

Semantic arguments for a syntactic analysis of NPI-licensing and Negative Concord

Elena Herburger

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Topic: A trajectory for NPIs

- This talk touches on various topics: NPI licensing, Negative Concord, and historical change.
- My aim is to explore how they relate to each other.

Main claims

- NPIs are expressions characterized by a semantically meaningless feature, *u-neg*, which is syntactically licensed.
- The lexical semantics of NPIs plays an important pragmatic role their genesis, less so in their actual licensing.
- NPIs can come to have semantically negative homophones. The result is Negative Concord.
- The change of a Negative Concord to a Double Negation system is gradual and involves the increased use of the negative versions and decreased use of the NPI versions.

Classic syntactic licensing of NPIs

- For Klima (1964) NPIs are syntactically licensed. NPI-licensors are [+affective] and NPIs are licensed if they are c-commanded by such expressions:

(1) Mary [**didn't**_[+affective]][say **anything**]

- But this analysis does not explain the contrast between *every* and *no* (Ladusaw 1979):

- (2) a. [**Every** [listener who know **anything**]] agreed
b. [**No** [listener who knew **anything**]] agreed
c. ***[Every** listener] objected to **anything**
d. [**No** listener] objected to **anything**

NPI licensing and Downward Entailment

- A crucial factor for NPI licensing is that *anything* finds itself in a downward entailing (DE) context when it appears in the restriction of *every* and *no*, and in the scope of *no* but not in the scope of *every*:
 - (3) a. $[[No \Downarrow] \Downarrow]$
b. $[[Every \Downarrow] \Uparrow]$
- Other [+affective] expressions can also be said to create DE contexts.
- Some require that their backgrounded entailments or presuppositions are abstracted away from (cf. e.g. von Stechow 1997).

Both semantics and syntax

- We may try to explain Ladusaw's generalization by enriching the semantics of NPIs with a strengthening requirement (e.g. Kadmon and Landman 1993, Krifka 1995, Lahiri 1998, Chierchia 2013). These are discussed in the appendix.
- Alternatively, we can adopt a semantically informed syntactic account of NPI licensing (e.g. Dowty 1994, Ludlow 2002).
- The simple version assumed here involves syntactic DE marking and the assumption that NPIs are expressions that are marked [u-neg].

Syntactic DE marking

- Affective expressions, including determiners, mark their internal and external arguments for DE:
 - (4)
 - a. [[Every [listener who knew **anything**]^{neg}] [agreed]]
 - b. *[[Every [listener]^{neg}] [objected to **anything**]]
 - c. [[No [listener who knew **anything**]^{neg}] [agreed]^{neg}]
 - d. [[No [listener]^{neg}] [objected to **anything**]^{neg}]
 - (5) [Adam [doesn't [say **anything**]^{neg}]]
- NPIs are marked [u-neg] and need to be dominated by a *neg*-marked node to be licensed.

Fast and local syntactic licensing

- Unlicensed NPIs directly result in *.
- We predict that the lexical choice between *some* vs. *any* is fast, a purely grammatical matter that is unaffected by our slowness in drawing inferences.
- The syntax remains autonomous. No need for G-triviality arises (cf. Chierchia 2013).
- It follows that NPI licensing is local and does not need global DE-ment (Ladusaw 1979):

(6) [Adam [**rarely** [doesn't [say **anything**_{u-neg}]^{neg}]^{neg}]]

The lexical skewing

- What are we to make of the fact that many NPIs are expressions that occupy a low rung on a Horn-scale?
E.g. *any*, *budge an inch*, *give a damn*
- What are we to make of the fact that some NPIs are expressions that occupy a relatively high scalar rung?
E.g. adverbial *much*, *long*, *gran cosa*
- It strikes me as significant that both kinds of expressions are pragmatically useful in the scope of negation (Israel 1996, 2011).
 - low scalar NPIs lead to emphasis
 - relatively high-scalar ones lead to understatement/attenuation.

