

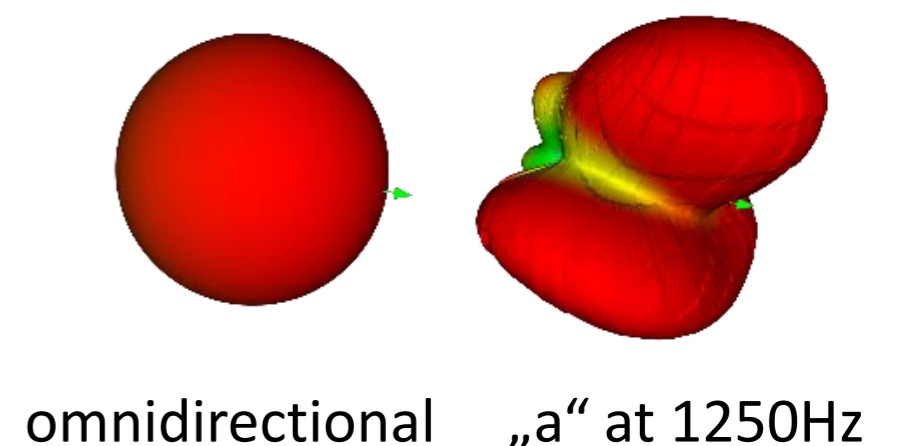
# Evaluating the Influence of Phoneme-Dependent Dynamic Speaker Directivity of Embodied Conversational Agents' Speech

