

# Can German Demonstrative Pronouns Really Be Bound?

Umesh Patil and Stefan Hinterwimmer  
University of Cologne, Germany



## BACKGROUND

### Wiltschko (1998)

- German demonstrative pronouns **cannot be bound**
- Demonstrative pronouns (DPros) are referential expressions that correspond to definite DPs consisting of an overtly realized determiner and an empty NP introducing a free predicate variable. Consequently, these pronouns cannot be bound by c-commanding DPs without violating Principle C of Binding Theory (Chomsky, 1986) and not be interpreted as bound variables either

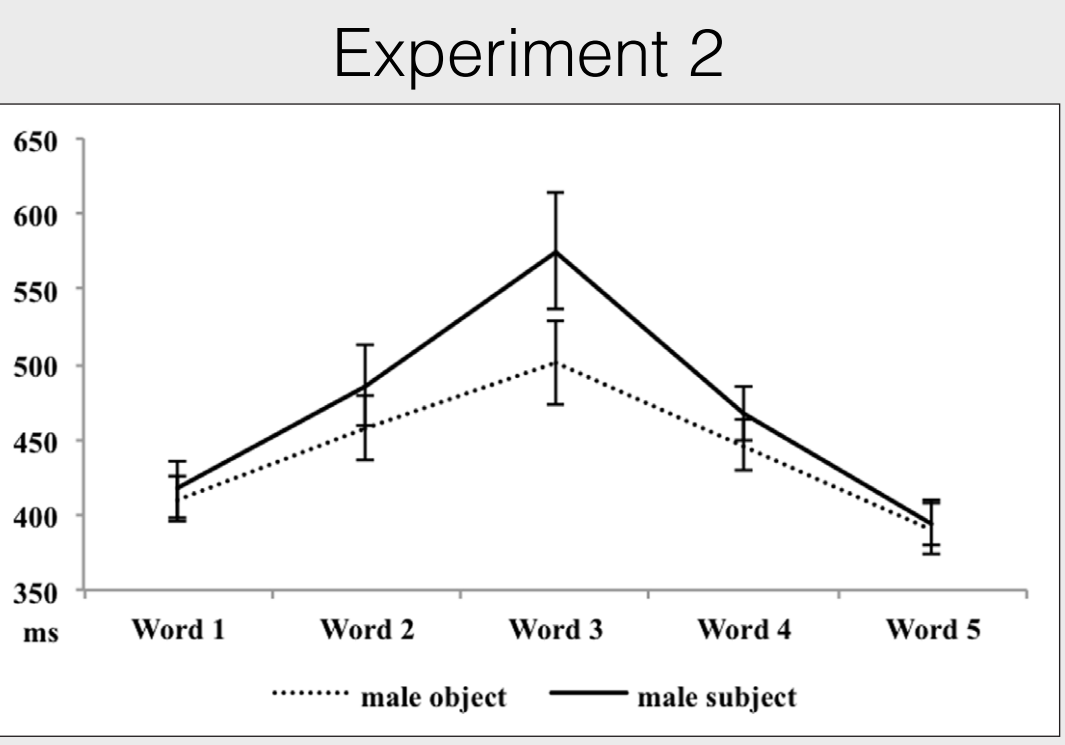
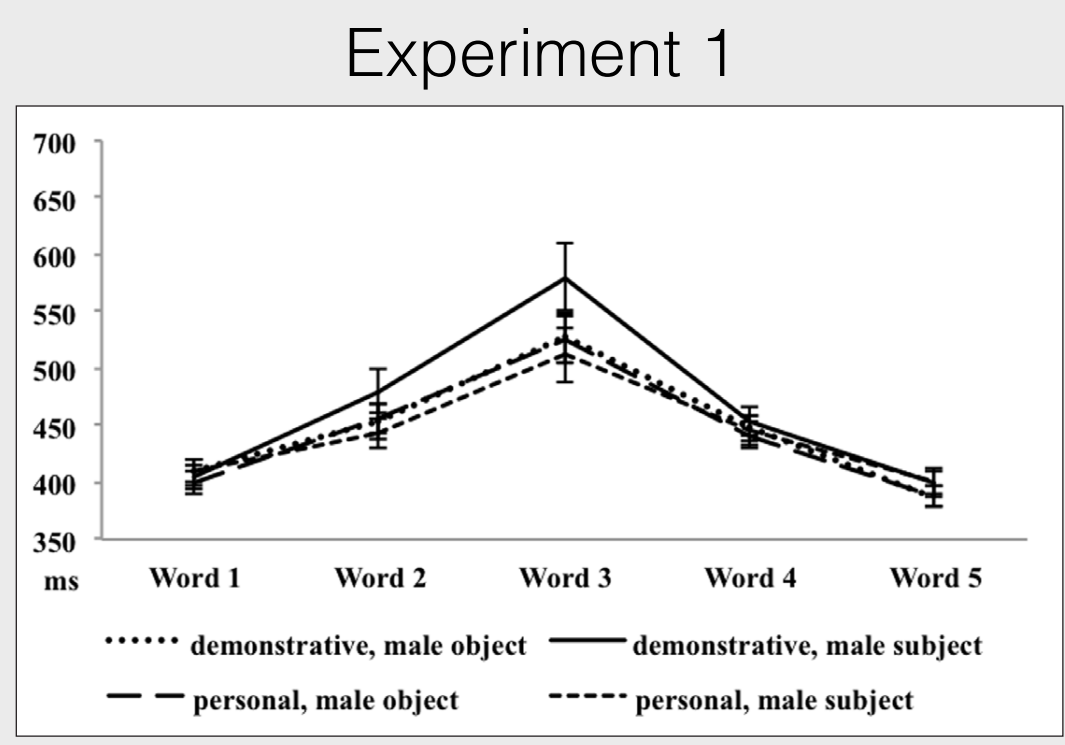
[Jeder Mann]<sub>i</sub> glaubt, dass er<sub>i</sub> / \**der<sub>i</sub>* klug ist.

