

Investigating Person-Case Effects in Standard German and Swabian

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- 1 The Person-Case Constraint across Languages
 - Typology of Person-Case Effects
 - Properties of Person-Case Effects
- 2 The Person-Case Constraint in German
 - Weak Pronouns and the Wackernagel Position
 - Evidence for Person-Case Effects in German
- 3 An Experimental Investigation
 - Research Questions and Design
 - Method and Participants
 - Statistical Analysis
 - Results
- 4 Conclusion

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Characterization of the PCC

- restriction on the possible combinations of phonologically weak objects (agreement markers, clitics, weak pronouns) in ditransitive constructions
- grammaticality depends on the person value of the direct and the indirect object
- cross-linguistically widespread phenomenon (Haspelmath 2004: examples from 16 different language families)
- several versions differing with respect to the combinations of weak objects that are prohibited (Bonet 1991; Nevins 2007)

Versions of the PCC

Strong PCC (cf. Bonet 1991, p. 182)

In a combination of a weak direct object and a weak indirect object, the direct object has to be 3rd person.

(1) French (Doliana 2013, p. 4)

- a. On me l' a montrée.
 one 1SG.DAT 3SG.ACC has shown
 'Someone showed it to me.' ⟨IO:1, DO:3⟩
- b. On le lui a montrée.
 one 3SG.ACC 3SG.DAT has shown
 'Someone showed it to her/to him.' ⟨IO:3, DO:3⟩
- c. *On me t' a montrée.
 one 1SG.ACC/DAT 2SG.DAT/ACC has shown
 'Someone showed me to you/you to me.' *⟨IO:2, DO:1⟩/⟨IO:1, DO:2⟩
- d. *On me lui a montrée.
 one 1SG.ACC 3SG.DAT has shown
 'Someone showed me to her/to him.' *⟨IO:3, DO:1⟩

Versions of the PCC

Weak PCC (cf. Bonet 1991, p. 182)

In a combination of a weak direct object and a weak indirect object, if there is a 3rd person, it has to be the direct object.

(2) Italian (Doliana 2013, p. 5)

a. Mi ti ha presentato.
 1SG.ACC/DAT 2SG.DAT/ACC has introduced
 'He introduced me to you/you to me.'

⟨IO:2, DO:1⟩/⟨IO:1, DO:2⟩

b. *Mi gli ha presentato.
 1SG.ACC 3SG.DAT has introduced
 'He introduced me to her/to him.'

*⟨IO:3, DO:1⟩

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Properties of the PCC

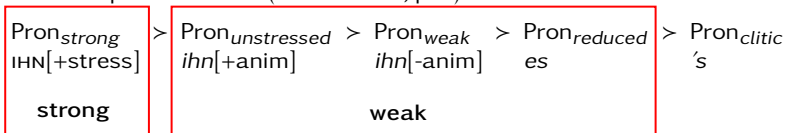
- affects only combinations of phonologically weak elements (Béjar & Rezac 2003; Anagnostopoulou 2005)
 - higher argument: morphological case (DAT, GEN)
 - lower argument: structural case through ϕ -agreement (ACC, ABS)
 - same case-licensing domain
- operative in a broad range of syntactic constructions: causatives, benefactives, unaccusatives with a dative (Bonet 1991; Anagnostopoulou 2005; Rezac 2008)
- reflex of the person-scale: the indirect object must rank higher on the person scale than the direct object (Haspelmath 2004; Doliana 2013)

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Pronoun Classes in German

- syntactic evidence: five pronoun classes

(3) Personal pronoun scale (Müller 2002, p. 1)



- strong pronouns vs. weak (unstressed, weak, and reduced) pronouns

	strong pronouns	weak pronouns
phonological distinction	sentence stress	no stress
syntactic distinction	no movement	Wackernagel movement

Wackernagel Movement

(4) German (Müller 2002, p. 5; Doliana 2013, p. 29)

