

How to move meetings by moving gesture and prosody

Susanne Fuchs¹, Alina Gregori² & Bodo Winter³
¹Leibniz ZAS Berlin, ²Goethe University Frankfurt, ³Birmingham University



Next Wednesday’s meeting has been moved forward two days.
On what day is it now?

Read this question and answer it by throwing a ball into the according bucket!

Introduction

Alignment of prosody & gesture = natural property [1,2,3]
The Next Wednesday Question (NWQ) paradigm [4,5]

- Ambiguous responses (50/50) [6]
- Can be disambiguated (e.g., by gesture [7,8])
- Interpretation dependent on perception of time [9,10]

Refs

Do i) gesture position and ii) the (mis)match of prosody and gesture disambiguate the NWQ?

Design

cf. [8]

- Between-subject design; online study using Prolific
- Bayesian logistic regression models

Gesture direction: forward / backward
Gesture position, accent position, adverb pres.:

Study I

Study II

Study III

[...] moved forward two days

Items

Conclusions

- Gesture direction has the clearest effect
- Gesture position does not have an effect by itself
- Presence of the adverb in speech is crucial
- Matches of accent and gesture do NOT facilitate disambiguation
- The ordering of gesture and accent changes interpretation
- Preferences vary across studies, but trends stay the same

Results

Monday Friday

Study I

N = 274

Study II

N = 269

Study III

N = 347

Overall proportion of responses

Gesture direction

Gesture position

Study III: Prosody-gesture (mis)match

Study I: Adverb presence

Effects

	Dir	Pos	Mis	Adv
S I	✓	?		✓
S II	✓	×		
S III	✓	×	✓	