

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/319629415>

# Gender representation and processing in Russian–German bilinguals

Poster · September 2017

DOI: 10.13140/RG.2.2.35006.18247

---

CITATIONS

0

READS

18

2 authors, including:



Johannes Gerwien

Universität Heidelberg

21 PUBLICATIONS 8 CITATIONS

SEE PROFILE

Some of the authors of this publication are also working on these related projects:



A Case for Semantic Underspecification? The Representation of Aspectual Class Information for Motion Verbs and Directional Prepositions [View project](#)



Event segmentation in verbal and non verbal tasks under a cross linguistic perspective [View project](#)

# Gender representation and processing in Russian-German bilinguals

Oleksandra Gubina & Johannes Gerwien

Heidelberg University Language and Cognition Lab

HULC  
Heidelberg University  
Language & Cognition Lab



UNIVERSITÄT  
HEIDELBERG  
ZUKUNFT  
SEIT 1386



## Research question

- Grammatical gender is part of a noun's lemma information (Jescheniak/Levelt 1994); for the L1 lexicon it is assumed that all nouns specified for the same gender are linked to the same abstract gender node.
- Bilinguals automatically access linguistic information in their L1 when processing language in their L2 (cf. Spivey/Marian 1999).
- How is grammatical gender represented in bilinguals whose L1 and L2 both have a similar (tripartite) gender system?
- Do nouns in both languages share the same abstract gender nodes?

