Sound change and the acquisition of timing in speech

De 2012-06-01 à 2017-05-31, projet clôturé

Objectif

"The aim of the proposal is to relate historical sound change to the acquisition of the temporal control of speech. The motivation for the experiments is that the mis-perception of timing relationships and the failure to normalize perceptually for context effects are driving forces for sound change; and that such mis-perception is especially likely during the relatively long period between early childhood and adolescence during which there is a high degree of instability in timing in speech production. These aims will be investigated for first language speakers of Cantonese, German, and Polish, which are languages whose timing relationships in the coordination of consonants and vowels are markedly different due to their different complexity of syllable structure. In order to relate patterns of temporal control to their perceptual consequences, physiological techniques including ultrasound and movement analysis will be used to quantify the dynamics of the co-ordination and overlap of speech sounds. Such data will be obtained from pre-school children, young adolescents, and adults of the three target languages. Speech timing will be analysed for processes such as palatalisation, assimilation, vowel harmony, and dissimilation that have been shown to be implicated in diachronic changes in several languages. This first ever comparative physiological and perceptual analysis of speech timing in children and adults in different languages will provide a new way of confronting how synchronic-diachronic relationships are related that until now have been typically based on static, symbolic analyses without explicitly modeling time. The studies will provide new insights into the acquisition of temporal control and more generally into a central question in both cognition and linguistics of how abstract, discrete symbolic categories are related to fine-grained motor dynamics and their perceptual consequences - and also how such relationships are acquired and change."

Informations connexes

Final Report Summary - SCATS (Sound change and the acquisition of timing in speech)
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