# Limitations on concept formation in personal pronouns

Jolijn Sonnaert KU Leuven, Brussels Campus, Belgium





		*			•	
2	you	hearer	u	you	hearer + associates	ua
3	he, she, it	non- participant	0	they	non-participant + associates	oa

Other languages may add an inclusive pronoun, e.g. Marquesan (Cablitz 2006):

(2)		SG			PL				
	INCL				ta-tou	sp + hr (+ assoc)	іиа		
	1	au	sp	i	ma-tou	sp + assoc	ia		
	2	koe	hr	u	ko-tou	hr + assoc	иа		
	3	ia	non-part	0	a-tou	non-part + assoc	oa		

**HR** — 2nd *you* Why is only the combination of speaker and hearer lexicalised (INCL) and the other combinations of the atoms unlexicalised?



# Analysis

The inclusive

Morphology:

- 80% of the languages: morphologically independent inclusive, i.e. not related to first or second person (3) (Daniel 2005).
- Otherwise: mostly related to 1<sup>st</sup> (and sometimes also to 2<sup>nd</sup>) person (4).

(3) T (	3) Tümpisa Shoshone (Dayley 1989)				(4) Quechua (Adelaar 1977)					
	SG		PL			SG	PL			
Ι	NCL		ta-mmü		INCL		nuxa-ñči(k)			
1		nü	nü-mmü		1	nuxa	nuxa:-guna			
2	)	ü	mü-mmü		2	xam	xam-guna			
3		(demonstratives)			3	pay	pay-guna			

#### Unlexicalised combinations:

- SP + NON-PART: i+o
- HR + NON-PART: u+o
- → Predicted by THE CONCEPT FORMATION CONSTRAINT in the kite framework (Jaspers 2012, Seuren & Jaspers 2014)

#### **The Kite Framework & CONCEPT FORMATION CONSTRAINT**

The kite framework deals with (mereo)logical relations between concepts, represented in the geometrical figures (shown below):

- Entailment and proper parthood (arrows)
- Contradiction (full lines)
- (Sub)contrariety (dotted and dashed lines)
- The concept formation constraint posits that:

### (11) The hexagon for Tümpisa Shoshone person morphemes:



Consider a Hasse diagram (Smessaert 2009, Jaspers 2012):

- with atoms represented by bitstrings (5)
- for  $1^{st}$ ,  $2^{nd}$  and  $3^{rd}$  person (6):



The inclusive (Level 2) is semantically made up of the atoms i and u (Level 1):

(7) Tümpisa Shoshone



- O and U in the logical hexagon (8) are never lexicalised
- This results in a kite structure (9).



This has been demonstrated for a.o. the natural logic quantifiers, predicate calculus operators and colour terms (Seuren & Jaspers 2014, Jaspers 2012).

The same applies to person, corresponding exactly to the observations in the Hasse diagram:

# (10) The person hexagon:



#### Person and number:

- Two distinct features
- Belonging to two distinct categories

I therefore employ the following terminology:

THIRD PERSON	non-participant	
PLURAL	+ associates	

### This distinction is confirmed by:

- Semantics: person is deictic vs. plural is never defined as such (a.o. Béjar 2003, Corbett 2004).
- Ackema and Neeleman To Appear, p. 72: 3<sup>rd</sup> person cannot be included in the reference of a plural pronoun "without first being turned into an associate in some way."
- Morphology: no languages have the same morpheme for PL and  $3^{rd}$

## For number, I propose the following extension:

![](_page_0_Figure_51.jpeg)

• Bitstrings: to calculate further relations, such as the proper parthood relations between the singular and plural versions of

000			010 - <i>u</i>		<ul> <li>parthood relations between the singular and plural versions of the same person.</li> <li><i>iu</i>: Languages have no simplex lexicalisations for an extra number distinction in inclusive, which is why the <i>iu</i> corner is shared by both kites.</li> </ul>			
		$\bigcirc$	$\bigcirc$	$\bigcirc$				
<section-header><section-header><section-header></section-header></section-header></section-header>	<ul> <li>Literature</li> <li>Ackema, P. &amp; A. I</li> <li>Adelaar, W. F. H.</li> <li>Baird, L. (2008).</li> <li>Pacific Linguistic</li> <li>Cablitz, G. (2006)</li> <li>Dayley, J. P. (1989)</li> <li>Jaspers, D. (2012)</li> <li>Seuren, P. &amp; D. Ja</li> <li>Smessaert, H. (20)</li> <li>Zidowecki et al (2) course.php?res=80</li> </ul>	<b>Cited</b> Neeleman (To Appear (1977). <i>Tarma Quech</i> <i>A Grammar of Klon:</i> <i>A Grammar of Klon:</i> <i>S</i> <i>Marquesan: A Gram</i> <i>D</i> . <i>Tümpisa (Panamin</i> <i>D</i> . Logic and Colour. I aspers (2014). Logico (09). On the 3D Visua (015). <i>Unilang: Tok P</i> (D#ci12)	r). Features of Person. nua. Amsterdam: The Per A Non-Austronsesan lan nmar of Space. Berlin: I nt) Shoshone Grammar. n: Logica Universalis, 6 -Cognitive Structure in lisation of Logical Rela Pisin for Beginners. Reta	eter de Ridder Press. <i>nguage of Alor, Indonesi</i> Mouton de Gruyter. Berkely: University of 5, 1, 227-248. the Lexicon. In <i>Languag</i> tions. In <i>Logica Univers</i> rieved from http://www.	ia. Canberra: California Press. ge, 90, 3, 607-643. salis, 3, 303-332. unilang.org/	KU Leuv Research CRISSP www.cria jolijn.son Jolijn So Warmoes 1000 Bra BELGIU	ven – Brussels campus a group: OG ComForT – ssp.be maert@kuleuven.be maert sberg 26 ussel M KULEUVEN	