Semantic and formal features in negation systems: diachronic implications

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Chiara Gianollo
Universität zu Köln & Università di Bologna
chiara.gianollo@unibo.it

Introduction: relevance for the workshop

- Tension in recent minimalist thinking between, on the one hand, the effort to reduce complexity and redundancy in the theoretical apparatus, and, on the other hand, the growing importance of features as motor of syntactic operations.
- Proliferation both in the inventory of substantive features and in their formal specification (valued / unvalued, interpretable / uninterpretable).
- (Minimalist) way out from this tension: general formats and implicational relations for parametric variation, i.e. for feature structures (schemata in Longobardi 2005, Gianollo, Guardiano & Longobardi 2008; hierarchies in Biberauer, Roberts, Sheehan 2014, Biberauer & Roberts 2013; feature geometries in the call for papers).
- **In this talk**: feature structure for the grammar of negation, and its relevance for diachronic explanation.

Introduction: negation and diachrony

- Negation systems: classical topic of historical linguistics, at least since Jespersen (1917); wealth of typological generalizations available; only recently investigated in a theoretical perspective:
  - great potential of restrictive models of linguistic variation in this domain
  - relevant number of diachronic parallel developments and directional / 'regular' instances of linguistic change across modules (phonology, morphosyntax, semantics, pragmatics): cf. overview in Willis et al. (2013)
- Important role of the study of (micro)variation in Romance languages for progress in this domain (Laka 1990, Haegeman 1995, Déprez 1997, Zanuttini 1997, Rowlett 1998, etc.)
- **Still poorly understood**: The shift from the Double Negation system of Latin to the Negative Concord systems of Romance = **a change where all daughter languages differ from the ancestor, and all in a parallel way**.

Structure of the presentation

Feature typology

Minimalist feature typology (cf. Zeijlstra 2004, 2008, 2014; Biberauer & Roberts 2013):
For each grammatical category, two options = one deciding procedure:

either **[F]** *or* (**[iF] + [uF]**)

where:

- **[F]** = semantic feature (insert operator)
- **[iF] + [uF]** = pair of interpretable / uninterpretable formal features, which trigger syntactic operations, namely:
- (Upward) **Agree** = a hierarchically superior [iF], which is introduced in the locus of interpretation of F, licenses (multiple instances of) the [uF] feature in its c-command domain

Feature typology for negation

If F = **Neg**, *either* **[Neg]** *or* (**[iNeg] + [uNeg]**)
→ three macro-types of negation systems (Zeijlstra 2004, 2008, 2014, Penka 2011, Biberauer & Zeijlstra 2012)

Type	**Negative marker**	**Indefinites**
Double Negation	[Neg]	[Neg] (Neg. Indef.)
Non-strict Negative Concord	[iNeg]	[uNeg] (n-word)
Strict Negative Concord	[uNeg]	[uNeg] (n-word)

- main difference: presence of formal features for negation in NC systems = morpho-syntactic **redundancy** as the manifestation of a (clause-bound, but nonetheless longer distance) dependency with a NegP projection → Romance NC: requirement that the negative operator be overtly realized in the CP-TP phase
- Whenever a *mismatch between semantic import and morpho-syntactic encoding* (as in NC) is detected, a pair [iF] - [uF] is assumed during acquisition (Zeijlstra 2004, 2014)

Double Negation

D(ouble) N(egation) systems: English, German, Latin...

(1) a. Ratione utuntur: ludis poscunt **neminem** (Infl > O)
reason:ABL use:3PL game:ABL ask:3PL no.one:ACC
'They are reasonable: during the games they don't demand from anyone' (Pl.Cas.27)

b. De lanificio **neminem** metuo (O > Infl)
about woolmaking:ABL no.one:ACC fear
'Concerning woolmaking I don't fear anyone' (Pl.Merc.520)

c. aperte enim adulantem **nemo** **non** videt
blatantly in.fact flattering:ACC noone:NOM not see:3SG
'no one does not recognize someone who is blatantly flattering' (Cic.Lael.99)

Negative Concord

N(egative) C(oncord) systems: Italian, Spanish, Greek, Russian, Czech...