[Every man]<sub>i</sub> believes that he<sub>i</sub> / he<sub>i</sub> smart is

### Hinterwimmer (2016)

- DPros **can be bound** by referential as well as quantificational DPs, as long as the respective DP does not function as the grammatical subject.

Hinterwimmer and Brocher (2018) found that “reading times of DPros and immediately subsequent words were very similar to those of personal pronouns (PPros) and immediately subsequent words in parallel sentences, provided that the potential binder was not the grammatical subject. When the pronoun could only be bound by a DP functioning as the grammatical subject, the DPro versions of sentences led to significantly longer reading times than the corresponding PPro versions”



Expt. 1: {Frau Meyer / Herr Brunn} kocht {Herrn Brunn / Frau Meyer} {*sein* / *dessen*} liebstes Essen, weil ...  
{Mrs. Meyer / Mr. Brunn} cooks {Mr. Brunn / Mrs. Meyer} {his\_PPro / his\_DPro} favorite dish, because ...

Expt. 2: {Frau Bauer / Jeder Buchhalter} bringt {jedem Buchhalter / Frau Bauer} *dessen* neue Daten, die ...  
{Mrs. Bauer / every accountant} brings {every accountant / Mrs. Bauer} his\_DPro new data, which ...

## CAVEAT

### Telescoping (Roberts 1989)

Quantificational DPs headed by *every* and *each* allow telescoping — under specific conditions, quantificational DPs seem to bind pronouns that they clearly do not c-command, neither at the surface nor at LF. In contrast to this, downward entailing quantifiers do not allow telescoping.

