A TYPOLOGY OF NON-EXHAUSTIVITY: FOCUS ON NON-EXHAUSTIVE CONNECTIVES

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1. What is **non-exhaustivity**?

2. Non-exhaustive **connectives**:
   a) Methods for a cross-linguistic analysis
   b) Non-exhaustive connectives: definition, geographical distribution, properties

3. A **diachronic typology** of non-exhaustive connectives

4. Towards a **functional space** of non-exhaustivity

5. **Correlations** with the general system of connectives of the language

6. **Conclusions**: theoretical implications and future steps
What is non-exhaustivity?

✓ **Non-exhaustivity** has been mainly referred to in the literature as opposed to **exhaustivity**, especially within formal approaches to focal particles and negative polarity items. (Chierchia 2006, Giannakidou 2016, Lin and Giannakidou 2015)

✓ Non-exhaustivity has been analyzed in terms of **referential vagueness** and speaker’s epistemic stance (Giannakidou 2016)

✓ “There is something more…”

✓ “… and I don’t know enough to be exhaustive!”

✓ Specific studies on **individual strategies** having to do with non-exhaustivity (e.g. *general extenders* like ‘etcetera’, Overstreet 1999), but **no systematic study on non-exhaustivity**!
What is non-exhaustivity? … and where do we find it?

We define non-exhaustivity as

a property operating on the set of contextually determined elements for which the predicate of the sentence can potentially hold (cf. Kiss 2010), in such a way that the set is open to further, referentially vague additions.

- Non-exhaustivity is involved in a number of different phenomena!

Non-exhaustivity may be implied by the semantics of the construction, as in

- exemplification constructions (such as, for instance, Barotto 2017, Lo Baido 2018)
- additive focus particles (also, too, Koenig 1991, De Cesare 2010, Ricca 2017)
What is non-exhaustivity? … and where do we find it?

… Or it may be directly encoded, as in

- general extenders (*and so on, etcetera*), Overstreet 1999, Mauri and Sansò 2018)
- associative and similative plurals (Daniel and Moravcsik 2013)
- echo-reduplication (Turkish *telefon melefon* ‘telephones or suchlike’, Barotto and Mattiola 2018)

- In this research, we focus on a rather under described, but well attested strategy that encodes non-exhaustivity: non-exhaustive connectives.
We define *non-exhaustive connectives* as connectives that link two or more items into a conjunctive or disjunctive list and further specify that the list is open to potential additions.

- enumerative connectives Stassen (2000: 5)
- representative conjunction Haspelmath (2007: 24)
- open disjunction Dixon and Aikhenvald (2009: 31)

The term is well established in the literature on East Asian languages and is transparent.
Object of analysis - *Non-exhaustive connectives*

(1) Japanese (Chino 2001: 41)

*Watashi-no heya-ni wa, [konpyūtā ya sutereo-ga] oitearimasu.*

1PS-GEN room-LOC TOP computer and stereo-NOM place.STA.POL

‘In my room there is a computer and a stereo.’
Object of analysis - *Non-exhaustive connectives*

(1) Japanese (Chino 2001: 41)

\[
\text{Watashi-no heya-ni wa, [konpyūtā ya sutere-o-ga] oite-arimasu.}
\]

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(1) Japanese (Chino 2001: 41)

Watashi-no heya-ni wa, [konpyūtā ya sutereo-ga] oitearimasu.
1PS-GEN room-LOC TOP computer and stereo-NOM place.STA.POL
‘In my room there is a computer and a stereo.’

‘In my room there is a computer, a stereo, AND SUCH.’
Object of analysis - *Non-exhaustive connectives*

(1) Japanese (Chino 2001: 41)

Watashi-no heya-ni wa, [konpyūtā ya sutereo-ga] oitearimasu.

1PS-GEN room-LOC TOP computer and stereo-NOM place.STA.POL

‘In my room there is a computer and a stereo.’

‘In my room there is a computer, a stereo, AND SUCH.’

- The connective *ya* **explicitly encodes** that there are **other potential elements** beyond those mentioned → reference to further Xs, broader set of elements.

… *how widespread is this phenomenon? Do we find similar connectives in other languages? Do they result from recurrent diachronic paths?*
Aims and methods - **Sample**

- We aim to provide a **cross-linguistic, possibly diachronic, typology of nEx connectives**

**Sample:** 150 languages (from Stassen’s 2013 sample).

- We were able to identify **26 languages** that exhibit at least one nEx connective.

