Neg-Words in Non-negative Clauses in Romanian: Long-distance Negative Concord

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1 Introduction Romanian is a strict negative concord language, i.e. in finite and subjunctive clauses, the pre-verbal negative marker *nu* is obligatory, whenever a neg-word (*nimeni* 'nobody', *nimic* 'nothing', ...) is present (cf. (1)). Neither position nor grammatical function of the neg-word affects this rule.[1]

(1) Nimeni *(nu) a citit nicio carte. *(Nu) a citit nimeni nicio carte.
nobody not has read no book not has read nobody no book 'Nobody read any book.'

While negative concord itself is strict, the locality restrictions on it are not – Romanian allows for what we will call *Long Distance Negative Concord* (LD-NC). A negation in the matrix clause can license a neg-word at a distance, i.e. inside an embedded clause, see (2a). LD-NC requires i.) certain matrix predicates (cf. below) ii.) that, in indicative clauses, the neg-word in the embedded clause be post-verbal (cf. 2b).

(2) a. Nu cred că vine nimeni ... (roTenTen21)
not I.think that comes nobody
'I don't think anybody comes.'
b. *Nu cred că nimeni vine.
not I.think that nobody comes

LD-NC can stretch over multiple embedded clauses (given appropriate predicates, and the appropriate communication context), see (3), as long as there is no intervener.

(3) [Context: Do you want someone to help you? /Vrei să te ajute cineva?]
Nu cred [că vreau [să mă bazez [că mă ajută nimeni]]].
not I.believe that I.want SĂ me I.count.SUBJ that me helps nobody
'I don't think I want to count on that anybody helps me.'

The paper presents the basic properties of LD-NC and shows that Romanian negative concord is an unbounded dependency that competes with A-bar movement.

2 Romanian Long-Distance Negative Concord (LD-NC)

Matrix predicates *Gramatica Limbii Române* (2023: 1159) talks about LD-NC only for embedded infinitival and subjunctive clauses and considers cases with finite indicative complement clauses to be "questionable." However, we did find evidence for their existence in the linguistic literature and in corpora (CoRoLa, Mititelu et al. 2014; roTenTen21, Kilgarriff et al. 2014). Previous analyses relate LD-NC to neg raising (Barbu Mititelu & Maftei Ciolăneanu, 2004; Barbu Mititelu, no date; Iordăchioaia, 2009). However, Barbu Mititelu (no date) lists some matrix predicates that show LD-NC without obligatorily giving rise to a neg raising inference, or for which such an inference is even absent (*a accepta* 'accept', *a se baza* 'to count on').

(4) Nu mă bazez că mă ajută nimeni. ≠ Mă bazez că nu mă ajută nimeni.
not me I.count that me helps nobody me I.count that not me helps nobody
'I don't count on that anybody helps me' ≠ 'I count on that nobody helps me.'

The absence of an obligatory neg raising inference thus disqualifies analyses that relate the syntactic or semantic form of the clause with a matrix negation to one with an embedded negation – be it via movement, reconstruction, or some other kind of mapping between the two structures.
We can also show that LD-NC is, in fact, a morpho-syntactic phenomenon in Romanian. It differs from the embedded occurrences of neg-words in other Romance languages. In Spanish, for example, neg-words can occur in the complement clause of inherently negative matrix predicates such as *dudar* 'doubt', (5a). In Romanian, a neg-word cannot appear in this context, but the NPI *vreunul* 'anyone' can, see (5b).

(5) a. Dudo que encontren nada. (Spanish)
I.doubt that they.find.SUBJ nothing 'I doubt that they will find anything.' (Herburger, 2001)

[1] Glosses: A: genitival marker; CA: subjunctive complementizer; PE: preposition for direct object marking; SĂ: subjunctive particle; SUBJ subjunctive.

b. Mă îndoiesc că au găsit pe *nimeni/ vreunul.
me I.doubt that they.have found PE nothing/ anyone 'I doubt they found anyone (of those).'

This shows Romanian LD-NC cannot be treated as an instance of NPI licensing.

