The feature structure of pronouns: a probe into multidimensional paradigms

Guido Vanden Wyngaerd
KU Leuven, CRISSP

1 Introduction

General aim:

▷ look at syncretism patterns to learn about underlying feature structure of the personal pronouns.

▷ personal pronoun paradigms are multidimensional, in that they involve (at least) the features person and number.

▷ syncretisms in multidimensional paradigms may be horizontal and/or vertical.

(1)  

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<tbody>
<tr>
<td>1</td>
<td>A</td>
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<td>1</td>
<td>A</td>
<td>A</td>
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<tr>
<td>2</td>
<td>A</td>
<td>C</td>
<td>2</td>
<td>B</td>
<td>C</td>
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<tr>
<td>3</td>
<td>D</td>
<td>E</td>
<td>3</td>
<td>D</td>
<td>E</td>
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</table>

▷ primary data: Cysouw (2003).

  - one feature = one head
  - postsyntactic lexical insertion.
  - phrasal spell-out.
  - cornerstone of the nanosyntax method: syncretisms target contiguous regions in a sequence of heads: *ABA.
Specific aims:

- vertical syncretisms require an extension of the classical nanosyntactic framework.
- two such extensions have been proposed:
  - pointers (Caha & Pantcheva 2012)
  - a reformulation of the Superset Principle (Caha 2014)
- I will compare both proposals and show
  - where they make different predictions, and
  - how these predictions fare with respect to the attested data.

2 The person feature complex

A first shot at a nanosyntactic view on Person (Starke 2013):

- 3 privative features: [speaker], [participant], [person]
- for expository purposes, I refer to these features by numbers:
  - 1 = speaker
  - 2 = participant
  - 3 = person
- the features entertain a containment relation
- the feature trees for the personal pronouns ‘I’, ‘You’, and ‘he’ are given in (3a), (3b), and (3c), respectively:

\[(3)\]

\[
\begin{array}{c}
a. \quad 1P \\
\quad 1 \\
\quad 2 \\
\quad 3 \\
\end{array}
\begin{array}{c}
b. \quad 2P \\
\quad 2 \\
\quad 3 \\
\quad 3 \\
\end{array}
\begin{array}{c}
c. \quad 2P \\
\quad 2 \\
\quad 3 \\
\quad 3 \\
\end{array}
\]

- What syncretisms does this system predict?
possible syncretisms between 1 and 2 (AAB), 2 and 3 (ABB), and 1, 2, and 3 (AAA)

no syncretism of 1 and 3 across 2 (*ABA)

The ABB-pattern in (5) (Qawesqar) results from lexical items in (6) and the Superset Principle and the Elsewhere Condition:

(5) 1P | ce
2P | caw
3P | caw

(6) a. \(</ce/, 1P>

(7) The Superset Principle
A phonological exponent is inserted into a node if its lexical entry has a (sub-)constituent that is identical to the node.

(8) The Elsewhere Principle
In case two rules, $R_1$ and $R_2$, can apply in an environment $E$, $R_1$ takes precedence over $R_2$ if it applies in a proper subset of environments compared to $R_2$.

3 Where is number?

some languages form the plural of pronouns with the same morpheme that is used with nouns (or certain noun classes)

e.g. Mandarin Chinese (Corbett 2000:76):
exploiting this analogy, we conclude that plural number sits on top of the person feature complex, as shown in (11):

(11)  

\[
\begin{array}{ccc}
\text{a. } & \text{NumP} & \\
\text{Pl} & \text{1P} & \\
1 & 2P & \\
2 & 3P & \\
\end{array}
\]

\[
\begin{array}{ccc}
\text{b. } & \text{NumP} & \\
\text{Pl} & 2P & \\
1 & 2P & \\
2 & 3P & \\
\end{array}
\]

\[
\begin{array}{ccc}
\text{c. } & \text{NumP} & \\
\text{Pl} & 3P & \\
1 & 2P & \\
2 & 3P & \\
\end{array}
\]

