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Person Mismatch Agreement

Imke Driemel ❖ Leipzig University
imke.driemel@uni-leipzig.de

iGRA INTERACTION OF GRAMMATICAL BUILDING BLOCKS
UNIVERSITÄT LEIPZIG

Resolution agreement with PERSON mismatches typically follows a PERSON hierarchy (Zwicky 1977): 1 ≻ 2 ≻ 3. German and Dutch diverge from this hierarchy (Corbett 1983, Timmermans et al 2004): they show a 1 ≻ 2/3 pattern. Two Questions: How can we derive strict hierarchies in resolution contexts? Why are German and Dutch different?

(1) Czech (Petr Biskup, p.c.)

a. *Můj otec a já* **zůstaneme** *doma.*
my father and I will.stay.1PL at-home
'My father and I will stay home.'

b. *Tvůj otec a ty* **zůstanete** *doma.*
your father and you will.stay.2PL at-home
'Your father and you will stay home.'

c. *Já a ty* **zůstaneme** *doma.*
I and you will.stay.1PL at-home
'You and I will stay home.'

(2) German

a. *Ich und mein Freund* **hab-en** *oft Besuch.*
I and my friend have-1PL often visitors
'Me and my friend often get visitors.'

b. *Du und dein Freund* **hab-t/hab-en** *oft Besuch.*
you and your friend have-2PL/have-3PL often visitors
'You and your friend often get visitors.'

c. *Ich und du* **hab-en** *oft Besuch.*
I and you have-1PL often visitors
'I and you often get visitors.'

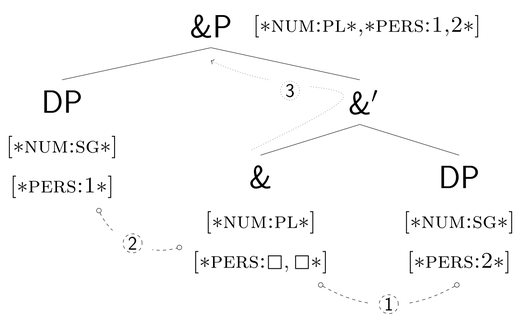
(3) Dutch (Cora Pots, p.c.)

a. *Ik en mijn vriend vervelen* **ons**.
I and my friend bore 1PL.REFL
'I and my friend are bored.'

b. *Jij en je vriend vervelen* **je/zich**.
you and your friend bore 2PL.REFL/3PL.REFL
'You and your friend are bored.'

c. *Jij en ik vervelen* **ons**.
you and I bore 1PL.REFL
'You and I are bored.'

Syntactic set-up:



Core proposal

- PERSON features of the conjuncts undergo set union (Darymple and Kaplan 2000, Bhatt and Walkow 2013, Al Khalaf 2015)
- under set union, only privative feature systems are capable to derive a strict PERSON hierarchy (for 1+3 and 2+3 contexts)
- languages without an inclusive/exclusive distinction need an additional impoverishment rule that deletes 2PS in the presence of 1PS (for 1+2 contexts)
- German and Dutch can show divergence since they require a binary speaker–hearer feature system due to their 1/3 syncretisms (Frampton 2002)
- optionality in (2b) and (3b) is derived by equally specific vocabulary items, following a realizational model of inflection (Halle & Marantz 1993,1994)

Motivation for set union (against set intersection):

① *semantics:* DP coordinations such as in (4) can only be interpreted as plurality-forming conjunctions; Schwarzschild (1996) analyzes DP conjunctions as set union

(4) John and Mary danced.

② *syntax:* if feature structures are flat (Adger 2010), set union simply results from a probe agreeing with two goals

③ *post-syntax:* set union as fusion (Müller 2006, Deal 2015, Zimmermann 2016)

The requirements to (i) morphologically distinguish between inclusive and exclusive forms and (ii) derive the 1 ≻ 2 ≻ 3 hierarchy needed for resolution contexts provides a new insight into underlying feature systems:

