

BACKGROUND

- coordinate name sequences, like *Name1 und Name2 und Name3*, are syntactically ambiguous with respect to their internal grouping
- in speech production, this ambiguity can be resolved by prosodic cues (Kentner & Féry 2013):
 - pause duration
 - final lengthening
 - f0 range
- the strength of prosodic cues and of potential cue combinations are influenced by the speakers themselves and by external factors, such as interlocutor and noise (Petrone et al. 2017; Biersack et al. 2005, Landgraf et al. 2017).

can be used for
disambiguation

- without internal grouping:** Name1 und Name2 und Name3
- with internal grouping:** (Name1 und Name2) und Name3

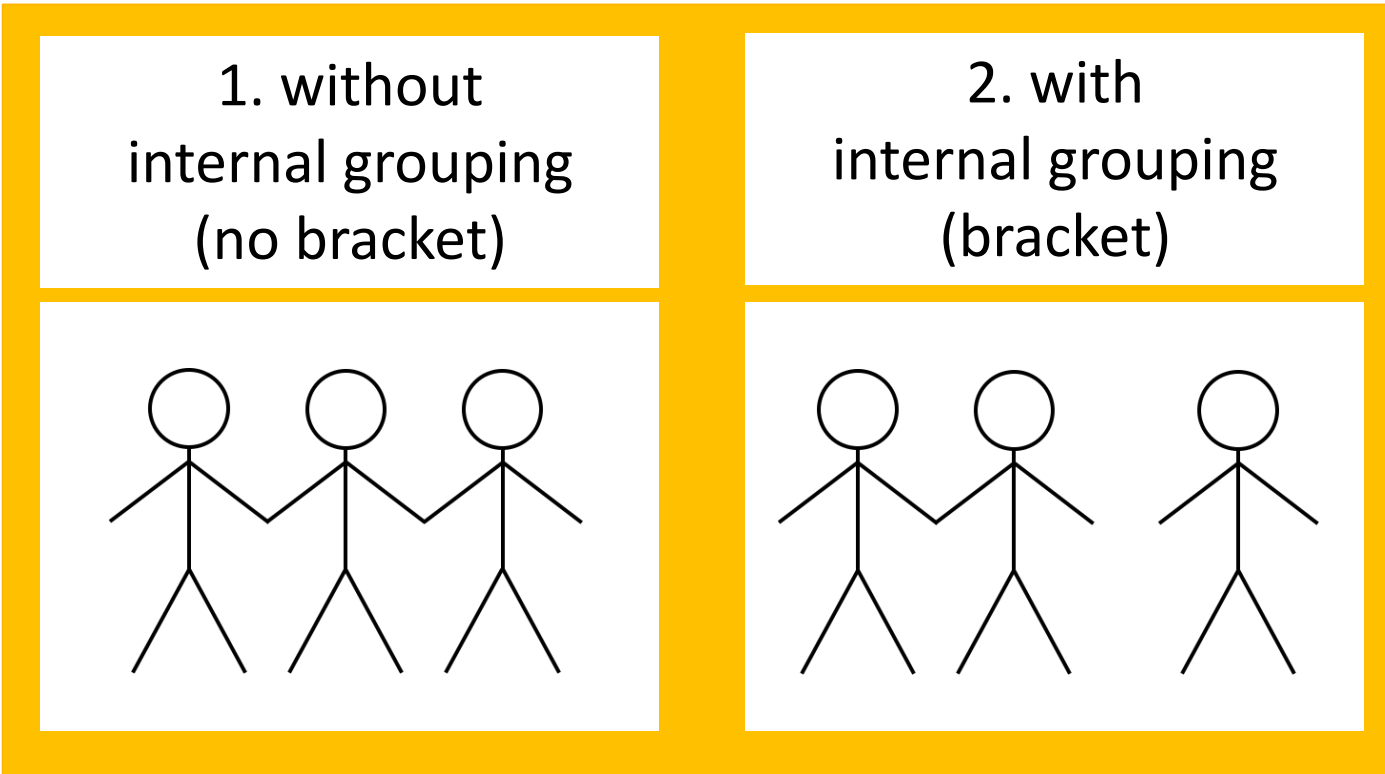


fig 1: Illustration of internal grouping

AIMS OF THE CURRENT STUDY

- investigate inter- and intra-individual variability in prosodic cues used for grouping of coordinate name sequences
- address the question of whether and how external factors affect the production of prosodic cues

