Emotional and Physiological Reaction While Listening the Speech of Adults Who Stutter

Authors: Xharavina V., Gallopeni F., Ahmeti K.

Abstract: Stuttered speech is filled with intermittent sound prolongations and/or rapid part word repetitions. Oftentimes, these aberrant acoustic behaviors are associated with intermittent physical tension and struggle behaviors such as head jerks, arm jerks, finger tapping, excessive eye-blinks, etc. Additionally, the jarring nature of acoustic and physical manifestations that often accompanies moderate-severe stuttering may induce negative emotional responses in listeners, which alters communication between the person who stutters and their listeners. However, researches for the influence of negative emotions in the communication and for physical reaction are limited. Therefore, to compare psycho-physiological responses of fluent adults, while listening the speech of adults who speak fluency and adults who stutter, are necessary. This study comprises the experimental method, with total of 104 participants (average age-20 years old, SD=2.1), divided into 3 groups. All participants self-reported no impairments in speech, language, or hearing. Exploring the responses of the participants, there were used two records speeches; a voice who speaks fluently and the voice who stutters. Heartbeats and the pulse were measured by the digital blood pressure monitor called 'Tensoval', as a physiological response to the fluent and stuttering sample. Meanwhile, the emotional responses of participants were measured by the self-reporting questionnaire (Steenbarger, 2001). Results showed an increase in heartbeats during the stuttering speech compared with the fluent sample (p < 0.5). The listeners also self-reported themselves as more alive, unhappy, nervous, repulsive, sad, tense, distracted and upset when listening the stuttering words versus the words of the fluent adult (where it was reported to experience positive emotions). These data support the notions that speech with stuttering can bring a psycho-physical reaction to the listeners. Speech pathologists should be aware that listeners show intolerable physiological reactions to stuttering that remain visible over time.

Keywords: emotional, physiological, stuttering, fluent speech

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