(5) *Binary systems: Halle (1997), Müller (2006), Nevins (2007,2011), Kratzer (2009)*

$$\begin{array}{l} \not\downarrow\ 1 \succ 2 \succ 3 \\ \checkmark\ \text{clusivity} \end{array} \left\{\begin{array}{lll} +\text{SPEAK},+\text{HEAR} & \leftarrow 1^{in} \rightarrow & - \\ +\text{SPEAK},-\text{HEAR} & \leftarrow 1^{ex} \rightarrow & +\text{AUTH},+\text{PART} \\ -\text{SPEAK},+\text{HEAR} & \leftarrow 2 \rightarrow & -\text{AUTH},+\text{PART} \\ -\text{SPEAK},-\text{HEAR} & \leftarrow 3 \rightarrow & -\text{AUTH},-\text{PART} \end{array}\right\} \begin{array}{l} \checkmark\ 1 \succ 2 \succ 3 \\ \not\downarrow\ \text{clusivity} \end{array}$$

problematic contexts (among others):

$$1 \cup 2 = \left\{\begin{array}{l} [+\text{AUTH},+\text{PART},-\text{AUTH}] \\ [+\text{SPEAK},-\text{HEAR},-\text{SPEAK},+\text{HEAR}] \end{array}\right\} \neq 1$$

(6) *Privative systems I: McGinnis (2005), Béjar & Řezáč (2009), Preminger (2011)*

$$\begin{array}{l} \not\downarrow\ 1 \succ 2 \succ 3 \\ \checkmark\ \text{clusivity} \end{array} \left\{\begin{array}{lll} \text{SPEAK},\text{HEAR} & \leftarrow 1^{in} \rightarrow & - \\ \text{SPEAK} & \leftarrow 1^{ex} \rightarrow & \text{AUTH},\text{PART} \\ \text{HEAR} & \leftarrow 2 \rightarrow & \text{PART} \\ & \leftarrow 3 \rightarrow & \end{array}\right\} \begin{array}{l} \checkmark\ 1 \succ 2 \succ 3 \\ \not\downarrow\ \text{clusivity} \end{array}$$

problematic context for a speaker-hearer system:

$$1 \cup 2 = \begin{array}{ll} [\text{AUTH},\text{PART}] & = 1^{ex} \\ [\text{SPEAK},\text{HEAR}] & \neq 1^{ex} \end{array}$$

(7) *Privative systems II: Darymple & Kaplan (2000), Harley & Ritter (2002)*

$$\begin{array}{l} \checkmark\ 1 \succ 2 \succ 3 \\ \not\downarrow\ \text{clusivity} \end{array} \left\{\begin{array}{lll} - & \leftarrow 1^{in} \rightarrow & \text{AUTH},\text{ADDR},\text{PART} \\ \text{SPEAK},\text{HEAR} & \leftarrow 1^{ex} \rightarrow & \text{AUTH},\text{PART} \\ \text{HEAR} & \leftarrow 2 \rightarrow & \text{ADDR},\text{PART} \\ & \leftarrow 3 \rightarrow & \end{array}\right\} \begin{array}{l} \not\downarrow\ 1 \succ 2 \succ 3 \\ \checkmark\ \text{clusivity} \end{array}$$

problematic context for an author-participant system:

$$1 \cup 2 = \begin{array}{ll} [\text{AUTH},\text{PART},\text{ADDR}] & \neq 1^{ex} \\ [\text{SPEAK},\text{HEAR}] & = 1^{ex} \end{array}$$

⇒ German shows 1/3 syncretism in plural: can only be captured by [−HEAR] (Frampton 2002), a subfeature that is not provided by any other feature system

⇒ Middle Dutch shows 1/3 syncretism in plural (Aalberse 2009), also present in past and plural forms in Dutch dialects (Aalberse & Don 2009) and for a closed class of modal verbs across Dutch dialects (Ackema & Neeleman 2013)

⇒ 1/3 syncretisms are rare (Cysouw 2005, Bearman et al 2005), just like 2+3⇝2,3 resolution contexts

Conclusion from (5), (6), and (7):

- three systems can make an exclusive/inclusive distinction
- among them, the two privative systems are capable to derive strict hierarchies for 1+3 and 2+3 contexts
- 1+2 contexts predict 1^{in} forms → true for languages with 1^{st}incl forms, see (8)

(8) $1^{st} + 2^{nd}$ coordinations trigger 1^{st}incl:

a. *An e min kö Afriki djodu-dén.* *Fula (Darymple & Kaplan 2000)*
2SG and 1SG in Afrika live-1PL.INCL
'You and I, we live in Afrika.'

b. *Aku dan kamu makan makanan kita.* *Indonesian (Mike Berger,p.c.)*
1SG and 2SG eat food POSS.1PL[INCL]
'[Me and you]$_i$ are eating our$_i$ food.'