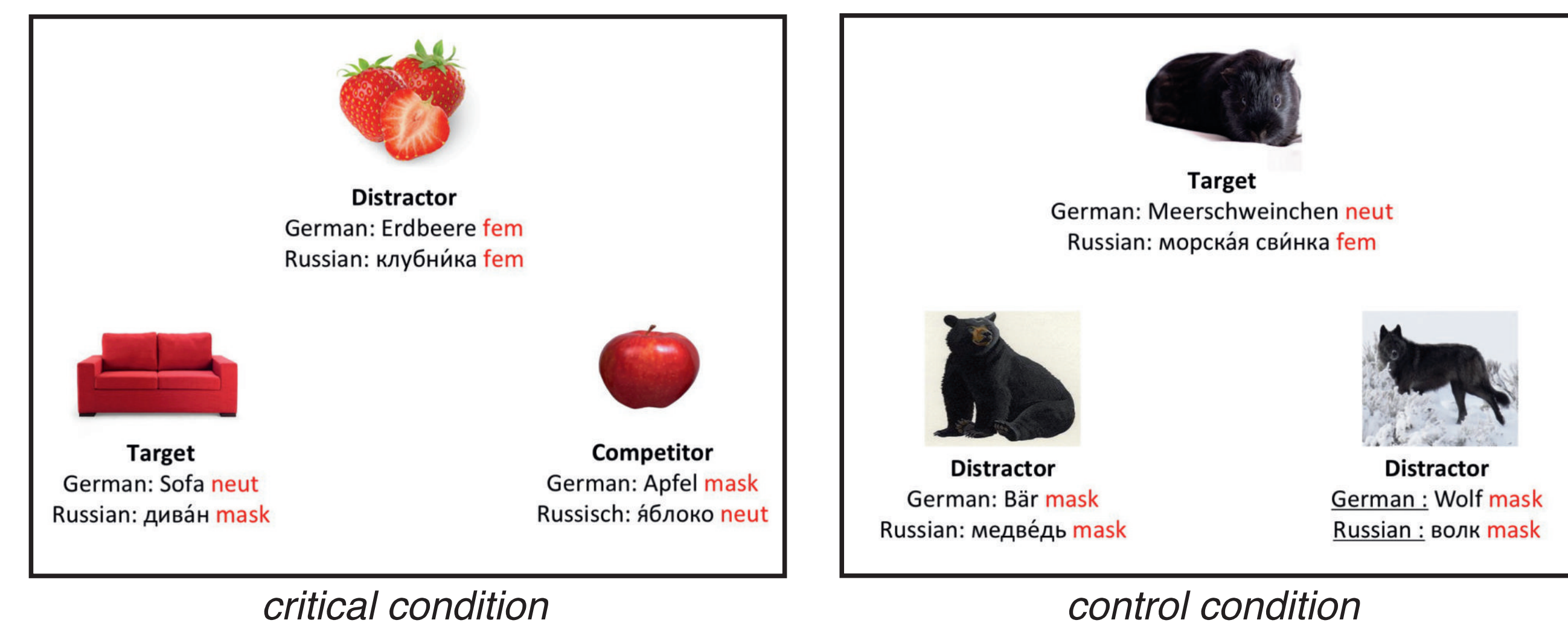
## Method

Advanced learners are to some extent able to use grammatical gender for predictive processing (Grüter et al. 2012; Hopp 2013). Here the visual world paradigm was employed to investigate potential interference effects during grammatical gender processing in bilinguals.

**Participants:** 12 near-native adult Russian-German bilinguals (critical); 12 German native speakers (control)

**Materials:** 12 critical items, 12 control items; all linguistic stimuli (presented in the bilinguals L2, German) had the format: DET<sub>gender</sub> + ADJ + NOUN<sub>gender</sub>; in critical stimuli, a L1-gender-congruent competitor was present; no cognates were used