(12)  

\[
\text{Spell-out driven movement: to derive the plural pronouns in (9), the complement of Pl moves into the Spec of NumP, after which -men spells out NumP.}
\]

\[
\text{as we shall see below, the number projection has more internal structure than represented here.}
\]

4  Attested syncretisms

4.1  Types of patterns

- vertical (cross-person) ((13)-I)
- horizontal (cross-number) ((13)-II)
- nonlinear (i.e. cross-person and cross-number) ((13)-III)
4.2 Horizontal syncretisms

- the facts
  - 3P: Sinhalese, Sentani, Asmat, Salish
  - specific type: no 3P pronouns, but demonstratives
  - 2P (rare): English, Xokleng
  - 1P (rare): Marind
  - 2P and 3P: Berik, Kuman
  - 1P and 3P (rare): Tairora
  - all persons: Salt-Yui (3P: demonstratives)

(14) Berik (New Guinea)

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<thead>
<tr>
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<th>sg</th>
<th>pl</th>
</tr>
</thead>
<tbody>
<tr>
<td>1P</td>
<td>ai</td>
<td>ne</td>
</tr>
<tr>
<td>2P</td>
<td>aame</td>
<td>aame</td>
</tr>
<tr>
<td>3P</td>
<td>je</td>
<td>je</td>
</tr>
</tbody>
</table>

(15) a. */aame/, NumP >
    b. */je/, NumP >

(15a) can spell out 2P, singular and plural, by the Superset Principle: the tree of the singular pronoun is a subtree of the plural pronoun tree.

(15b) can spell out 3P, singular and plural.

Problem: for 2P singular *aame*, there is a tie between (15a) and the 1P sg pronoun *ai*:
(15a) aame and (16) ai each contain exactly 1 feature more than the syntactic node of a 2P sg pronoun.

how can we ensure that (15a) aame wins the competition in the 2P?

answer: the number projection is internally complex.

singular number also involves the presence of a number feature (Num1), plural number involves two features (Num2 and Num1).

the lexical items for ai and aame need to be revised accordingly:

(17) a. </ai/, Num1P >  
     Num1 1P  
     1 2P  
     2 3P  
     3  

b. </aame/, Num2P >  
     Num2 2P  
     Num1 2P  
     Num1 1P  
     Num1 2P  
     2 3P  
     3  

(17b) aame can still spell out 2P, singular and plural (by ‘shrinking’ at the top).

(17a) ai can no longer spell out the 2P sg, since it does not contain the syntactic tree as a subtree (highlighted in (17b)).
	his crucially requires that singular pronouns contain a Num1 feature: the presence of Num1 in (17a) prevents the tree from shrinking from 1P to 2P: for this to happen, the tree would have to shrink in the middle.

the other attested patterns of horizontal syncretism work in the same way.
In sum:

- the horizontal syncretisms support the claim that singular number is not the absence of number, but the presence of a singular number feature.
- the existence of horizontal syncretisms further rests on:
  - the possibility to build trees with an incomplete person $f_{seq}$, i.e. with person features missing at the top of the person sequence.
  - the shrinking of the number projection at the top of the tree.

4.3 Vertical syncretisms

- Syncretisms in the singular are extremely rare: Cysouw (2003) finds only two languages (out of some 450 listed in the index) showing ABB (Qawesqar and Winnebago).
- Attested patterns in the plural:
  - AAB: many Athabaskan languages (e.g. Slave, Chiricahua Apache, Navaho, Kato, Hupa), Awa, Southern Haitian Creole.
  - ABB: Nez Perce, Warekena, Wolof (object pronouns), Mauritian Creole.
- The account of the vertical syncretisms is not straightforward.
- Consider the AAB pattern in Slave (an Athabaskan language, Cysouw 2003:124):

(18)  

<table>
<thead>
<tr>
<th></th>
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<th>pl</th>
</tr>
</thead>
<tbody>
<tr>
<td>1P</td>
<td>sì</td>
<td>naxì</td>
</tr>
<tr>
<td>2P</td>
<td>nì</td>
<td>naxì</td>
</tr>
<tr>
<td>3P</td>
<td>?edi</td>
<td>?egedi</td>
</tr>
</tbody>
</table>

