

Gender-mismatching pronouns in context

The interpretation of Dutch *zijn* 'his' and Limburgian *zien* 'his/its'



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1 Introduction

Women can be referred to with non-feminine pronouns in certain languages, e.g. Limburgian dialects of Dutch. Here, the possessive pronoun *zien* 'his/its' is ambiguous, as it can refer to a man or a woman – with the male reading being more frequent. The Dutch equivalent of this pronoun, *zijn* 'his', cannot refer to a woman.

- (1) *Piet/Marie ziene auto is kepot*
Piet/Marie his/its car is broken
'Pete's/Mary's car is broken.'

(Barbiers et al. 2006)

The use of non-feminine pronouns in reference to women can be found commonly across the province of Limburg, but has not received much attention in the literature.

(see Bakker 1992; Bakkes 2002; van Oostendorp 2012)

How are sentences with gender-mismatching pronouns interpreted?

2 Methods & Materials

Participants

- 45 speakers of Limburgian (18 male; age 18-79, $M = 31$, $SD = 15$)
- 52 speakers of Dutch (13 male; age 18-70, $M = 26.5$, $SD = 12.5$)

Materials and design

- Acceptability judgment task (7-point Likert scale, probing 'naturalness')
- Qualtrics questionnaire
- Audio recordings of 48 stimuli and 48 fillers
- 2x2x2 design:
 - Language (Dutch, Limburgian)
 - Referent gender (male, female), denoted by *proper name*
 - Stereotype context (male, female), pre-tested ($N = 56$), comparable in strength

Example stimuli and conditions (in Dutch)

FEMALE STEREOTYPE CONTEXT

 *Kelly(F) heeft zijn balletschoenen aangedaan(F)* Condition A
Joey(M) heeft zijn balletschoenen aangedaan(F) Condition B
 'Kelly/Joey put on his ballet shoes.'

MALE STEREOTYPE CONTEXT

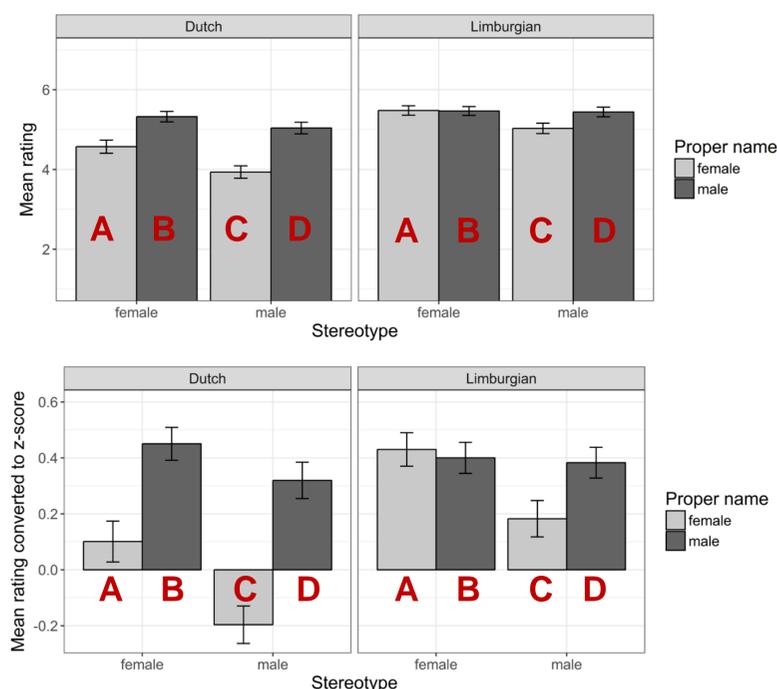
 *Lotte(F) heeft zijn bokshandschoenen aangedaan(M)* Condition C
Jeroen(M) heeft zijn bokshandschoenen aangedaan(M) Condition D
 'Lotte/Jeroen put on his boxing gloves.'

Data analysis

- Data were converted to z-scores and modeled in *R* using the *lmer* function from the *lme4* package (Bates et al. 2015)
- Fixed effects: *language*, *stereotype*, *proper name*, *language* × *proper name* and *stereotype* × *proper name*. Full random structure was included (Barr et al. 2013)

3 Results

- Effect *proper name* ($\beta = 0.37$, $SE = 0.15$, $t = 2.38$, $p = 0.017$)
- Interaction effect *language* × *proper name* ($\beta = -0.41$, $SE = 0.17$, $t = -2.44$, $p = 0.015$)
- Interaction effect *stereotype* × *proper name* ($\beta = 0.19$, $SE = 0.04$, $t = 4.31$, $p < 0.001$)



Sentences with male proper names received higher ratings, but this advantage was less pronounced for Limburgian participants.

The difference in ratings for sentences with male and female proper names was larger in male stereotype contexts.

4 Conclusion and discussion

- Sentences in which the pronoun could be linked to the subject were preferred
- Mismatches led to lower ratings (see Osterhout & Mobley 1995; Nieuwland & van Berkum 2006)
- In both Limburgian and Dutch, sentence appreciation was guided by the possibility of coreferentiality
 - In Dutch, this was limited to sentences with male subjects
 - In Limburgian, it extended to sentences with female subjects
- Moderating role of context
 - Dutch: mismatch between subject and pronoun penalized, mismatching context further adds to this
 - Limburgian: *zien* resolved as coreferential with female subject in female context, but not in male context

Condition	Subject	Context	Dutch	Limburgian
			Coreferentiality established	Coreferentiality established
A	F	F	X	✓
B	M	F	✓	✓
C	F	M	X	X
D	M	M	✓	✓