**Task:** click on the object ("Jetzt: dieses rote Sofa" - 'Now: this red sofa')

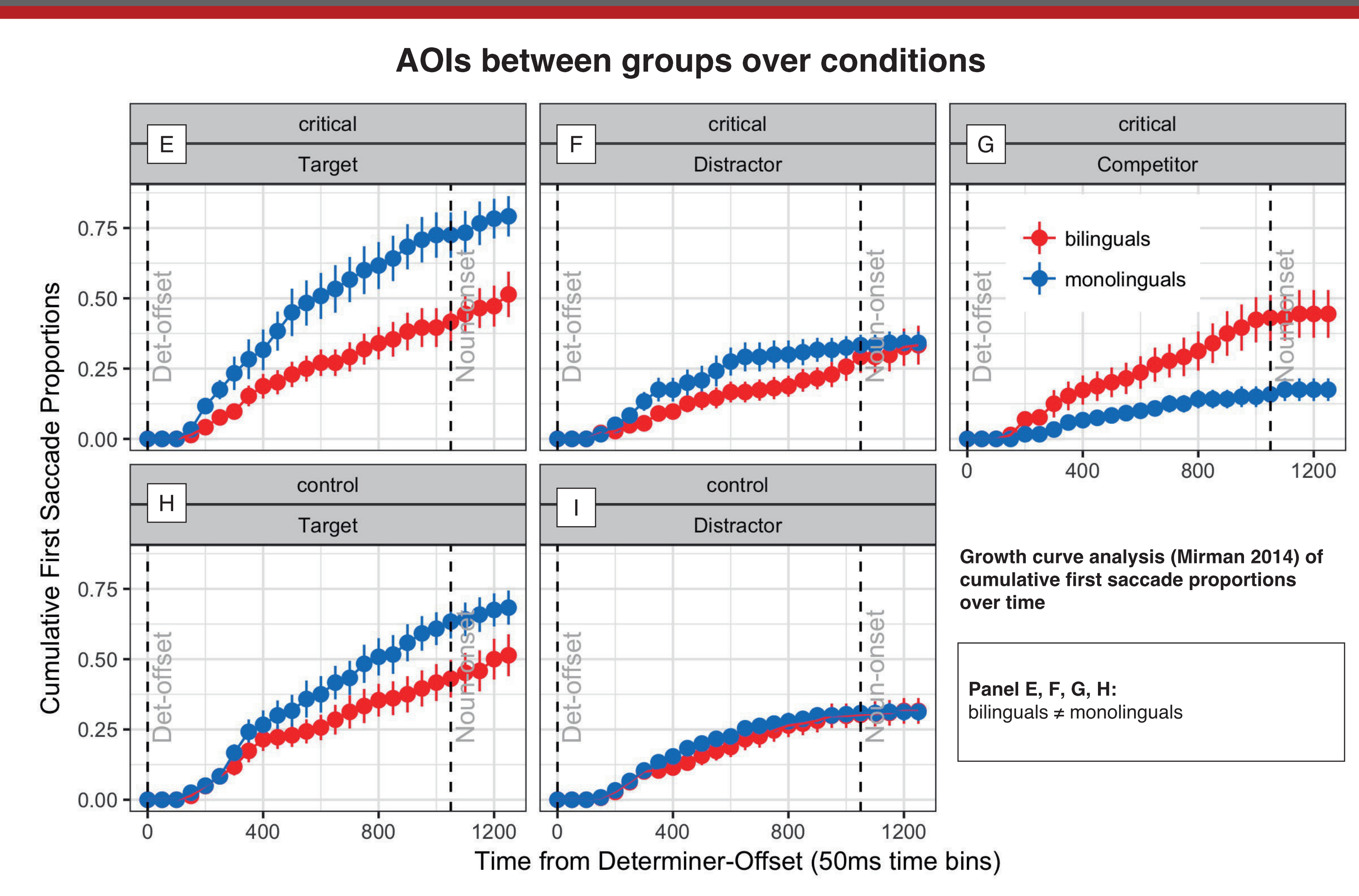
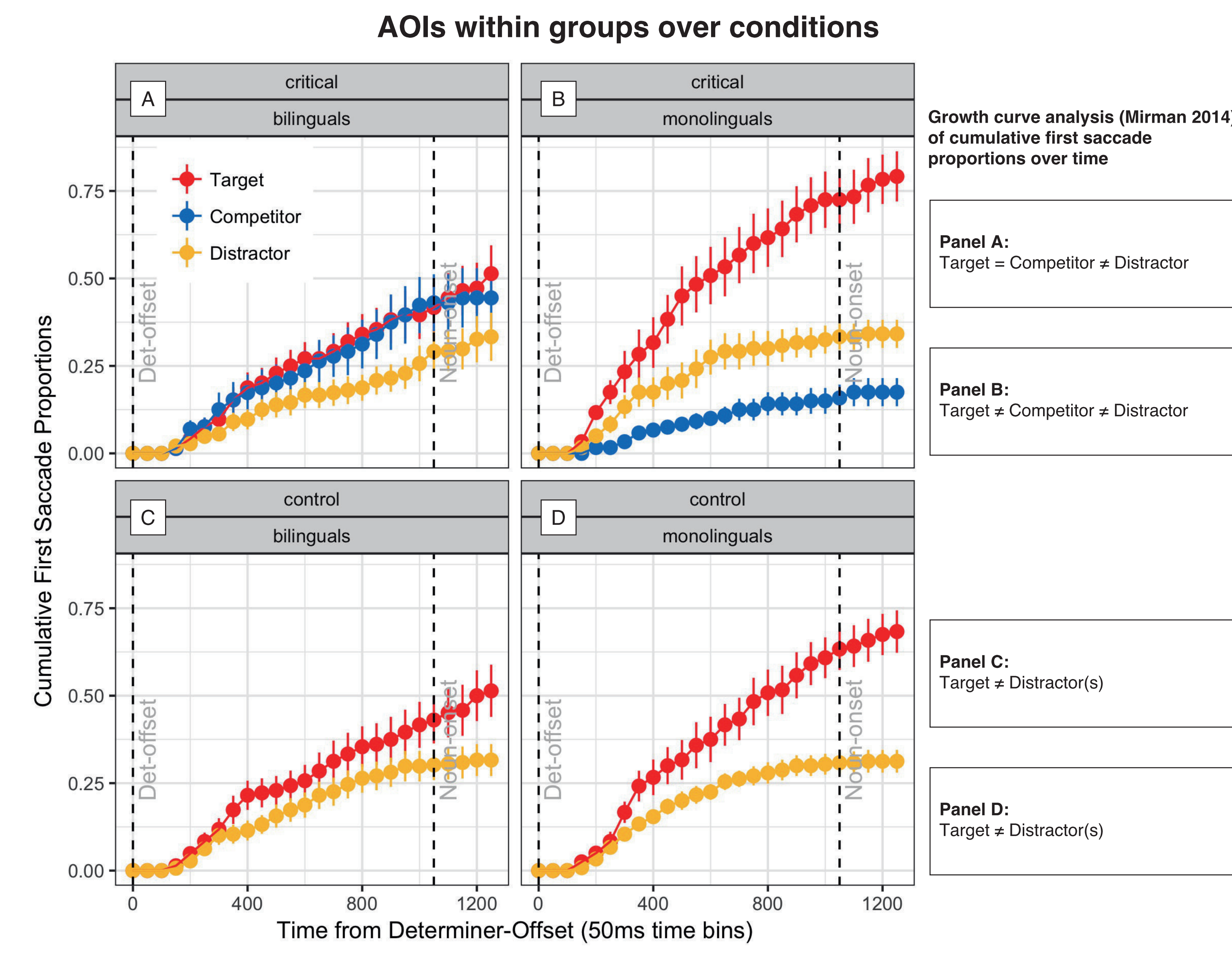