**Each** degree candidate walked up to the stage. He took his diploma from the Dean and returned to his seat.

**# No** degree candidate walked up to the stage. He took his diploma from the Dean and returned to his seat.

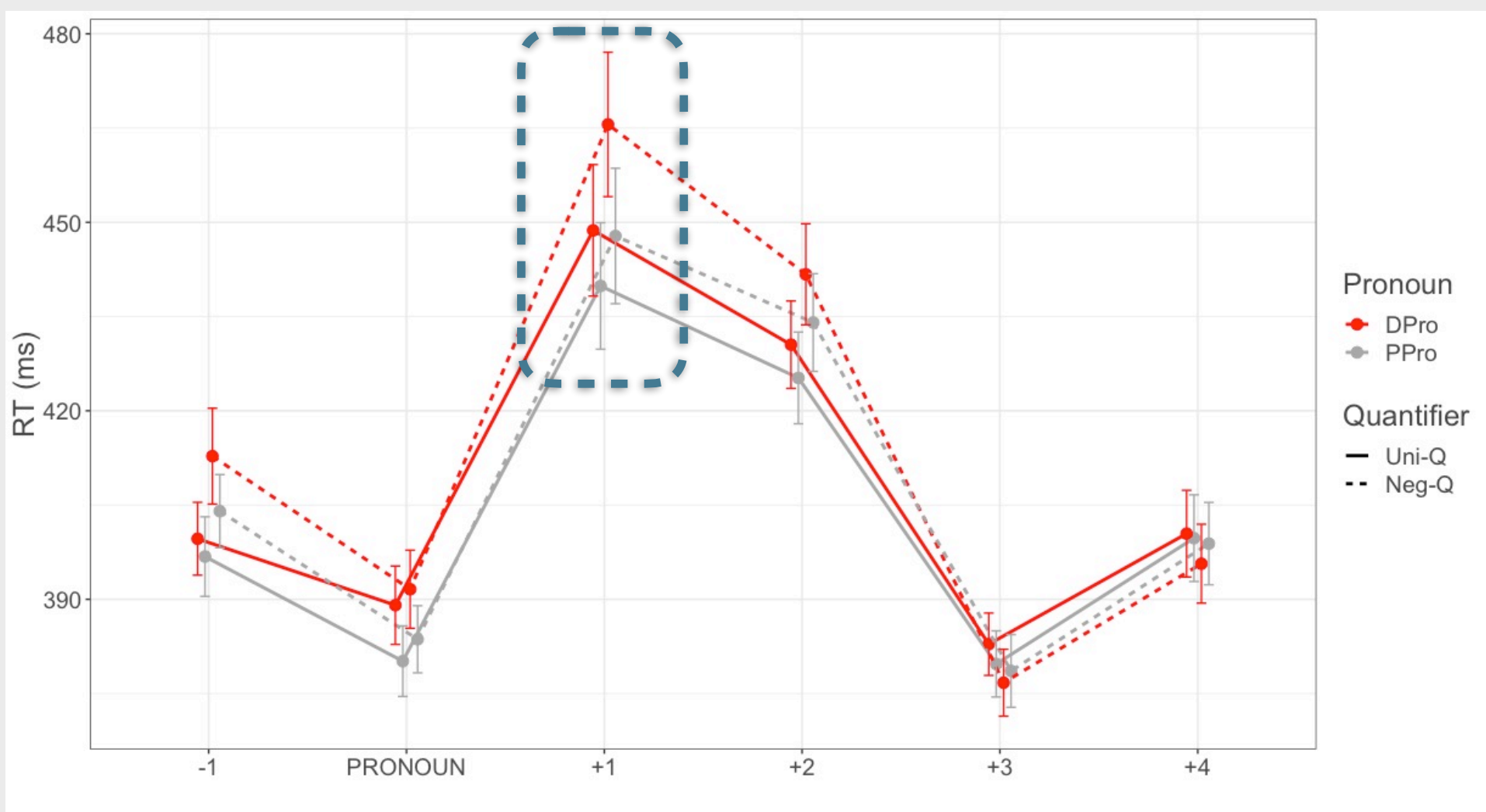
## EXPERIMENTS

### Two self-paced reading studies

- (a) Online using Ibex and Prolific (n = 46)
- (b) In-lab replication using Ibex (n = 49)