- In some cases, the strategy is multifunctional with other strategies employed for non-exhaustivity (e.g. similative plurals). We consider a multifunctional strategy to be also a nEx connective **IF**
  - it may be used to **link at least two elements**;
  - it shows syntactic and distributional properties that are **consistent with the general system of connectives** of the language.
Aims and methods – *Languages with nEx connective*
### Aims and methods

**Languages with \( n\text{Ex} \) connective**

<table>
<thead>
<tr>
<th>Language</th>
<th>Top-level family</th>
<th>Macro-area</th>
<th>Reference</th>
<th>Presence of a ( n\text{Ex} ) connective</th>
<th>( n\text{Ex} ) connective</th>
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</thead>
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<tr>
<td>Central Moroccan Berber</td>
<td>Afro-Asiatic</td>
<td>Africa</td>
<td>Johnson 1966</td>
<td>x</td>
<td>nyd: - ynd: ; ula (negative)</td>
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<tr>
<td>Papuan Malay</td>
<td>Austronesian</td>
<td>Papunesia</td>
<td>Kluge 2017</td>
<td>x</td>
<td>ka</td>
</tr>
<tr>
<td>Mbula</td>
<td>Austronesian</td>
<td>Papunesia</td>
<td>Bugenhagen 1995</td>
<td>x</td>
<td>o</td>
</tr>
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<td>Gooniyandi</td>
<td>Burunban</td>
<td>Australia</td>
<td>McGregor 1990</td>
<td>x</td>
<td>mi</td>
</tr>
<tr>
<td>Apaláí</td>
<td>Cariban</td>
<td>South America</td>
<td>Koehn and Koehn 1986</td>
<td>x</td>
<td>tekehko</td>
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<tr>
<td>Jamsay Dogon</td>
<td>Dogon</td>
<td>Africa</td>
<td>Heath 2008</td>
<td>x</td>
<td>bë</td>
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<td>Tommo So Dogon</td>
<td>Dogon</td>
<td>Africa</td>
<td>McPherson 2013</td>
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<td>=mbe</td>
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<td>Italian</td>
<td>Indo-European</td>
<td>Eurasia</td>
<td>Giacalone Ramat &amp; Mauri 2015</td>
<td>x</td>
<td>piuttosto che; come</td>
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<td>Andoque</td>
<td>Isolate</td>
<td>South America</td>
<td>Landaburu 1979</td>
<td>x</td>
<td>añe (-eñe)</td>
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<td>Japanese</td>
<td>Japonic</td>
<td>Eurasia</td>
<td>Chino 2001</td>
<td>x</td>
<td>ya, toka, tari, dano, yara</td>
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<td>Middle Korean</td>
<td>Koreanic</td>
<td>Eurasia</td>
<td>Rhee and Jung Koo 2015</td>
<td>x</td>
<td>-na</td>
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<td>Alabama</td>
<td>Muskogean</td>
<td>North America</td>
<td>Hardy 2005</td>
<td>x</td>
<td>- òöt</td>
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<td>Koasati</td>
<td>Muskogean</td>
<td>North America</td>
<td>Kimball 1991</td>
<td>x</td>
<td>-o:t</td>
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<td>Ingush</td>
<td>Nakh-Daghestanian</td>
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<td>Nichols 2011</td>
<td>x</td>
<td>='a</td>
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<td>Kombai</td>
<td>Nuclear Trans New Guinea</td>
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<td>de Vries 1993</td>
<td>x</td>
<td>-o, khale</td>
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<td>Papunesia</td>
<td>de Vries &amp; Wiersma 1992</td>
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<td>-o</td>
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<td>Yagaria</td>
<td>Nuclear Trans New Guinea</td>
<td>Papunesia</td>
<td>Haiman 1980</td>
<td>x</td>
<td>-ve</td>
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<td>Martuthunira</td>
<td>Pama-Nyungan</td>
<td>Australia</td>
<td>Dench 1994</td>
<td>x</td>
<td>wil</td>
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<td>Dyirbal</td>
<td>Pama-Nyungan</td>
<td>Australia</td>
<td>Dixon 1972</td>
<td>x</td>
<td>yamba</td>
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<td>Yidiñ</td>
<td>Pama-Nyungan</td>
<td>Australia</td>
<td>Dixon 1977</td>
<td>x</td>
<td>-ba; gurbi</td>
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<td>Central Kanuri</td>
<td>Saharan</td>
<td>Africa</td>
<td>Lukas 1937</td>
<td>x</td>
<td>-so</td>
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<td>Mandarin Chinese</td>
<td>Sino-Tibetan</td>
<td>Eurasia</td>
<td>Zhang 2008</td>
<td>x</td>
<td>-a</td>
</tr>
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<td>Mizo</td>
<td>Sino-Tibetan</td>
<td>Eurasia</td>
<td>Chhange 1989</td>
<td>x</td>
<td>të (te1)</td>
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<tr>
<td>Burmese</td>
<td>Sino-Tibetan</td>
<td>Eurasia</td>
<td>Okell 1969</td>
<td>x</td>
<td>tou</td>
</tr>
<tr>
<td>Haka Chin</td>
<td>Sino-Tibetan</td>
<td>Eurasia</td>
<td>Peterson and VanBik 2004</td>
<td>x</td>
<td>teë / -poël</td>
</tr>
<tr>
<td>Murriny Patha</td>
<td>Southern Daly</td>
<td>Australia</td>
<td>Walsh 1976</td>
<td>x</td>
<td>kamayya</td>
</tr>
</tbody>
</table>
Aims and methods – *Parameters*