Asymmetry Example (2) shows an asymmetry between the pre- and post-verbal position in indicative embedded clauses. In the subjunctive, on the other hand, pre-verbal neg-words can show LD-NC, see (6).[2]

(6) Nu vrem [ca nimeni să fie rănit]. (roTenTen21) / ... [să fie rănit nimeni].
not we.want CA nobody SĂ is.SUBJ hurt / SĂ is.SUBJ hurt nobody
'We don't want that anybody be hurt.'

There are two further phenomena in Romanian that show this asymmetry between pre- and post-verbal elements in finite indicative clauses: First, post-verbal subjects allow for *wh* movement out of embedded clauses, though pre-verbal subjects block it, cf. (7).

(7) Ce carte crezi că a citit Alex? / ... *că Alex a citit?
which book you.think that has read Alex / that Alex has read
'Which book do you think that Alex has read?'

Second, Fălăuş (2006) and Cristescu & Ionescu (2024) show that Romanian (marginally) allows for double negation readings with neg-words. Yet, this is only possible if one of the neg-words is a prosodically marked, pre-verbal subject in a finite, indicative clause – as in (8), with the neg-words *nimeni* 'nobody' and *niciodată* 'never.' We provide the semantic representations for the two readings. We assume an eventuality argument for verbs, which is existentially quantified and in the scope of negation in a negated clause.

(8) NIMENI nu moare niciodată. (Cristescu & Ionescu, 2024)
nobody not dies never

a. 'Nobody ever dies' (Single Negation)
$\neg\exists x(\mathbf{pers}(x) \wedge \exists t \exists e(\mathbf{die}(e,x) \wedge \mathbf{at}(e,t)))$

b. 'Nobody never dies' (Double Negation)
$\neg\exists z(\mathbf{pers}(z) \wedge \neg\exists t \exists e(\mathbf{die}(e,x) \wedge \mathbf{at}(e,t)))$

We will show LD-NC and these other two asymmetries follow from the same mechanism if we adopt a slash-based treatment of negative concord in Romanian.

3 Previous approaches Strict Negative Concord has received considerable attention in HPSG, in particular for Polish and Romanian. It is standard to assume that the negative marker *nu* and the inflected verb form a morpho-syntactic unit at the word level (Kupść & Przepiórkowski 2002 for Polish, and Barbu 2004 for Romanian). The interaction with neg-words has been discussed in Przepiórkowski & Kupść (1997a). The authors emphasize a non-local aspect of the phenomenon: the fact that a neg-word can be deeply embedded inside a constituent that requires the presence of a negatively marked verb (structures corresponding to English [*in* [[*nobody's*] *paper*]]). However, verbal projections constitute strict boundaries for NC in Polish, see (9), i.e., none of the examples of Romanian LD-NC have a grammatical correspondence in Polish. Przepiórkowski & Kupść (1997a) adapt the lexicalist analysis published in de Swart & Sag (2002).

(9) *Jan nie sdzi [żeby Marysia nikogo lubila]. (Polish)
Jan not believes that.SUBJ Mary nobody liked
Intended: 'Jan doesn't think that Mary likes anybody.' (Przepiórkowski & Kupść, 1997b, 133)

Fălăuş (2006) analyzes Romanian Negative Concord and Double Negation also along the lines of de Swart & Sag (2002), i.e., as an ambiguity between a resumptive/polyadic interpretation (i.e. SN), and an iterative interpretation of negative quantifiers (i.e. DN). This captures some basic observations but does not incorporate the asymmetry between pre- and post-verbal neg-words. Furthermore, the resumption process is strictly clausebounded in the languages for which it has been illustrated in Kupść & Przepiórkowski (2002) and de Swart & Sag (2002), which excludes LD-NC. Finally, resumption approaches assume a negative quantifier, **NO**, i.e., they disallow any split readings of negation and a quantifier for neg-words. However, the LD-NC data above show split readings, i.e., the negation takes scope over the matrix predicate but the existential component of the neg-words takes scope within the embedded clause.

[2] As a reviewer points out, the preverbal position of the neg-word may sound less natural in the subjunctive with other matrix verbs, , though not completely ungrammatical, such as with *a accepta* 'accept' *?Nu accept ca nimeni să mă contrazică* 'I don't accept anyone to contradict me.'