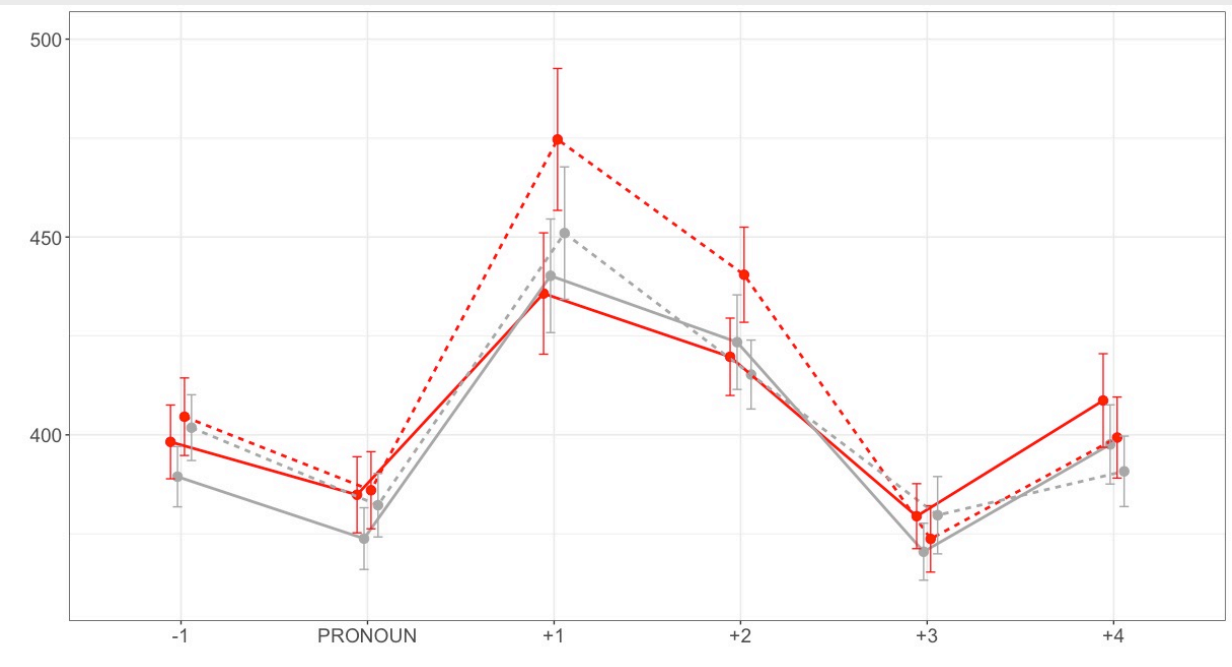
### Prelude

In der Grundschule, in der die Lehrerin arbeitete, wurde auch eine Hausaufgabenbetreuung angeboten.  
In the elementary school in which the teacher\_FEM worked, after-school homework supervision was offered.

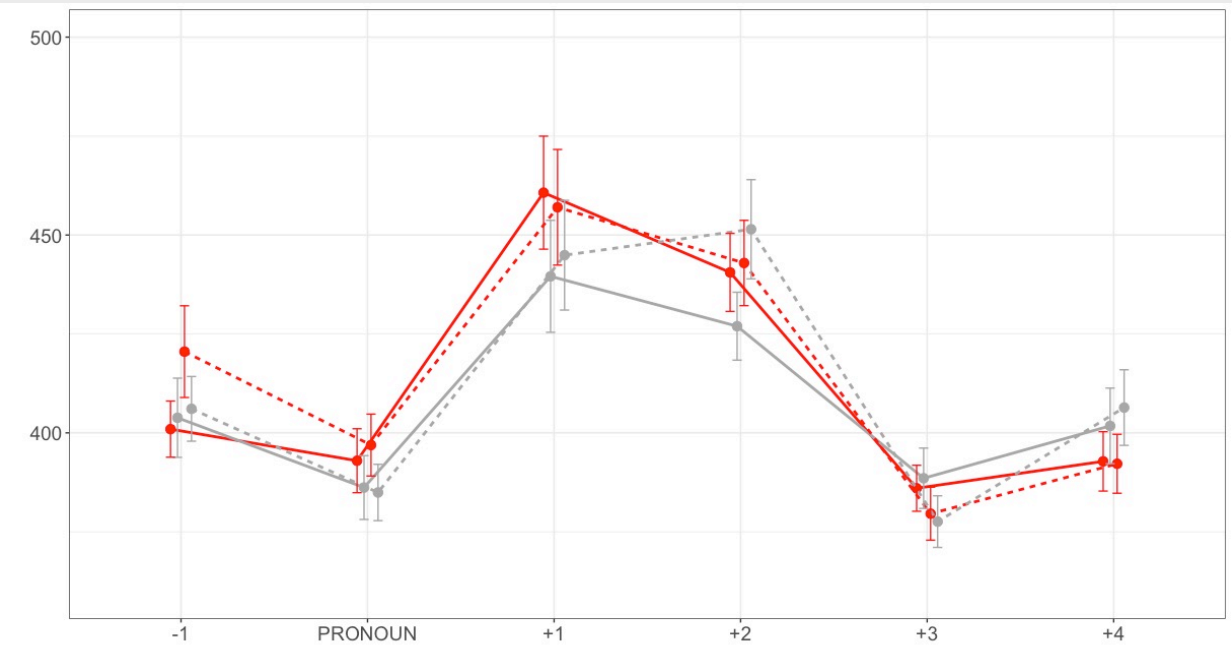


Combined data from (a) & (b)

