

## **A resource of validated emotional and neutral lexical stimuli to test the identification of emotions in Persian**

**Objective:** Communicating and comprehending emotions are essential aspects of spoken language, and could be disturbed in individuals with acquired brain injury (ABI) [1, 2]. Research on emotional speech often requires valid stimuli for assessing perceived emotion through prosody and lexical content. To date, no comprehensive language resource to assess this function in Persian speakers is available [3].

**Methods and procedures:** a set of 252 sentences were generated and validated by a large group of adult Persian speakers (n = 1842) in two experiments using nominal scales. Participants were asked to match the sentences on their suitability to represent a specific emotion (anger, disgust, fear, happiness, and sadness) based on their lexical content. The emotional intensity of the sentences were identified in a third experiment by a different group of adults (n = 250). Participants were asked to rate the emotional intensity of each sentence using five-point Likert scales.

**Main outcomes and results:** The findings identified a set of 90 sentences, each associated with only one specific emotion or no emotion at all (neutral mode). The emotional intensity of each of the 90 sentences was also calculated.

**Conclusions:** The findings generated a robust and meaningful set of validated lexical stimuli (90 sentences) conveying five emotional meanings as well as neutrality. This language resource is essential to identify the recognition of emotions through lexical content in individuals with ABI. Additionally, this sentence set can be used as lexical stimuli for audio recordings in studies on emotional prosody.

### References:

- [1] Ben-David, B. M., van Lieshout, P. H., & Leszcz, T. (2011). A resource of validated affective and neutral sentences to assess identification of emotion in spoken language after a brain injury. *Brain injury*, 25(2), 206-220.
- [2] Milders, M., Fuchs, S., & Crawford, J. R. (2003). Neuropsychological impairments and changes in emotional and social behavior following severe traumatic brain injury. *Journal of Clinical and Experimental Neuropsychology*, 25(2), 157-172.

[3] Keshtiari, N., Kuhlmann, M. Islami. M., Klann-Delius, G. (accepted). Recognizing emotional speech in Persian: A validated database of Persian emotional speech (Persian ESD) .*Behavior research methods*.