i) **Morphosyntactic and distributional properties**

2) Ingush (Nakh-Daghestanian, Nichols 2011: 527)

   - Affix or independent morpheme
   - Restricted to NPs, PPs or VPs
   - Animacy restrictions

   clitic =ˈa “implies open listing” and is limited to simple NPs vs. =ʒi which implies exhaustive listing

   a)

   
   
   Oaxa gatagh=ˈa,  kisegh=ˈa,  dearegh=ˈa  ju  axkan  koch
   1pEX.ERG  linen.LAT=&  muslin.LAT=&  silk.LAT=&  J.make.PRS  summer.GEN  dress
   We make summer dresses from linen, muslin, silk, etc.

   b)

   
   
   Oaxa gatagh=ʒi,  kisegh=ʒi,  dearegh=ʒi  ju  axkan  koch
   1pEX.ERG  linen.LAT=&  muslin.LAT=&  silk.LAT=&  J.make.PRS  summer.GEN  dress
   We make summer dresses from linen, muslin, and silk (only).

   cf. Haspelmath 2007
Aims and methods – *Parameters*

**ii) Multifunctionality patterns**

- Further functions related to non-exhaustivity
- Further functions unrelated to non-exhaustivity

3) Andoque (Isolate, South America, Landaburu 1979: 153-154)

affix –*añe-* is attached to a nominal base (making it verbal) and is followed by the nominalizer -ʌ "*pour marquer les terms successifs d’une énumération*" (Landaburu 1979: 153)

a) ‘when it is time for the fruit party, they order every type of fruit’:

- *koata-añe-ʌ*
- *tasúmi-ēñe-i*
- *tami-ēñe-i*
- *tomí-ēñe-i*

*guacures-ENUM-NMLZ, caimitos-ENUM-NMLZ, wild.grapes-ENUM-NMLZ, pineapple-ENUM-NMLZ*

‘guacures, caimitos, wild grapes, pineapples, etc.’

b) *hí-ʌ* ‘something’ > *hí-ēñe-ʌ* ‘whatever’ (Landaburu 1979: 154)
Aims and methods – *Parameters*

iii) **Information on their diachronic sources**, wherever available

4) Andoque (Isolate, South America, Landaburu 1979: 153, 209)

–*añe*- < **verbal progressive affix**, which may be attached to stative verbs meaning ‘still be in that state, continue’

a) \(nasi-\textit{añe-}^\lambda\text{ baya}\)

\begin{align*}
\text{Have.urticaria-PROGR-NMLZ} & \quad \text{he} \\
\text{‘he still has urticaria’} & \\
\end{align*}

b) \(ná\Lambda-\textit{añe-}^\Lambda\text{ baya}\)

\begin{align*}
\text{exist-PROGR-NMLZ} & \quad \text{he} \\
\text{‘he still exists’} & \\
\end{align*}

c) ‘when it is time for the fruit party, they order every type of fruit’:

\begin{align*}
\text{koata-}\textit{añe-}^\Lambda & \quad \text{tasúmi-}\textit{ẽñe-}^i & \quad \text{tami-}\textit{ẽñe-}^i & \quad \text{tomi-}\textit{ẽñe-}^i \\
\text{guacures-ENUM-NMLZ} & \quad \text{caimitos-ENUM-NMLZ} & \quad \text{wild.grapes-ENUM-NMLZ} & \quad \text{pineapples-ENUM-NMLZ} \\
\text{‘guacures, caimitos, wild grapes, pineapples, etc.’} & \\
\end{align*}
Aims and methods – *Parameters*

iii) **Information on their diachronic sources**, wherever available

5) Burmese (Sino-Tibetan, Okell 1969: 112)

