any additional overt licenser. In this respect, RSL is thus a mirror-image of languages like Italian, in which NC items may appear without a licenser when they appear on the left edge of the clause.

These results bear on the two theoretical questions outlined in Sections 2.1 and 2.2. First, we asked whether the strict/non-strict opposition is a language-level property or a property arising from specific structures. Hungarian provided initial evidence that this opposition should *not* be analyzed as a language-level property, as it seems to show both patterns in a single language. RSL further supports this conclusion. When everything appears in *situ*, RSL displays a pattern characteristic of strict concord, as illustrated in (56). Here, the NC item notably requires an overt negative licenser, even though it precedes and c-commands the verb. But when NC items move to the right edge of the clause, a licenser is no longer necessary, thus displaying a pattern of non-strict concord. RSL thus shows an intermediate position between previously described patterns of strict and non-strict negative concord. On the one hand, there are some positions in which a NC item can appear without a licenser; on the other hand, the set of configurations in which a negative licenser *is* necessary is broader than previously documented patterns of non-strict concord, notably including some positions which precede and c-command the verb.

- (56) a. NOBODY EAT NOT CHICKEN
 ‘Nobody ate chicken.’
 b. NOBODY KNOW NOT ENGLISH
 ‘Nobody knows English.’

Second, we asked whether non-strict negative concord is best analyzed in terms of linear order or structural hierarchy. Since Romance languages are strictly right-branching, it was impossible to construct any examples in which a NC item that c-commands the verb appears linearly after it. In RSL, on the other hand, we have seen that negative elements, including NC items, may move to a projection on the right edge of the clause. It is exactly such cases in which NC items may appear without a licenser. This result shows that linear precedence is not necessary to permit patterns of non-strict concord.

Our analysis will thus incorporate these two elements: negative concord is governed by structural properties; these properties may vary within a single language, depending on the specific structures involved.

6.1 Negative concord via feature checking

In order to build our analysis for RSL, we will adopt as much as possible from frameworks that have been used to analyze strict and non-strict concord elsewhere. For the sake of concreteness, we will base our analysis on the influential proposal of Zeijlstra (2004); nevertheless, it should be equally feasible to adopt any alternative analysis that explains non-strict concord in terms of structural hierarchy. Under the analysis of Zeijlstra (2004), NC items have an existential meaning, but additionally carry an uninterpretable syntactic feature, [uNeg], that must be checked by an interpretable negative feature, [iNeg]. In negative concord languages, interpretable negative features are carried by any operator that itself carries negative force, such as a negative marker. Thus, for Italian, *non* carries [iNeg] and *nessuno* carries [uNeg]. When *nessuno* appears under *non* in (57a), the uninterpretable feature is checked, and the sentence is good. In (57b), there is nothing to check the uninterpretable feature, and the sentence is bad.

- (57) a. $[_{NegP} Non_{[iNeg]} [ha [telefonato nessuno_{[uNeg]}]]]$
 ‘Nobody called.’
 b. * $[Ha [telefonato nessuno_{[uNeg]}]]$

For feature checking to take place, the [iNeg] feature must appear in a sufficiently high position relative to the [uNeg] feature. In Italian sentences in which a NC item precedes the verb, the NC item critically appears in a structural position *above* the NegP projection of the negative marker. The NC item is thus too high in the structure to be licensed by overt negation, since there is no higher position at which an overt carrier of [iNeg] can appear. In such cases, Zeijlstra (2004) proposes that a silent negative operator, Op^- , can appear as a last resort to save the grammaticality of the sentence, as shown in (58). (The functional projection of Op^- may be another NegP, but it is critically not the NegP associated with overt negation, shown in (58).) Critically, this operator is a *last resort* mechanism, that can only appear in order to check a [uNeg] feature when no overt

checking strategy is possible. Thus, Op^- cannot check the $[uNeg]$ feature of *nessuno* in (57b), for example, because the sentence is in competition with (57a), in which an overt negative marker serves this purpose. (Zeijlstra 2008, following Herburger 2001, revises this view slightly: Op^- is always possible, but must scope directly over the $[uNeg]$ feature being checked. This would result in a pragmatically bizarre reading for (57b): there is a calling event in which nobody called.)

- (58) $[Op^-_{[iNeg]} [nessuno_{[uNeg]} [NegP [ha telefonato]]]]$
 ‘Nobody called.’

What, then, is the difference between strict and non-strict concord? Following Szabolcsi’s (2018) proposal for Hungarian, we attribute the strict/non-strict opposition to a question of which structural configurations are able to check the $[uNeg]$ feature. Following Beghelli and Stowell (1997), Brody and Szabolcsi (2003), and Szabolcsi (2018), we assume that a negative operator can check $[uNeg]$ features on indefinites that appear within its $NegP$: this consists of all material that the negative operator c-commands as well as the specifier of the operator.

