INTRODUCTION

- enhancing prominence of parts of an utterance can signal information structure [1]
- achieved by pitch-accent placement (laryngeal system) as well as modifications of articulator movements (supralaryngeal system, → prosodic strengthening) [2, 3]
- prosodic strengthening can be observed as a concomitant of accentuation (here: across-accentuation) but also between accented words (here: within-accentuation)
- prosodic strengthening has been shown in English for the tongue only across-accentuation [2; 5] and in German across and within-accentuation only for the lip system [6; 8]

METHODS

- acoustic & articulatory recordings (Electromagnetic Articulography) of 27 native speakers of German
- target words with /a/ or /o/ in the stressed syllable (e.g. Wahwe, Bohme), embedded in carrier sentences
- four focus conditions as increasing degrees of prominence
- elicitation through an interactive question-answer task (cf. below)
- analysis of tongue body movements during the target vowels /a/ and /o/ on the vertical and horizontal dimension: extremum position (or vocational target), mean position within first 50% of the acoustic vowel, peak velocity of the gesture
- comparison of normalised measures between four focus types

RESULTS

- lower targets in low vowel /a/ and close-mid vowel /o/, retracted targets in back vowel /o/ under prominence → associated with sonority expansion and localised hyperarticulation → gradient changes between focus types
- mean tongue positions in the selected window (first 50% of the acoustic vowel) also show lower tongue in /a/ and /o/ and retracted tongue in /o/ under prominence → gradient changes between focus types
- trend towards gradient changes between focus types

DISCUSSION & CONCLUSION

1 Modifications include more extreme tongue positions in relevant articulatory dimensions and increased peak velocities. Speakers simultaneously apply the strategies of sonority expansion and localised hyperarticulation.

2 Gradient modifications occur between all four focus types and therefore across as well as within-accentuation. Supralaryngeal changes are not exclusively a means to indicate accent but rather a direct expression of focus structure.