The interaction of factors facilitating displacement to the left periphery

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Outline

- **Movement to the left periphery**
  in German and across languages
- **Factors facilitating fronting**
  previous research about exhaustivity and predictability
- **Experiment 1**
  the effect of predictability in non-contrastive contexts
- **Experiment 2**
  the effect of predictability in contrastive contexts

Main claim: Factors facilitating movement to the left periphery in German are not addivite

Movement to the left periphery

In many languages, movement of focused constituents to the left periphery of the clause is possible, but restricted to specific types of focus.

- **Italian:** restricted to contrastive focus (Rizzi 1997:286)

  (1)   Il tuo libro ho letto, non il suo.
        'Your book I read, not his.'

- **Hungarian:** restricted to identificational (exhaustive) focus (Kiss 1998:249)

  (2)   Mari egy kalapot nézett ki magának.
        'It was a hat that Mary picked for herself.'

Movement to the left periphery

The left-peripheral position preceding the finite verb in German V2 clauses ("prefield position") has to be filled in order to create a declarative sentence.

- **Subject or high adverbial** in the prefield position:

  (3)   a.   Peter hat heute ein Buch gelesen.
                 Peter has today a   book read
                 'Peter read a book today.'
          b.   Heute hat Peter ein Buch gelesen.

  → acceptable in all contexts, including all-new context

- **Something else, e.g. direct object**, in the prefield position:

  (4)   Ein Buch hat Peter heute gelesen.

  → less acceptable in an all-new context

Movement to the left periphery

The **influence of various factors** on the acceptability or processing difficulty of OVS structures in German has been investigated, including:

- ambiguity (Bader 1999)
- inferability, structural parallelism, givenness (Weskott 2003)
- presence of a part-of relation (Weskott et al. 2011)
- scope of the focus (Fanselow et al. 2008)

But so far, little is known about how OVS facilitating factors **interact**.

Factors facilitating fronting

Previous work: Skopeteas & Fanselow (2012)

- **Question:** Does object fronting invoke an exhaustive interpretation of the object?
- **Result:** Yes for predictable objects, no for unpredictable objects.
- **Interpretation:** There is a set of motivations for using a marked OVS structure (and thus directing the hearer's attention to the object): {exhaustivity, unpredictability...}.

  If one of the motivations is evident to the hearer, she/he will not assume the presence of an additional reason.

Context: 'A fisherman sits on the bridge. In the river there are pikes, trout, perches, but unfortunately also bottles and old shoes. Caroline says:'

(5)   a.   Der Fischer   hat eine FORELLE geangelt.
               the fisherman has a   trout   fished
               'The fisherman has fished a TROUT.'
    b.   Eine FORELLE hat der Fischer geangelt.

Question: 'In this context and on the basis of the last sentence: Is it possible that the fisherman fished something else?'

Factors facilitating fronting
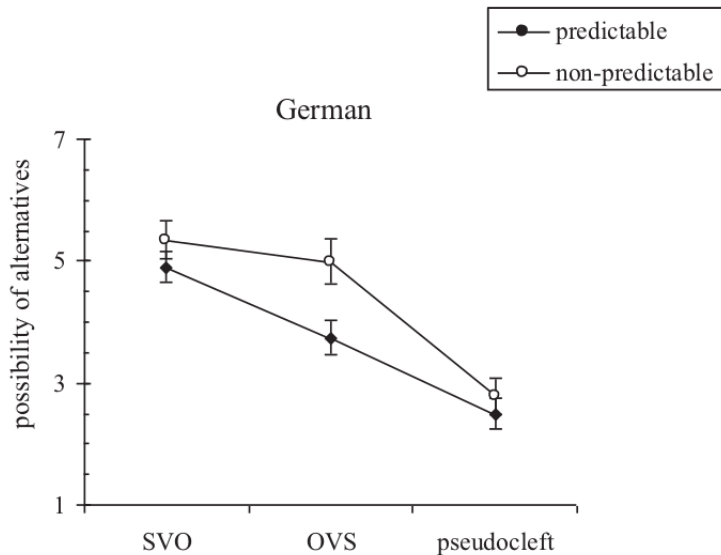
German

Hypothesis for further testing:

- Factors licensing fronting of focused objects in German are **not additive**, i.e. the relative acceptability of an OVS sentence should be determined only by the strongest factor if more than one licensing factor is present.

- **Experiment 1:**
  the effect of predictability in non-contrastive contexts

- **Experiment 2:**
  the effect of predictability in contrastive contexts

Experiment 1 - design, method, participants

- 2 × 2 design:
    - factor 1: word order (SVO vs. OVS)
    - factor 2: predictability of O (high / low predictability)
- context: a VP question
- method: acceptability ratings on a 7-point scale
- 16 items, Latin-Square-Design, pseudo-randomized, 64 fillers
- 47 participants (University students)

Experiment 1 - predictability measure

- **measure:** logDice measure provided by the DWDS corpus, based on >1 billion tokens

  based on Dice's coefficient: $QS = \dfrac{2n_{A,B}}{n_A + n_B}$

- **corpus:** DWDS (*Digitales Wörterbuch der deutschen Sprache* 'digital dictionary of German language') corpus; newspaper / scientific / fictional texts from the 20th and 21st century