Consequently, the property distinguishing strict and non-strict negative concord regards the syntactic position at which pre-verbal indefinites may appear. In Hungarian and Russian (unlike in Italian), NC items may appear in the specifier of $NegP$, so are interpreted within its scope and can have their features checked, allowing pre-verbal NC items, as shown in Figure 3a, repeated from (9a). On the other hand, other syntactic operations allow NC items to appear in functional projections above $NegP$. In such cases, the $[uNeg]$ feature is too high in the structure to be checked, giving rise to patterns of non-strict concord via the last-resort mechanism. Szabolcsi (2018) proposes that this is exactly what is attested in Hungarian, as shown in Figure 3b, repeated from (9b), in which *senki* appears in a higher projection related to focus. In Italian, pre-verbal indefinites necessarily appear in a higher projection, so always show non-strict concord.

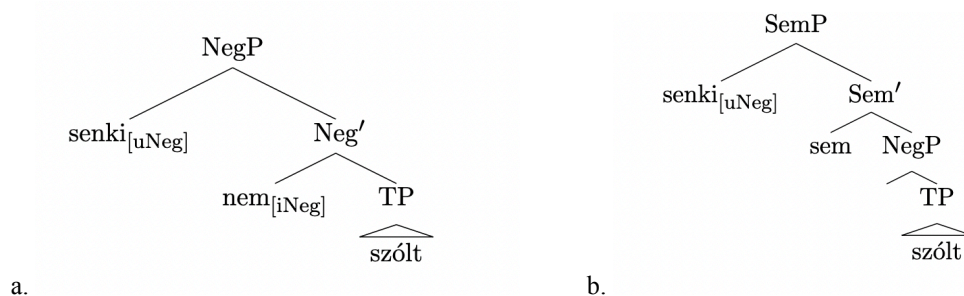


Figure 3: Structural representation of (9): (a) Strict concord and (b) non-strict concord in Hungarian

6.2 Analysis: Negative concord in RSL

We adopt essentially the same analysis for RSL, with the catch that the syntax governing word order is different. Of note, the situations in which NC items can appear without a licenser are those in which they appear on the right edge, as in (59). We propose that such structures involve rightward movement of the NC item to a higher position.

- (59) 3-CALL-1 NOBODY
 ‘Nobody called me.’

Similar to some previous proposals for ASL (Petronio 1991; Neidle 2002), we propose that the relevant structure in RSL is a focus position (FocP). We propose that FocP is higher in the syntactic structure than $NegP$, that it is a structure on the right edge, and that negative elements, including negative indefinites, may move to the specifier of the FocP. (This differs from previous proposals for some other sign languages in which $NegP$ itself is a left-branching structure, e.g. Pfau and Quer 2002; Geraci 2005.) As described in Section 5.4, movement into the focus phrase places focus on the moved constituent.

When all elements in the sentence remain in their standard positions, we have seen that a negative marker can license NC items in both object and subject position. Like for all other languages, the licensing of a NC item in object position follows immediately from our analysis, since the negative marker appears at a structurally higher position than the NC item, parallel to the Italian example in (57a). Figure 4 provides an example derivation. In order to explain the licensing of a NC item in subject position, we follow Szabolcsi’s (2018) analysis of strict concord in Hungarian; in Figure 5, we assume that the NC item NOBODY appears in the specifier of NegP, so strict c-command is not necessary to check the [uNeg] feature on NOBODY.

In Section 5.1, we also saw evidence that the Verb-Neg sequence shows signs of compounding or cliticization, in the loss of repetition of the verb and changes in mouthing. In all derivations, we thus assume that the verb moves to the head of NegP, where it merges with the negative marker NOT, base generated in that position, to form a morphological unit.

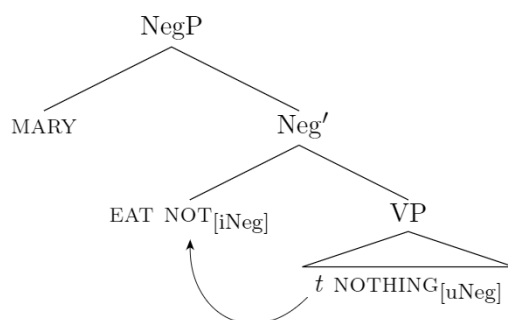


Figure 4: Tree of RSL sentence, ‘MARY EAT NOT NOTHING’