METHOD

Participants

- 16 monolingual speakers of German (13 female, 2 male, 1 other)
- 19-34 years of age ($M = 25.8$, $SD = 4.6$)

Material (Stimuli taken from Holzgrefe-Lang et al. 2016)

- six sequences of three disyllabic, trochaic German names coordinated by *und* ("and") in **two conditions**:
 - no bracket:** *Moni und Lilli und Manu* (without internal grouping)
 - bracket:** *(Moni und Lilli) und Manu* (with internal grouping)

Procedure

referential communication task with **five different contexts** (fig. 2-3)

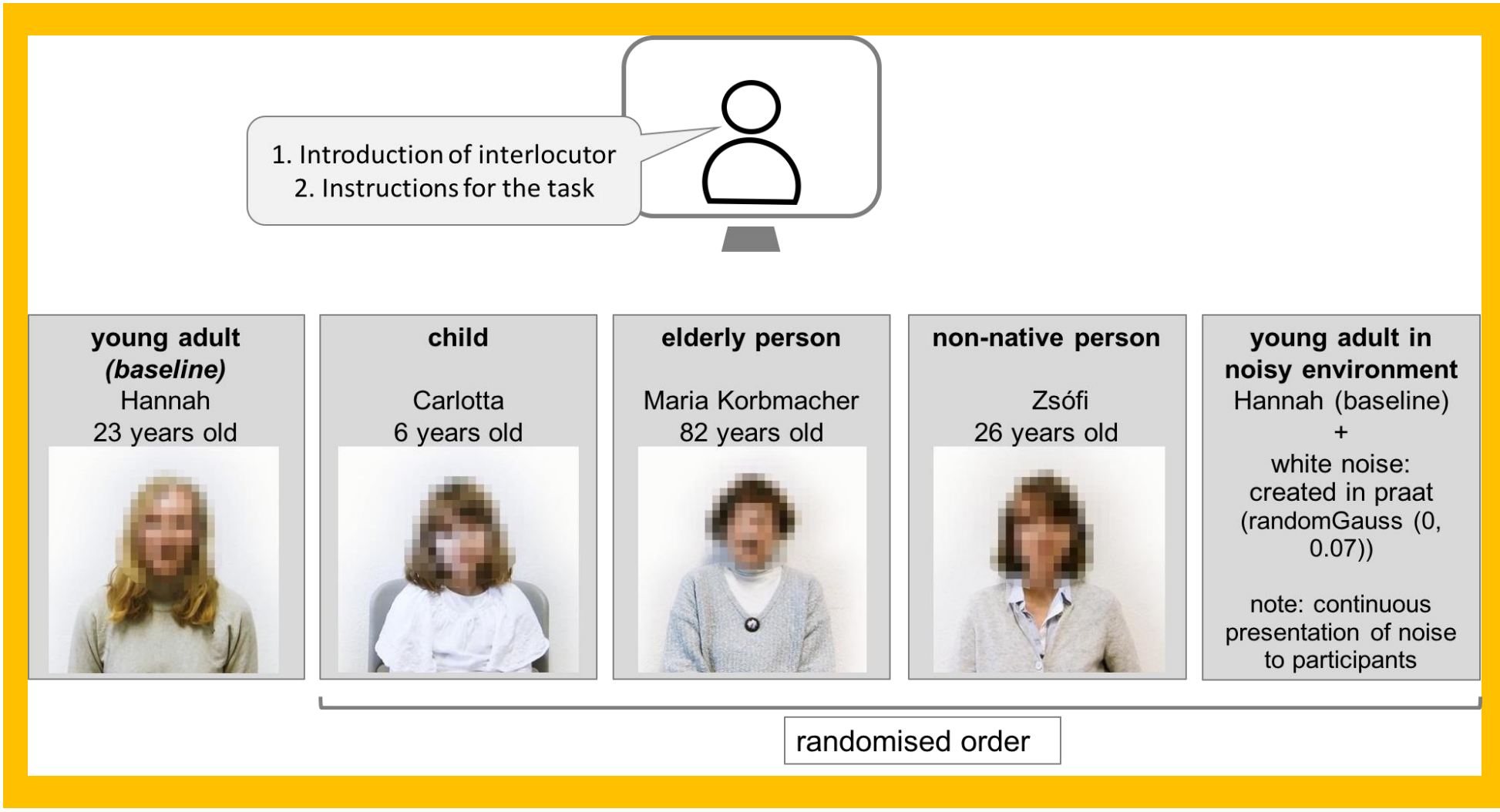


fig 2: Five experimental contexts

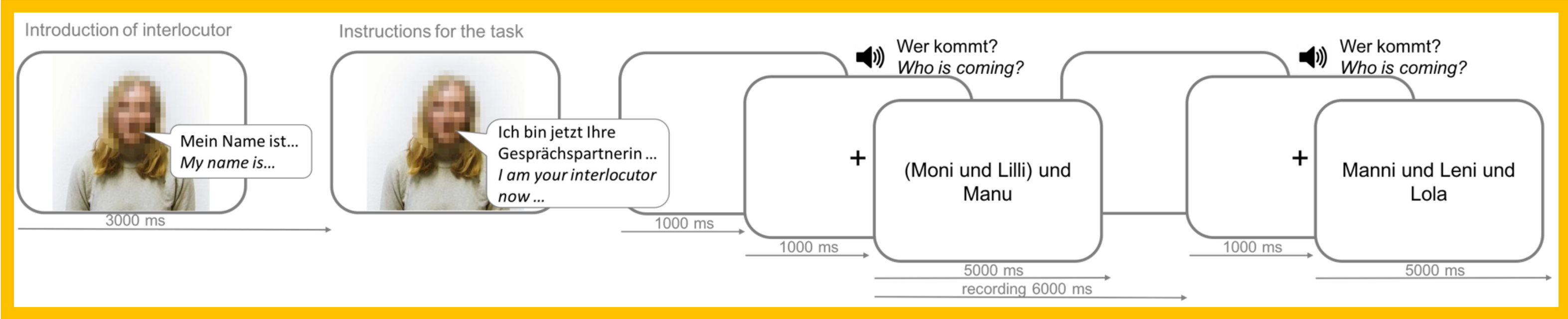


fig 3: Illustration of the experimental procedure

Data Analysis

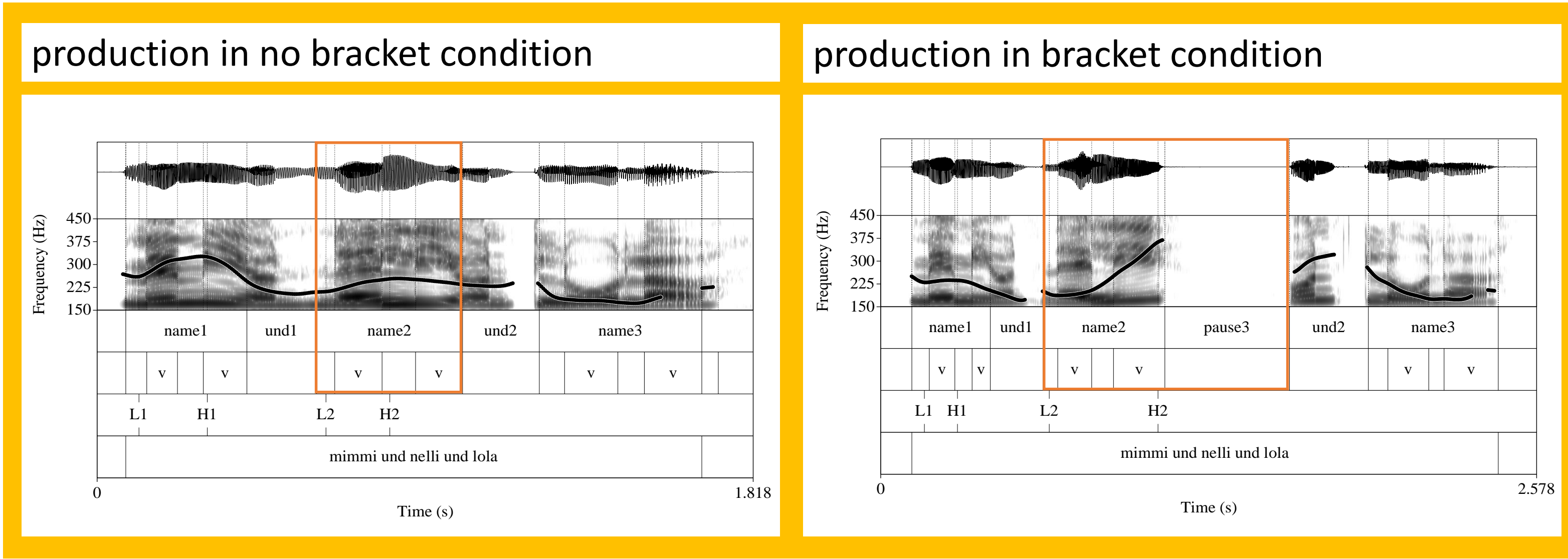


fig 4: Praat (Boersma & Weenink 1992-2017) annotation: waveforms, spectrograms, and smoothed f0 contours (396 productions analysed: 6 sequences * 2 conditions * 3 contexts * 11 speakers)

RESULTS

preliminary results of 11 female participants' productions in three contexts

- condition** (no bracket vs. bracket): differences evident in all three prosodic cues (see fig. 5-7)
- context** (directed to adult vs. child vs. elderly): differences only evident on individual level (see fig. 8)