Expt. (a): online



Expt. (b): in-lab

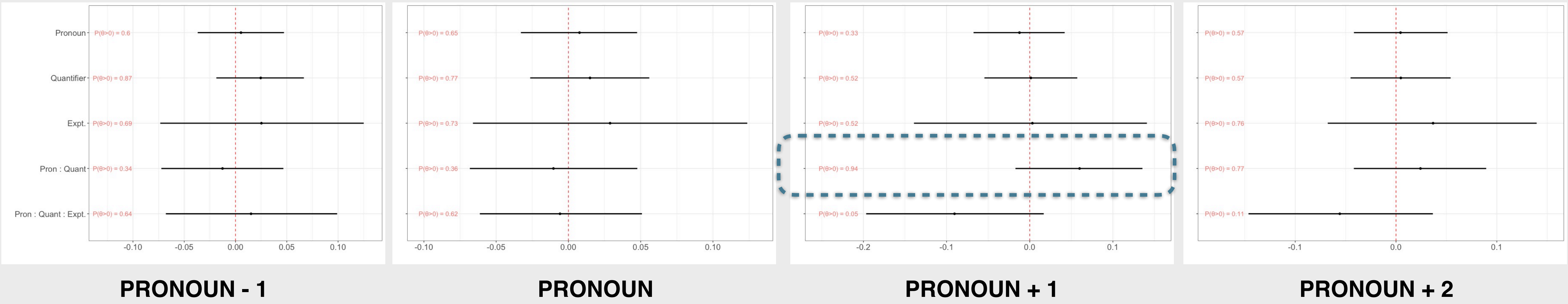


### Target

Die Lehrerin lobte {jeden / keinen} Jungen, der fleißig war, vor {seiner / dessen} Klasse, weil die anderen Kinder sich daran ein Beispiel nehmen konnten.  
The teacher\_FEM praised {every / no} boy who was diligent in front of {his\_PPro / his\_DPro} class, because the other children should follow his example.

## RESULTS & CONCLUSIONS

### 95% credible intervals and posterior probabilities



Slowdown when the only available binder for the DPro was a negative quantifier

→ German DPros are possibly not bound in the standard way, but by a more constrained mechanism such as *telescoping*

## REFERENCES & ACKNOWLEDGMENTS

Hinterwimmer, Stefan and Andreas Brocher. 2018. An experimental investigation of the binding options of demonstrative pronouns in German. *Glossa: a journal of general linguistics* 3(1): 77. 1–25, DOI: <https://doi.org/10.5334/gjgl.150>

Hinterwimmer, Stefan. 2015. A uni ed account of the properties of German demonstrative pronouns. In Patrick Grosz, Prity Patel-Grosz & Igor Yanovich (eds.), *The proceedings of the workshop on pronominal semantics at NELS 40*. 61–107. Amherst, MA: GLSA Publications, University of Massachusetts.

Roberts, Craige. 1989. Modal subordination and pronominal anaphora in discourse. *Linguistics and Philosophy* 12(6). 683–721. DOI: <https://doi.org/10.1007/BF00632602>

Wiltschko, Martina. 1998. On the syntax and semantics of (relative) pronouns and deter- miners. *Journal of Comparative Germanic Linguistics* 2(2). 143–181. DOI: <https://doi.org/10.1023/A:1009719229992>

We would like to thank the DFG for financial support (project: *The Binding Options of Demonstrative Pronouns, Complex Demonstratives and Definite Descriptions*). We also thank David Brinkhaus, Davide Di Blasi, Felix Jüstel, Janne Schmandt and Magdalena Schmitz for help with developing the test items, and Sara Meuser and Carina Rothkegel for general discussion.