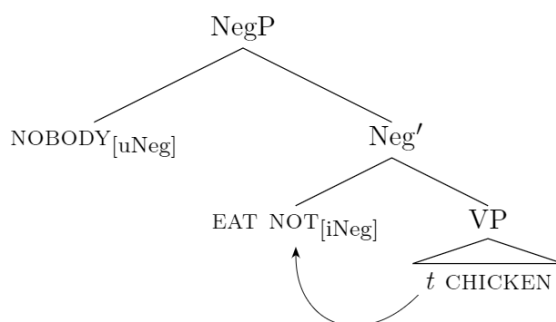


Figure 5: Tree of RSL sentence, ‘NOBODY EAT NOT CHICKEN’

In RSL, though, negative sentences more often than not involve movement to the right—including in sentences with only a negative marker. In particular, in Section 5.1, we saw that a negative marker often induces a change in the word order, changing S-V-O order to S-O-V-Neg. This fact is explained if, as above, the verb and negation form a complex morphological unit; then, when negation moves to the right, it brings the verb along with it, thus inducing the observed word order change. In light of the information-structural changes involved in rightward movement, we assume that this projection is a focus phrase, FocP. The fact that negative sentences frequently involve movement to FocP can be explained in pragmatic terms with the observation that negative sentences are generally uttered in relation to a positive assertion or implication (Givón 1978; Horn 1989). An example derivation is provided in Figure 6.

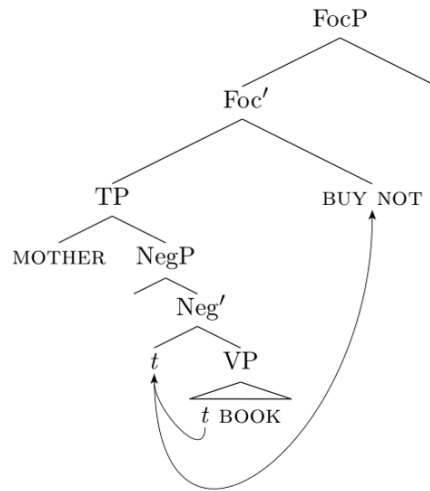


Figure 6: Tree of RSL sentence, ‘MOTHER BOOK BUY NOT’

For concreteness, we follow the standard assumption that verbs undergo head-to-head movement, so that the V-Neg combination moves to the head of FocP, whereas arguments (including NC items) move to specifier positions. Since verbs and arguments are not competing for the same position, this raises the possibility that V-Neg may move to the head of FocP at the same time that a NC item moves to the specifier of FocP. Geraci (2005) proposes that a similar configuration is possible in LIS, and is responsible for the restricted availability of double negation readings. For RSL, the empirical facts are not clear on this point, as double negation readings are not consistently available and are likely subject to pragmatic factors. Of note, though, these theoretical choices do not interact with NC item licensing, as any of these positions appear outside of NegP. When the V-Neg structure moves to this higher position, it may still license any *in situ* NC items that appear in the sentence. Specifically, when negation (and the verb) moves to the right edge of the sentence, it appears at a position that is structurally higher than any of the verbal arguments, as seen in the derivation in Figure 7. The [iNeg] feature on the negative marker is thus able to check the [uNeg] feature on the NC item. An exactly parallel structure is possible for a NC item in object position, as in (35a).

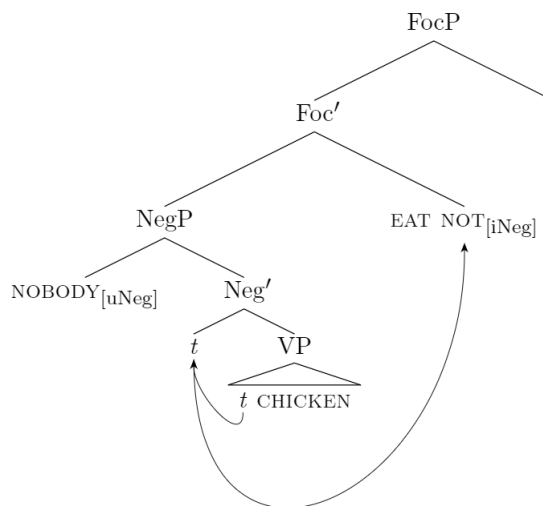


Figure 7: Tree of RSL sentence, ‘NOBODY CHICKEN EAT NOT’

Finally, in RSL, like in LIS, negative indefinites, too, may move to the right edge of the sentence. We assume that this is the specifier of the left-branching FocP. In RSL, when a NC item moves to this position, the NC item ends up at a position above NegP, meaning that it can no longer be licensed by overt negation. In such cases, a silent negative operator appears higher than the NC item as last-resort mechanism to rescue the

grammaticality of the sentence. Observe that this is fundamentally the same analysis that Zeijlstra (2004) proposed for Italian, except that the NC item is on the right side instead of the left side. An example derivation is shown in Figure 8.