- *-toú* < similative plural

a) *sauñ*-toú

   Blanket-SML.PL

   ‘Blankets and the like’ (e.g. pillows, mattresses, sheets, etc.)

b) *myei-au* -yáhtà-*toú*  

   train-under-train-nEx  

   *ba*?-säkà-*toú*  

   bus-nEx

   ‘underground trains, buses, and that sort of things’
Results (1) - A diachronic typology of nEx connectives

- Attested diachronic patterns:

1. Similative plural > nEx connective
2. Similative marker > nEx connective
3. Irrealis (interrogative and potential marker) > nEx connective
4. Free choice, distributive > nEx connective
5. Progressive aspect > enumeration > nEx connective > free-choice
6. nEx connective > General extender
1. *Similative plural > nEx connective*

**Similative plural:** non-homogeneous plural denoting a class of objects sharing similar features (Daniel and Moravcsik 2013)

- Attested in: Apalaí, Jamsay Dogon, Tommo So Dogon, Central Kanuri, Yidiñ, Mizo, Burmese, Haka Chin

6) Tommo-so (Dogon, McPherson 2013: 601)
   a) Árá=*mbè.*
      rice=PL
      ‘Rice, etc.’
   
   b) Tùmbùtù *něm=*mbè *nàmá=*mbè *kèm* *kánà-diɲ.*
      Timbuktu salt=PL meat=PL all do-IMPF.3PL
      ‘Timbuktu salt, etc., meat etc., they would do [it] all.’
2. **Similative marker > nEx connective**

**Similative markers**: linguistic elements that codify an approximate similarity between two items (cf. Haspelmath and Buchholz 1998)

- Attested in Italian (*come*), Kombai (*khale*)

7) Kombai (Nuclear Trans New Guinea, de Vries 1993: 49-50)

a) *Kho khenoduf-o khale abo-n-o rumu*

   man child-CONN like be.3SG.NF-TR-CONN person

   ‘A man who is like a child’

b) *miyo muno khale lã muno khale kho muno khale …*

   child young or woman young or man young or

   ‘…a young child or a young woman or a young man…’

[About the dying of a man or a woman, of a young child or a young woman or a young man, they said that they go to the place of Romalü after they have died]
3. **Irrealis (interrogative and potential) > nEx connective**

**Irrealis**: markers that codify unactualized situations (cf. Mauri & Sansò 2016).

- Attested in Papuan Malay, Goonyiandi, Middle Korean, Japanese, Yagaria, Dyirbal, Martuthunira, Murriny Patha

8) Martuthunira (Pama-Nyungan, Dench 1994: 181)

   a) *Ngaliwa nhawu-layi ngurnaa kanyara-a ngartil wii, punga pangkira-a paju-rru*
      1PL.INL see-FUT that.ACC man-ACC again if guts round-ACC REAL-NOW
      ‘If we see him again he’ll be very round in the guts.’

      ‘wii is used as a conjunction indicating a progressive widening of the set of objects out of
      which something may be chosen’ (Dench 1994: 182)

   b) *mirnitirimarta-a wii thantha-a wii, jankurna-a wii*
      goanna-ACC maybe euro-ACC maybe emu-ACC maybe
      ‘[My uncle left me a knife so I could cut things up] goannas maybe, or euros maybe, or
      emus maybe’
4. Free choice, distributive > nEx connective

**Free-choice:** ‘anyone within a set’
- Attested in Italian, Japanese, Ingush.

9) Italian (Indo-European)

