

## **Phonetic input under experimental control in “real” conversations: The ventriloquist paradigm**

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During conversations, interlocutors adapt to each other in pronunciation and perception. A major challenge for the study of this phonetic accommodation and perceptual adaptation is the intrinsic impossibility to control the phonetic input that participants are exposed to in dialogue. The number of times participants hear certain speech sounds, the phonetic contexts in which these sounds occur, and their specific realizations, which affect the extent to which participants accommodate their pronunciation and adapt their perception to their interlocutor, thus vary across participants. The Ventriloquist paradigm (Felker, Troncoso-Ruiz, Ernestus, & Broersma, 2018) has been developed to tackle this problem. It enables the study of sound learning in dialogue, while allowing full control over the phonetic detail of the input that participants are exposed to. The Ventriloquist paradigm has been developed to investigate phonetic accommodation and perceptual learning in an ecologically valid yet maximally controlled way. Participants take part in a dialogue which they believe to be genuine; in fact, however, their real-life interlocutor is a confederate whose speech is not just ‘scripted’ (as in the confederate scripting task for the study of syntactic accommodation), but fully prerecorded. This guarantees control over all characteristics of the speech input, including the number of times the participant hears certain speech sounds, their phonetic contexts, and their phonetic realization. The set-up is fully tuned to upholding the illusion that the confederate is actually speaking with the participant. The confederate sits opposite the participant, face briefly hidden when (s)he “speaks”. Participants hear the prerecorded speech over closed headphones. In addition to the standard input, to facilitate a smooth flow of the conversation, the confederate can play prerecorded non-verbal interaction markers and stop-gap replies to any unanticipated remarks or questions from the participant. The new paradigm thus reconciles ecological validity with experimental control for the study of phonetic accommodation in dialogue.

### **References**

Felker, E., Troncoso-Ruiz, A., Ernestus, M., & Broersma, M. (2018) The ventriloquist paradigm: Studying speech processing in conversation with experimental control over phonetic input. *The Journal of the Acoustical Society of America*, 144, EL304-EL309. Doi: 10.1121/1.5063809.