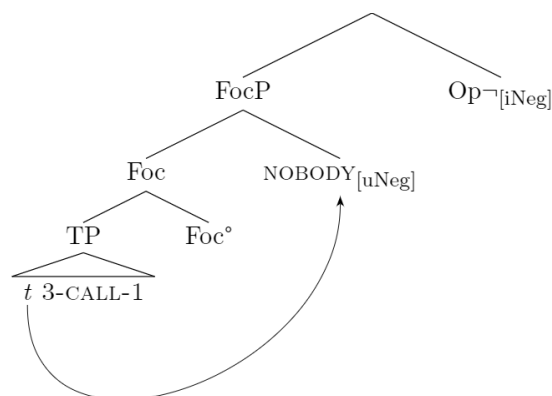


Figure 8: Tree of RSL sentence, ‘3-CALL-1 NOBODY’

Since nothing hinges on the decision, we leave it open what kind of projection the silent negative operator appears in—one possibility is that it is a higher NegP projection. Whatever its name, though, this projection must be distinct from the projection in which overt negation can appear (contra Pfau 2016a for TĪD). Were this not the case, any instance of the silent negative operator could be replaced by an overt negative marker, thus undermining the principle of last resort that explains which structural positions can and cannot allow a NC item without an overt licenser.

Just like NC items in Italian or focus-marked NC items in Hungarian, when the NC item in RSL appears at a position too high to be licensed by a negative marker, the sentence can be rescued by a last-resort operation, thus generating a pattern of non-strict concord.

7 Comparison to alternatives

The analysis above makes a number of assumptions about the syntax of negative constructions, including the assumptions that (a) NC items appearing on the right edge of the sentence are an instance of rightward movement and (b) the projection on the right edge is a FocP, so not necessarily specific to negation. In these assumptions, the present proposal differs from some existing analyses for similar structures in other sign languages. It will thus be useful to compare the present proposal to these alternatives in order to highlight the role these assumptions play in the theory, and the predictions they make.

7.1 Movement to the left or the right?

In the above proposal, we have assumed that NC items appearing on the right edge of the sentence are an instance of rightward movement. Interestingly, this theoretical choice, and its analytical alternatives, is highly reminiscent of debates regarding the syntax of sentence-final *wh*-words in other sign languages. In ASL, for example, *wh*-words may appear *in situ*, as in (60a), or sentence finally, as in (60b) (Petronio and Lillo-Martin 1997).

- (60) a. JOHN BUY WHAT YESTERDAY (ASL; Petronio and Lillo-Martin 1997: 26, 37)
 b. JOHN BUY YESTERDAY WHAT
 ‘What did John buy yesterday?’

On some analyses, structures like the one in (60b) are analyzed as involving rightward movement of the *wh*-word (Petronio 1991; Aarons et al. 1992; Neidle et al. 1997; Neidle 2002; Cecchetto et al. 2009); on others, they involve uniquely leftward movement (Petronio and Lillo-Martin 1997). For example, Aboh et al. (2005) argue that sentence-final *wh*-words in Indian Sign Language are derived by first moving *wh*-words to the left, then moving the remnant past the *wh*-word to a higher position on the left.

- (65) $\overline{\text{top}}$ STORY IX-3 PETYA TELL NOBODY $\overline{\text{neg}}$
 ‘As for the story, Petya told it to nobody.’

Non-manual markers thus do not provide conclusive evidence one way or the other regarding the two possibilities. Prosodic non-manuals provide evidence for a derivation involving movement, but they are neutral regarding whether this is movement to the right or to the left. Somewhat more revealingly, we have seen no evidence for topicalization playing a role in the dislocation of NC items to the right, although markers of topicalization are not obligatory in general. The evidence from non-manuals is thus at the very least consistent with the analysis in terms of rightward movement of the NC item.

A stronger argument in favor of rightward movement over leftward movement comes from the predictions regarding NC item licensing. On the present analysis in terms of rightward movement, NC items finish the derivation in a high structural position. This structural position, ‘too high’ to scope under the negative marker, explains why the NC items can appear without an overt licenser, by making available a silent operator as a last resort operation. In contrast, although an analysis in terms of (recursive) leftward movement would correctly predict the change in word order, it would provide no explanation for the behavior of NC items. On such an analysis, the NC item would finish the derivation in the structurally lowest position. No existing analysis of negative concord predicts the availability of licenser-free NC items in such a configuration. Thus, when considering the syntactic system as a whole, the interaction with negative concord provides a new kind of argument in favor for rightward movement for negative elements in RSL. It is only on a rightward movement analysis that the right-dislocated material is in a structurally higher position, which is necessary to explain the cases of non-strict concord.