*piuttosto che* ‘rather than’ > free choice > nEx connective (Mauri and Giacalone 2015)

a) *il diritto di professare un’idea politica piuttosto che un’altra*
   - *the right to profess an idea political rather than an another*
   - ‘the right to profess a political idea rather than another’ (CORIS corpus)

b) *A Bologna, piuttosto che a Shangai, Help Srl vi può aiutare*
   - *In Bologna or in Shangai, Help Srl you.PL.OBL can.3SG help*
   - ‘In Bologna or in Shangai or somewhere else, Help Srl can help you’ (itTenTen16)
5. **Progressive aspect > open enumeration > free-choice**

Verbal imperfective > enumerative > free-choice

- Attested in Andoque

10) Andoque (Isolate, Landaburu 1979: 153-154)

a) \( ná\-\text{añe}\-\text{ñ} \) \( \text{baya} \)

exist-\text{PRG NMLZ} \text{he}  
‘he still exists’

\( \text{progressive aspect} \quad \text{enumeration} \)

\( \text{being still in the state of X} \rightarrow \text{still/again/also X} \)

b) \( \text{koata-añe-ñ} \) \( \text{tasúmi-éñe-i} \) \( \text{tami-éñe-i} \) \( \text{tomi-éñe-i} \)

guacures-ENUM-NMLZ, caimitos-ENUM-NMLZ, wild.grapes-ENUM-NMLZ, pineapple-ENUM-NMLZ
‘guacures, caimitos, wild grapes, pineapples, etc.’

\( \text{enumeration} \quad \text{free choice} \)

\( \text{still/again/also X} \rightarrow \text{one X at random} \)

c) \( X \-\text{añe-ñ} = \text{‘any X, whatever X’} \)
6. nEx connective > General extender

**General extender**: linguistic items that indicate the existence of further members of a list or set, e.g. *et cetera* (contrary to nEx, they can be used also with only one item!)

- Attested in Japanese (*toka*, *tari*), Italian (*piuttosto che*)

11) Japanese (Japonic)

   a) *Kinō depāto-de, sētā toka kutsu toka o katta.*
   yesterday department.store-LOC sweater TOKA shoe TOKA ACC buy:PAST
   ‘Yesterday I bought a sweater, shoes, and some other things at the department store.’
   (Chino 2001: 42)

   b) *Nihon-no shinbun toka yomu no.*
   Japan-DET newspaper TOKA read Q
   ‘Do you read Japanese newspapers and the like?’ (Kaiser et al. 2001: 543)
Layering and multifunctionality

Many of the diachronic paths just described are still in a **layering situation**

**nEx connectives are frequently** **multifunctional**

The attested multifunctionality patterns can be represented through a **conceptual space** (Croft 2001, 2003)
Results (2) - *Towards a conceptual space of non-exhaustivity*
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Results (2) - *Towards a conceptual space of non-exhaustivity*

- Gooniyandi *mi*
- Papuan *ka*
- Jap. *toka*
- Eng. *and such*
- Kombai *khale, It. come*
- Jamsay *bé*
- Dyirbal *yamba*
- Andoque *–añe–*
- Ingush *=a*
Results (2) - *Towards a conceptual space of non-exhaustivity*
Broadening the picture…

Including data from Mauri and Sansò (2018a, 2018b) on the diachronic typology of general extenders, associative and similative plurals.
The functional space of non-exhaustivity

- General extender
- Hedging
- Interrogative
- Indefinites
- Potential/irrealis
- Free-choice
- Distributive
- Non-exhaustivity marker
- Additivity ‘also’
- Collective, ‘set’ ‘all’
- Associative plural
- Similative plural
- Similative
The functional space of non-exhaustivity

Why is nEx communicated?

Epistemic status of ignorance

Approximation

General extender

Hedging

Interrogative

Indefinites

Potential/irrealis

Non-exhaustivity marker

Free-choice

Collective, ‘set’ ‘all’

Additivity ‘also’

Distributive

Similative

Associative plural

Similative plural

Collective, ‘set’ ‘all’

Additivity ‘also’
The functional space of non-exhaustivity

Why is nEx communicated?

Epistemic status of ignorance

Approximation

General extender

Comparison

Similative

Associativity

Non-exhaustivity marker

Hedging

Interrogative

Indefinites

Potential/irrealis

Free-choice

Distributive

Associative plural

Collective, ‘set’ ‘all’

Additivity ‘also’

Collective, ‘set’ ‘all’

Additivity ‘also’

Approximation

Comparative

Non-exhaustivity marker

Hedging

Interrogative

Indefinites

Potential/irrealis

Free-choice

Distributive

Collective, ‘set’ ‘all’

Additivity ‘also’

Approximation

Comparative
The functional space of non-exhaustivity

Why is nEx communicated?