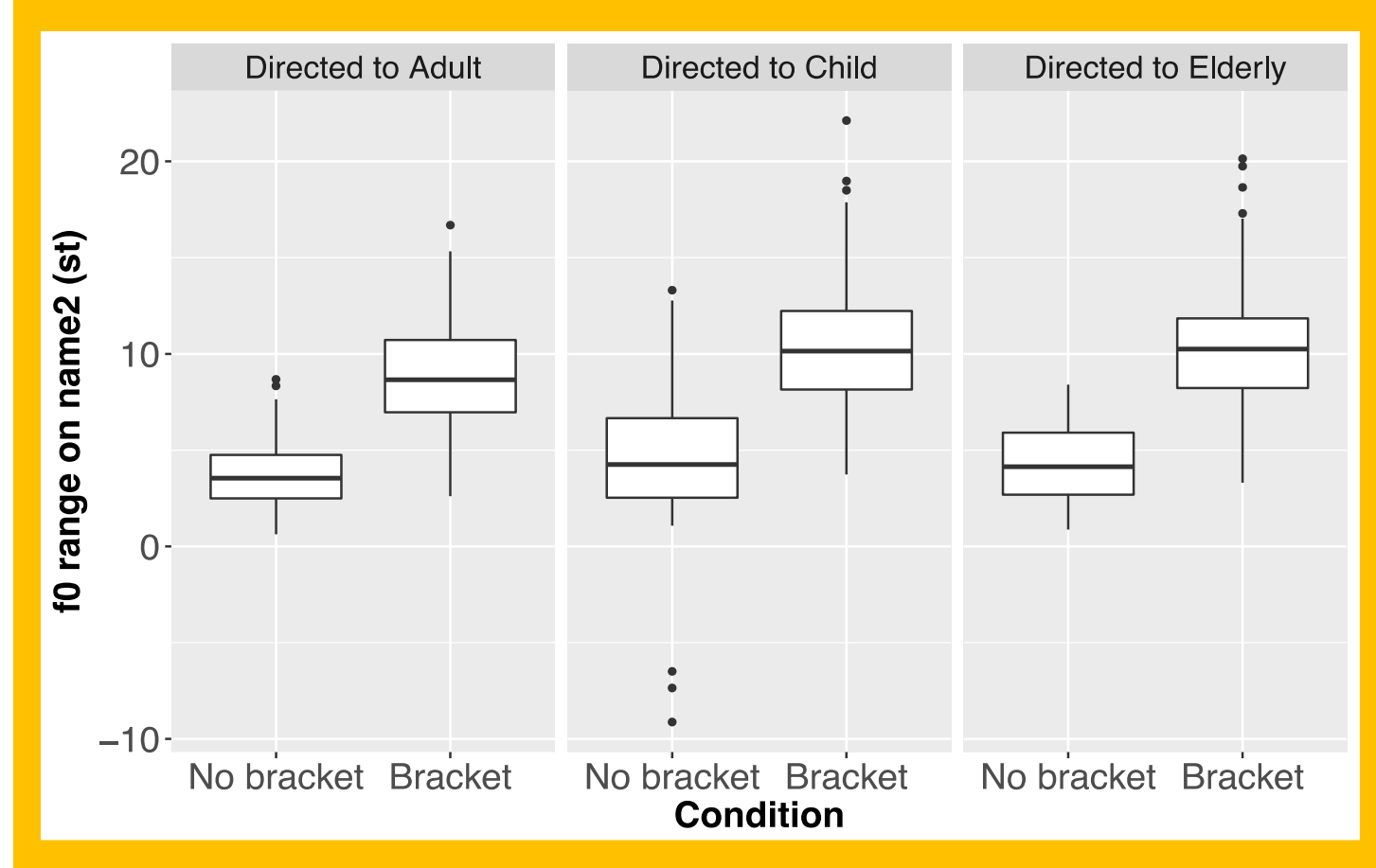


fig 5: f0 range on name2 in two conditions split by context.