- a. *dass der Fritz gestern ihr ein Buch geschenkt hat
 that the Fritz.NOM yesterday 3SG.DAT a book.ACC given has
 'that Fritz gave her a book yesterday'
- b. dass ihr_j der Fritz gestern t_j ein Buch geschenkt hat
 that 3SG.DAT the Fritz.NOM yesterday a book.ACC given has
- c. dass der Fritz ihr_j gestern t_j ein Buch geschenkt hat
 that the Fritz.NOM 3SG.DAT yesterday a book.ACC given has
- d. *dass IHR_j der Fritz gestern t_j ein Buch geschenkt hat
 that 3SG.DAT the Fritz.NOM yesterday a book.ACC given has

Weak Pronoun Clusters

- Standard German: subject > direct object > indirect object (Lenerz 1992; Anagnostopoulou 2008)

(5) German (Doliana 2013, p. 30)

- | | | | | | | | |
|----|---------------------------------|---------|---------|---------|-----------|-----------|-----|
| a. | dass | er | es | ihr | gestern | geschenkt | hat |
| | that | 3SG.NOM | 3SG.ACC | 3SG.DAT | yesterday | given | has |
| | 'that he gave her it yesterday' | | | | | | |
| b. | *dass | es | ihr | er | gestern | geschenkt | hat |
| | that | 3SG.ACC | 3SG.DAT | 3SG.NOM | yesterday | given | has |
| c. | *dass | es | er | ihr | gestern | geschenkt | hat |
| | that | 3SG.ACC | 3SG.NOM | 3SG.DAT | yesterday | given | has |
| d. | *dass | er | ihr | es | gestern | geschenkt | hat |
| | that | 3SG.NOM | 3SG.DAT | 3SG.ACC | yesterday | given | has |

- Swabian/Franconian (Southern German): free order of object pronouns (Anagnostopoulou 2008)

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Two Opposing Views

No Person-Case Effects (Cardinaletti 1999; Haspelmath 2004)

- all combinations of weak pronouns are grammatical
- experimental evidence: acceptability rating study (Doliana 2013)
 - investigation of the acceptability of the combinations ⟨IO:LOC, DO:3⟩, ⟨IO:3, DO:3⟩, ⟨IO:LOC, DO:LOC⟩, and ⟨IO:3, DO:LOC⟩
 - on average higher ratings for targets than for ungrammatical fillers
 - differences in acceptability between conditions

Weak Person-Case Effects (Anagnostopoulou 2008)

- emergence of the PCC depends on the position of the subject and the dialect

		weak objects > subject	subject > weak objects
Standard	German (and most varieties)	PCC	no PCC
Swabian/Franconian (Southern German)		no PCC	no PCC

Evidence for Weak Person-Case Effects

(6) German (Anagnostopoulou 2008, p. 12)

- a. *weil dich ihm irgendwer vorgestellt hat
 because 2SG.ACC 3SG.DAT someone.NOM introduced has
 'because someone has introduced you to him' *⟨IO:3, DO:2⟩
- b. weil sie dich ihm vorgestellt hat
 because 3SG.NOM 2SG.ACC 3SG.DAT introduced has
 'because she has introduced you to him' ⟨IO:3, DO:2⟩

(7) German (ibid., p. 13)

- a. weil dich mir irgendwer vorgestellt hat
 because 2SG.ACC 1SG.DAT someone.NOM introduced has
 'because someone has introduced you to me' ⟨IO:1, DO:2⟩
- b. weil mich dir irgendwer vorgestellt hat
 because 1SG.ACC 2SG.DAT someone.NOM introduced has
 'because someone has introduced me to you' ⟨IO:2, DO:1⟩

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Research Questions

Research Question 1

Are there differences in acceptability between the four object combinations $\langle \text{IO:LOC}, \text{DO:3} \rangle$, $\langle \text{IO:3}, \text{DO:3} \rangle$, $\langle \text{IO:LOC}, \text{DO:LOC} \rangle$, and $\langle \text{IO:3}, \text{DO:LOC} \rangle$ in German that lead to visible person-case effects?

