

# Engineering & Scientific Consulting

# Nichole Breeland, Ph.D.

Managing Scientist | Human Factors Phoenix

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#### **Professional Profile**

Dr. Nichole Breeland is a developmental psychologist with expertise in human social cognition and lifespan development. She utilizes her diverse knowledge of attention, memory, and social psychological theory to examine human factors across several domains, such as virtual reality product use, child safety, and other aspects of user experience.

Dr. Breeland has extensive experience in designing and conducting large-scale longitudinal research with adult and child participants, including performing international research. She utilizes diverse data collection approaches, such as eye-tracking, behavioral observation, surveys, and qualitative interviews alongside sophisticated statistical approaches, such as Bayesian inference, dyadic modeling, and structural equation modeling to gain nuanced insights into human behavior. Dr. Breeland's socialcognitive theoretical approach and extensive research experience allows her to provide unique solutions to clients' most complex user research questions.

Dr. Breeland completed her Ph.D. in Developmental Psychology at the University of Auckland in New Zealand. Her graduate research examined the factors that predict children's ability to mentally represent shared goals and attain shared goals (i.e., cooperate) with others. Her research also focused on identifying a "cooperative phenotype" that examined the relationships between children's social-cognitive abilities (e.g., intention understanding, attention capacity, and person perception) and their cooperative behaviors. Dr. Breeland has also contributed to studies investigating the links between parent and child prosocial behaviors and children's trust in expert testimony.

#### Academic Credentials & Professional Honors

Ph.D., Psychology, University of Auckland, 2021

B.A., Psychology, Pacific Lutheran University, 2017

University of Auckland Doctoral Academic Scholarship, 2017 – 2021

Pacific Lutheran University Academic Scholarship, 2014 – 2017

Psi Chi International Honor Society in Psychology, 2016 - Present

### **Academic Appointments**

Graduate Teaching Assistant, Psychology, The University of Auckland, 2018 - 2021

# **Prior Experience**

Graduate Research Assistant, The Early Learning Lab, University of Auckland, 2017 - 2021

Research Assistant, Child Development Lab, Pacific Lutheran University, 2016

#### **Publications**

Egeth, M., Cherne, N., Breeland, N., Sye, S., Soosaar, J., Seifer, F., & Glezer, S. (2025). Is your medical device "easy to use"? Supplemental oxygen patients' experiences and tradeoffs around portable oxygen concentrators and tanks. Human Factors in Healthcare, 7, 100090.

Breeland, N. & Henderson, A. First impressions matter: Interaction quality between peers impacts future shared-goal attainment. Individual presentation, 20th Meeting of the Australasian Human Development Association, Auckland, New Zealand, 2020.

Breeland, N., Henderson, A., & Graham, B. Great expectations: How parent's altruistic values shape child cooperative ability. Poster presentation, 31st Meeting of the Association for Psychological Science, Washington, D.C., 2019.

McRae, C., Breeland, N., & Henderson, A. Infants' joint attention abilities foster social connections with cooperative partners but may interfere with cooperative ability. Poster presentation, Biennial Meeting of the Cognitive Development Society, Louisville, KY, 2019.

Breeland, N., Henderson, A., Kethers, P., Love, J., & Love, D. Disposition by design: The Monoamine Oxidase A (MAOA) gene and infant temperament. Poster presentation, Biennial Meeting of the International Society for the Study of Behavioral Development, Gold Coast, Australia, 2018.

Breeland, N., Henderson, A. M., & Low, R. (2022). Initial interactions matter: Warm-up play affects 2-yearolds' cooperative ability with an unfamiliar same-aged peer. Journal of Experimental Child Psychology, 218, 105328. https://doi.org/10.1016/j.jecp.2021.105328

# **Project Experience**

Managed a longitudinal study of over 500 participants designed to investigate factors that shape the development of prosocial behavior across infancy into childhood. Responsible for participant recruitment, study design, data collection, data acquisition and analysis, and publication.

### Peer Reviews

Child Development