- **strict** NC (Romanian): Iordachioaia (2010)

(2) a. **Nimeni nu** a cumpărat cartea
'Nobody bought the book'

b. **Nimeni nu** citeşte **nimic**
'Nobody reads anything'

- **non-strict** NC (Italian): pre-/post-Infl asymmetry

(3) a. **Nessuno** ha mangiato (S > Infl)
'no one ate'

b. **Non** ha mangiato **nessuno** (Infl > S)
'no one ate'

c. **Niente** ha mangiato! (O > Infl)
's/he did not eat anything (at all)'

d. **Nessuno non** ha mangiato
'No one did not eat' = everyone ate
(2 pre-Infl elements → DN reading!)

Feature hierarchies

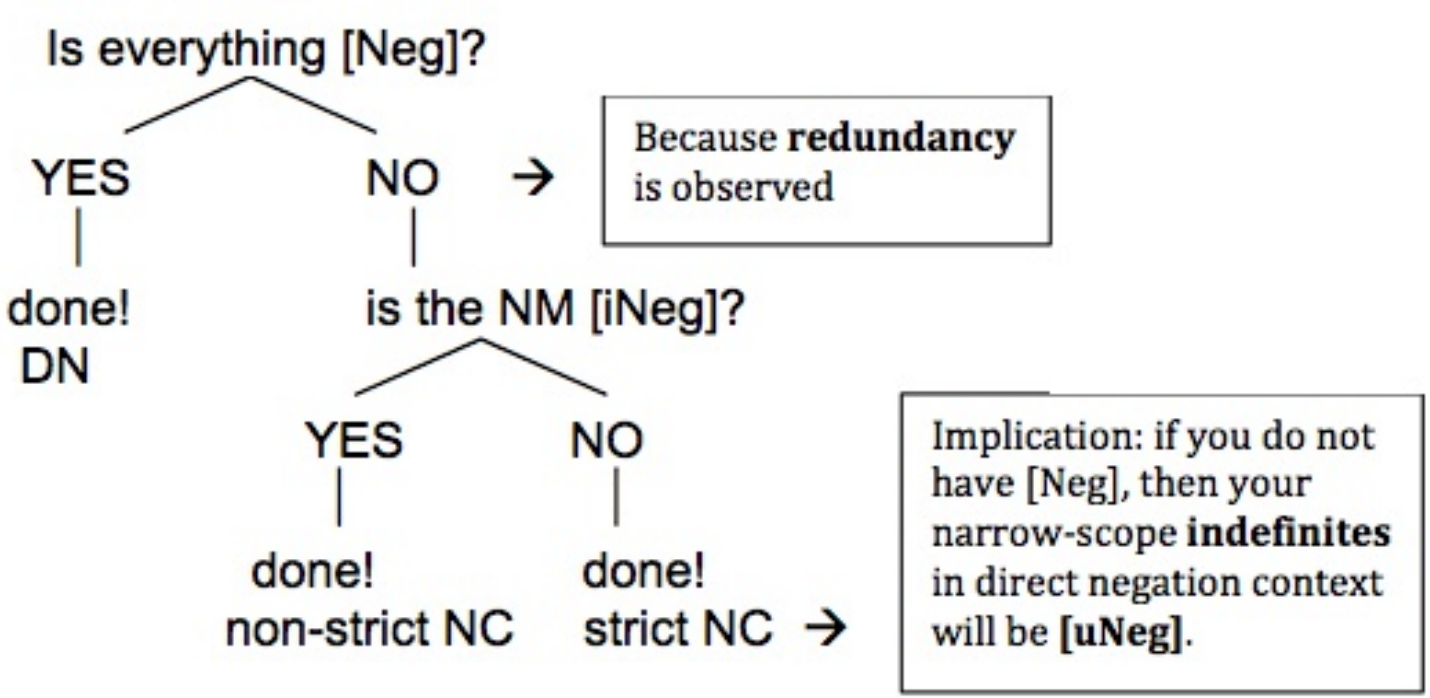
Feature **schemata** or **hierarchies** (Longobardi 2005, Gianollo, Guardiano & Longobardi 2008; Biberauer, Roberts, Sheehan 2014, Biberauer & Roberts 2015)

- Feature hierarchies encode logical relations between features, causing interdependencies between (clusters of) feature values
- Feature hierarchies are also meant to represent learning algorithms = parameter setting procedures

