The Atoms of Person

Limitations on Concept Formation

The atoms of person (English):

<table>
<thead>
<tr>
<th></th>
<th>sg</th>
<th>pl</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>speaker</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>you</td>
<td>hearer</td>
</tr>
<tr>
<td>3</td>
<td>he, she, it</td>
<td>non-participant</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>pl</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>we</td>
<td>speaker + associates</td>
</tr>
<tr>
<td>2</td>
<td>you</td>
<td>hearer + associates</td>
</tr>
<tr>
<td>3</td>
<td>they</td>
<td>non-participant + associates</td>
</tr>
</tbody>
</table>

Problem: inclusive

E.g. Túmpisa Shoshone (Dayley 1989)

<table>
<thead>
<tr>
<th></th>
<th>sg</th>
<th>pl</th>
</tr>
</thead>
<tbody>
<tr>
<td>INCL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>nū</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>ü</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>(demonstr)</td>
<td></td>
</tr>
</tbody>
</table>

Question:

E.g. Túmpisa Shoshone

Claim:

E.g. Túmpisa Shoshone

<table>
<thead>
<tr>
<th></th>
<th>sg</th>
<th>pl</th>
</tr>
</thead>
<tbody>
<tr>
<td>IU</td>
<td>ta-mmū</td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>nū-mmū</td>
<td></td>
</tr>
<tr>
<td>U</td>
<td>mü-mmū</td>
<td></td>
</tr>
<tr>
<td>O</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>(demonstr)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Claim

- Combinations of person atoms:
  \[ -i + u \]
  \[ -i + o \]
  \[ u + o = \text{UNLEXICALISABLE} \]
- Predicted by the Concept Formation Constraint in the kite framework

Outline

1. The Concept Formation Constraint
2. Mereologies
3. The Person Kite
4. The Unlexicalised Combinations
5. Conclusion
6. Questions

The Kite Framework

Ambiguity of “some”

- **Some, possibly all:**
  "If some students pass the test, I’ll throw a party"
  \[ \rightarrow \text{If all students pass the test, I’ll throw a party} \]
- **Some but not all:**
  "Some people are allergic to chocolate"
  \[ \neq \]
  "All people are allergic to chocolate"
Lexicalisation in certain closed lexical fields is restricted by a concept formation constraint (Jaspers 2012, Seuren & Jaspers 2014):

- Logical hexagon: two corners are never lexicalised.

**The Kite Framework**

Lexicalisation in certain closed lexical fields is restricted by a concept formation constraint (Jaspers 2012, Seuren & Jaspers 2014):

- Logical hexagon: two corners are never lexicalised.

**Result: kite structure**

**Predicate Logic Operators**

- AND, NOR (and or nor)
- OR (possibly and)
- OR (but not and)

**Colour** (Jaspers 2012)

- Red
- Yellow
- Green
- Cyan
- Blue
- Magenta
**Claim: Person**

Person deixis: corresponding limitations on concept formation.

1st person

inclusive

2nd & 3rd person

2nd person

3rd person

**Outline**

1. The Concept Formation Constraint
2. **Mereologies**
3. The Person Kite
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**2. Mereology**

Mereology = theory of parthood relations

• i and u are proper parts of iu
• \(iu\) = mereological sum of i and u

**Differences**

Logical systems

• Quantifiers
• Relations:
  – Entailment
  – Contradiction
  – Contrariety
• Disjunction

Mereologies

• Person
• Relations:
  – Proper parthood
  – Exhaustive complementarity
  – Non-exhaustive complementarity
• Mereological sum
Differences

• Disjunction
• Mereological sum

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3. Deriving the Person Kite

Mereology:
Kite follows from a single proper parthood rel
(Seuren & Jaspers 2014)

Proper parthood

Complementarity
Non-exhaustive complementarity

Summary

The kite: INCLUSIVE as only complex person:

Other combinations: predicted by kite to be unlexicalised
Tümpisa Shoshone

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Number

The kite assumes: (see also Bobaljik 2008, Ackema & Neeleman to appear)
- 3 person = o (other)
- plural = a (+ associates)

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<tr>
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<tbody>
<tr>
<td>1</td>
<td>i</td>
<td>we</td>
</tr>
<tr>
<td>2</td>
<td>you</td>
<td>you</td>
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4. The Unlexicalised Combinations: *io & *uo

- Sample (39 lgs)
- Typological literature a.o.: (330 lgs)
  - Forchheimer 1926
  - Harley & Ritter 2003
  - Daniel 2005
  - Baerman et al. 2005
  - Bobaljik 2008
  - Cysouw 2009
  - Harbour 2016
  - Ackema & Neeleman 2016
- Side note: Number
1. (Peter:) Do you know whether George Clooney likes good coffee?
   a) (Ad:) #Yes, we both drink Illy.
   b) (Ad:) Yes, he drinks Illy, just like me.

2. (Ad:) We both know good coffee when we see it.

Morphological differences

<table>
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<tr>
<th>sg</th>
<th>pl</th>
<th>Tümpisa Shoshone</th>
</tr>
</thead>
<tbody>
<tr>
<td>iu</td>
<td>α-δ</td>
<td>iu</td>
</tr>
<tr>
<td>i</td>
<td>β</td>
<td>i</td>
</tr>
<tr>
<td>u</td>
<td>γ</td>
<td>u</td>
</tr>
<tr>
<td>o</td>
<td>δ</td>
<td>(Demonstratives)</td>
</tr>
</tbody>
</table>

1. IF pl = 3:
   io & uo are lexicalised

2. IF pl = 3:
   io & uo are lexicalised

3. • 3 person = o
   • plural = a

   DIFFERENT morphologically and semantically

Semantic differences

Reference: (Ackema & Neeleman to appear, pp. 70-73)

"[A]n o … cannot be included in the reference of a plural pronoun without first being turned into an associate in some way."
Summary
• Semantics: Reference
• Morphology: Different morphemes for 3rd person and plural
  3rd person: o
  #
  Plural: a

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Conclusion
• applied to person.
• Inclusive is the only complex person \( \rightarrow \) Mereological sum \( iu \).
• Other combinations of person atoms are unlexicalisable
  – elements

For further research
• Other combinations:
  – \( iuo \): generic pronouns
  – lack of atoms: expletive pronouns
• Number in the kite: Ackema & Neeleman to appear: \( a \) is person, not number
  \( \rightarrow \) extension to a 4-atom universe
  (Roelandt 2016)