- The lexical tree for the 1P plural pronoun looks like (19):

---

1 According to Baker (1972) and Stein (1984), but not Adone (1994), who gives an ABC pattern in the plural.
(19) \(</naxi/, \text{ Num2P } >\)

\[
\begin{array}{c}
\text{Num2} \\
\text{Num1P} \\
\text{Num1} \\
1 \\
2 \\
3 \\
\end{array}
\]

\[
\begin{array}{c}
\text{2P} \\
\text{3P} \\
\end{array}
\]

\(\triangleright\) this can spell out a 1P pl pronoun, but not 2P pl one, since a 2P pl pronoun is not a subtree of (19) (it lacks the 1P node)

\(\triangleright\) to derive AAB, the tree would have to shrink in the middle (from 1P to 2P)

\(\triangleright\) for the same reason, the ABB pattern cannot be derived (the lexical item for 2P cannot shrink to 3P)

\(\triangleright\) this is the problem of multidimensional paradigms, which may feature both ‘horizontal’ and ‘vertical’ syncretism

\(\triangleright\) consider the German definite article:

(20) | NOM | ACC | GEN |
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>masc</td>
<td>der</td>
<td>den</td>
</tr>
<tr>
<td>neut</td>
<td>das</td>
<td>das</td>
</tr>
</tbody>
</table>

\(\triangleright\) two solutions:

- pointers (Caha & Pantcheva 2012)
- a revised Superset Principle (Caha 2014)

5 Pointers

5.1 Suppletion

\(\triangleright\) a pointer is a node in the tree of a lexical item that points to another, existing, lexical item (Starke 2011)

(21) a. \(<_{24} /brought/, [_{X P} 22 23]>\)

b. \(<_{22} /bring/, V>\)
c. \(<_{23}\, /ed/,\, \text{PastP}>\)

\[
(22) \quad \text{XP} \Rightarrow \text{brought}
\]

\[
\begin{align*}
\text{bring} \leftarrow \text{V}_{22} & \quad \text{PastP}_{23} \Rightarrow \text{ed}
\end{align*}
\]

\(\Rightarrow\) each of the lexical items pointed to is subject to independent cyclic spellout
\(\Rightarrow\) this creates \(\text{bring+ed}\), which is overwritten at the top node by \(\text{brought}\)
\(\Rightarrow\) given the syncretism between Past-Perfect-Passive, we must conclude that \(-ed\) has more internal structure, so that instead of (21c), we have (23):

\[
(23) \quad <_{23}/ed/,\, \text{PastP}>\]

\[
\begin{align*}
\text{Past} & \quad \text{PerfP} \\
\text{Perf} & \quad \text{PassP} \\
\text{Pass} &
\end{align*}
\]

\(\Rightarrow\) the \textit{Superset Principle} ensures that \(-ed\) may spell out the Simple Past, the Perfect participle, and the Passive participle.
\(\Rightarrow\) the suppletive form \(\text{brought}\) shows the same Past-Perfect-Passive syncretism.
\(\Rightarrow\) this means that in the item with the pointer (22), the item pointed to (23) can shrink to any subtree:

\[
(24) \quad \text{XP} \Rightarrow \text{brought}
\]

\[
\begin{align*}
\text{V}_{22} & \quad \text{PastP} \\
\text{Past} & \quad \text{PerfP} \\
\text{Perf} & \quad \text{PassP} \\
\text{PassP} &
\end{align*}
\]

\(\Rightarrow\) an item with a pointer can shrink not just at the top, but also in the middle of the tree, at the top of the item pointed to.
\(\Rightarrow\) as a result, the lexical item \(\text{brought}\) can spell out three different syntactic trees.
5.2 Multidimensional paradigms

- Case endings on nouns are typically fusional, and spell out other features besides Case: number, gender, noun class.
- Caha & Pantcheva (2012) propose that nominal paradigms can contain pointers at the junctures of the dimensions.
- This allows the generation of both horizontal and vertical syncretisms.
- Consider the German definite article *des*, which spells out genitive masculine and neuter (see (20) above):

\[(25)\]

```
  a. GenP \Rightarrow \text{des}
     \quad K3 \quad \text{AccP}
       \quad K2 \quad \text{NomP}
         \quad K1 \quad \text{MascP}
            \quad \text{Masc} \quad \text{NeutP}
```

- The cross-gender syncretism in the genitive is derived by shrinking the tree of *des* in the middle (boxed area in (25)).
- C&P have to give up the restriction that pointers point to existing lexical items: there is no lexical item that spells out MascP.