Feature hierarchies

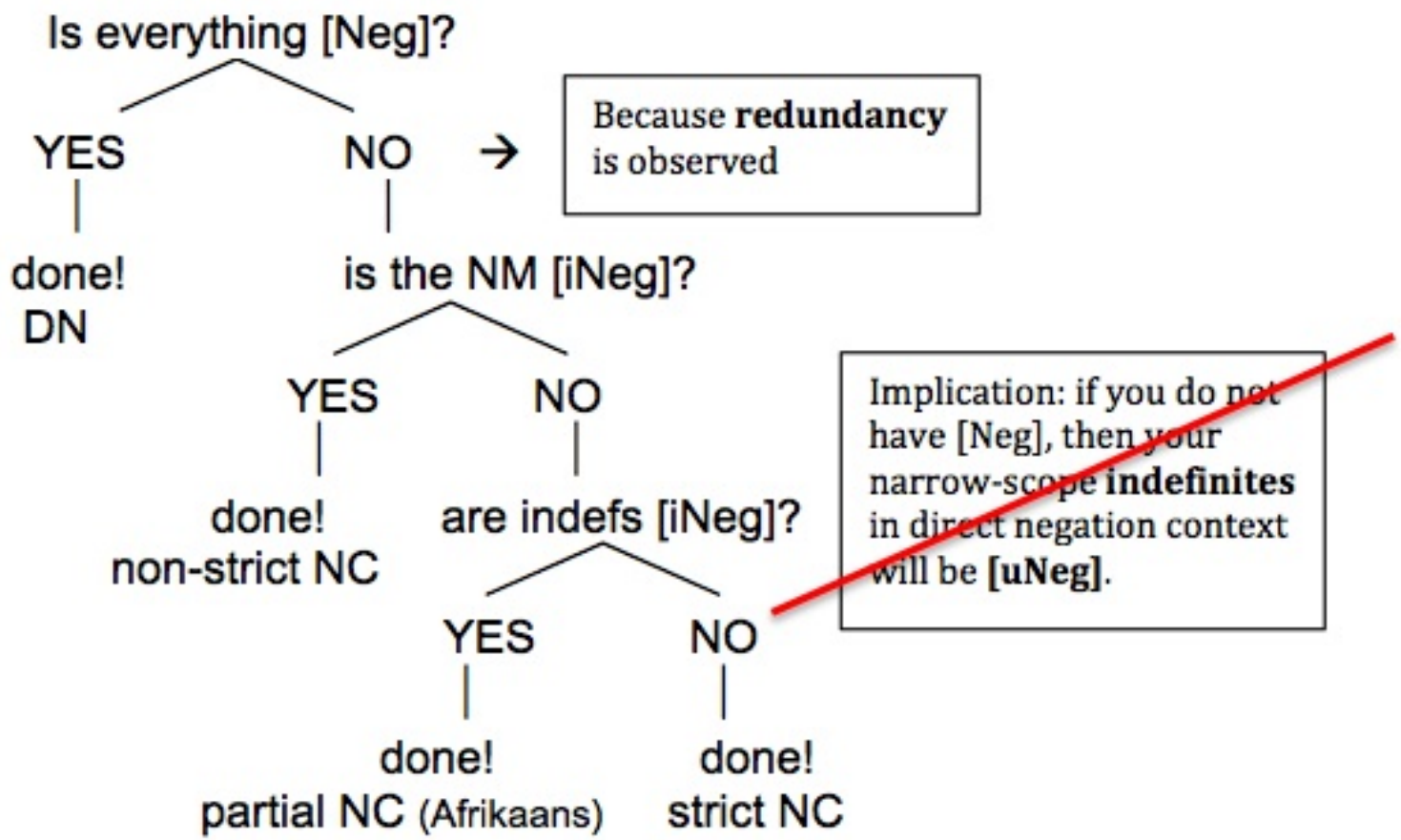
Feature hierarchy for **negation**: first attempt (cf. Zeijlstra 2004, Biberauer & Zeijlstra 2012, Biberauer & Roberts 2015)

