

Exponent®
Engineering & Scientific Consulting

Breanne Yerkes, Ph.D.

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Professional Profile

Dr. Yerkes has expertise in human perception, attention, cognition, and auditory processing. She applies her expertise to evaluating and explaining human factors in a variety of settings including transportation and pedestrian accidents, consumer product design and usability, and risk communication and warning compliance.

Dr. Yerkes has over ten years of experience in experimental design, data collection, analysis, literature review, and scientific communication.

Prior to joining Exponent, Dr. Yerkes received her Ph.D. in Experimental Psychology with an emphasis in human cognition from the University of Nevada, Las Vegas. In her graduate work, she used behavioral and electrophysiological measures to understand the influence of acoustic properties (e.g., pitch, sound level) and cognitive factors on the organization and perception of sounds in children and adults. Furthermore, she studied how these processes affect the ability to perceive speech in noisy environments and detect auditory changes in complex listening situations.

Academic Credentials & Professional Honors

Ph.D., Psychology, University of Nevada, Las Vegas, 2021

M.A., Psychology, University of Nevada, Las Vegas, 2016

B.A., Psychology, University of Nevada, Las Vegas, 2012

Academic Appointments

Instructor, Psychology, University of Nevada, Las Vegas, 2015-2017

Prior Experience

Graduate Researcher, University of Nevada, Las Vegas, 2013-2021

Lab Manager, Auditory Cognitive Development Lab, University of Nevada, Las Vegas, 2019-2021

Lab Manager, Auditory Cognitive Neuroscience Lab, University of Nevada, Las Vegas, 2013-2015

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Professional Affiliations

Human Factors and Ergonomics Society

Acoustical Society of America

Association for the Scientific Study of Consciousness

Association for Research in Otolaryngology

Publications

Young B, Yerkes B, and Krauss D (2026). Chapter 11: Bicycles. In D. Krauss (5th Ed.) Forensic Aspects of Driver Perception and Response (pp. 155-163). Tucson, AZ: Lawyers and Judges Publishing Company, Inc.

Colling KM, Nave-Blodgett JE, Yerkes BD, Lester BD. Organic and Non-Organic Consumer Knowledge, Values, and Information Seeking Behavior. Proceedings of the Human Factors and Ergonomics Society International Annual Meeting. 2025: 1-6.

Yerkes BD, Vanden Bosch der Nederlanden CM, Beasley JF, Hannon EE, Snyder JS. Acoustic and Semantic Processing of Auditory Scenes in Children with Autism Spectrum Disorders. Journal of Autism Developmental Disorders. 2023.

Higgins NC, Monjaras AG, Yerkes BD, Little DF, Nave-Blodgett JE, Elhilali M, Snyder JS. Resetting of Auditory and Visual Segregation Occurs After Transient Stimuli of the Same Modality. Frontiers in Psychology 2021; 12: 720131.

Yerkes BD, Weintraub DM, Snyder JS. Stimulus-based and task-based attention modulate auditory stream segregation context effects. Journal of Experimental Psychology: Human Perception and Performance 2021; 45(1): 53-66.

Higgins NC, Little, DF, Yerkes, BD, Nave, KM, Kuruvilla-Mathew, A, Elhilali, M, Snyder, JS. Neural correlates of perceptual switching while listening to bistable auditory streaming stimuli. Neuroimage 2020; 204: 116220.

Snyder JS, Yerkes BD, Pitts M. Testing domain-general theories of perceptual awareness with auditory brain responses. Trends in Cognitive Science 2015; 19(6): 295-297.

Ramage E, Klimas N, Vogel S, Yerkes BD, Flores A, Sutton G…Snyder JS. Concurrent sound segregation impairments in schizophrenia: The contribution of auditory-specific and general cognitive factors. Schizophrenia Research 2015; 170(1): 95-101.

Presentations

Yerkes BD, VandenBosch der Nederlanden CM, Beasley JF, Hannon EE, Snyder JS. Assessing Auditory processing biases in children with and without autism. Podium presentation. UNLV Graduate and Professional Student Association Research Forum, Las Vegas, NV, March 2019.

Higgins NC, Little DF, Kuruvilla-Mathew A, Yerkes BD, Nave KM, Elhilali M, Snyder, JS. Neural correlates of perceptual switching during auditory streaming of bistable stimuli. Poster presentation. Association for Research in Otolaryngology Conference, San Diego, California, February 2018.

Yerkes BD, Weintraub D, Snyder JS. Stimulus-based attention and task-based attention modulate different auditory context effects. Poster presentation. Association for the Scientific Study of Consciousness Research Conference, Buenos Aires, Argentina, June 2016.

Yerkes BD, Weintraub D, Snyder JS. Auditory context effects during processing of mistuned harmonic tones: Behavioral and electrophysiological evidence. Poster presentation. Association for Research in Otolaryngology Conference, San Diego, CA, February 2016.

Yerkes BD, Weintraub DM, Snyder JS. Neural mechanisms underlying auditory context effects. Podium presentation. UNLV Psychology Department, Las Vegas, NV, January 2015.

Yerkes BD, Weintraub D, Snyder, JS., Attention modulates auditory stream segregation context effects. Poster presentation. Association for the Scientific Study of Consciousness Research Conference in San Diego, CA, July 2013.