- mean for our highly predictable verb–object combinations: 9.78; range 7.08–11.69

- only two of our unpredictable verb–object combinations occurred in the corpus with values of 2.12 and 5.33, the others did not occur at all

(6) C: Was hat der Bürgermeister heute Vormittag gemacht?
         'What did the mayor do this morning?'

   a) Der Bürgermeister hat einen Brief geschrieben.
        the mayor   has a   letter written
        'The mayor wrote a letter.'

   b) Einen Brief hat der Bürgermeister geschrieben.

   c) Der Bürgermeister hat einen Fahrplan geschrieben.
        the mayor   has a   schedule written
        'The mayor wrote a (train/bus) schedule.'

   d) Einen Fahrplan hat der Bürgermeister geschrieben.
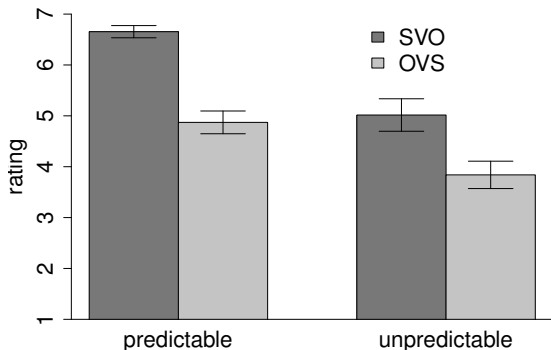
significant interaction
(p = 0.006 according to a mixed effects random-intercept model)

Note: ANOVA results:

- ANOVA by subjects: significant interaction ($p = 0.003$)
- ANOVA by items: non-significant interaction ($p = 0.14$)

$\rightarrow$ great variance between the items

We constructed and ran a **second version** of the experiment with contexts attenuating the surprise/implausibility factor of the unpredictable items to avoid potential floor effect.

(7)   C: Wie verblüffte der Bürgermeister seine geschiedene Frau?
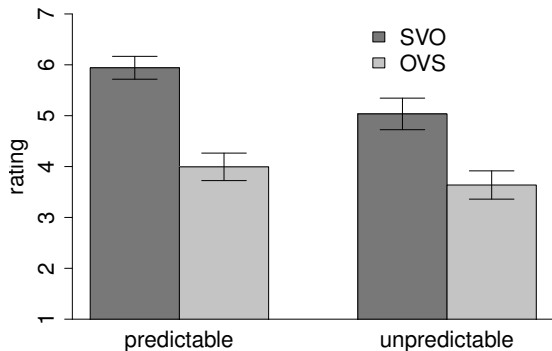*'How did the mayor surprise his ex-wife?'*

        a)   Der Bürgermeister hat einen Brief geschrieben.
            the mayor   has a   letter written
            'The mayor wrote a letter.'

            ...

Experiment 1 - results: second version

significant interaction
(p = 0.04 according to a random-intercept model)
**difference:** lower results for predictable objects

Experiment 2 - design, method, participants

- 2×2 design:
  - factor 1: word order (SVO vs. OVS)
  - factor 2: predictability of O (high / low predictability)
- context: corrective context concerning the object
- method: acceptability ratings on a 7-point scale
- 16 items, Latin-Square-Design, pseudo-randomized, (the same) 64 fillers
- 48 participants (University students)

(8) C: Alle denken, dass der Bürgermeister eine Rede
geschrieben hat. Fritz vermutet aber:
*'Everybody thinks that the mayor wrote a speech.
Fritz, however, assumes:'*

a) Der Bürgermeister hat einen Brief geschrieben.
the mayor has a letter written
'The mayor wrote a letter.'

b) Einen Brief hat der Bürgermeister geschrieben.

c) Der Bürgermeister hat einen Fahrplan geschrieben.
the mayor has a schedule written
'The mayor wrote a (train/bus) schedule.'

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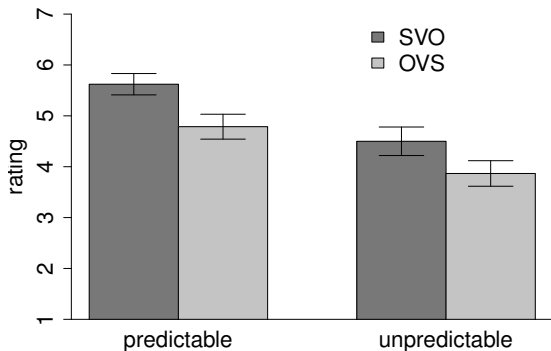
no significant interaction
$(p = 0.40)$

Our interpretation of the results:

- low predictability has a facilitating effect on object fronting in the absence of other facilitating factors
- overt contrast is a stronger facilitating factor and thus makes the effect of predictability vanish

Problems / open questions

- **narrow vs. wide focus:**
  In experiment one, the object was a part of the focus; in experiment two, it was in narrow contrastive focus.
  $\rightarrow$ We want to control for this factor in future experiments.

- **predictability vs. contrast:**
  Some authors consider unexpectedness/surprise as a subcase of contrast (see e. g. Paoli's 2009 notion of 'implicit contrast').
  $\rightarrow$ We want to also look at clearly unrelated factors.

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Thank you!