Research Question 2

Does the emergence of the PCC in German depend on the position of the subject?

Research Question 3

Does the emergence of the PCC in German depend on the dialect?

Design: Target Sentences

- 10 ditransitive verbs allowing both their direct and indirect object to be animate (→ local person)
- fully crossed factorial design with three factors:

DIRECT OBJECT PERSON	local vs. 3 rd person
INDIRECT OBJECT PERSON	local vs. 3 rd person
SUBJECT POSITION	subject > objects vs. objects > subject

- weak object clusters:

Condition	Pronoun Combinations			
⟨IO:LOC, DO:3⟩	<i>ihn mir</i>	'him to me'	<i>ihn dir</i>	'him to you'
⟨IO:3, DO:3⟩	<i>ihn ihm</i>	'him to him'	<i>ihn ihr</i>	'him to her'
⟨IO:LOC, DO:LOC⟩	<i>mich dir</i>	'me to you'	<i>dich mir</i>	'you to me'
⟨IO:3, DO:LOC⟩	<i>mich ihr</i>	'me to her'	<i>dich ihr</i>	'you to her'

- subject: *jemand* 'someone' (indefinite subjects either stay within vP or optionally move to SpecTP, e.g., Jurka 2010)

Design: Target Sentences

(8) Example sentences of the four subject > objects conditions

- a. Man erwartet, dass jemand ihn mir vorstellt.
 one expects that someone.NOM 3SG.ACC 1SG.DAT introduces
 'One expects that someone introduces him to me.' <IO:LOC, DO:3>
- b. Man erwartet, dass jemand ihn ihr vorstellt.
 one expects that someone.NOM 3SG.ACC 3SG.DAT introduces
 'One expects that someone introduces him to her.' <IO:3, DO:3>
- c. Man erwartet, dass jemand mich dir vorstellt.
 one expects that someone.NOM 1SG.ACC 2SG.DAT introduces
 'One expects that someone introduces me to you.' <IO:LOC, DO:LOC>
- d. Man erwartet, dass jemand mich ihr vorstellt.
 one expects that someone.NOM 1SG.ACC 3SG.DAT introduces
 'One expects that someone introduces me to her.' <IO:3, DO:LOC>

Design: Filler Sentences

- two sets of filler stimuli with 12 minimal pairs of grammatical and ungrammatical sentences each
- type I fillers: wrong case marking on the object

- (9) a. Man erwartet, dass mich jemand bedient.
one expects that 1SG.ACC someone.NOM serves
'One expects that someone serves me.'
- b. *Man erwartet, dass mir jemand bedient.
one expects that 1SG.DAT someone.NOM serves

- type II fillers: wrong inflectional marking on the verb

- (10) a. Man erwartet, dass mich jemand anruf-t.
one expects that 1SG.ACC someone.NOM call-3.SG
'One expects that someone calls me.'
- b. *Man erwartet, dass mich jemand anruf-st.
one expects that 1SG.ACC someone.NOM call-2.SG

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Method and Participants

Method

- online questionnaire (80 targets + 48 fillers)
- acceptability rating on a 7-point scale
- no Latin-square design

Participants

- 8 native speakers of Standard German and 8 native speakers of Swabian
- all participants indicated using their dialect on a regular basis (albeit in some cases depending on the situation)

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General Information

- Bayesian framework

$$\text{posterior} = \frac{\text{prior} \times \text{likelihood}}{\text{marginal likelihood}}$$

$$p(\Theta|y) = \frac{p(y|\Theta) \times p(\Theta)}{p(y)}$$

- ordinal regressions with cumulative link mixed models

log-cumulative-odds of a rating y_n being equal to or less than some response category k :

$$\log\left(\frac{\Pr(y_n \leq k)}{1 - \Pr(y_n \leq k)}\right)$$

cumulative probability that a rating y_n falls into the response category k or below:

$$\Pr(y_n \leq k)$$

probability that a rating y_n falls exactly into the response category k :