Back to pronouns:

- In the same manner as Case endings, pronouns spell out multiple features: Case, number, person, and gender.
- Lexical items for pronouns can also contain pointers at the juncture of the dimensions:

\[(26)\]

```
  KP
    \quad K \quad \text{NumP}
      \quad \text{Num} \quad \Pi P
```

- This allows the derivation of the problematic vertical syncretisms, since the tree can now shrink in the middle (from 1P to 2P to 3P).
Recall the lexical tree for the Slave pronoun *naxi*, syncretic for 1P pl and 2P pl (19 above).

We now add a pointer to this tree, between the Number and the person dimension:

\[
(27) \quad \langle /naxi/ , \quad \text{Num2P} \rangle
\]

\[
\begin{array}{c}
\text{Num2} \\
\text{Num1} \\
\text{1P} \\
\text{1} \\
\text{2} \\
\text{3}
\end{array}
\]

Deriving AAB:
- the lexical item in (27) can spell out a 1P pl pronoun, but also a 2P pl one, because of the presence of the pointer.
- the lexical item for the 3P pl pronoun *?egedi* does not contain the 1P and 2P projection.
- it will win the competition from (27) in 3P pl because of the Elsewhere Principle.

Deriving ABB:
- assume a lexical item like (27) but without a pointer, and a B-pronoun like (27) (with a pointer) but without the 1P node.
- the A-pronoun can only spell out 1P pl, since it does not contain a pointer, and the B-pronoun does not compete, since it lacks the 1P node.
- the B-pronoun contains a pointer and can spell out both 2P pl and 3P pl.

5.3 **Pointers introduce ABA**
- allowing pointers also allows a certain type of ABA-pattern in the plural, in agreement with an abstract prediction made by Taraldsen (2012).
- one attested instance in Cysouw (2003) (Bagirmi):
If the syntactic tree is 3P plural:
- (29a) *d’e* is the only candidate, since (29b) *se* cannot shrink in the middle to spell out 3P pl.
- if the syntactic tree is 2P plural:
  - *se* wins the competition from *d’e*, even though their trees are identical (modulo the shrinking of (29a) at the juncture), because of the Elsewhere Principle.
  - the lexical item (28b), without the pointer, applies in a proper subset of the environments of the lexical item (29a), with the pointer.
  - (29b) applies to 4 structures (Num2Num1-2P3P, Num1-2P3P, 2P3P, 3P).
- if the syntactic tree is 1P plural:
  - *se* is not a competitor since it lacks a 1P node; *d’e* can (and does) spell out the tree.
these findings agree with an abstract prediction made by Taraldsen (2012), who argues that ABA patterns may arise in multidimensional paradigms (given Caha & Pantcheva’s analysis in terms of pointers).

5.4 Consequences for the syncretism diagnostic

if ABA patterns are derivable, this (potentially) spells bad news for the usability of the syncretism diagnostic to arrange paradigms, and consequently, feature trees.