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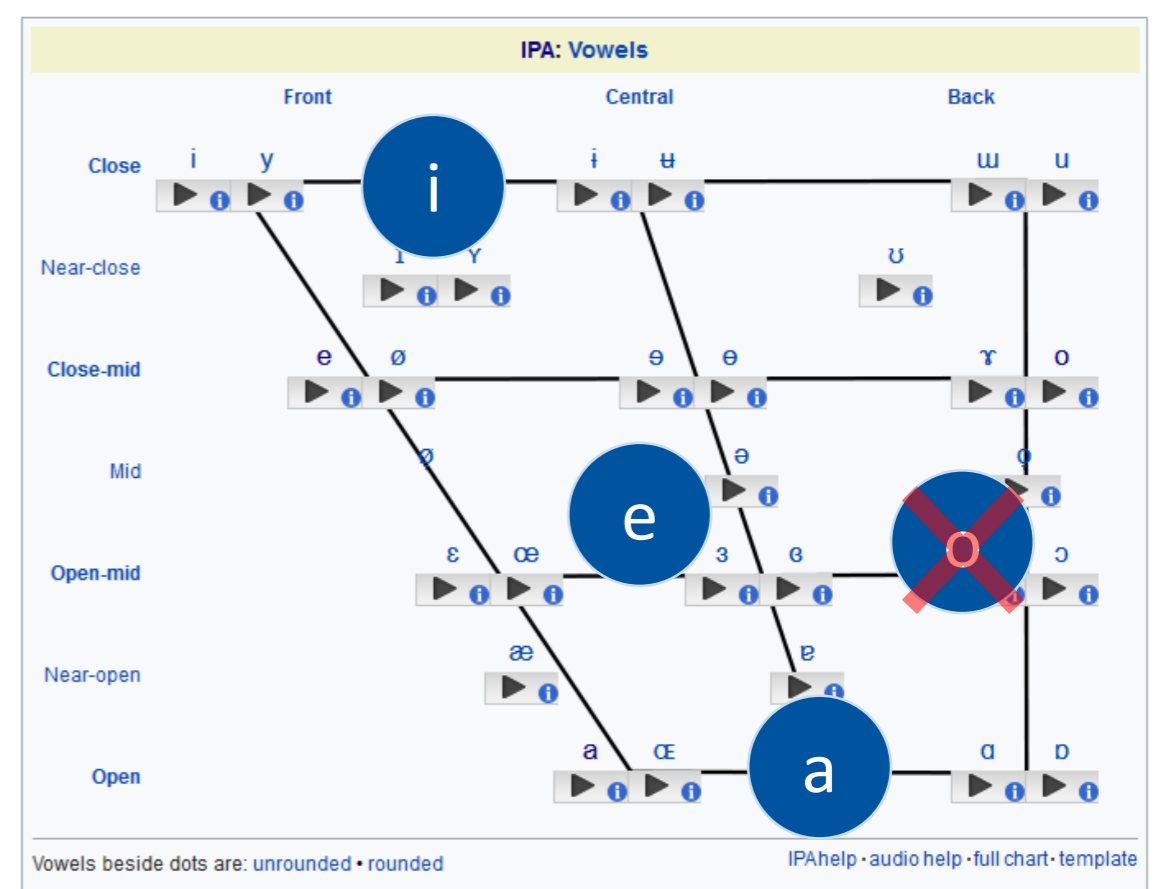
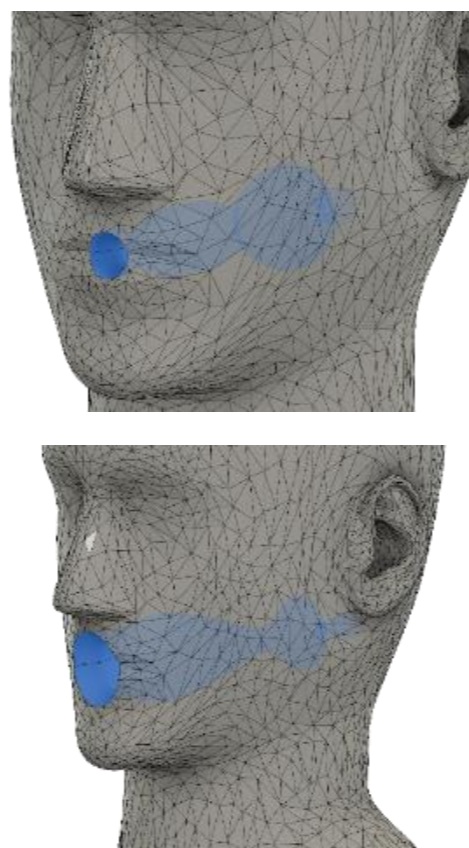
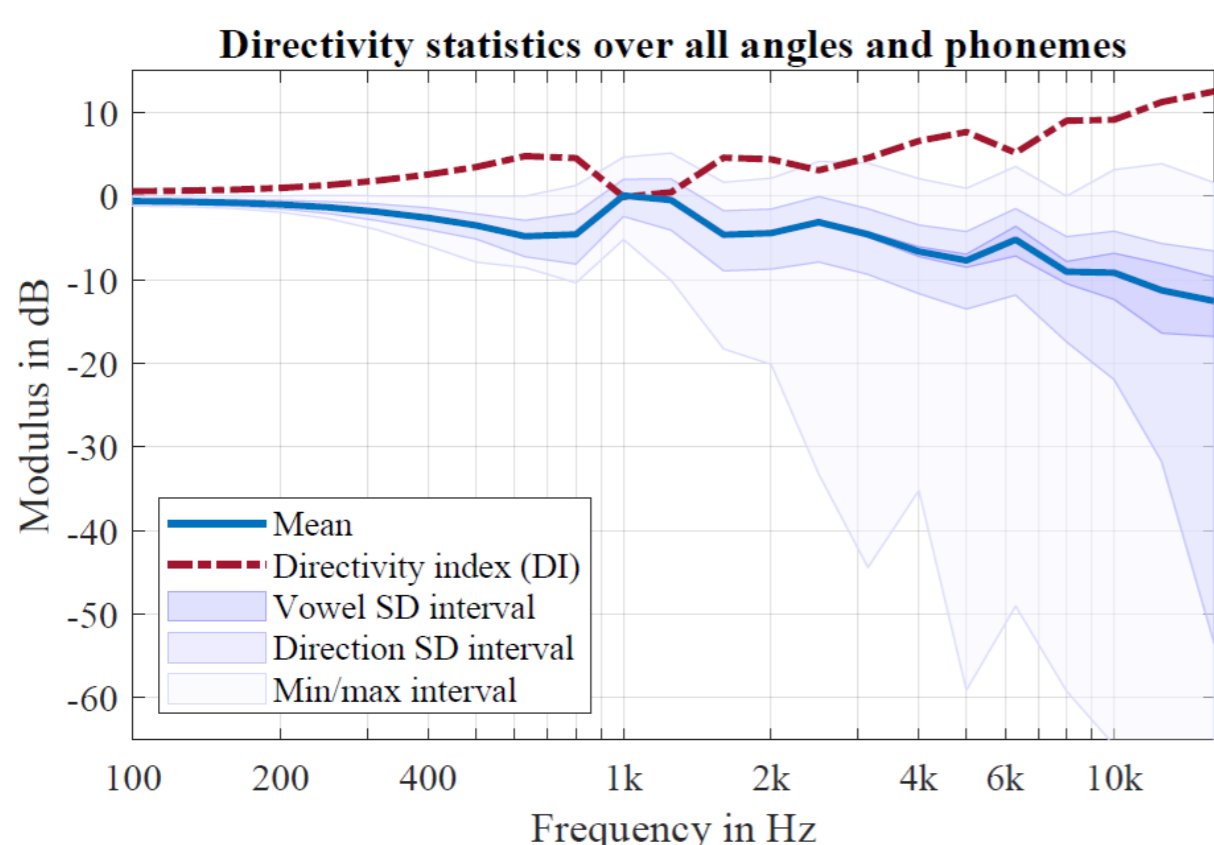
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## Speaker Directivity

