Time-resolved variation in Southern Bavarian diphthong trajectories

Aleese Block

Analyses of vowels vary widely in both theoretical framing and methodological execution. Traditional approaches are often static, relying on set point measurements (i.e., midpoint for monophthongs and the onset/offset for diphthongs) to describe vowel quality. Even when movement in diphthongs is quantified, it is often reduced to acoustic distance or vector direction between static onset and offset points, which can unfortunately neglect the dynamic nature of the diphthong's trajectory.

In this talk, I will discuss the application of time-resolved formant and variation measures to the diphthong inventory of Southern Bavarian German, characterized by a large diphthong inventory. I will look at what this can reveal about the internal structure of diphthongs and whether there are differences in diphthong structure based on factors like directionality and trajectory length.

Ultimately, this approach could deepen our understanding of diphthongal contrasts by linking dynamic acoustic patterns to phonological structure. I argue that time-resolved measures can supplement accounts that prioritize either the static targets or the transitional path of diphthongs and can offer new evidence for the categorization and internal organization of vowel systems. In doing so, this work aims to contribute to broader efforts to integrate dynamic methodologies into the analysis of complex vowel inventories.