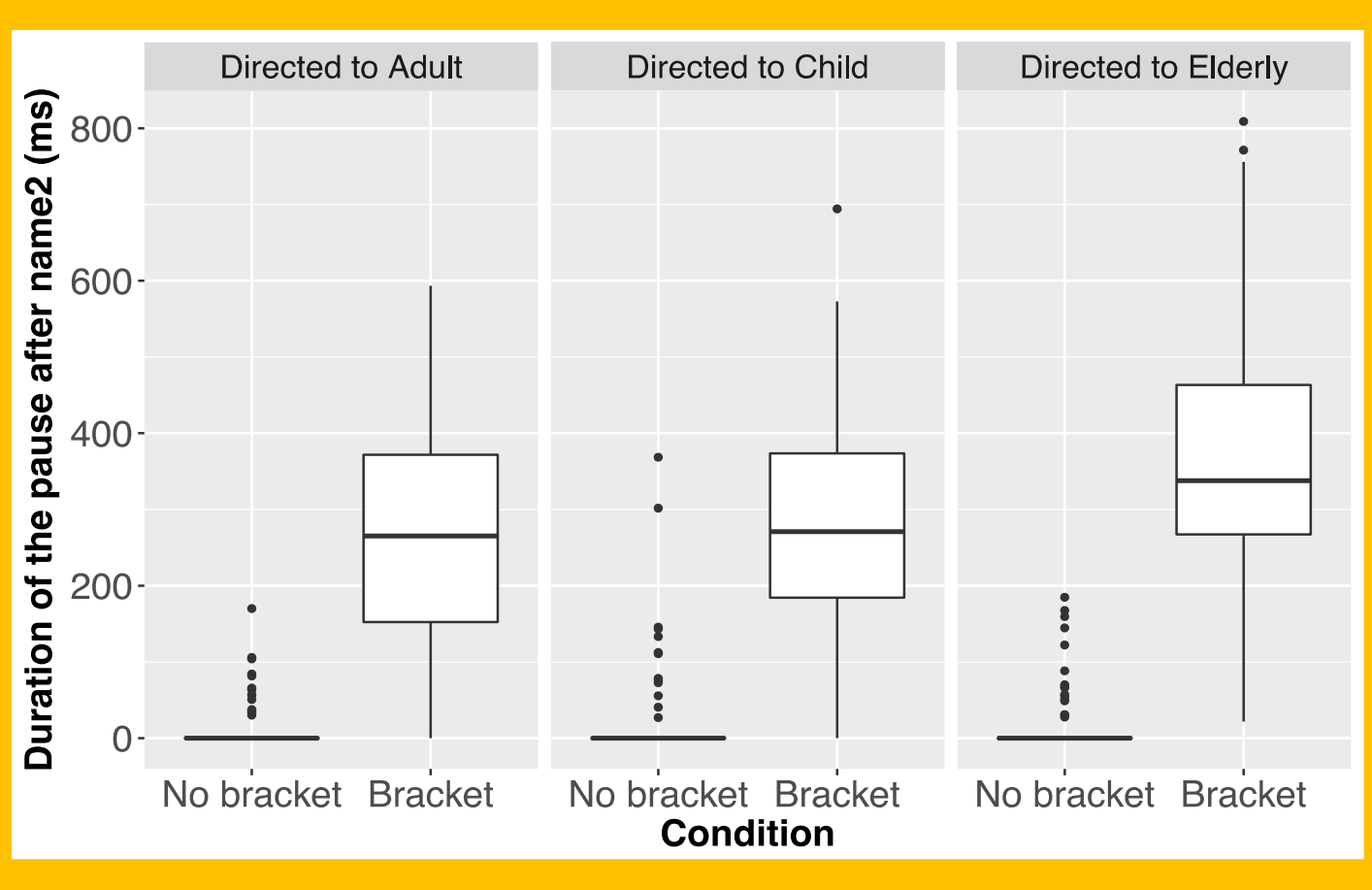


fig 6: Pause duration after name2 in two conditions split by context.