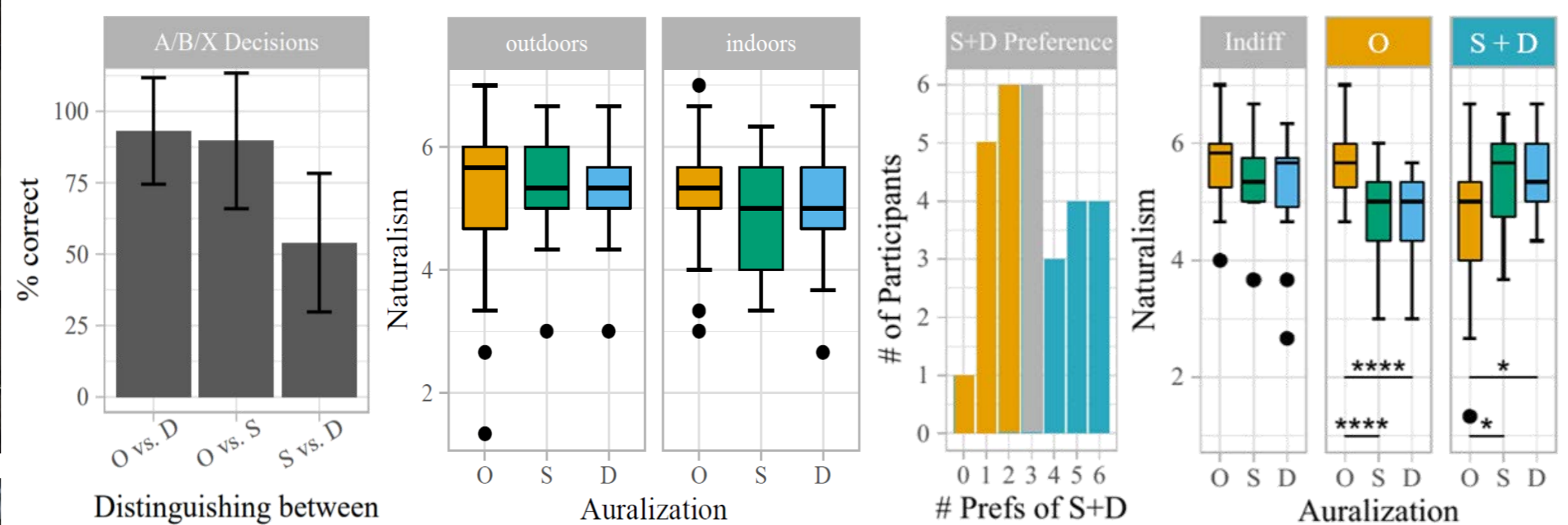
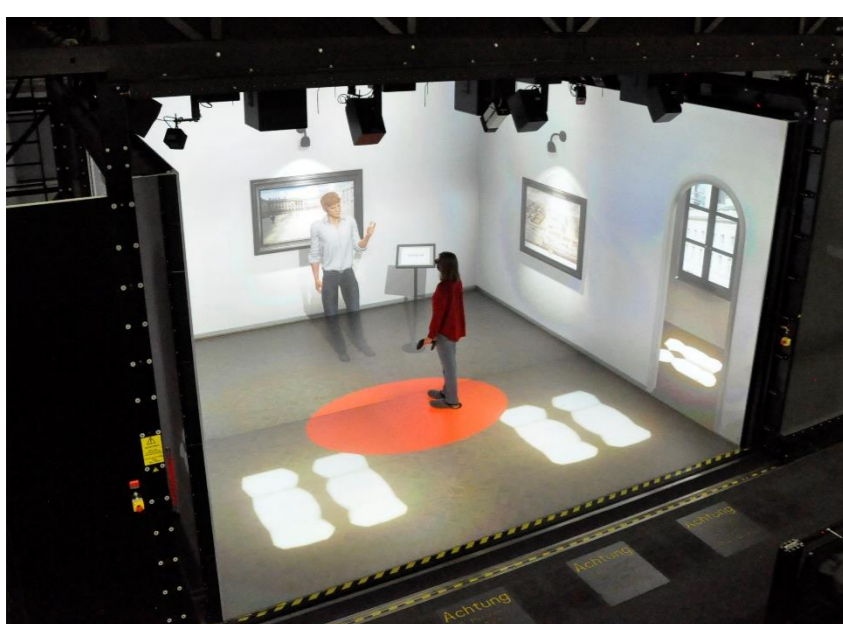
- The location of a speaking ECA is often audible in VR, however, its orientation is not considered in the auralization (*omnidirectional*)
- Adding this speaker *directivity* can be done either:
  - independent of the speech content (*static directivity*)
  - changing depending on the utterance (*dynamic directivity*)



## Directivity Simulation



## Evaluation



- Dynamic directivity might not be needed for speech
- Preference for directional speech seems very subjective
- Participants preferred the speech auralization they rated more natural

O: Omnidirectional, S: Static Directivity, D: Dynamic Directivity