$$P(y_n = k)$$

Statistical Analysis

Target Sentences

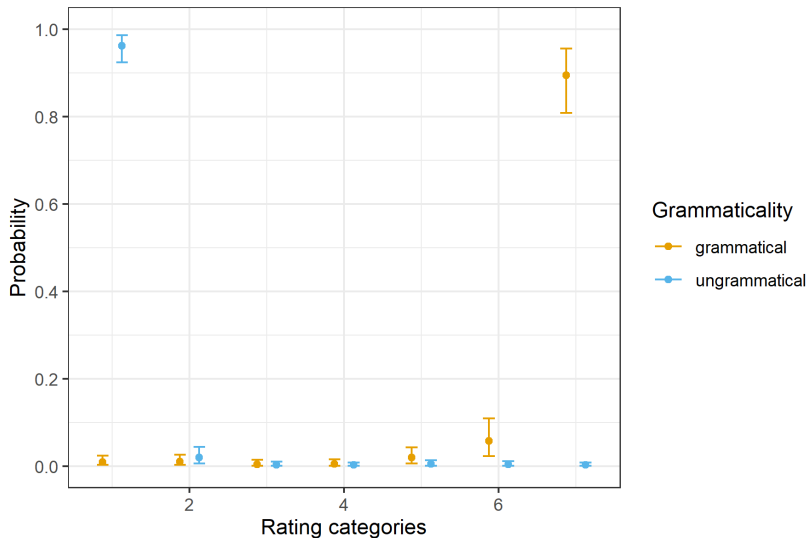
- separate analyses on the data from the subject > objects conditions and the objects > subjects conditions for both speaker groups
- sum contrast coding for factors DIRECT OBJECT PERSON and INDIRECT OBJECT PERSON
 - main effect of DIRECT OBJECT PERSON
 - main effect of INDIRECT OBJECT PERSON
 - interaction between both factors

Filler Sentences

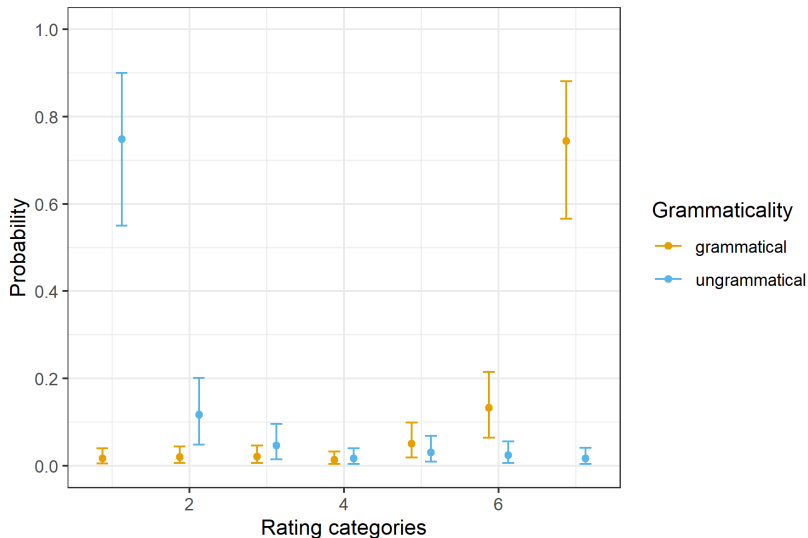
- joint analysis for both filler types, separately for both speaker groups
- sum contrast coding for factor GRAMMATICALITY

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Standard German Group (Fillers)

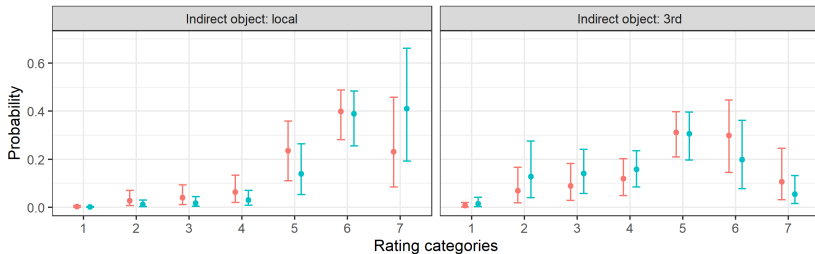


Swabian Group (Fillers)

