

Exponent® Engineering & Scientific Consulting

Peter Shlanta, Ph.D. Senior Scientist | Human Factors

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Professional Profile

Dr. Shlanta is a cognitive psychologist with 8 years of experience in visual attention, visual processing, and eye movements. His work focuses on understanding where humans direct their visual attention, what factors influence visual attention, and how visual stimuli are processed once they are attended to.

Since joining Exponent, Dr. Shlanta has applied this expertise to the investigation of human factors in transportation accidents as well as on-product warnings and instructions.

Prior to joining Exponent, Dr. Shlanta's work focused on examining how a reader's visual attention and eye movement patterns relate to their reading fluency and comprehension. Additionally, he has examined whether visual attention ability can be improved through prolonged exposure to visually and perceptually demanding tasks. Dr. Shlanta has expertise using eye tracking technology in human subjects testing.

Academic Credentials & Professional Honors

- Ph.D., Applied Experimental Psychology, Central Michigan University, 2021
- M.A., Experimental Psychology, Towson University, 2015
- B.A., Psychology, Bloomsburg University, 2013
- A.A., Psychology, Lehigh Carbon Community College, 2011

Prior Experience

Adjunct Professor, Research Applications, Central Michigan University, 2020

Graduate Instructor, Research Methods & Research Applications, Central Michigan University, 2016-2020

Data Scientist, Acclaro, 2015

Professional Affiliations

Human Factors and Ergonomics Society, 2021-Present

Psychonomics Society, 2016-Present

Eastern Psychological Association, 2012-Present

Publications

Scully ID, Davis, SJ, Shlanta, P., Yanes, J.A., Michaelis, K., Cades, D.M. Looking back on forward collision warnings: A review of perception response time from empirical studies. Proceedings of the Human Factors and Ergonomics Society Annual Meeting. 2024: Advance Online Publication.

Davis SJ, Denga R, Shlanta P, Cades DM. Understanding overdriving: Human factors considerations in heavy vehicle headlight visibility and stopping distance. Proceedings of the Human Factors and Ergonomics Society Annual Meeting. 2023 Oct; 67(1):1316-1321. doi:10.1177/21695067231194340

Ashby, J., Pagan, A., Shlanta, P., Agauas, S., & Mondlak, Z. (2021). Orthographic processing during sentence reading is interactive: Evidence from eye movements [manuscript submitted for publication]. Psychology Department, Central Michigan University.

Presentations

Shlanta, P., & Ashby, J. Influence of covert visual attention on eye movements during silent reading. Poster presented at the Psychonomics Annual conference, Virtual Symposia, 2020.

Baron, L., Ehrhorn, A., Shlanta, P., Bell, B., Ashby, J., & Adlof, S. Orthographic influences on phonological awareness in school-aged children with dyslexia, compensated dyslexia, and typical word reading skills. Paper presented at the Society for Scientific Studies of Reading Conferences, Newport Beach, CA, 2020.

Ehrhorn, A., Adlof, S., Shlanta, P., Fisher, E., Baron, L., & Ashby, J. Orthographic influences on phonological awareness in school-aged children with developmental language disorders. Paper presented at the American Speech-Language Hearing Association, Orlando, FL, 2019.

Shlanta, P., & Ashby, J. Two word recognition paradigms: Evidence from eye movements. Poster presented at the Psychonomics Annual Conference, Montreal, Quebec, 2019.

Ashby, J., Shlanta, P., Pagan, A., & Agauas, S. Cooperative activation of orthography and phonology in early word access: Evidence from eye movements. Poster presented at the Psychonomics Annual Conference, New Orleans, LA, 2018.

Ashby, J., Shlanta, P., Pagan, A., & Agauas, S. Additive effect of word predictability on parafoveal preview benefit: Evidence from eye movements. Poster Presented at the Psychonomics Annual Conference, Boston, MA, 2016.

Shlanta, P., & Galupo, P. Learning to read on the battlefield: Can action video games serve as a training task for enhancing reading capabilities? Poster presented at Towson University Student Research Symposium, Towson, MD, 2015.