When Listeners Use Lexical Context to Recalibrate their Phonetic Categories

In listening to speech, people have been shown to apply several types of adjustment to their phonemic categories that take into account variations in the prevailing linguistic environment. In "lexically-driven recalibration", listeners hear a number of words that contain a slight mispronunciation. For example, a word like "mentorship" might be presented with a pronunciation that is midway between "mentorship" and "mentorsip". After hearing such mispronunciations, listeners adjust their phoneme boundaries, expanding the category so that the formerly ambiguous sounds are now perceived as acceptable tokens. Our lab has investigated several properties of the recalibration phenomenon, including the durability of the change, its sensitivity to higher-level cognitive information, its degree of automaticity, and the processing time required for recalibration to take place. Collectively, the studies clarify when listeners do and do not use lexical context to retune their phonemic encoding processes, providing insights into the spoken word recognition system.