7.2 What is the projection on the right edge?

While analyses of other sign languages have posited a negative projection on the right edge, the projection that we have proposed here, FocP, is not specific to negation. The use of FocP instead of NegP was motivated by several considerations. First, examples in which the Verb-Neg unit does not move to the right provide evidence for a lower NegP in which the negative marker is generated, as shown in Figures 4 and 5 (although it may be possible to have additional, higher NegP projections). Second, in Section 5.4, we saw that rightward movement is associated with a specific effect on information structure, which can be explained by movement to FocP. Finally, similarities with Hungarian motivated a parallel analysis for the two languages.

The analysis with FocP makes a number of further predictions. Notably, if the projection on the right edge is not specific to negation, it should also be able to host non-negative elements to the same degree as NC items. As discussed in Section 5.4, three out of four consultants accepted right-dislocated NC item subjects without needing a supporting context (cf. example (52)). We thus tested non-negative DPs with one of the three consultants who accepted right-dislocated NC item subjects out of the blue as well as the one who did not. With non-negative DPs, a similar dialectal split appeared, as exemplified in (66). The consultant who dispreferred right-dislocated NC items also dispreferred other right-dislocated DPs (although even this consultant accepted two out of six examples); the consultant who allowed right-dislocated NC items out of the blue also allowed other right-dislocated DPs out of the blue.⁸

- (66) [No context.]
 % CALL-1 MARY
 ‘Mary called me.’

The present analysis also makes predictions about the meaning of indefinites that appear in this position. Specifically, following insights from Szabolcsi (2018), we have assumed that negative indefinites (including NC items) in FocP cannot take scope under the negative marker. This fact allows the use of a last-

⁸ Another construction that has been argued to involve a focus projection in other sign languages is doubling, as mentioned in Section 3.2.1. While our elicitation did not collect judgments for any examples involving doubling of NC items, we note that no such examples are attested in the RSL corpus.

resort operation, and thus the appearance of non-strict concord. If these scopal facts arise from general structural mechanisms, then exactly parallel facts should hold for non-negative indefinites: indefinites on the right edge, when grammatical, should resist being interpreted under the negative marker.

These predictions were tested for one signer with the indefinite TWO PEOPLE. In a first consulting session, the signer was asked to sign (67a), in which the indefinite appears in the *in situ* subject position, as well as (67b), in which it appears on the right edge. The meaning of these sentences was investigated by testing acceptability in each of two contexts, isolating each of the two scopal orders: ‘not > two’ in (67), and ‘two > not’ in (68). In both contexts, the first sentence was judged as acceptable, thus confirming that it is ambiguous between the two readings. On the other hand, the second sentence was judged unacceptable in both contexts. This unacceptability could be explained either by syntactic constraints against moving non-negative indefinites to the right, or by unrelated semantic properties of the contexts, such as failure to establish the necessary information structure to license focus-marking. Thus, in a second consulting session three weeks later, the same signer was asked whether there is a context in which the sentence with movement could be used naturally. The signer indicated that both word orders in (69) could be used grammatically, thus confirming the prediction that non-negative indefinites may also appear on the right edge.⁹ The signer’s description of the context in which (69b) could be used, shown in (70), identifies a reading in which the indefinite takes high scope (notably, only the ‘two > not’ reading is compatible with the signer’s use of the definite expression THE-TWO). These results provide preliminary support for the hypothesis that non-negative elements may appear in the right-dislocated position, and that when indefinites do, they are unable to take scope under the negative marker.

- (67) [Context: I have a small car with only one extra seat. Today after the party I was afraid that two people would ask me to give them a ride. But in the end it was fine; only one person asked me for a ride.]
 a. TWO PEOPLE ASK1 NOT
 b. *ASK1 NOT TWO PEOPLE
 ‘Two people didn’t ask me.’
- (68) [Context: I have a big car, with enough space for everybody. Lots of people asked me for a ride after the party. But two people didn’t ask; they preferred to walk.]
 a. TWO PEOPLE ASK1 NOT
 b. *ASK1 NOT TWO PEOPLE
 ‘Two people didn’t ask me.’
- (69) a. TWO PEOPLE ASK2-1 NOT
 b. ASK2-1 NOT TWO PEOPLE
 ‘Two people didn’t ask me.’
- (70) EVERYBODY ASK2-1, ASK2-1 NOT THE-TWO
 ‘Everybody asked me. The two of them didn’t ask me.’