4 Framework We assume a standard HPSG feature geometry. We adopt the lexical treatment of unbounded dependencies from Sag (1997). For us, the SLASH values of all elements on the valence lists of a head are collected in the head's SLASH value, minus those that are in the head's BIND value. The classical analysis from Pollard & Sag (1994) would be possible as well.
Romanian shows both SVO and VSO word order (*Gramatica Limbii Române*, 2023: 824). We can, therefore assume that, in Romanian, the first element of the ARG-ST list can be mapped to the SUBJ list – giving rise to the "non-inverted" order SVO – or to the COMPS list – for the "inverted" VSO order.
We use *Lexical Resource Semantics* (LRS, Richter & Sailer 2004) to model the syntax-semantics interface. LRS has been applied to NC in Polish and French (Richter & Sailer, 2006), and Romanian (Iordăchioaia & Richter, 2015). For convenience, we use the shorthand notation from Sailer & Richter (2021).
In LRS, a sign has a feature EXTERNAL-CONTENT (EXC), which is the semantic representation associated with the maximal projection of that sign. A feature PARTS takes as its value a list of all semantic subexpressions that are contributed by a sign. Using a shorthand notation, we write the PARTS list as a single expression that contains meta-variables ($\alpha, \beta, \ldots$) for (potentially) incomplete expressions, and subexpression constraints such as $\alpha[\beta_1, \ldots, \beta_n]$, which mean: the expression α is such that it contains the expressions β_1, …, β_n as subexpressions. For example, the meta-expression $\neg\alpha[\exists e(\beta[\mathbf{read}(e, x, y)])]$ stands for any expression that starts with a negation and contains somewhere in its scope (α) an existential quantification over the variable e. The scope of this quantifier (β) must contain the atomic formula $\mathbf{read}(e, x, y)$. This meta-expression will be the PARTS value of the negated verb *nu citeşte* 'not reads'. It can describe, for example, the expression $\neg\exists x(\mathbf{person}(x) \wedge \exists y(\mathbf{person}(y) \wedge \exists e(\mathbf{read}(e, x, y))))$ – which would be the semantic representation of the sentence *Nu citeşte nimeni nimic* 'Nobody reads anything' (gloss: not reads nobody nothing).
The semantic representation of a complete utterance is an expression that is described by the utterance's PARTS value and does not contain any semantic material that is not already present in the PARTS value.

5 Analysis Because of the complementary distribution of a negative concord dependencies and constituent extraction, we can use the standard slash mechanism to account for (LD-)NC. We will, however, extend the possible values of the elements inside the SLASH set.
Negated verbs have a head feature NEG (with values +/−). The negative marker *nu* is added by a lexical rule, whose application leads to the specification [NEG +], and adds a negation in the interpretation which takes scope (at least) over the semantics of the negated verb. We sketch the description of a negated matrix predicate such as *nu cred* 'not I.believe' in (12). Since Romanian is a strict negative concord language, a negated clause must contain a negated verb. This is expressed in (10), which is our version of the LRS Neg Criterion from (Richter & Sailer, 2006).

(10) The Neg Criterion, adapted for Romanian from Richter & Sailer (2006)
For every verb, if there is a negation in the EXCONT of the verb that has scope over the verb, then the verb must be marked as [NEG +].

We treat Romanian Negative Concord as a long-distance dependency, modelled through the standard slash mechanism. Long-distance dependencies result from feature percolation along a path, where identical values can connect a single "filler" to different starting positions (to capture parasitic gaps and ATB extraction). This identity of elements in the SLASH value will guarantee negative concord readings.
Every neg-word contributes a negation and an existential quantification in the scope of the negation – see the sketch of the lexical entry of *nimeni* 'nobody' in (13). In addition, the neg-word can have a non-empty SLASH value. Contrary to gaps in extraction, this SLASH value does not contain an object of sort *local*, but a new type of object, *nci* (*negative-concord-item*). An *nci* object has a feature SEM(ANTIC)-REP(RESENTATION). The neg-word specifies that the value of this feature is identical with the negated expression that it contributes.
The elements in the SLASH value will percolate upwards through lexical amalgamation (which requires an adjuncts-as-complements analysis à la Bouma et al. 2001). Like all elements from a SLASH value, *nci* objects need to be "bound," i.e., prevented from percolating further up at some point. Only a verbal head (but of any level of saturation) specified as [NEG +] can stop further percolation of *nci* objects. This is expressed in the first conditon of the Negation Retrieval Principle in (11).