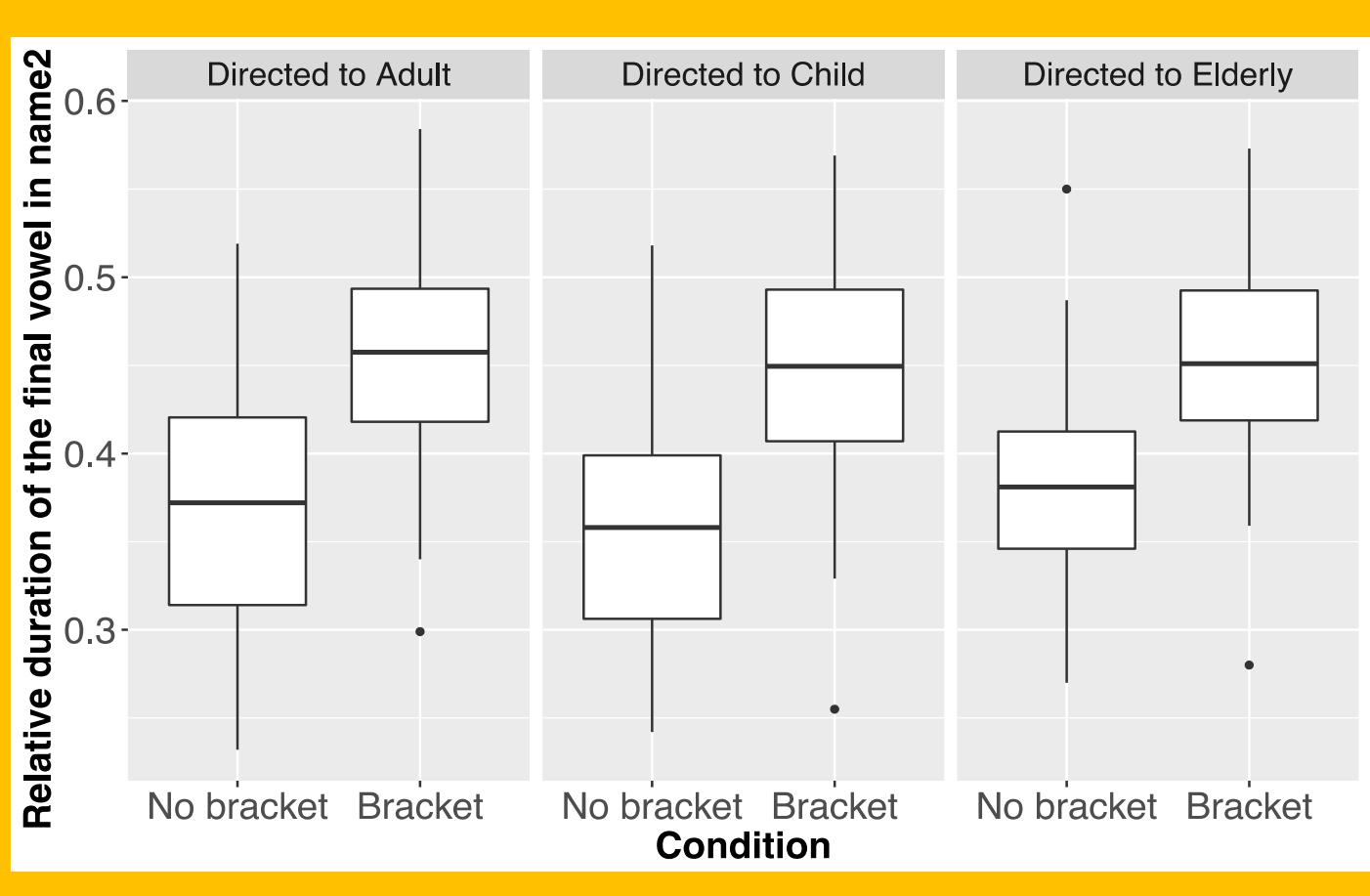


fig 7: Relative duration of final vowel in name2 in two conditions split by context.