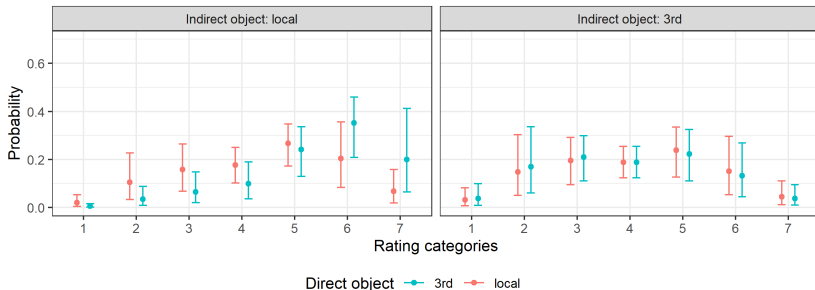


Standard German Group (Targets)

Subject > Object

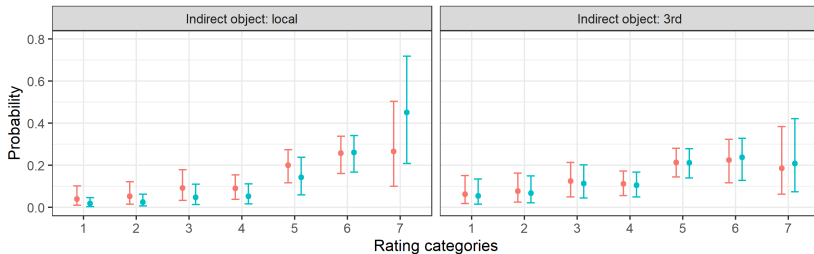


Object > Subject

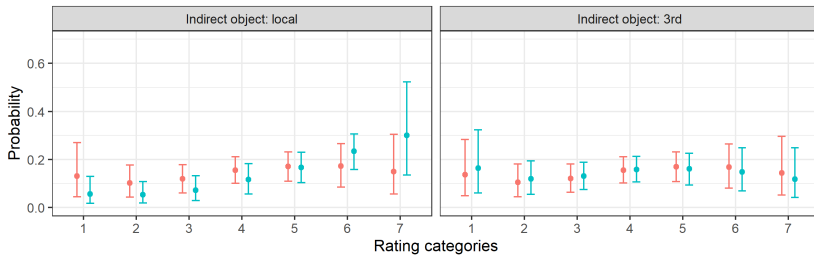


Swabian Group (Targets)

Subject > Object



Object > Subject



Direct object — 3rd — local

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Conclusion

Research Question 1

- **question:** Are there differences in acceptability between the four object combinations ⟨IO:LOC, DO:3⟩, ⟨IO:3, DO:3⟩, ⟨IO:LOC, DO:LOC⟩, and ⟨IO:3, DO:LOC⟩ in German that lead to visible person-case effects?
- **answer:** differences in acceptability, but no visible person-case effects!

Research Question 2

- **question:** Does the emergence of the PCC in German depend on the position of the subject?
- **answer:** emergence of the PCC does not depend on the position of the subject!

Research Question 3

- **question:** Does the emergence of the PCC in German depend on the dialect?
- **answer:** emergence of the PCC does not depend on the spoken dialect!

Conclusion

Implications

- weak pronouns are not affected by the PCC in the same way as clitics or agreement markers (Doliana 2013)
- judgements from trained linguists do not always match the intuition of linguistically naive speakers and can lead to wrong generalizations (Featherston 2007; Gibson & Fedorenko 2013)

Limitations and Advantages of the Study

Limitations

- small number of participants
- presentation of the stimuli (written material)

Advantages

- acceptability rating study instead of introspection
- ordinal regression instead of linear regression
- Bayesian framework (estimates \rightarrow priors for replication)

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