

Using the hands to embody prosody boosts phonological learning in a foreign language

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Prosodic features of language such as prominence, melody, and rhythm, are frequently embodied by hand movements in face-to-face communication. However, little is known on the role of embodied techniques encoding the melodic and rhythmic features of speech on the phonological learning of a foreign language. In this talk, I will present a series of studies designed to unveil the benefits of using a prosody-based, multisensory approach (visual, auditory, and kinesthetic) to support not only the learning of such prosodic features but also the overall pronunciation of a foreign language.

The first study shows that training Mandarin Chinese tones with pitch gestures (that is, visuospatial hand gestures representing pitch movement) favors the recognition and the recall of novel words with these tones by Catalan naïve learners more than training without pitch gestures. The second study shows that training Catalan intermediate learners of French with phrase-level prosodic gestures (that is, a type of visuospatial hand gesture embodying intonation, rhythm, and phrasing at the sentence level) helps them improve their accentedness and production of suprasegmental features in a discourse reading task more than training without phrase-level prosodic gestures. Finally, the third study shows that visually and acoustically highlighting the syllabic structure and rhythmic properties of French words with hand-clapping during training helps Catalan naïve learners of French improve their accentedness and final lengthening measures more than training without hand-clapping. Together, these findings expand our knowledge on how embodied multisensory techniques highlighting prosodic features can support phonological learning and underline the need to use reliable practical and embodied techniques for pronunciation instruction.