NM = sentential negative marker

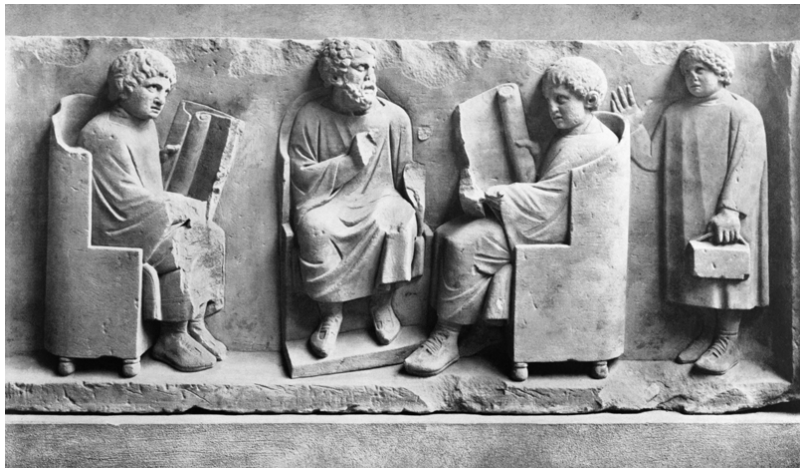


Feature hierarchies

...too easy? cf. standard Afrikaans (Biberauer & Zeijlstra 2012): [uNeg] NM but [iNeg] indefinites!
→ additional decision step — but problems of learnability



Classical Latin



The Classical Latin child...

Is everything [Neg]?
|
YES
|
done!
DN

Classical Latin: DN readings

Each morphologically negative element conveys a semantic negative operator:

(4) a. Platon ait **neminem** regem **non** ex servis esse
Plato:NOM say:3SG nobody:ACC king:ACC not from slave:ABL be
oriundum
originate:PT
'Plato says that there is no king who does not originate from slaves' (Sen. Epist. 44.4)

b. **non** tamen ideo **neminem** in provinciam mitti
not though thus nobody:ACC in province:ACC send:INF.PASS
'However it is not the case that no one was sent (as a governor) in the province' = a governor was nonetheless sent to the province (Tac. Ann. 3.34)

Late Latin

- Late Latin looks like a Double Negation language
- but –I will argue– only superficially: although negative indefinites look the same, they are in fact subject to different positioning requirements in the clause
- my proposal is that this is the consequence of a reanalysis affecting the phrase-structural status of the negative marker:
  from **XP-adjunct to TP** to **X^0 of a NegP** $\rightarrow$ [iNeg] NM

  (5) **Phrase-structural generalization**: negative heads (X^0) are predicted not to be available in non-Negative-Concord languages. There is no language without Negative Concord that exhibits a negative marker that is a syntactic head (Zeijlstra 2011: 136) $\rightarrow$ activation of NegP.

- thus, Late Latin is a 'latent (non-strict) Negative Concord language'
- Latency is due to the fact that Late Latin has a negative marker endowed with [iNeg], but no concording elements endowed with the [uNeg] uninterpretable counterpart yet.

Late Latin negative indefinites

Evidence for the reanalysis: **Negative Indefinites** surface exclusively pre-Infl (despite the otherwise increasing VO grammar).

(6) a. levantes autem oculos suos **neminem** viderunt nisi
raise:PTCP then eyes:ACC their:ACC no.one:ACC see:3PL not.if
solum Iesum
alone:ACC Jesus:ACC
'When they looked up, they saw no one except Jesus' (Matth. 17.8)

b. ego **nullam** invenio in eo causam
I:NOM no:ACC find:1SG in he:ABL charge:ACC
'I find no basis for a charge against him' (Ioh 18.38)

The steady OV order for negative indefinites does not seem to be paralleled by similar phenomena affecting NPIs or other quantificational elements (e.g. *omnis* 'all').

Classical Latin negative indefinites

(7) position of **Classical Latin** object negative indefinite pronouns

TEXT	FORM	TOT./**Relev.** HITS	OV	VO	OTHER
Plautus	*neminem*	26/**14**	6	7	1
Terence	*neminem*	10/**6**	2	4	
Cicero *Epist.*	*neminem*	65/**34**	20	13	1
Varro	all acc.	15/**8**	6	0	2
Vitruvius	all acc.	11/**6**	5	0	1
Livy	*neminem*	85/**31**	26	1	4
Celsus	*null*$*$	11/**3**	3	0	
Celsus	*neminem*	7/**2**	2	0	
Petronius	*neminem*	4/**3**	2	0	1
Petronius	*nihil*	37/**24**	24	0	
Petronius	*null*$*$	6/**2**	2	0	

