Relevance of prosodic information for spoken communication at the lexical and discourse levels: Evidence from psychometric and electrophysiological data

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Prosody supports diverse communicative functions ranging from encoding lexical semantics to structuring information in discourse. Prosodic variations, for instance, not only distinguish lexical meaning, as in Swedish words *anden* (Accent 1) 'the duck' vs *anden* (Accent 2) 'the spirit', but also highlight the most critical constituent of discourse, ensuring that focused information receives more attention. Despite the growing number of studies in the cognitive neuroscience of language, neural underpinnings of these prosodic functions and their interactions are not well understood. Further, there is a paucity of experimental paradigms to operationalize them in a dynamic communicative situation. In a recent series of experiments, we have aimed to contribute to the field by investigating the relevance of prosody for spoken communication at the lexical and discourse levels i) separately and concurrently ii) using psychometric and electrophysiological measures, iii) employing typologically distinct languages, and iv) adopting ecologically valid contexts. In this talk, I will focus on two studies, in Turkish and Swedish, examining how listeners judge prosodic violations, leading to lexical and discourse level anomalies, both actively and passively. The behavioral and preliminary neural data show that prosodic violations are judged as incorrect by the listeners both at the lexical and discourse levels. There is, however, a difference in the perceived correctness of prosodic violations depending on the level at which they occur, indicating that the language comprehension system reveals different sensitivities to prosodic violations at different levels of linguistic hierarchy. This pattern of results suggests that the brain not only extracts the prosodic cues of different origin but also gives different weights of relevance to them for an efficient spoken communication.