(11) NCI Retrieval Principle:
If a sign has an *nci* object in its BIND value with [SEM-REP 1],
- it must be verbal and be specified as [NEG +].
- If it is not saturated (i.e., COMPS or SUBJ are non-empty), it must have 1 on its PARTS list.

The second condition applies only to non-saturated verbal heads, i.e., those that combine with their complements or their subject. For them, the negation in the SEM-REP value, i.e., the negation contributed by the neg-word, must also be on the PARTS list of the verb. This guarantees a negative concord reading for neg-words in complement and subject position.
We can now look at the analysis of sentences with post-verbal neg-words:
Example 1: Post-verbal neg-word: Nu a sunat nimeni. *'Nobody called.'* $\neg\exists e\exists x(\textbf{\textit{pers}}(x) \wedge \textbf{\textit{call}}(e,x))$
The post-verbal neg-word contributes an *nci* object to SLASH. The negated verb lexically retrieves this element from SLASH and the negations contributed by the verb and the neg-word are forced to be identical.
Example 2: LD-NC: Nu cred că a sunat nimeni. *'I don't think anyone called.'*
The neg-word contributes an *nci* object to its SLASH value. This is inherited by the embedded verb via slash amalgamation, and percolated along the head path, resulting in a complement clause with a non-empty SLASH list. The matrix verb inherits this value through slash amalgamation. Since it is marked as [NEG +], it can, itself, bind the *nci* object from its complement clause.
We can also discuss the analysis of the single negation reading of a sentence with a pre-verbal subject.
Example 3: Unstressed pre-verbal neg-word: Nimeni nu moare niciodată – *Single negation reading only*
All neg-words appear on the verb's valence lists. The verb must have an *nci* object in its BIND value. Consequently, the *nci* objects of the dependents will not percolate further up in the structure. As the verb contains only one negation in its PARTS value, and NCI Retrieval Principle requires the negation of the *nci* object in BIND to be in the verb's PARTS value as well, only a negative concord reading arises.

Our data show that there is a special, pre-verbal position in finite indicative clauses that is associated with focus. A constituent in the filler position must stand in a slash dependency to some gap position. We model this as a Head-Filler-phrase, see (14). Our specification has the following special properties: (i) the head must be an inverted clause, i.e., VSO; (ii) the BIND value may contain more than just the *local* object of the filler. We need this to allow for binding of an *nci* object in the filler's SLASH. Since embedded finite indicative clauses (*că* clauses) must be inverted, i.e., they can only realize their subject pre-verbally if it is a filler.
Example 4: Stressed pre-verbal neg-word: NIMENI nu moare niciodată – *Ambiguous*
The subject is realized as a filler. The verb's valence lists have only one element with an *nci* object in its SLASH value. Since the verb is negated, it can bind this SLASH element at the word level. The neg-word in the filler position contributes an *nci* object, as well. This value cannot percolate upwards. Therefore, it must be bound. The head daughter can have an *nci* object in its BIND value in addition to the LOC value of the filler. This can bind the filler's NCI object. Since the head daughter is syntactically saturated, the second condition of the NCI Retrieval Principle does not apply, i.e., the negation contributed by the filler need not be identical with that of the head daughter. Now, there is no constraint on whether the negation contributed by the preverbal neg-word is identical with that of the verb (single negation) or distinct (double negation). This is the same type of ambiguity standardly observed in French and analyzed as optional identity of negation in LRS in Richter & Sailer (2006).
The double negation reading satisfies the Neg Criterion as well: the verb is in the scope of a negation and marked as negative. This marking can only occur if the verb contributes a negation, which it does.

