

Department of Psychology  
 Binghamton University  
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## Education

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University of South Carolina Ph.D., Experimental Psychology Concentration in Quantitative Psychology Advisor: Douglas H. Wedell	2022
University of North Carolina Wilmington M.A., Psychology Certificate in Applied Statistics	2017
North Greenville University B.S., Psychology	2014

## Professional Positions

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Assistant Professor Department of Psychology, Binghamton University	2023-
Postdoctoral fellow Department of Psychological and Brain Sciences, Indiana University	2022-23

## Peer-Reviewed Journal Articles

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- Hayes, W. M., & Wedell, D. H.** (2023). Effects of blocked versus interleaved training on relative value learning. *Psychonomic Bulletin & Review*. Advance online publication. <https://doi.org/10.3758/s13423-023-02290-6>
- Gao, C., **Hayes, W. M.**, LaPierre, M., & Shinkareva, S. V. (2023). The effect of auditory valence on subsequent visual semantic processing. *Psychonomic Bulletin & Review*. Advance online publication. <https://doi.org/10.3758/s13423-023-02269-3>
- Hayes, W. M., & Wedell, D. H.** (2023). Testing models of context-dependent outcome encoding in reinforcement learning. *Cognition*, 230, 105280. <https://doi.org/10.1016/j.cognition.2022.105280>
- Wedell, D. H., **Hayes, W. M.**, & Verma, M. (2022). Context effects on choice under cognitive load. *Psychonomic Bulletin & Review*. Advance online publication. <https://doi.org/10.3758/s13423-022-02113-0>

**Hayes, W. M., & Wedell, D. H.** (2022). Reinforcement learning in and out of context: The effects of attentional focus. *Journal of Experimental Psychology: Learning, Memory, and Cognition*. Advance online publication. <https://doi.org/10.1037/xlm0001145>

**Hayes, W. M., & Wedell, D. H.** (2021). Regret in experience-based decisions: The effects of expected value differences and mixed gains and losses. *Decision, 8*, 277–294. <https://doi.org/10.1037/dec0000156>.

**Hayes, W. M., & Wedell, D. H.** (2020). Autonomic responses to choice outcomes: Links to task performance and reinforcement-learning parameters. *Biological Psychology, 156*, 107968. <https://doi.org/10.1016/j.biopsycho.2020.107968>.

Wedell, D. H., **Hayes, W. M.**, & Kim, J. (2020). Context effects on reproduced magnitudes from short-term and long-term memory. *Attention, Perception, & Psychophysics, 82*, 1710-1726. <https://doi.org/10.3758/s13414-019-01932-z>.

**Hayes, W. M.**, Wedell, D. H., & Rashotte, M. A. (2020). Context effects in reproduction and perception of song tempo. *Journal of Experimental Psychology: Human Perception and Performance, 46*, 202-219. <http://dx.doi.org/10.1037/xhp0000710>.

**Hayes, W. M.**, & Wedell, D. H. (2020). Modeling the role of feelings in the Iowa Gambling Task. *Decision, 7*, 67-89. <http://dx.doi.org/10.1037/dec0000116>.

Vanhille, S., Palmer, B., **Hayes, W.**, & Overman, W. (2018). The effect of active participation on performance and understanding on the Iowa gambling task. *Journal of Behavioral Decision Making, 31*, 686-694. <https://doi.org/10.1002/bdm.2083>.

### **Manuscripts Under Review or In Preparation**

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**Hayes, W. M.**, Holmes, W. R., & Trueblood, J. S. (under review). Attribute comparability and context effects in preferential choice. <https://psyarxiv.com/cq79y/>

Trueblood, J. S., Liu, Y., Murrow, M., **Hayes, W. M.**, & Holmes, W. R. (under review). Attentional dynamics explain the elusive nature of context effects. <https://psyarxiv.com/hj8dg/>

Oh, S., Yang, X., **Hayes, W. M.**, Wedell, D. H., & Shinkareva, S. V. (under review). Physiological response to aversive and non-aversive audio, visual, and audiovisual stimuli.

Banerjee, P., **Hayes, W. M.**, Chatterjee, P., Masters, T., Mishra, S., & Wedell, D. H. (under review). Factors that promote the repulsion effect in preferential choice.

### **Funded Grant Proposals**

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University of South Carolina SPARC Graduate Research Grant (2019-2020)  
 Proposal: Modeling the role of arousal in risky decision-making  
 \$4,902 (PI: Douglas H. Wedell, Co-PI: William M. Hayes)

## Invited Talks

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Putting reinforcement learning models into context: Tests of alternative mechanisms. Relative Value Learning Meeting, Paris School of Economics, Paris, France (2022, June).