7.3 Implementation of the NC apparatus and the role of focus

Throughout this paper, we have observed a number of parallels with Hungarian. For both RSL and Hungarian, we have seen that NC items in both subject and object position can be licensed by a negative marker. In both languages, though, focus marking introduces a pattern of non-strict concord. In Hungarian, when the focus-sensitive *sem* attaches to a NC item, the NC item no longer needs the negative marker when it appears in preverbal position. In RSL, when a NC item is focus-marked by right-dislocation, the NC item no longer needs the negative marker. These similarities motivated us to propose an analysis of RSL highly similar to Szabolcsi’s (2018) analysis of Hungarian, in which (a) the difference between strict and non-strict negative concord regards the syntactic position at which a NC item may appear and (b) when NC items in Hungarian and RSL display a

⁹ In the second session, the signer used a different verb for ‘ask.’ One morphological difference between ASK1 and ASK2 is that only the latter shows agreement. It is not clear if this property contributed to the acceptability of the sentence in (69b).

non-strict pattern, it is because they appear outside the scope of the negative marker, thus motivating a last-resort operation.

Other, more specific assumptions of Szabolcsi's analysis are perhaps not necessary. For example, for Hungarian, Szabolcsi (2018) proposes that *sem* is the overt spell-out of the NEG operator of Chierchia (2013), which invokes the covert Op^- at the edge of its projection. The availability of Op^- (and of non-strict concord) thus depends on the presence of *sem*. For RSL, we could in principle adopt a similar analysis, positing that the Foc head is a silent NEG operator. On the other hand, evidence for such an analysis is weaker in RSL than it is in Hungarian, since focus-marking is constructional; there is thus no specific morpheme in the RSL sentences that could correspond to the overt spell-out of NEG. Furthermore, the examples in Section 7.2 show that non-negative indefinites may also move to the right edge, suggesting that the Foc head is probably not a NEG operator.

More generally, while we have provided a specific implementation in terms of feature-checking, there are a variety of alternative analyses that would nevertheless preserve the central theoretical arguments that come from RSL. For example, Kuhn (2021) provides a semantic analysis of negative concord, in which NC items are licensed by semantic properties of the environment in which they appear, as opposed to by syntactic feature-checking. Notably, since Kuhn's analysis hinges on the scope of the negative marker relative to the NC item, it is still possible to appeal to a notion of last-resort, and to define an operator that applies when the NC item appears too high to be licensed by the negative marker. For Kuhn, though, the last-resort mechanism is not a silent negation, but rather a mechanism by which a negative presuppositional meaning is shifted to an assertive, at-issue meaning (see also Alonso-Ovalle and Guerzoni 2004). Such an analysis could just as easily be implemented for the RSL data presented here. Indeed, given that the patterns in both RSL and Hungarian involve focus-marking, one may ask whether there is something inherent to the *meaning* of focus-marking (beyond simply its structural position) that induces non-strict concord behavior. Kuhn (2021) provides one avenue that could be pursued, since a shift of what is at-issue in a sentence could be influenced by the topic-focus structure of the sentence. Naturally, a full analysis would need to explain the sensitivity of these patterns to syntactic factors. We leave this as an open possibility for future research.

7.4 Negative headshake

As discussed in Section 3.1, sign languages often have non-manual markers associated with negation. The domain over which these non-manuals spread has been argued for other sign languages to potentially reflect otherwise covert operators (Pfau 2016a) or covert movements (Geraci 2005). In RSL, too, negative signs are often accompanied by negative non-manuals, including headshake, frown, and furrowed eyebrows. Unlike ASL or LIS, though, the behavior of negative non-manuals in RSL seems to be best captured by an analysis on which negative headshake is a lexically-specified non-manual that may spread across a prosodic domain, and, in particular, between two negative elements.

In general, domain-marking non-manuals may fall into any of three possible categories (Petronio 1993; Wilbur and Patschke 1998; Pfau and Quer 2002). Lexical non-manuals are lexically specified facial components of a manual sign; these may spread to adjacent signs but are associated with a specific lexical item. Morphological non-manuals are a unit in and of themselves; having only a non-manual form, they must associate with manual signs in the associated structural position. Syntactic non-manuals are the expression of a syntactic feature and may be expressed on a manual sign in the head position or over the entire syntactic scope of the feature. Sign languages have been shown to vary with respect to the domains over which negative non-manuals can span, which can be attributed to whether these non-manuals are lexical, morphological, or syntactic.

Backwards head tilt in TĪD has been argued to be a lexical negative non-manual marker (Gökgöz 2011). TĪD, like RSL, is a manual-dominant language: a clause cannot be negated by a non-manual marker only. Backwards head tilt must thus always be accompanied by a set of specific negative manual signs; anticipatory spreading occurs over an adjacent predicate in a minority of cases. Since the non-manual must always accompany a negative manual sign and the spreading domain appears to be phonologically governed, Gökgöz thus analyzes this as a lexically specified non-manual. In both LSC and ASL, negative headshake may be the only indicator of negation in a sentence (see Section 3.1 for an example). This means that negative headshake

cannot be lexically specified, as there is no manual sign that could be the carrier of the non-manual. Pfau and Quer (2002) argue that in LSC, negative headshake is a morphological non-manual, and that in ASL, it is a syntactic non-manual. The difference can be seen in the domain of spreading: in LSC, headshake must appear on manual negation, if present, or over the verb, if not, with optional spreading to its arguments. In ASL, when no manual negation is present, headshake obligatorily spreads over the entire syntactic scope of the negative projection—the verb and all of its arguments.