Assumption: The lack of of a separate inclusive form results from neutralizing the marked *1^{st}incl* form towards its unmarked (less-specific) counterpart *1^{st}excl* (Nevins 2011). This rule is also at work in 1+2 resolution contexts.

(9) *Impoverishment rule for H&R privative system:*
[ADDRESSEE] → ∅ /[AUTHOR]___

(10) *Resolution contexts for H&R privative system:*

a. $1 \cup 2 = [\text{AUTH},\text{PART}] \cup [\text{ADDR},\text{PART}] = [\text{AUTH},\cancel{\text{ADDR}},\text{PART}]$

b. $2 \cup 3 = [\text{ADDR},\text{PART}] \cup [\ ] = [\text{ADDR},\text{PART}]$

c. $1 \cup 3 = [\text{AUTH},\text{PART}] \cup [\ ] = [\text{AUTH},\text{PART}]$

Key idea: Languages diverge from a strict resolution hierarchy due to a different underlying feature system. Both German and Dutch require [−HEARER] for 1/3 syncretism in their paradigm.

Independent reasons for a binary speaker-hearer system:

(11) *Impoverishment rule for binary speaker-hearer system:*
[+HEAR] → ∅ /[+SPEAK]___

(12) *Resolution contexts for binary speaker-hearer system:*

a. $[+\text{SPEAK},-\text{HEAR}]^1 \cup [-\text{SPEAK},+\text{HEAR}]^2 = [+\text{SPEAK},\cancel{+\text{HEAR}},-\text{HEAR},-\text{SPEAK}]$

b. $[-\text{SPEAK},+\text{HEAR}]^2 \cup [-\text{SPEAK},-\text{HEAR}]^3 = [-\text{SPEAK},-\text{HEAR},+\text{HEAR}]$

c. $[+\text{SPEAK},-\text{HEAR}]^1 \cup [-\text{SPEAK},-\text{HEAR}]^3 = [+\text{SPEAK},-\text{HEAR},-\text{SPEAK}]$

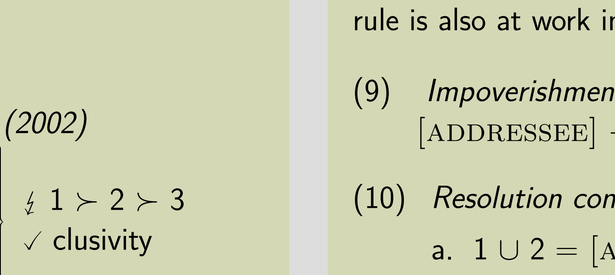
	PRESENT		PAST	
	SING	PLU	SING	PLU
1ST	-ə/∅	-(ə)n	-∅	-(ə)n
2ND	-st	-t	-st	-t
3RD	-t	-(ə)n	-∅	-(ə)n

GERMAN VERBAL INFL

(13) *VIs for German*:

/-(ə)n/ ↔ [−HEAR,+PL]
/-t/ ↔ [+HEAR,+PL]
/-st/ ↔ [+HEAR]
/-(e)/ ↔ [ ]
/-t/ ↔ [−SPEAK,−HEAR, −PL,+PRES]

(14) *Resolution contexts:*



∗note∗
feature hierarchy will not resolve the conflict

(15) *VIs for Dutch reflexives*:

/ons/ ↔ [+SPEAK,+PL]
/je/ ↔ [+HEAR]
/zich/ ↔ [−HEAR]
/me/ ↔ [+SPEAK,−PL]

	SING	PLU
1ST	me	ons
2ND	je	je
3RD	zich	zich

DUTCH REFL

References: Darymple & Kaplan (2000) "Feature indeterminacy and feature resolution", *Language*, 76:759-798. Frampton (2002) "Syncretism, Impoverishment, and the Structure of Person Features", In: *Papers from the Chicago Linguistics Society Meeting 38*, 207-222. Harley & Ritter (2002) "Person and number in pronouns: A feature-geometric analysis", *Language*, 78:482-526. Timmermans et al. (2004) "Disagreement on agreement", *Linguistics*, 42:905-929. Nevins (2011) "Marked targets versus marked triggers and impoverishment of the dual", *LI*, 42:413-444.