to see this, reconsider the case of the German definite article:

\[
\begin{array}{ccc}
\text{nom} & \text{acc} & \text{gen} \\
masc & \text{der} & \text{den} & \text{des} \\
\text{neut} & \text{das} & \text{das} & \text{des}
\end{array}
\]

we add feminine gender, and arrange in a (hypothetical) ABA-configuration:

\[
\begin{array}{ccc}
\text{nom} & \text{acc} & \text{gen} \\
masc & \text{der} & \text{den} & \text{des} \\
fem & \text{die} & \text{die} & \text{der} \\
\text{neut} & \text{das} & \text{das} & \text{des}
\end{array}
\]

assume a matching (hypothetical) gender hierarchy masc > fem > neuter

lexical items for the genitive forms des and der which derive this ABA pattern are given in (32):

\[
\begin{align*}
(32) \ a. \ & \text{GenP} \Rightarrow \text{des} \\
& \text{K3 AccP} \\
& \text{K2 NomP} \\
& \text{K1 MascP} \\
\ b. \ & \text{GenP} \Rightarrow \text{der} \\
& \text{K3 AccP} \\
& \text{K2 NomP} \\
& \text{K1 FemP} \\
& \text{Masc} \ \\
& \text{Fem} \ \\
&\text{NeutP}
\end{align*}
\]
(32a) can spell out all genders, due to the shrinkability of the tree at the juncture.
(32b) in the feminine gender, (32b) wins because of the Elsewhere Principle.
we derive the ABA-pattern.
conclusion: the ‘vertical’ syncretism in the definite article is uninformative about the hierarchical arrangement of the gender features.

Interim conclusion (I)

- pointers introduce the possibility of deriving ABA-patterns under certain specific conditions.
- although this may be empirically necessary (Bagirmi), it is a slippery slope conceptually, which threatens to undermine the cornerstone of the nanosyntactic method.

6 Reformulating the Superset Principle

- in this section, I investigate a different way of analysing multidimensional paradigms, which does not make ABA derivable.

(33) Revised Superset Principle (RSP) (modified from Caha 2014)
A a lexical entry L may spell out a syntactic node SN iff
(i) SN is identical to a node contained in L, and
(ii) all immediate daughters of SN are identical to a daughter of L.

- the clause (33-i) will allow ‘shrinking at the top’ of L.
- the clause (33-ii) will allow ‘shrinking in the middle’ of L.
- the RSP derives both horizontal and vertical syncretisms in multidimensional paradigms without the need for pointers.
- ABA-patterns are underivable.

- to see how this works, reconsider the AAB pattern in Slave, with the lexical tree for the 1P plural pronoun given in (35):

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>1P</td>
<td>ši</td>
<td>naxi</td>
</tr>
<tr>
<td>2P</td>
<td>ni</td>
<td>naxi</td>
</tr>
<tr>
<td>3P</td>
<td>?edi</td>
<td>?egedi</td>
</tr>
</tbody>
</table>
the lexical item (35) will be able to spell out a syntactic tree for 1P pl, as both trees are fully identical.
what we need to show is that (35) can also spell out the syntactic tree for 2P pl (given the RSP).
the relevant syntactic tree is given in (36):

(36) Num2P
    /   \
   Num2  Num1P
      /  \
     Num1 2P
        /  \
       2  3P
          /  \
         3

- (35) can spell out (36), given that
  - the SN Num2P is identical to a node contained in L (to wit, Num2P), and
  - all immediate daughters of SN (36) are identical to a daughter of L (35).
- each node of the syntactic tree finds an identical node in the lexical tree.
- however, not all nodes of the subtree of the lexical tree need to find a match in the syntactic tree.
- in this example, the node 1P of the lexical tree is not found in the syntactic tree.
tree.

- the RSP does not allow the derivation of ABA-patterns.
- recall Bagirmi, and the lexical items in (38) (but now without a pointer).

<table>
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<th>pl</th>
</tr>
</thead>
<tbody>
<tr>
<td>1P</td>
<td>ma</td>
<td>d’e</td>
</tr>
<tr>
<td>2P</td>
<td>i</td>
<td>se</td>
</tr>
<tr>
<td>3P</td>
<td>ne</td>
<td>d’e</td>
</tr>
</tbody>
</table>

(37)  
(38)  
(a. </d’e/, Num2P >  
    Num2  
    Num1P  
    Num1  
    1P  
    2P  
    3P  
(b. </se/, Num2P >  
    Num2  
    Num1P  
    Num1  
    2P  
    3P  
    3)

- in the pointers approach, the reason se could win in the 2P pl but lose in the 3P pl (yielding the ABA) was that se was rigid (no pointer), whereas d’e was flexible at the pointer position.
- the Elsewhere Principle ensured a win of se in 2P pl, while the Superset Principle ensured that se was not a competitor for 3P pl.
- Given the RSP, both d’e and se can shrink in the middle, i.e. both can now spell out 2P and 3P.
- as a result, both lexical items will compete in 2P pl and 3P pl.
- the Elsewhere Principle now ensures that se will win the competition both in the 2P pl and the 3P pl.
- *ABA holds in full generality: ABA-patterns are underivable in principle.