- Epistemic status of ignorance
- Interrogative
- Indefinites
- Potential/irrealis

Non-exhaustivity marker

- Approximation
- General extender
- Similarative
- Additivity ‘also’

How is nEx processed?

- Associativity
- Associative plural
- Similarative plural
- Collective, ‘set’ ‘all’

Plural reference of nEx

- Multiplicity
- Free-choice
- Distributive

Why is nEx communicated?

- Why is nEx communicated?
- How is nEx processed?
The functional space of non-exhaustivity

Why is nEx communicated?
Epistemic status of ignorance
Interrogative
Indefinites
Potential/irrealis
Potentiality
Free-choice
Distributive

Non-exhaustivity marker

Approximation
General extender

Comparison
Similative

Associativity
Associative plural
Similative plural
Collective, ‘set’ ‘all’
Additivity ‘also’

Distributivity
Multiplicty

Non-specific reference of nEx
Plural reference of nEx
Results (3): Correlations with logical connectives

In some cases, nEx connectives cross over the classical Boolean distinction between ‘and’ and ‘or’ suggesting that in non-exhaustive contexts the distinction between conjunction and disjunction is somehow neutralized, or at least backgrounded.

12) Kombai (Nuclear Trans New Guinea, de Vries 1993: 50)

Ay-o duwoy-o rül-o el-o  
pig-or/and fish-or/and banana-and/or bird-and/or  
‘[You have to bring] pig, fish, bananas and birds...’


a. chiiki funsō wa [ōshū ya afurika] de tsuzuku  
   ‘Regional conflicts continue in [Europe and Africa (among others)]’

b. [gomu ya purasuchikku] no yakeru yō na nioi ga shita to iu  
   ‘He says there was a smell like burning [rubber or plastic]’
Results (3): Correlations with logical connectives

In two languages located in Papua New Guinea, Mbula and Kombai, the nEx o is likely to be borrowed from Tok Pisin o (< English or). Interestingly,

✓ In Tok Pisin, o is not a dedicated nEx connective;

✓ Both Mblula and Kombai already have native disjunctive markers, which cover a smaller functional space and seem to be incompatible with non-exhaustivity, possibly due to their diachronic development (Mbula som < negative marker, Kombai kheje < interrogative clitic + focus marker).

➢ In such contexts, a disjunctive o is borrowed and it specializes for non-exhaustivity!

➢ BUT see Murriny Patha (Southern Daly): kamayya is nEx connective, while a is exhaustive ‘or’, borrowed from English or and specialized for exhaustive disjunction.
Results (3): Correlations with logical connectives

Preliminary data suggest that nEx connectives seem to occur more frequently in languages that fall outside the so-called ‘And-But-Or’ language type (cf. Mauri 2008: ch. 7).

In our sample, 21 languages out of 26 show at least one of the following features:

- Have a system of logical connectives with functions that are more specific than the Boolean distinction AND vs. OR
- **Multifunctionality** patterns: AND/WITH and/or OR/Irrealis
- **Different** AND and OR connectives for NPs, VPs, clauses
- Recent **grammaticalization** processes or **borrowing phenomena** for AND and OR connectives
- Do **not** have dedicated connectives for AND and OR
Conclusions

- **nEx connectives are not rare**
  - they are attested in different linguistic families and different geographical regions
  - they emerge in discourse (cf. Chinese -a, Italian *piuttosto che, come*)
  - but they are under described in grammars!

- **nEx connectives are diachronically and synchronically connected to a number of further grammatical phenomena**, such as plurality, similatives, epistemic modality, interrogatives, indefinites, free choice, distributive, list markers (general extenders, conjunctions)
  - non-exhaustivity is a relevant semantic dimension in grammar
Conclusions

- The attested patterns of variation allow us to sketch a conceptual space for non-exhaustivity, based on a diachronic typology of nEx connectives, general extenders, associative and similative plurals.

- nEx connectives show non-random correlations with the system of logical connectives, e.g. neutralization of AND vs. OR distinction, preference for non-Boolean systems.
Future steps

✓ Widen the language sample: we aim at 300 languages

✓ Corpus-based analysis of spoken varieties, looking for emerging nEx connectives
Thank you!
References

References

References

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