Geraci (2005) has argued that a slightly different case of a syntactic negative non-manual appears in LIS. In LIS, when a negative indefinite is moved to the right edge of the sentence, negative headshake occurs over only the negative indefinite, but when it is left *in situ*, negative headshake occurs over all material between the negative indefinite and the end of the sentence, as in (71), repeated from (19a). Geraci (2005) proposes that negative headshake is thus a syntactic non-manual that marks the tail and the head of a chain created by covert movement of the negative indefinite to the specifier of NegP. Similarly, for *wh*-movement in LIS, Cecchetto et al. (2009) argue that the non-manuals associated with *wh*-questions span exactly the domain of movement, linking the two positions occupied by the *wh*-phrase, as shown in (72).

(71) $\frac{\text{neg}}{\text{NOBODY CONTRACT SIGN}}$ (LIS; Geraci 2006: 223)
 ‘Nobody signed the contract.’

(72) $\frac{\text{whq}}{\text{GIANNI } t_{\text{WHAT}} \text{ EAT WHAT}}$ (LIS; Cecchetto et al. 2009: 291)
 ‘What does Gianni eat?’

In RSL, like in TID, negative headshake cannot occur without a negative sign. When a NC item appears in clause-final position, negative headshake generally spans the NC item alone, as in (62) and (63). Kimmelman (2017) reports similar facts for the negative marker NOT, although he observes that headshake can additionally spread to material in the scope of the negation, as in (73).

(73) $\frac{(\text{---}) \text{ neg}}{\text{BOY LATE NOT.}}$ (RSL; Kimmelman 2017: 806)
 ‘The boy is not late.’

Consequently, unlike the non-manuals associated with *wh*-movement in LIS, negative non-manuals in RSL do not seem to correspond to syntactic movements. If the negative non-manual marked the domain of rightward movement in RSL, we would expect negative headshake to extend from the preverbal subject position in (74) to the right-dislocated NOBODY, causing headshake to obligatorily co-occur with the verb.

(74) $\frac{\frac{\text{neg}}{\text{head-tilt}}}{t_{\text{NOBODY}} \text{ 3-CALL-1 NOBODY}}$
 ‘Nobody called me.’

When a NC item appears *in situ*, licensed by a negative marker, negative headshake occurs over the NC item, the negative marker, and any material between the two, as in (75), repeated from (64). Two possible analyses can explain this data. The first analysis is to posit that, like in TID, headshake is a lexical non-manual, but phonological spreading occurs between two negative items that surround other material. Phonological spreading between identically specified lexical items is consistent with a suprasegmental analysis of non-manuals like that of Pfau (2016b). Alternatively, it is possible that, like in LIS, headshake is a syntactic non-manual that marks the checking of a [uNeg] feature by an [iNeg] feature. Notably, (75) bears a superficial similarity with (71). Such an analysis for RSL is less well motivated than Geraci (2005)’s analysis for LIS, however. Notably, in LIS, there is no negative manual sign on the right edge of the domain of the non-manual, so the only thing that could implicate this position as relevant for the non-manual is an unpronounced syntactic

feature. This is not the case for RSL, where both edges of the domain of headshake are occupied by a negative manual sign.

- _____ neg
- _____ squint
- (75) NOBODY 3-CALL-1 NOT
‘Nobody called me.’

Furthermore, if negative headshake in RSL is a lexical non-manual with optional spreading, it may be possible to find examples with a break in headshake between the NC item and the negation, especially in cases with a lot of intervening material. This is what seems to be attested in (76), in which negative headshake appears on NOBODY and on PUNISH NOT, but not on the intervening direct object. In contrast, a syntactic analysis would predict negative headshake to span the entire agreement domain.

- _____ neg
- _____ neg
- (76) NOBODY NEIGHBORING CHILDREN PUNISH NOT
‘Nobody punished the neighboring children.’

Despite ostensible similarities between headshake in LIS and RSL, the most promising analysis of negative headshake in RSL is that it is a lexical non-manual. This has an analytical consequence of leaving open a wider range of theoretical analyses. Up until this point, we have adopted Zeijlstra (2004)’s analysis for concreteness, but the general RSL pattern is consistent with any theory of negative concord that explains non-strict concord in terms of structural hierarchy. If we assume that negative headshake is the morphological exponent a feature-checking relationship, we restrict ourselves to a much smaller set of analyses. These assumptions are not necessary if headshake in RSL is a lexical non-manual. The superficial similarity to LIS is thus not explained as a synchronic parallel, although there may be diachronic connections between the two patterns.