Late Latin negative indefinites

(8) position of **Late Latin** object negative indefinite pronouns

TEXT	FORM	TOT./**Relev.** HITS	OV	VO	OTHER
Passio Perp.	all acc.	3/**2**	2	0	
Egeria	*null*∗	2/**2**	2	0	
August.*Serm.*	*neminem*	64/**48**	46	0	2
Vulgata	*null*∗	37/**21**	20	1	
Vulgata	*neminem*	25/**21**	19	2	
Evangelia	*nihil*	25/**22**	19	3	
Orosius *Hist.*	all acc.	51/**30**	30	0	
Greg.Tur.*Hist.*	*null*∗	43/**27**	27	0	

What happens in Late Latin?

The distributional restriction on NIs is connected to a change in the phrase-structural status of *nōn*: from adverbial XP to X^0 of a Neg projection → **activation of the NegP** in the CP-TP area of the clause = all negatively marked elements must establish a **syntactic relation** with this projection.
Concomitant changes (Devine & Stephens 2006, Ledgeway 2012, Danckaert 2012):

- decay of Infl-final: in later Latin (starting in the first centuries CE) the arguments start to move separately; the *v*P remains in situ, resulting in the decline of Infl-final orders.
- decay of OV: since arguments move separately, they may become subject to new conditions concerning referential features. The persistence of OV orders with negative objects during the shift from OV to VO is well known from the history of Germanic (cf. Jónsson 1996, Svenonius 2000, Pintzuk & Taylor 2006) and Romance (cf. Kayne 1975, Poletto 2014).

Late Latin

The Late Latin child...

Is everything [Neg]?
|
NO →
|
is the NM [iNeg]?
|
YES
|
done!
non-strict NC

Because ~~**redundancy**~~ **positional evidence** is observed (obligatory realization above Infl)

Because **of no co-occurrence**

...but wait a minute: **where are [uNeg] indefinites?**

What happens to Negative Indefinites?

Why do Late Latin NI have a strict OV syntax?

- Late Latin NIs are not reanalyzed in their feature composition: they remain [Neg] = incompatible with a [iNeg] c-commanding element in a single-negation reading
- A clausal NegP becomes syntactically active: so, whenever sentential negation has to be conveyed, a semantic negation operator is inserted in NegP and requires overt realization in the CP-TP phase
- This can be achieved by inserting *nōn* or by moving the NI to Spec, NegP. This way, the consistent pre-verbal position of NIs is explained by the new requirement emerging with the activation of NegP in the CP-TP phase.
- being incompatible with a post-Infl position, *nemo* and *nihil* become obsolete in the new VO grammar, ousted by new, more flexible products of grammaticalization (n-words and NPIs) = lexical replacement

The birth of *nec-words*

n-words formed with the negative morpheme *nĕc*: everywhere in Romance = plausible reconstruction to the Late Latin stage

(9) Romance indefinite pronoun 'nobody'

***nec-words* for 'nobody'**	
Portuguese	*nenhum, ninguem* (Old Portuguese *negun, nengun*)
Spanish	*ninguno* (Old Spanish also *niguno*)
Old French	*neuns, necun, negun, nesun, nessuns*
Old Occitan	*negu* (cf. modern Occitan *degu*)
Provençal	*neisun*
Old Catalan	*ningú*
Italian	*nessuno* (Old Italian also *neuno, niuno, negun*)
Sardinian	*nesciunu, niunu*
Romanian	*nicĭ un*

nec-words

- Latin *nĕc*: multifunctional element (Orlandini 2001, Orlandini & Poccetti 2007):
  - (i) discourse structuring particle,
  - (ii) correlative particle;
  - (iii) focus particle
- use at the origin of Romance *nec*-words: **scalar focus particle** use 'even not *x*'
- *nec* and functionally related items like *ne...quidem* show **redundancy** already in Classical Latin!
- potential redundancy in the correlative use (due to equivalence $\neg x \wedge \neg y \Leftrightarrow \neg(x \vee y)$)

  and actual redundancy in the focus particle use

nec-words

Redundancy in the expression of negation with **focus particle** *nec* :