Putting reinforcement learning models into context: Tests of alternative mechanisms. UofSC Institute for Mind and Brain Colloquium Series, Columbia, SC (2022, April).

Relationships between affective markers, reinforcement learning and Iowa Gambling Task performance. UofSC Institute for Mind and Brain Colloquium Series, Columbia, SC (2019, September).

## Conference Presentations

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**Hayes, W. M.**, & Wedell, D. H. Distinguishing among relative valuation models in reinforcement learning. Poster presented at the 63<sup>rd</sup> Annual Meeting of the Psychonomic Society (2022, November).

Oh, S., Yang, X., **Hayes, W. M.**, Wedell, D. H., & Shinkareva, S. V. To sweat or not to sweat: Physiological response to aversive and non-aversive audio, visual, and audiovisual stimuli. Poster presented at the 63<sup>rd</sup> Annual Meeting of the Psychonomic Society (2022, November).

**Hayes, W. M.** Attribute comparability and context effects in preferential choice. Talk presented at Cognitive Lunch, Cognitive Science Program, Indiana University (2022, November).

**Hayes, W. M.**, & Wedell, D. H. Testing models of context-dependent outcome encoding in reinforcement learning. Talk presented at the Discover UofSC Three-Minute Thesis Competition (2022, April).

Pettibone, J. C., Wedell, D. H., & **Hayes, W. M.** Context effects on risk perception of common behaviors during the COVID-19 pandemic. Talk presented at the 62<sup>nd</sup> Annual Meeting of the Psychonomic Society (2021, November).

**Hayes, W. M.**, & Wedell, D. H. Reinforcement learning in and out of context: The effects of attentional focus. Poster presented at the 62<sup>nd</sup> Annual Meeting of the Psychonomic Society (2021, November).

Wedell, D. H., & **Hayes, W. M.** Modeling decoy effects across individual differences and presentation constraints. Talk presented at the 61<sup>st</sup> Annual Meeting of the Psychonomic Society (2020, November).

**Hayes, W. M.**, & Wedell, D. H. Modeling regret in experience-based decisions: The effects of unequal expected values and losses. Poster presented at the 61<sup>st</sup> Annual Meeting of the Psychonomic Society (2020, November).

Wedell, D. H., **Hayes, W. M.**, & Rashotte, M. A. Context effects on tempo perception and reproduction. Talk presented at the 60<sup>th</sup> Annual Meeting of the Psychonomic Society, Montréal, Québec, Canada (2019, November).

**Hayes, W. M.**, & Wedell, D. H. Relating somatic markers to reinforcement learning in the Iowa Gambling Task. Poster presented at the 60<sup>th</sup> Annual Meeting of the Psychonomic Society, Montréal, Québec, Canada (2019, November).

**Hayes, W. M.**, & Wedell, D. H. Modeling the role of affect in the Iowa gambling task. Poster presented at the 59<sup>th</sup> Annual Meeting of the Psychonomic Society, New Orleans, LA (2018, November).

**Hayes, W. M.**, Rashotte, M. A., & Wedell, D. H. Effects of tempo context on reproducing original song tempo. Poster presented at the North Carolina Cognition Conference, Chapel Hill, NC (2018, February).

Overman, W., Vanhille, S., Palmer, B., **Hayes, W.**, Knox, M., DeGraba, M., Reimold, A., & Ice, C. The importance of active participation on performance in the Iowa Gambling Task. Poster presented at the 29<sup>th</sup> Association for Psychological Science Convention, Boston, MA (2017, May).

Vanhille, S., Overman, W., Palmer, B., **Hayes, W.**, Knox, M., DeGraba, M., Reimold, A., & Ice, C. The effect of intuition on performance in the Iowa Gambling Task. Poster presented at the 29<sup>th</sup> Association for Psychological Science Convention, Boston, MA (2017, May).

Dobson, S. H., & **Hayes, W. M.** Math anxiety and expressive writing in a psychology statistics course. Poster presented at the 37<sup>th</sup> National Institute on the Teaching of Psychology Conference, St. Pete Beach, FL (2015, January).

## Teaching

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Undergraduate courses

Seminar on Judgement and Decision Making, Binghamton University

Survey of Learning and Memory, University of South Carolina

## Professional Affiliations

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Society for Judgment and Decision Making

Psychonomic Society