8. Conclusion

In this paper, we have provided new data from Russian Sign Language that establishes it as a negative concord language. The defining feature of NC items is their dependence on the presence of a negative licenser elsewhere in the sentence. On this characterization, our study provides the first systematic documentation of negative concord involving manual signs in a sign language. RSL thus contrasts with many other sign languages (including ASL, LIS, LSF, and DGS) in which negative indefinites themselves carry negative force.

We have shown that RSL contributes important new data to the typology of negative concord known from spoken language. First, we have shown that RSL shows characteristics of both strict and non-strict patterns of negative concord. These facts provide evidence against analyzing the strict/non-strict divide as a language-level property. Second, focusing on non-strict concord, we have shown that RSL diverges from other languages with respect to important macro-syntactic properties. In particular, in RSL, like in a number of other sign languages, negative elements may occupy a functional structure on the right edge. As a result, negative concord in RSL is essentially a mirror image of the pattern in Italian. In Italian, NC items on the left edge require no licenser; in RSL, it is NC items on the right edge that can appear without a licenser. RSL thus fills an important hole in the typology of negative concord. All previously described non-strict concord patterns have been in strictly right-branching languages, thus confounding structural hierarchy with linear order. The RSL data establishes that structural hierarchy, not linear order, is responsible for explaining the presence or absence of a licenser in non-strict concord patterns. We have implemented this insight with an analysis of the RSL data along the lines of Zeijlstra (2004).

Although RSL differs from many other sign languages in having manual NC items, in other ways the expression of negation in RSL is highly similar to that of other sign languages. First, while few other sign languages have NC items that require a licenser, there nevertheless seems to be a dispreference for double negation readings. In LIS and LSF, for example, using multiple negative indefinites generally yields

ungrammaticality, not a double negative meaning. Second, we have seen that a surprisingly large number of sign languages put negation at the end of the sentence, including LIS, DGS, LSC, HKSL, and TİD. Notably, TİD has been proposed to be another sign language in which manual signs participate in non-strict negative concord; if so, it is likely a second language in which phrase-*final* NC items may appear without a licenser. The source of these typological patterns may arise from a variety of modality-independent and modality-specific biases, including the availability of both manual and non-manual articulators, and the ability to interpret the use of space iconically (Cecchetto et al. 2009, Kuhn 2020). Whatever their origin, the macro-syntactic tendencies of sign languages predict new patterns when combined with theories of negative concord. In RSL, where these elements converge, we are able to thus put these theories to the test.

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Appendix

All corpus data can be found in Supplemental Materials 1 (49 utterances total). All elicited data (glosses and judgments) can be found in Supplemental Materials 2 (312 sentences total). In the following, we summarize the judgments of the four consultants for the core elicited data presented in this article. Below and in Supplemental Materials 2, we code grammatical = 1, ungrammatical = 0, and intermediate = 0.5. Some example videos are available at the following github repository: <https://github.com/lenapasa/NC-RSL>.

Judgments on sentences in which the NC item appears in situ, with a negative marker (Supplemental Materials code: “nci-not”, “nci-not (w/ context)”, and “nc-not (V-in-situ)”)

Subject example: NOBODY 3-CALL-1 NOT

Object examples: MARY NOTHING EAT NOT

C1: 13/17	0.76	(17 sentences tested)
C2: 15/18	0.83	(18 sentences tested)
C3: 29/30	0.97	(30 sentences tested)
C4: 21/25	0.84	(25 sentences tested)

(NB: these averages include sentences both with and without Verb-Neg movement to the right.)

Judgments on sentences in which the NC item appears in situ, without a negative marker (Supplemental Materials code: “nci” and “nci (w/ context)”)

Subject example: *NOBODY KNOW ENGLISH

Object example: *MOTHER WANT NOTHING

C1: 0/15	0	(15 sentences tested)
C2: 1/6	0.17	(6 sentences tested)
C3: 3/32	0.09	(32 sentences tested)
C4: 6/14	0.35	(14 sentences tested)

(NB: in these totals, we count NC items in object position as being *in situ*, unless there is a context that puts focus on the item, as discussed in Section 5.4)

Judgments on sentences in which the NC item is moved to the right edge, without a negative marker (Supplemental Materials code: “nci-foc” and “nci-foc (w/ context)”)

Subject example: COME NOBODY

Object example: [With focus context] MARY READ NOTHING

C1: 9/11	0.82	(11 sentences tested)
C2: 15/16	0.94	(16 sentences tested)
C3: 11.5/15	0.77	(15 sentences tested)
C4: 7/12	0.58	(12 sentences tested)