Acquiring [u-neg]

- Expressions that are pragmatically useful under negation can come to be frequently used in this context.
- The learner can come to parse them as being grammatically restricted to such contexts. This amounts to their being lexically marked [u-neg].
- The DE marking that assigns *neg* features to syntactic structure and the grammar of checking [u-neg] is provided by UG for free. It is a grammatical process.
- Having expressions that are marked [u-neg] is useful for processing because it signals the local scope of negation.
- Having [u-neg] marked expressions (NPIs) is common across languages.

The chance of being an NPI

- Which semantically predisposed expressions come to acquire [u-neg] seems up to chance: *any* did, *a* and *some* did not.
- If NPI-hood just amounts to being marked [u-neg], we expect that some NPIs might lose their NPI-hood but keep their meaning constant.
- Dutch *ooit* ('once') may be such an example. According to Hoeksema (1998), though until the 1960s it had the distribution of an NPI, it no longer does:

(7) Jan heeft het **ooit** geweten
Jan has it once known
'Jan once knew it.'

Another fate for [u-neg] expressions

- NPIs can also come to have semantically negative counterparts, resulting in a homophony commonly known as Negative Concord (Herburger 2001).
- The NPI-version can then gradually fall into disuse, leaving eventually only the semantically negative versions.
- This process is taking place in Romance, with Spanish and French at different stages.

U-neg in Medieval Romance

- Medieval Romance developed a series of existential NPIs, e.g. Spanish *nadie* (HOMINEM NATUM ‘man born’), *nada* (RES NATA, ‘thing born’), French *rien*, *personne*, Catalan *cap* (CAPUT ‘head (of cattle)’), etc.
- The medieval versions readily appeared with bleached meaning in all sorts of NPI contexts, including *if*-clauses, questions and comparatives (e.g. Martins 2000, Eckardt 2006, Breitbarth et al 2020 a.o.).
- In preverbal position they often co-occured with negation.

(8) **Nadi non** le diessem possada
N-body not him gave lodging
‘Nobody gave him lodging’ (Cantar de mio Cid)

Nadi non, non nadi

- We can even find them with negation in ellipsis:

(9) Entonces respondieron todos: que **non ninguno**
then answered all: that not n-body
'Then all answered: no one.' (Cantar de mio Cid)

(10) What are you bringing?

No nada, si el asno cae.
Not n-thing, if the donkey falls

'Nothing, if the donkey falls.' (Marqués de Santillana,
Refranes que dicen las viejas tras el fuego, 1419)

Negative uses emerge

- While in Medieval Romance *nada* etc. were NPIs and marked [u-neg], over time snegative homophones emerge.
- In Modern Romance they co-exist side by side. The result is what is known as Negative Concord.

- (11) a. *nadie* translates as $\exists x : Person(x)$
b. *nadie_{neg}* translates as $\nexists x : Person(x)$

- The largely complementary distribution of the NPI *nadie*_[u-neg] and the semantically negative *nadie* depends on
 - the licensing requirements of the [u-neg] versions; they need to be commanded by *neg*
 - the scope limitations of the semantically negative versions

Distribution in Spanish: ellipsis and preverbal

- As in all NC languages, in Spanish we find the semantically negative versions in elliptical answers.
- In Spanish the negative versions also appear preverbally:

(12) **Nadie** vino
n-body came
'Nobody came.'

(13) **Nadie no** vino
n-body not came
'Nobody didn't come'
(with a L+H*L! H % intonation contour (Espinal et al 2016))

Distribution in Spanish: postverbal

- Postverbally Spanish generally requires the [u-neg] marked version.

(14) *(**No**) vino **nadie**
not came n-body
'Nobody came.'

