

“This Research is Absolutely Fascinating!” Multimodal Irony Comprehension in Adolescents with Hearing Impairment

"This research is absolutely fascinating!" When determining whether this remark is meant to be taken literally or as irony, several cues need to be considered, such as the speaker's choice of words, tone of voice, facial expression, and other non-verbal cues. Adolescents with hearing impairment struggle to use these cues to comprehend irony, hindering their ability to form meaningful relationships with peers. By enhancing their understanding of irony, these individuals can improve their communication skills, develop stronger social bonds, and ultimately enhance their overall quality of life. However, limited studies have been conducted on irony comprehension in this population. This study aims to address this gap by focusing on two main objectives: developing a Multimodal Irony Comprehension (MMIC) Test tailored for adolescents with hearing impairment and then examining irony comprehension across different modalities in this population. Specifically, the MMIC Test will encompass audiovisual, auditory, and text modalities, simulating face-to-face communication, phone-calling, and reading scenarios, respectively. Different cues, such as facial expressions, prosodics, and contextual information, will be incorporated into each modality to examine their impact on irony comprehension. To ensure the test's appropriateness for adolescents with hearing impairment, the MMIC will use words within their vocabulary repertoire, and short contextual information will accompany each test item to reduce linguistic and cognitive demands. Subsequently, the comprehension of irony of three groups will be evaluated: 72 adolescents using hearing aids, 72 with cochlear implants, and 72 with normal hearing, utilizing the MMIC test. By comparing irony comprehension across different modalities and population groups, the study aims to shed light on the unique aspects of irony comprehension in adolescents with hearing impairment. Additionally, the research will explore the significance of different cues (e.g., visual cues, prosodic cues, and contextual cues) and abilities (e.g., second-order Theory of Mind, social skills, and speech perception) in irony comprehension, providing valuable insights for designing effective intervention programs aimed at enhancing irony comprehension and supporting social competence in this population. The findings will contribute to the inclusivity of social interactions and improve communication skills for adolescents with hearing impairment.