(10) a. **non** enim praetereundum est **ne** id **quidem**
not indeed overlook:GRD be:3SG NE this:NOM QUIDEM
'and indeed also this fact should not be overlooked' (Cic. Verr. 2.60)

b. **non** est relictus ex eis **neque** unus
not be:3SG remain:PTC of they:ABL NEQUE one:NOM
'and of them not even one is left' (Agnell. lib. pont. 121)

cf. pre-Infl examples with one negation:

(11) Ramessen civitas nunc campus est, ita ut **nec unam** habitationem habeat
'the city of Rameses is a desert now, such that there isn't even a dwelling' (Itin. Eg. 8.1, in Bertocchi et al 2010: 82)

nec-words

Proposal of analysis

- emphatic value of combination with *nec*: strategy of emphatic reinforcement of negation by means of **scalar focus** (cf. Krifka 1995, Kiparsky & Condoravdi 2006, Eckardt 2006 a.o.).
- *nec* / *ne...quidem*: obligatory association with a Focus position in CP, through (i) movement or (ii) Focus Concord
- *nec* / *ne...quidem*: [uFoc] (cf. Watanabe 2004);
- pre-Infl negative element: [iFoc], [Neg]
- subsequent reanalysis: *nec* / *ne...quidem*: [uFoc], [uNeg] = birth of new Romance n-words

Conclusions

- The prerequisites for NC (mainly, a negative marker at Stage I of a new Jespersen's Cycle) are already present in Late Latin; the absence of co-occurrence with the NM is linked to the fact that
  (i) no n-words have been grammaticalized yet, and
  (ii) negative objects may precede the inflected verb = Late Latin is a 'latent Negative Concord language' and transmits these prerequisites to Romance (Gianollo 2016)
- In the pre-Infl area the surface behavior of non-strict NC and DN languages overlaps, despite the different featural composition of the indefinite items.

Conclusions

- lexicocentric interpretation of parametric variation: parameters reside in the feature composition of lexical items.
- co-existence of processes of macro-, micro- and nano-parametric change, as well as interaction with more general parameters relating to clause structure (e.g. OV > VO), which crucially constrain the space of possible (re)analyses for the speakers
- Parameters of negation show a system of tight interdependencies (cf. Zeijlstra 2004, Biberauer, Roberts, Sheehan 2014 e Longobardi 2014), which restrict the number of possible types and, therefore, of possible changes

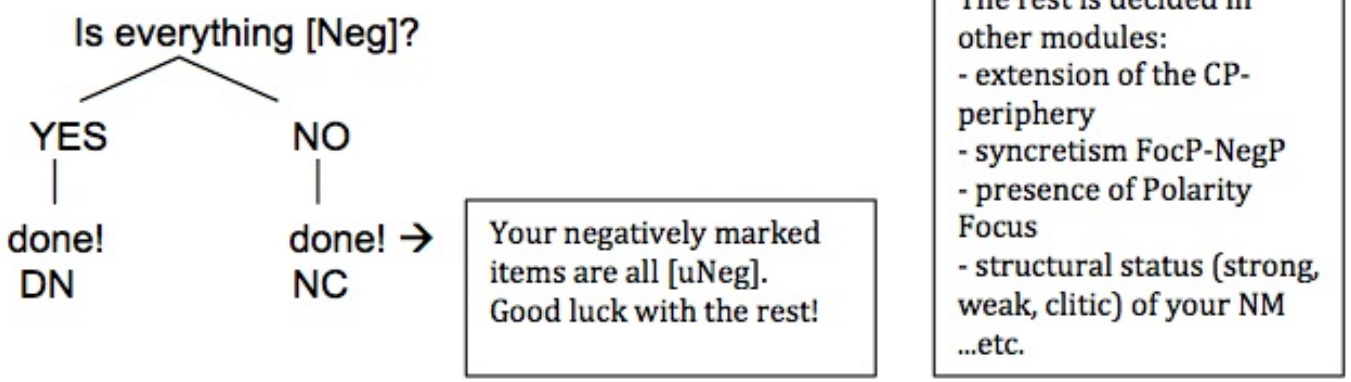
Directions for future research

- what does [Neg] vs ([iNeg] + [uNeg]) really mean?

  [Neg]: there is no special location in the syntax where negation has to be; scope is set at LF

  ([iNeg] + [uNeg]): there is a special syntactic location for the negative operator and every negatively marked element in the clause has to enter a relation (Agree) with it

- but then maybe an even simpler typology is enough:



Grazie!

Thank you for your attention!

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