## Hypotheses

If abstract grammatical gender nodes are shared between a bilingual's L1 and L2 at the lemma level, an interference effect is expected in the critical condition, i.e. bilinguals direct more attention to the L1-gender-congruent competitor before target noun onset a) compared to monolinguals, and b) compared to the L1-gender-incongruent distractor.

If bilinguals use grammatical gender information in their L2 to predict upcoming linguistic material, anticipation effects are expected to show in the control condition, i.e. bilinguals direct more attention to targets compared to distractors.

## Results



## Discussion

**Bilinguals with a similar (tripartite) grammatical gender system use gender for predictive processing in their L2:**

Russian-German bilinguals showed higher attention before target noun onset to objects whose L2 names are specified for the same grammatical gender as encoded in a L2 determiner compared to objects whose L2 names are specified for a different gender as encoded in an L2 determiner. However, the effect was less pronounced compared to native speakers (in line with Grüter et al. 2012 and Hopp 2013).

**Grammatical gender nodes are shared between a bilinguals' L1 and L2:**

Bilinguals directed as much visual attention to an object whose L2 name is gender-congruent with an L2 determiner as to objects whose L1 name is gender-congruent with an L2 determiner, which suggests that:

- abstract grammatical gender information can be activated by an object's L2 name, as well as by an object's L1 name even if the tasks demands L2 use only
- grammatical gender information activated by an L2 determiner interacts with gender information activated both by an L1 and L2 object name

## Open questions

Is the observed effect an artifact of a specific initial learner strategy by which L2 nouns are linked to gender categories that were established during L1 acquisition? Or is the result of implicit convergence of abstract syntactic information in the bilinguals' mental lexicon?

## References

- Grüter, T., Lew-Williams, C., & Fernald, A. (2012). Grammatical gender in L2: A production or a real-time processing problem?. *Second Language Research*, 28(2), 191-215.
- Hopp, H. (2013). Grammatical gender in adult L2 acquisition: Relations between lexical and syntactic variability. *Second Language Research*, 29(1), 33-56.
- Jescheniak, J.D., & Levelt, W.J.M. (1994). Word Frequency Effects in Speech Production: Retrieval of Syntactic Information and of Phonological Form. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 20 (4), 824-843.
- Mirman, Dan (2014). Growth Curve Analysis and Visualization Using R. Chapman and Hall/ CRC.
- Spivey, M. J. & Marian, V. (1999): Cross Talk Between Native and Second Languages. Partial Activation of an Irrelevant Lexicon. In: *Psychological Science* 10 (3), S. 281-284.