Listeners Big Five Personality Traits Predict Changes in Pupil Size During Spoken Language Comprehension

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Abstract

We report on findings from a pupillometry study that investigated auditory language comprehension in adults. Specifically, we assessed the participants Big Five traits and correlated them with changes in pupil size in response to socio-cultural clashes violating common gender stereotypes, such as I always buy my bras at Hudsons Bay spoken by a male speaker. Morpho-syntactic errors, such as She usually drive (as opposed to drives) her car slowly, and semantic anomalies, such as People often read heads (as opposed to books), were included as controls.

Results obtained from 88 native speakers of North American English suggest that the processing of different kinds of linguistic clashes is correlated with different Big Five traits. The results expand on findings in Hubert and Jrvikivi (2019), and add support to theories of linguistic comprehension in which extra-linguistic variables are considered early in the process (see e.g. Van Berkum et al., 2008, 2009).