Interim Conclusion (II)

- both the approach in terms of pointers and the RSP allow the derivation of multidimensional paradigms.
the pointers approach opens the door to the derivation of ABA-patterns.
- the RSP is more restrictive and does not allow the derivation of ABA-patterns.

In what follows, I investigate more cases of syncretism, showing where both approaches make different predictions.

7 Nonlinear syncretisms

7.1 Shapes and sizes

- syncretisms which are not exclusively horizontal, and not exclusively vertical either
  - L-shaped, contiguous
  - diagonal (non-contiguous)
  - L-shaped, with ABA (non-contiguous)
  - double L, with ABA
  - double L, without ABA
  - diagonal with ABA

7.2 L-shaped, contiguous

Usarufa

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>1P</td>
<td>ke</td>
<td>ke</td>
</tr>
<tr>
<td>2P</td>
<td>e</td>
<td>ke</td>
</tr>
<tr>
<td>3P</td>
<td>we</td>
<td>ye</td>
</tr>
</tbody>
</table>

derivable with pointers:
- *ke* is a lexical item containing a pointer; it can spell out all persons and numbers
- *ke* loses the competition to more specific lexical items without pointers (*e, we, ye*)

derivable with the RSP:
- *ke* can spell out all persons and numbers.
- in 2P sg, *ke* loses the competition to the more specific lexical item *e*, which lacks the 1P node.
in 2P pl, there is no competition because e lacks the plural number node.

\[
\begin{array}{c|cc}
& \text{sg} & \text{pl} \\
1P & A & A \\
2P & A & B \\
3P & C & D \\
\end{array}
\]

\(\Rightarrow\) derivable with pointers (for the same reason as (39)).
\(\Rightarrow\) undervivable with the RSP:
- the A-item can spell out all persons and all numbers.
- the B-item lacks a 1P node.
- the B-item will therefore win the competition in both 2P sg and 2P pl, because of the Elsewhere Principle.

### 7.3 Double L, without ABA

\[
\begin{array}{c|cc}
& \text{sg} & \text{pl} \\
1 & A & A \\
2 & B & A \\
3 & B & B \\
\end{array}
\]

\(\Rightarrow\) undervivable with pointers:
- both the A-item and the B-item contain pointers.
- the A-item is maximal and flexible; it loses out to the more specific B-item in the 3P (unproblematic), but also in the 2P, both sg and pl, because the B-item applies to less cases than the A-item.
\(\Rightarrow\) undervivable with the RSP (in contrast to Usarufa above).
- the B-item has a Num2P-node and a 2P-node but lacks a 1P node; therefore it will compete with the A-item in 2P pl, and it will win.

\[
\begin{array}{c|cc}
& \text{sg} & \text{pl} \\
1 & A & A \\
2 & A & B \\
3 & B & B \\
\end{array}
\]

\(\Rightarrow\) undervivable with pointers (for the same reason as (41)).
\(\Rightarrow\) undervivable with the RSP.

(Note that both patterns have a vertical syncretism in the singular, which is exceedingly rare independently.)
7.4 Diagonal

(43) Suki

\[
\begin{array}{c|cc}
\text{sg} & \text{pl} \\
\hline
1P & ne & e \\
2P & e & de \\
3P & u & i \\
\end{array}
\]

diagonal syncretisms contradict spatial accounts of syncretism, which rely on contiguity (e.g. McCreight & Chvany 1991).

derivable with pointers:

- the lexical tree of the e-pronoun is maximal and flexible, i.e. shrinkable at the joint (from 1P to 2P)
- e can express all the persons and numbers
- it loses the competition to the rigid items for the other persons and numbers

underivable with the RSP.

