

# Engineering & Scientific Consulting

# Sarah Izen, Ph.D.

Scientist | Human Factors Warrenville

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### **Professional Profile**

Dr. Sarah Izen is a cognitive neuroscientist with expertise in human perception and attention. Her work generally focuses on visual and auditory perception of naturalistic stimuli, multisensory interactions, and the role of attention in these processes. She uses this expertise to investigate human factors associated with industrial incidents, workplace hazards, vehicle accidents, safety information, and slips, trips, and falls.

Dr. Izen has over ten years of experience designing complex human research studies, including expertise in data analysis and data visualization. Prior to joining Exponent, Dr. Izen completed postdoctoral studies in the department of Brain and Cognitive Sciences at the University of Rochester, where she studied the processing of naturalistic music using both neuroimaging and behavioral methods. Dr. Izen completed her Ph.D. in the department of Developmental and Brain Sciences at the University of Massachusetts Boston, where her dissertation focused on the role of attention in the processing of multisensory emotional information in both children and adults. Additionally, Dr. Izen completed her master's degree in the department of Psychological and Brain Sciences at Boston University, where she studied spatial navigation. Throughout her career, Dr. Izen has taught and mentored many junior researchers.

#### Academic Credentials & Professional Honors

Ph.D., Developmental and Brain Sciences, University of Massachusetts, Boston, 2020

M.A., Psychology, Boston University, 2015

B.A., Neuroscience and Psychology, Smith College, 2011

Craig R. Bollinger Memorial Research Grant, 2019

# **Academic Appointments**

Postdoctoral Researcher, Brain and Cognitive Sciences, University of Rochester, 2021-2023

Instructor, Psychology, University of Massachusetts Boston, 2018-2019

# **Professional Affiliations**

Cognitive Science Society

Cognitive Neuroscience Society

## **Publications**

Aldugom M., Izen SC, Scully ID, Hoyos C, Cades DM. How does adaptive cruise control use impact driver behaviors, mental models, and trust and perception in the system? Advances in Human Factors of Transportation, 2025; 186:351-360.

Izen SC, Cassano-Coleman RY, Piazza EA. Music as a window into real-world communication. Frontiers in Psychology 2023; 14: 1012839

Izen SC, Ciaramitaro VM. A crowd of emotional voices influences the perception of emotional faces: Using adaptation, stimulus salience, and attention to probe audio-visual interactions for emotional stimuli. Attention, Perception, & Psychophysics 2020; 82: 2973-3992.

Izen SC, Lapp HE, Harris DA, Hunter RG, Ciaramitaro VM. Seeing a Face in a Crowd of Emotional Voice: Changes in Perception and Cortisol in Response to Emotional Information across the Senses. Brain Sciences 2019; 9: 176.

Izen SC, Chrastil ER, Stern CE. Resting State Connectivity Between Medial Temporal Lobe Regions and Intrinsic Cortical Networks Predicts Performance in a Path Integration Task. Frontiers in Human Neuroscience 2018; 12: 415.

#### **Presentations**

Izen, S.C. & Piazza, E.A. (2023). Disrupting naturalistic temporal structure impacts musical memory, prediction, and segmentation. Cognitive Science, online.

Piazza, E.A., Cassano, R., Iordan, M.C., Williams, J., Izen, S.C., Hasson, U. (2021). A naturalistic approach to studying temporal processing during music performance. Acoustical Society of America.

Izen, S.C. & Ciaramitaro, V.M. (2020). Multisensory interactions between emotional faces and voices can be enhanced by attending to face emotion, but not to face gender. Cognitive Neuroscience Society, online.

Izen, S.C., Lapp, H.E., Harris, D.A., Hunter, R.G., & Ciaramitaro, V.M. (2019). Seeing a face in a crowd of emotional voices: changes in perception and cortisol in response to emotional information across the senses. Society for Neuroscience, Chicago, IL.

Raymond, N., Izen, S.C., & Ciaramitaro, V.M. (2019). Quantifying perceptual biases in social anxiety: How do different measures compare? American Psychological Sciences, Washington, DC.

Parent, K., Izen, S.C., Morina, E., & Ciaramitaro, V.M. (2019). Biases in the perception of emotional faces and voices in social anxiety. UMass Amherst Undergraduate Research Conference, Amherst, MA.