Semantically, in Romanian, as in English, overt movement determines the maximal possible scope of a constituent. With this general background, we can show how LD-NC is excluded with pre-verbal subjects in embedded finite indicative clauses.
Example 4: No LD-NC with pre-verbal neg-word: *Nu cred că nimeni a sunat.
As the neg-word is in the filler position, all its semantic contributions must be part of the embedded clauses semantic representation, i.e., its EXC value. This includes the negation. If the neg-word is interpreted with scope over the embedded verb, the Neg Criterion will require a negative marking on the verb, which is, however absent.

Let us briefly look at non-bridge verbs, i.e. verbs that disallow constituent extraction from a complement clause. These also exclude LD-NC. We can, thus, specify their clausal complement as being [SLASH { }]. We carefully choose a formulation that leaves it open whether the ban on extraction is a lexical property of a predicate, or derivable by pragmatic conditions – as suggested by a reviewer. The resulting specification blocks the percolation of features for long-distance dependencies from their complement clause – which explains the absence of constituent extraction and LD-NC. We apply the same analysis to inherently negative verbs such as *a se îndoi* 'doubt' from (5).

As a reviewer points out, LD-NC is excluded from embedded interrogatives or relative clauses. These are islands for *wh* movements as well. This gives further support to our slash-based treatment of Romanian NC.

6 Conclusion Data on Long Distance Negative Concord (LD-NC) in Romanian have been mentioned in the literature, but they have not yet received an in-depth empirical description nor a theoretical interpretation. We show why LD-NC poses severe problems to many common empirical generalizations on (strict) negative concord languages. We propose an analysis of Romanian negative concord as an unbounded dependency.
We relate the LD-NC pattern of Romanian to two other phenomena: The ban of extraction from embedded clauses with preverbal elements, and cases of double negation reading with preverbal elements. The assumption of an embedded Head-Filler structure takes care of the extraction data. At the same time, it blocks the percolation of negative concord features from fillers. This structure also provides the basis for exempting fillers from the otherwise strict absence of double negation readings in Romanian clauses.
As our insights depend on a Head-Filler structure but not so much on whether we assume slash amalgamation or a more classical slash percolation. The choice of Lexical Resource Semantics for the syntax-semantics interface might be less obvious to replace.
Romanian is often described as having properties typical for Romance and others more common to Slavic languages. However, in its specific form, Romanian LD-NC is distinct from other Romance languages and absent from the Slavic languages, including Bulgarian. Our paper, thus, adds new observations and insights to the rich body of literature on the diversity of negative concord systems in the languages of the world.

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(12) Description of a negated LD-NC matrix predicate:

$$\begin{bmatrix} \text{PHON} & \langle\, \textit{nu cred} \text{ 'I don't believe'} \,\rangle \\ \text{HEAD} & \begin{bmatrix} \text{NEG} & + \end{bmatrix} \\ \text{ARG-ST} & \langle\, \text{NP}_x, \text{S}_{e'} \,\rangle \\ \text{PARTS} & \neg\alpha[\exists e(\alpha'[\textbf{believe}(e, x, (\hat{}\beta[e'])\,)])] \end{bmatrix}$$

(13) Description of a neg-word:

$$\begin{bmatrix} \text{PHON} & \langle\, \textit{nimeni} \text{ 'nobody'} \,\rangle \\ \text{PARTS} & \boxed{1}\gamma[\neg\gamma'[\exists x(\delta \wedge \delta')]] \\ \text{SLASH} & \left\{ \begin{bmatrix} \textit{nci} \\ \text{SEM-REP} & \boxed{1} \end{bmatrix} \right\} \end{bmatrix}$$

(14) Head-Filler Phrase: *head-filler-ph* ⇒

$$\begin{bmatrix} \text{HDTR} & \boxed{1} \begin{bmatrix} \text{HEAD} & \begin{bmatrix} \textit{verb} \\ \text{VFORM} & \textit{fin} \\ \text{INV} & + \\ \text{MOOD} & \textit{ind} \end{bmatrix} \\ \text{BIND} & \{\, \boxed{2}, \ldots \,\} \end{bmatrix} \\ \text{DTRS} & \left\langle \begin{bmatrix} \text{LOC} & \boxed{2} \\ \text{SLASH} & \{\} \end{bmatrix}, \boxed{1} \right\rangle \end{bmatrix}$$