- the lexical item e can spell out all persons and all numbers.
- in 2P sg, there are two more specific items: ne and de
- ne will win, because ne can spell out 1/2/3P sg; de can spell out 2/3P sg and 2/3P pl, so ne is more specific than de.

(44)

\[
\begin{array}{c|cc}
\text{sg} & \text{pl} \\
\hline
1P & A & B \\
2P & C & A \\
3P & D & E \\
\end{array}
\]

derivable with pointers (for the same reason as (43)).

underivable with the RSP

- both the A and the B-item can spell out all numbers and all persons; the lexical trees of A and B would be identical.
- there would be a tie between A and B in 1P and in 2P pl.

(45)

\[
\begin{array}{c|cc}
\text{sg} & \text{pl} \\
\hline
1P & B & A \\
2P & A & C \\
3P & C & C \\
\end{array}
\]

underivable with pointers:
- both A and C contain a pointer, therefore C will win in 2P sg.

underivable with the RSP: C is more specific than A and will win in 2P sg.
7.5 L-shaped with ABA

(46)  | sg  | pl  |
     1 | A   | A   |
     2 | C   | B   |
     3 | D   | A   |

▷ derivable with pointers:
  ◦ the A-item is maximal and flexible; it loses out to the more specific C-B-D items
▷ underivable with the RSP (as are all cases involving ABA).

7.6 Double L, with ABA

(47)  | sg  | pl  |
     1 | A   | A   |
     2 | B   | B   |
     3 | B   | A   |

▷ underivable with pointers:
  ◦ there are two competing items, which both contain pointers.
  ◦ B will win from A in 3P pl since its tree is smaller than the tree of A.
▷ underivable with the RSP.

7.7 Diagonal with ABA

(48)  | sg  | pl  |
     1 | C   | A   |
     2 | D   | B   |
     3 | B   | A   |

▷ underivable with pointers:
  ◦ B contains a pointer (to get the diagonal), and will therefore win from A in the 3P pl.
▷ underivable with the RSP.

7.8 Summary of findings

Empirical problems for the RSP:
attested but unattainable
  ◦ Bagirmi (ABA): seems to be an isolated case; relatively undocumented (Gaden 1909).
  ◦ Suki (diagonal): ‘commonly found in the contemporary Aztecan languages’ (Cysouw 2003:121).

Where the RSP fares better:

▷ in general, the RSP is more restrictive, and allows less patterns, many of which are indeed unattested.
▷ conceptually, this approach is to be preferred, as it rules out all cases of ABA, and it therefore leaves the syncretism diagnostic fully intact.

7.9 ABA: false positives

Hittite (a-stem declension):

(49) father | army | chair
  NOM attas | tuzzi-s | harnau-s
  ACC atta-n | tuzzi-n | harnau-n
  GEN attas | tuzzi-as | harnaw-as
  DAT att-i | tuzzi-ya | harnaw-i
  ABL att-az | tuzzi-y-az

(50) GEN: atta-as → attas

Latin (third declension):

(51) tower | leader | old man | tower
  NOM turris | princep-s | sen-ek-s | turr-i-s
  ACC turrim | princip-em | sen-em | turr-i-em
  GEN turris | princip-is | sen-is | turr-i-is

(52) GEN: turr-i-is → turris
    ACC: turr-i-em → turrim
8 Conclusion

The main findings of this talk:

- the analysis of multidimensional paradigms requires an extension of classical nanosyntactic theory.
- I have discussed two such extensions:
  - pointers (Caha & Pantcheva 2012)
  - Revised Superset Principle (Caha 2014)
- both approaches make different empirical predictions:
  - possibility of ABA
  - nonlinear syncretisms
- empirically, the waters are murky
- conceptually, the RSP is to be preferred

References


Caha, Pavel & Marina Pantcheva. 2012. Contiguity beyond linearity. Talk at Decennium: The first 10 years of CASTL.


