

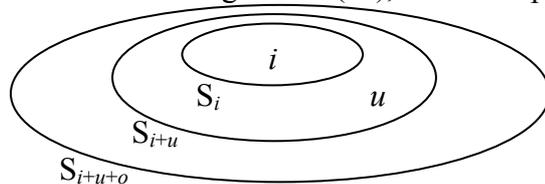
PERSON SYNCRETISM: AN ANALYSIS AND A CASE STUDY

PETER ACKEMA (UNIVERSITY OF EDINBURGH) & AD NEELEMAN (UCL)

1. Any theory of person features faces two general tasks. On the one hand, it must account for known typological patterns (which include the inventory of persons and tendencies in how person is expressed morphologically). On the other hand, it must provide a handle on the often quite intricate person morphology of individual languages. In this talk, we develop an analysis of person based on the following core assumptions. (i) Person features represent functions that operate on an initial set of possible discourse referents, or on the output of other person functions. Which combinations of person features are well-formed and which are not follows from the properties of the functions they represent (compare Harbour 2011). (ii) There are two such person features. Their semantic specification implies that one is shared by first and second person, while the other is shared by second and third person (cf. Kerstens 1993, Halle 1997). (iii) Rules that operate on features (including rules of impoverishment and spell-out rules) are sensitive to the order in which the functions represented by person features apply. The main results of the proposed theory are (i) an explanation of the typological inventory of persons (1, 2, 3 in the singular; 1 inclusive, 1 exclusive, 2, 3 in the plural); (ii) an explanation of the typological observation that syncretisms between 1st and 3rd person are much rarer than syncretisms between either 1st and 2nd, or 2nd and 3rd person (Baerman et al. 2005); (iii) a descriptively adequate analysis of person agreement in Dutch where two person endings arrange themselves in such a way that there is a 2-3 syncretism in the regular case, a 1-2 syncretism under subject-verb inversion, and an optional 1-3 syncretism with a particular lexical class of verbs (modals).

2. We propose that there are two person features, PROX and DIST, that operate on a structured set of discourse referents given in (1a), where  $i$  represents the speaker and  $u$  the addressee.

(1) a.



b.  $\text{PRED}(S_{i+u+o}) = S_{i+u}$

c.  $\text{PRED}(S_{i+u}) = S_i$

d.  $\text{PROX}(S) = \text{PRED}(S)$  (if defined)

e.  $\text{DIST}(S) = S - \text{PRED}(S)$  (if defined)

The two features are defined in terms of a function PRED (for 'predecessor') given in (1b,c). PROX in effect discards the outer layer of the input set, while DIST selects the outer layer. In the singular, applying DIST to (1a) selects a set that contains neither  $i$  nor  $u$ : 3rd person. Applying PROX once selects a non-singleton set that contains  $i$  and  $u$ , which is incompatible with a singular interpretation. There are now two options. A second application of PROX yields a set that contains only  $i$ : 1st person. An application of DIST yields a set containing only  $u$ : 2nd person. The same derivations are available in the plural, but in addition PROX can be applied once to (1), giving rise to a set containing  $i$  and  $u$ : 1st person inclusive. Any other sequences of function application are not defined, so the person system is restricted to (2).

(2)	<i>1 inclusive</i>	<i>1 exclusive</i>	<i>2</i>	<i>3</i>
<i>Singular</i>	×	Φ-PROX-PROX	Φ-PROX-DIST	Φ-DIST
<i>Plural</i>	Φ-PROX	Φ-PROX-PROX	Φ-PROX-DIST	Φ-DIST

3. Given this system, syncretisms in the realisation of person arise as follows. A 2-3 syncretism is the result of the absence of a specific spell-out rule for [PROX DIST]. 2nd person could then be realised either by a spell-out rule for PROX or by a spell-out rule for DIST. We propose the decision between the two is made by the *Russian Doll Principle* in (3).

(3) *Any rule that targets a feature F must mention any features applied to the output of F.* According to this principle, a spell-out rule mentioning only PROX cannot apply to [PROX-DIST]. 2nd person must therefore be realised by the rule mentioning DIST, which is also used for 3rd person. A 1-2 syncretism can then only arise as the result of impoverishment in the

2nd person, by (4a). The resulting structure (namely [PROX]) is identical to the 1st person. A 1-3 syncretism arises if the two impoverishment rules in (4b-c) operate. These delete the features in first and third person. (4b) is blocked from applying in the 2nd person by (3); (4c) cannot apply because in the 2nd person [DIST] does not directly apply to  $\phi$ , but rather to the output of PROX.