- But the negative version is possible with scope under $\exists e$:

(15) Conducía frenéticamente a **ninguna** parte
Rode-I frenetically to n- place
'I rode (my motorcycle) frenetically to nowhere'
(Tokio in *Money Heist*)

How the negative versions may emerge

- Since all NC languages use the negative versions for elliptical answers, we can surmise that verb ellipsis is one of the first contexts where these become possible.
- This suggests that it is easier for a negative quantifier to take scope over $\exists e$ if the verb is elided rather than overt.
- While it is not easy for a negative expression to take scope over the $\exists e$ of an overt verb, in some NC languages/dialects it becomes possible if the negative expression is preverbal.
- The result is non-strict Negative Concord.

Decreasing [u-neg] uses

- As the negative uses increase, the NPI uses start to decrease.
- There is now variation with respect to the acceptability of the [u-neg] versions in *if*-clauses, under 'doubt', in comparatives, in questions, etc. (e.g. Martins 2000)
- In European Portuguese they now appear only in the scope of 'without', negation or a perverbal negative NC-terms. In Catalan, they still almost retain medieval distribution.

(16) **Si** vol menjar **res**, avisa'm.
if want eat n-thing, tell-me
'If you want to eat anything, let me know.'

Postverbal negative quantifiers scoping over $\exists e$

- The logic of the analysis predicts that if postverbal negative versions somehow acquire the ability to scope over $\exists e$, they will be able to express sentential negation on their own.
- This results in a further decrease of the uses of the NPI versions.
- This is arguably what is happening in French.

French postverbal NC-terms

- In French postverbal *personne* can express sentential negation on its own, suggesting that when it is semantically negative it can take scope over the verb's $\exists e$:

(17) Je (n')ai vu **personne**
 I not-have seen n-body
 'I haven't seen anyone.'

- To express narrow scope relative to $\exists e$ *n'* needs to be omitted, showing that it functions as a scope marker:

(18) J'ai dit doucement à **personne** que tout
 I-have said softly to n-body that everything
 était a moi.
 was mine
 'I said softly to nobody that everything was mine.'

Postverbal NC-terms still ambiguous

- Its appearance under ‘without’ a.o. suggests that the NPI *rien*_[u-neg] etc. continues to exist.
- The ambiguity of (19) also shows that postverbal *rien* etc. can still be an NPI, not just a negative quantifier:

(19) **Personne** n'a **rien** vu.
 N-body n-has n-thing seen
 $[\bar{\Delta}x : \text{Body}(x)] \exists e [\exists y : \text{Thing}(y)] \text{See}(x, y, \text{at } e)$
 $[\bar{\Delta}x : \text{Body}(x)][\bar{\Delta}y : \text{Thing}(y)] \exists e \text{See}(x, y, \text{at } e)$

- To the extent that (20) can only be a double negation this may be a blocking effect; sentential negation could have been expressed more simply with the negative version of *personne*.

(20) Je n'ai **pas** vu **personne**.
 I not-have pas seen n-body
 ‘I didn’t see nobody.’

The Jespersen Cycle

- How did French postverbal negative quantifiers acquire the ability to scope over the verb's $\exists e$?
- It may be related to the change of postverbal *pas*.
- *pas* changed from being an NPI that was licensed by a semantically negative *ne* to expressing the negation itself, with *ne* becoming a mere optional scope marker:

- (21)
- a. $ne(\neg)\dots pas$
 - b. $ne(\neg) \dots pas_{[u-neg]}$
 - c. $(ne)\dots pas(\neg)$

Pas paves the way

- With the semantic negation *pas* taking scope over $\exists e$ despite appearing after the verb the learner can generalize to postverbal negative quantifiers.
- As postverbal negative quantifiers acquire the ability to express sentential negation, their NPI-uses decrease.
- A prediction this analysis makes is that the change of *pas* from being [u-neg] to expressing negation precedes the ability of negative quantifiers to scope over $\exists e$ from postverbal position. Is this true?
- We also expect that other Negative Concord languages with postverbal negation will allow postverbal NC-terms to express sentential negation. This is true, it seems.

Northern Italian varieties

- Various northern Italian, Swiss and Rhaeto-Romansh dialects and ‘italiano popolare’ of the 20th century express negation postverbally (e.g. Bernini and Ramat 1996, Zanuttini 1997).