Izen, S.C., Parent, K., Goutama, V., & Ciaramitaro, V.M. (2018). How the emotion we see is influenced by the emotion we hear depends on the visibility of a face. International Multisensory Research Forum, Toronto, Ontario, Canada.

Morina, E., Izen, S.C., & Ciaramitaro, V.M. (2018). The strength of adaptation to negative versus positive emotional information depends on social anxiety status. Vision Sciences Society, FL.

Izen, S.C., Leviyah, X., & Ciaramitaro, V.M. (2018). Seen and heard emotions of a crowd alter perception and state affect. Cognitive Neuroscience Society, MA.

Morina, E., Raymond, N, Izen, S.C., & Ciaramitaro, V.M. (2018). Maintained negative biases in social anxiety via biased adaptation to happy and angry faces depends on face gender. UMass Amherst Undergraduate Conference, MA.

Ciaramitaro, V.M., Izen, S.C., Lapp, H.E., Harris, D.A., & Hunter, R.G. (2018). Seen and heard emotions: influences on perception and cortisol. Cognitive Neuroscience Society, MA.

Parent, K., Goutama, V., Izen, S.C., & Ciaramitaro, V.M. (2018). How the emotion we see is influenced by the emotion we hear depends on the visibility of a face. UMass Amherst Undergraduate Conference, MA.

Leviyah, X., Izen, S.C., & Ciaramitaro, V.M. (2017). Attention determines how exposure to emotional information affects mood. New England Psychological Association, MA.

Morina, E., Izen, S.C., Ciaramitaro, V.M. (2017). Examining the perceptual change and response latency in people with social anxiety after adaptation to emotional faces. New England Psychological Association, MA.

Izen, S.C., Morina, E., & Ciaramitaro, V.M. (2017). Investigating the effects of social anxiety on the perception of negative emotions in faces. Association for Psychological Science, Boston, MA.

Diallo, H., Lam, E., Izen, S.C., & Ciaramitaro, V.M. (2017). Mood changes following exposure to unimodal and bimodal emotional stimuli. Health Equity Scholars Program Conference, Boston, MA.

Lam, E., Diallo, H., Izen, S.C., & Ciaramitaro, V.M. (2017). Perceiving visual and auditory emotional information across development. Health Equity Scholars Program Conference, Boston, MA.

Leviyah, X., Izen, S.C., Ciaramitaro, V.M. (2017). Positive and negative affect changes in relation to visual and auditory emotional information. UMass Amherst Undergraduate Research Conference, April 28th. 2017.

Portillo, N., Valentin, C., Green, S., Izen, S.C., Ciaramitaro, V.M. (2017). How does race bias our perception of emotion? UMass Amherst Undergraduate Research Conference, April 28th, 2017.

Morina, E., Izen, S.C., Ciaramitaro, V.M. (2017). Investigating the effects of social anxiety on the perception of negative emotions in faces. UMass Amherst Undergraduate Research Conference, April 28th, 2017.

Swenson, K., Chow, H.M., Izen, S., & Ciaramitaro, V.M. (2016). The development of emotional interactions across the senses: Interactions between visual and auditory emotional information in children versus adults. UMass Amherst Undergraduate Research Conference, April 22, 2016, Amherst, MA.

Phan, A., Izen, S., & Ciaramitaro, V.M. (2016). Cross-modal adaptation to emotional information: Influences on the magnitude and rate of perceptual change. UMass Amherst Undergraduate Research Conference, April 22, 2016, Amherst, MA.

Mui, B., Izen, S., & Ciaramitaro, V.M. (2016). The transfer of emotion across the senses: changes in the magnitude and rate of perceptual changes for emotional faces from auditory emotions. UMass Amherst Undergraduate Research Conference, April 22, 2016, Amherst, MA.

Cook, T., Izen, S., & Ciaramitaro, V.M. (2016). Perceptual biases for negative emotions in social anxiety. UMass Amherst Undergraduate Research Conference, April 22, 2016, Amherst, MA.

Ciaramitaro, V.M., Izen, S., Lapp, H.E., Harris, D., Phan, A., & Hunter, R.G. (2016). Does hearing an emotion alter how we see emotion in a face and the corresponding physiological stress response. Annual Meeting of the Vision Sciences Society, May 13-18, 2016, St. Pete Beach, FL.

#### Peer Reviews

Attention, Perception, & Psychophysics