

## Introduction:

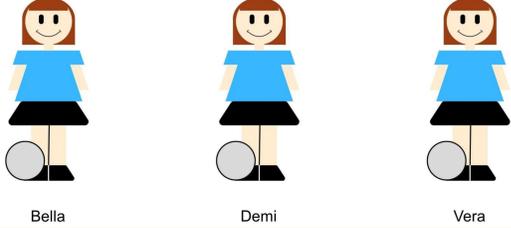
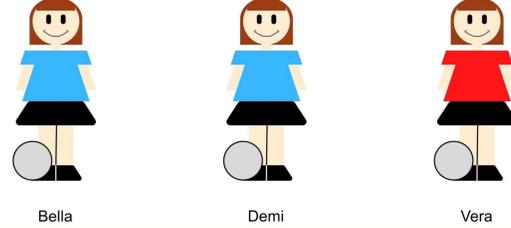
- 3 types of cues for prosodic phrase boundaries:
  - Pitch Change
  - Final Lengthening
  - Pause
- Cues are weighted differently between languages
- It has been claimed that in Dutch, pauses play a major role<sup>1</sup>
- There have been no production studies investigating realization of all cues in Dutch

## Questions:

1. Which cues are used in Dutch to mark non-final intonational phrase (IP) boundaries?
2. What are the relative weights of these cues?

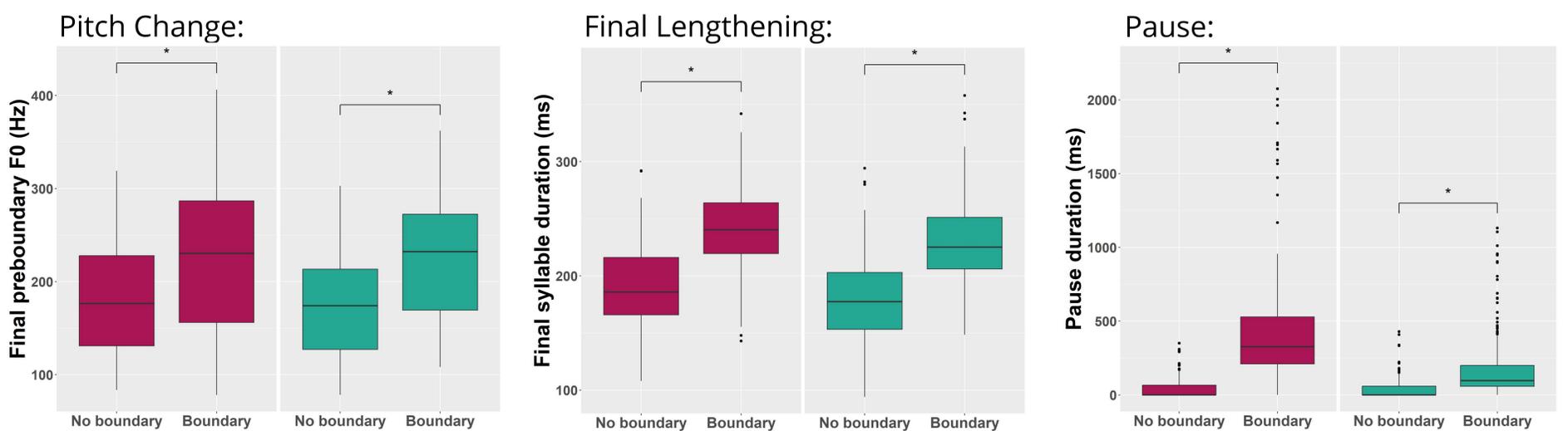
## Method:

- Elicitation task: *The Teamball Game*
- 16 adult native speakers of Dutch (12 female, 18-29 years)
- 2 types of syntactic constructions, both without and with a boundary: **name sequences** and **compound sentences**

	No boundary	Boundary
Picture		
<b>Name sequences</b>	Q: Wie vormen hier een team? "Who make up a team here?" A: [ <i>Bella en Demi en Vera</i> ] "Bella and Demi and Vera"	Q: Wie vormen hier de teams? "Who make up the teams here?" A: [ <i>Bella en Demi</i> ] [ <i>en Vera</i> ] "Bella and Demi, and Vera"
<b>Compound sentences</b>	Q: Wat gebeurt er hier? "What happens here?" A: [ <i>Bella speelt met Demi en Vera</i> ] [ <i>en ze zitten in hetzelfde team</i> ] "Bella plays with Demi and Vera, and they are on the same team"	Q: Wat gebeurt er hier? "What happens here?" A: [ <i>Bella speelt met Demi</i> ] [ <i>en Vera zit in het andere team</i> ] "Bella plays with Demi, and Vera is on the other team"

## Results:

- Analysis: linear mixed-effects models



## Cue Weighting:

- Relative importance of cues in predicting prosodic boundaries
1. Final lengthening (52,1%)
  2. Pause (30%)
  3. Pitch Change (16,7%)

## Conclusions:

- Dutch speakers consistently use all 3 cues to mark prosodic boundaries
- Final lengthening is the most pronounced boundary cue in the production of Dutch intonational phrases, contra earlier claims<sup>1</sup>.

## Future research:

- What is the relationship between production and perception of prosodic phrase boundaries in Dutch-speaking adults?
- Are newborn infants sensitive to prosodic boundary cues?
- Are boundary cues used similarly in infant-directed speech (IDS)?