(4) a. [DIST]  $\rightarrow$   $\emptyset$  / [ \_\_ PROX]      b. [PROX]  $\rightarrow$   $\emptyset$       c. [DIST]  $\rightarrow$   $\emptyset$  / [ $\phi$ -\_\_]

We will demonstrate that the acquisition of a grammar containing (4b-c) is substantially harder than the acquisition of grammars that give rise to 1-2 or 2-3 syncretisms. This explains why 1-3 syncretisms are typologically infrequent.

4. The general system outlined above accounts for person morphology patterns in Dutch:

(5)	<i>regular</i>		<i>inversion</i>		<i>modal-1</i>		<i>mod.-1 inv.</i>		<i>modal-2</i>		<i>mod.-2 inv.</i>	
<i>1<sup>st</sup></i>	a.	loop	e.	loop	i.	kan	m.	kan	q.	kan	u.	kan
<i>2<sup>nd</sup> familiar</i>	b.	loopt	f.	loopt	j.	kunt	n.	kun	r.	kan	v.	kan
<i>2<sup>nd</sup> polite</i>	c.	loopt	g.	loopt	k.	kunt	o.	kunt	s.	⌘kan	w.	⌘kan
<i>3<sup>rd</sup></i>	d.	loopt	h.	loopt	l.	kan	p.	kan	t.	kan	x.	kan

- The regular 2-3 syncretism (5a-d) follows if Dutch does not have a dedicated spell-out rule for [PROX DIST], see section 3.
- The shift to a 1-2 syncretism in (5e-f,h) follows if Dutch has an instance of (4a) that requires a context created by inversion; we follow Ackema & Neeleman 2003 in assuming that this context is one of PF-locality.
- Interestingly, (4a) does not apply in inversion contexts when the subject is the polite 2nd person pronoun ((5g)). This provides striking evidence for the Russian Doll Principle (3), which blocks application of (4a) on the assumption that the HON(orific) feature applies to the output of PROX-DIST.
- (5i-l) and (5q-t) show that modals have two paradigms. One shows a 1-3 syncretism, which means that Dutch has instances of (4b-c) that apply specifically to these verbs. The other paradigm shows a 1-2-3 syncretism, which requires application of an optional rule [DIST]  $\rightarrow$   $\emptyset$  / Modal; this rule is identical to (4c) but does not mention application of DIST to  $\phi$  as its context of application. This rule can therefore delete DIST in the presence of PROX (so in 2nd person), after which (4b) can be applied (note that after DIST has been deleted PROX is no longer protected by (3)). The result is total impoverishment in all persons.
- There is an interaction between the modal impoverishment rules and impoverishment under inversion: there are 2nd person forms for modals that occur *only* under inversion (*kun* in (5n)). This follows if modal impoverishment by (4b-c) is ordered before impoverishment under inversion by (4a). As noted, (4b-c) yield the paradigm (5i-l) in the uninverted order. Under inversion, (4a) deletes the DIST feature in 2nd person. The resulting [PROX] structure cannot be targeted by (4b) anymore, exactly because (4a) is ordered after (4b). Hence, the 1st and 2nd person input structures for the spell-out system in the case of inverted modals are  $\emptyset$  and [PROX] respectively. Although neither feature specification triggers an overt ending in Dutch, the stem allomorphy shown in (5m-n) is arguably conditioned by the presence of any  $\phi$ -feature at the moment of stem selection.
- The final fact to be accounted for is the marginality of (5s,w) in formal registers (indicated by ⌘). We will show that this is explained by the Russian Doll Principle, which – details aside – is expected to block application of the optional rule ([DIST]  $\rightarrow$   $\emptyset$  / Modal) in the presence of HON.

REFERENCES: Ackema, P. & A. Neeleman (2003). Context-sensitive Spell-out. *NLLT* 21, 681-735. Baerman, M., D. Brown & G. Corbett (2005). *The Syntax-Morphology Interface: A Study of Syncretism*. CUP. Halle, M. (1997). Distributed Morphology: Impoverishment and Fission. *MITWPL* 30, 425-449. Harbour, D. (2011). Descriptive and Explanatory Markedness. *Morphology* 21, 223-245. Kerstens, J. (1993). *The Syntax of Person, Number and Gender*. Berlin: Mouton.