

# A 'size meets cuteness' relation in German vowels

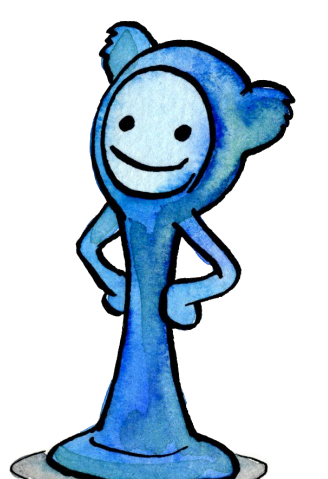
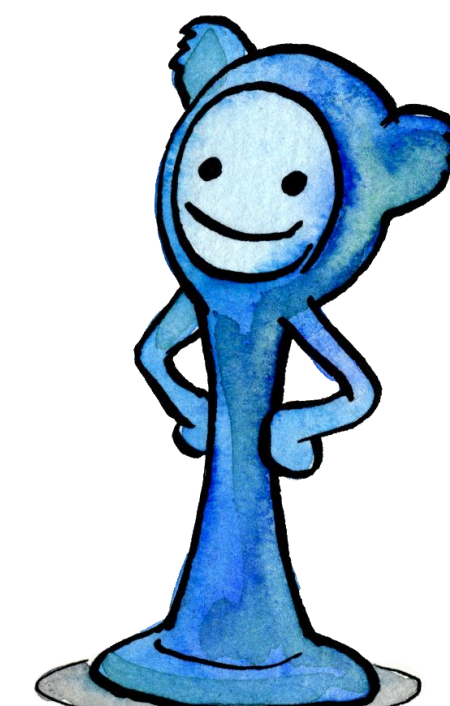
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## Background & Motivation

- Sound symbolism is a specific form of cross-modal correspondence
  - ➔ Certain sounds become meaningful when they are combined with other sensory information
- Prominent examples of sound symbolism concern size [1-4] and cuteness [5]
- No combined account of size and cuteness has been proposed yet



## Method

- Forced-choice task in OpenSesame [6]
- **Auditory stimuli:** 96 CV.CV pseudowords with /a:, ε:, e:, i:, o:, ø:, u:, y:/ as nucleus and /d, f, j, k, r/ as onset

| C          | V     | C          | V     |
|------------|-------|------------|-------|
| d          |       | d          |       |
| f          | a: ε: | f          | a: ε: |
| j          | e: i: | j          | e: i: |
| k          | o: ø: | k          | o: ø: |
| d, f, j, k | u: y: | r          | u: y: |
| r          |       | d, f, j, k |       |

- **Visual stimuli:** images of phantasy creatures [7]
- **Trials:** participants chose which one of five differently sized versions of a visual stimulus matched the presented audio stimulus best
- **Judgements:** after the main experiment, participants were to judge all visual stimuli for cuteness

## Analysis

- Generalised additive mixed model regression analysis [8] with
  - **dependent variable:** SIZE response
  - **predictor of interest:** CUTENESS judgement
  - **independent variables:** vowel quality, onset consonants, phonological neighbourhood density, age, gender

## Results

- **SIZE:** /a:/ is considered bigger than all other vowels & /i:, u:/ are considered smaller than all other vowels
- **CUTENESS:** does not show an effect on its own
- **VOWEL \* CUTENESS:** with higher levels of cuteness, size of /a:/ increases further & size of /i:, u:/ decreases further

## Discussion

- Different types of sensory information, that is size and cuteness, interact in their sound symbolic effect
  - ➔ Potential interaction of different sound symbolic phenomena must be considered
- Sound symbolism manifests as intricate interaction when different types of sensory information are available
- Findings add to the growing body of evidence calling for an incorporation of multiple sources of sensory information where applicable

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