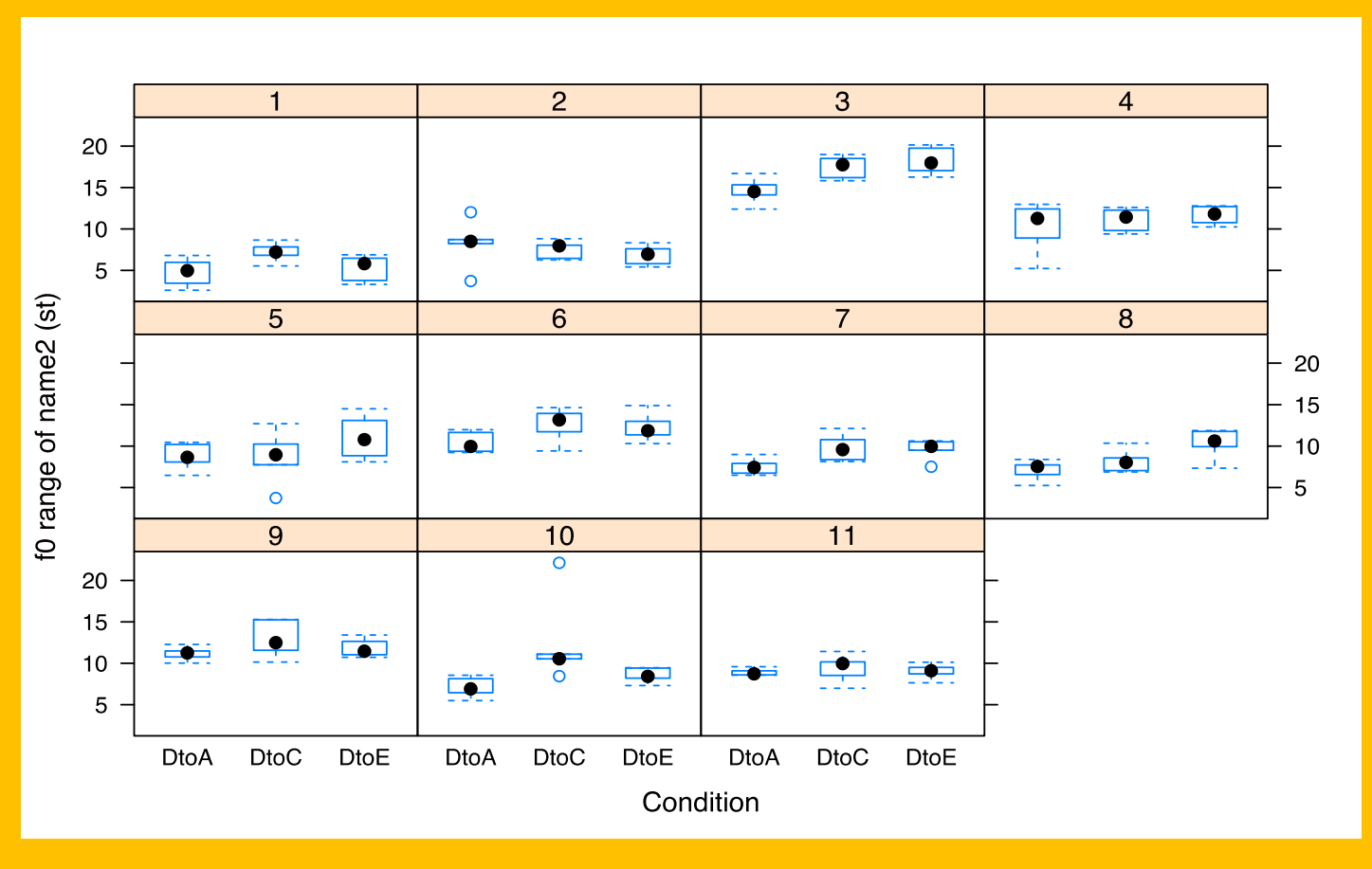


fig 8: Individual boxplots for speakers for f0 range on name2 in three contexts.

DISCUSSION

preliminary analyses suggest that:

- speakers make use of the three investigated prosodic cues to indicate internal grouping of coordinate name sequences
- only some speakers of the current study used these cues to differentiate between varying interlocutors

FUTURE EXPERIMENTS prosodic cue production in case-ambiguous sentences



REFERENCES:

- Biersack, S., Kempe, V. & Knapton, L. 2005. Fine-tuning speech registers: A comparison of the prosodic features of child-directed and foreigner-directed speech. *Proceedings of Eurospeech*, (Lisbon), 2401-2404.
- Boersma, P. & Weenink, D. (1992-2017). Praat: Doing phonetics by computer. www.praat.org.
- Kentner, G. & Féry, C. (2013). A new approach to prosodic grouping. *The Linguistic Review*, 30(2), 277-311.
- Landgraf, R., Schmidt, G., Köhler-Kaeß, J., Niebuhr, O. & John, T. 2017. More Noise, Less Talk – The impact of driving noise and in-car communication systems on acoustic-prosodic parameters in dialogue. *Proceedings of the DAGA – 42. Jahrestagung für Akustik* [42th annual meeting for acoustics], (Kiel), 1485-1488.
- Petrone, C., Truckenbrodt, H., Wellmann, C., Holzgrefe-Lang, J., Wartenburger, I. & Höhle, B. (2017). Prosodic boundary cues in German: Evidence from the production and perception of bracketed lists. *Journal of Phonetics*, 61, 71-92.