(22) Mi parli **noi**.
I speak not
‘I don’t speak.’

Milanese

- As now expected, in these varieties postverbal negative quantifiers can express sentential negation on their own (Bernini and Ramat 1996; Zanuttini 1997 a.o.).

(23) Abbiamo raggiunto **niente**
Have-we achieved n-thing
‘We have achieved nothing.’

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Loss of NPI versions in English

- Standard English no longer displays Negative Concord.
- This means the [u-neg] versions of *nobody* etc. have fallen into disuse, leaving only the semantically negative versions.
- These can scope over $\exists e$ even from postverbal position, expressing sentential negation. But it is marked and *n't...any-* is often preferred.
- Non-standard and dialectal varieties still bar postverbal negative versions from scoping over $\exists e$. Like Romance varieties, they differ with respect with whether they let preverbal ones scope over $\exists e$ (cf. Labov 1972).

The future?

- We may surmise that like standard English, French and Northern Italian may also at some point lose the [u-neg] of *rien*, *personne*, etc. and only retain the semantically negative versions.
- They will then cease to be Negative Concord languages.
- This will be a change to their lexicon.

The final picture

medieval

*nadie*_{u-neg}

*ne*_{i-neg} *pas*_{u-neg} >

*personne*_{u-neg}

-

*nobody*_{u-neg}

*nobody*_{i-neg}

early modern

> *nadie*_{u-neg}
*nadie*_{i-neg-linear}

*ne*_o *pas*_{i-neg-linear} > (*ne*_o) *pas*_{i-neg-inverse}

> *personne*_{u-neg}
*personne*_{i-neg-linear}

> (*nobody*_{u-neg})
*nobody*_{i-neg}

present

> *nadie*_{u-neg}
*nadie*_{i-neg-linear}

> *personne*_{u-neg}
*personne*_{i-neg-inverse}

> *nobody*_{i-neg}

future?

> *personne*_{i-neg-inverse}

Thank you!

Lexico-semantic NPI licensing

- An important line of thinking aims to explain the distribution of NPIs in terms of their lexical semantics (e.g. Kadmon and Landman 1993, Krifka 1995, Israel 1996, 2011, Lahiri 1998, Chierchia 2013).
- NPIs are low scalar expressions that come with an additional strength requirement.
- Since low-scalar expressions are strong in DE environments, it follows that NPIs must appear in DE contexts.

The strength requirement

- Different authors conceive of the semantic strength requirement differently:
 - Kadmon and Landman (1993): domain widening and strengthening
 - Krifka (1995): Scal.Assert and more specific domain; Emph.Assert and stronger scalar alternatives
 - Israel (1996, 2011): strong informativeness feature
 - Lahiri (1998): *ek bhii* 'even one'
 - Chierchia (2013): O and smaller alternative domains; E and less likely alternative domains

How to generate strength

- Abstractly, the ingredients posited to generate strength are:
 - semantic alternatives to the NPI
 - strength-sensitive operators akin to ‘only’ and ‘even’
- With ‘even’, the alternatives that are posited are less likely or semantically stronger (e.g. ‘two’ for ‘one’, less likely domains)
- With ‘only’ the alternatives that are posited are semantically weaker (e.g. more specific cases, smaller domains)
- Only in DE contexts do these combinations of meaning+operator+alternatives not lead to contradiction or incoherence

A lexico semantic analysis?

- One may ask why unlicensed NPIs are ungrammatical not pragmatically ill-formed:
(24) a. # I ate even one of them.
b. # I ate only all of them.
c. *I ate any of them.
- G-triviality and 'logicality' (Chierchia 2013) remedy this.
- This creates a tension with the autonomy of syntax.
- Strengthening ingredients do not follow from the semantics but need to be stipulated: *some* vs. *any* vs. *a*
- Some NPIs are not low-scalar (e.g. *in years*, *much*, *long*, *at all* French *grande chose*) and require special treatment.