

Daniele Nardi

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Education

2008	Ph.D., Psychology (Cognitive Neuroscience track) Bowling Green State University Bowling Green, OH Mentor: Verner Bingman
2004	M.S., Biological Sciences Scuola Normale Superiore Pisa, Italy
2001	B.S., Biological Sciences University of Pisa Pisa, Italy

Academic Positions

2022-Present	Associate Professor Ball State University Department of Psychological Science Muncie, IN
2018-2022	Assistant Professor Ball State University Department of Psychological Science Muncie, IN
2014-2018	Assistant Professor Eastern Illinois University Psychology Department Charleston, IL
2011-2014	Postdoctoral Research Fellow Supported by Marie Curie International Grant Sapienza University of Rome Psychology Department Rome, Italy
2011-2014	Adjunct Faculty John Cabot University Psychology Department Rome, Italy
2008-2011	Postdoctoral Research Fellow Supported by Spatial Intelligence and Learning Center Temple University Psychology Department Philadelphia, PA

Administrative Roles

2025-	Director of Undergraduate Research Ball State University Office of Research
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2024-2025	Undergraduate Research Programs Manager Ball State University Office of Research
2023-2024	Faculty Fellow for Undergraduate Research Ball State University Office of Research
2023-2024	Director of Undergraduate Studies Ball State University Department of Psychological Science

Peer-reviewed Publications

31. Weseman, C.E.*, **Nardi, D.**, Ahenkora-Amoako, H., Ramirez, G., Erny, C. E.*, Gill, J. D.*, Jenkins, C. T.*, Koch, T.*, McBeath, I.D.*, & Wilson, J.B*. (2025). Influence of working memory and spatial anxiety on floor slant perception. *Quarterly Journal of Experimental Psychology*. Advance online publication. <https://doi.org/10.1177/17470218251370907>
30. **Nardi, D.**, Dickin, D.C., Detrich, A.N.*, Aultman, A.L., Burns, E., Pellegrino, A.*, Price, K.M.*, Savage, C.J.*, Welch, J.N., Yantz, R.J.*, Huber, R.N.*, & Shaw, S.T. (2024). Individual Differences in Proprioceptive Reorientation: A Study on Body Characteristics and Posturography. *Spatial Cognition & Computation*. Advance online publication. doi: 10.1080/13875868.2024.2403355
29. **Nardi, D.**, Singer, K.J.*, Price, K.M.*, Carpenter, S.E.*, Bryant, J.A.*, Hatheway, M.A.*, Johnson, J.N.*, Pairitz, A.K.*, Young, K.L.*, & Newcombe, N.S. (2021). Navigating Without Vision: Spontaneous Use of Terrain Slant in Outdoor Place Learning. *Spatial Cognition & Computation*. Advance online publication. doi: 10.1080/13875868.2021.1916504
28. Coppola, V.J., **Nardi, D.**, & Bingman, V.P. (2021). Age-associated decline in septum neuronal activation during spatial learning in homing pigeons (*Columba livia*). *Behavioural Brain Research*. Advance online publication. <https://doi.org/10.1016/j.bbr.2020.112948>
27. **Nardi, D.**, Carpenter, S.E.*, Johnson, S.R.*, Gilliland, G.A.*, Melo, V.L.*, Pugliese, R., Coppola, V.J., & Kelly, D.M. (2020). Spatial Reorientation with a Geometric Array of Auditory Cues. *Quarterly Journal of Experimental Psychology*. Advance online publication. doi: 10.1177/1747021820913295
26. Casto, P., Wiegmann, D.D., Coppola, V.J., **Nardi, D.**, Hebets, E.A., & Bingman, V.P. (2020). Vertical-surface navigation in the Neotropical whip spider *Paraphrynus laevifrons* (Arachnida: Amblypygi). *Animal Cognition*. Advance online publication. doi: 10.1007/s10071-020-01420-0
25. **Nardi, D.**, Twyman, A.D., Holden, M.P., & Clark, J.M.* (2019). Tuning In: Can Humans Use Auditory Cues for Spatial Reorientation? *Spatial Cognition & Computation*. Advance online publication. doi: 10.1080/13875868.2019.1702665

24. Boomgarden, S.A.*, **Nardi, D.**, & Aronson, J.M. (2019). The Effect of a Fabricated Stereotype Threat on Sex Differences in Object Location Memory. *Psi Chi Journal of Psychological Research*, 24(3), 166-173. <https://doi.org/10.24839/2325-7342.JN24.3.166>
23. Sotelo, M.I., **Nardi, D.**, Payne, K.B., Coppola, V.J., Muzio, R.N., & Bingman, V.P. (2019). Local Geometric Properties Do Not Support Reorientation in Hippocampus-Engaged Homing Pigeons. *Behavioral Neuroscience*. Advance online publication. <http://dx.doi.org/10.1037/bne0000298>
22. Hammond, A.G.*, Murphy, E.M.*, Silverman, B.M.*, Bernas, R.S., & **Nardi, D.** (2018). No Environmental Context-Dependent Effect, but Interference, of Physical Activity on Object Location Memory. *Cognitive Processing*. doi: 10.1007/s10339-018-0875-4
21. **Nardi, D.**, Anzures, B.J.*, Clark, J.M.*, & Griffith, B.V.* (2018). Spatial Reorientation with Non-Visual Cues: Failure to Spontaneously Use Auditory Information. *Quarterly Journal of Experimental Psychology*. doi: 10.1177/1747021818780715
20. Ganczarek, J.*, Ruggieri, V., **Nardi, D.**, & Olivetti-Belardinelli, M. (2015). Intersection of Reality and Fiction in Art Perception: Pictorial Space, Body Sway and Mental Imagery. *Cognitive Processing*, 16, 233-236
19. **Nardi, D.**, Holmes, C.A., Newcombe, N.S., & Weisberg, S.M. (2015). Sex Differences and Errors in the Use of Terrain Slope for Reorientation. *Cognitive Processing*, 16, 323-326
18. Holmes, C.A., **Nardi, D.**, Newcombe, N.S., & Weisberg, S.M. (2015). Children's Use of Slope to Guide Navigation: Sex Differences Relate to Spontaneous Slope Perception. *Spatial Cognition & Computation*, 15, 170-185
17. Ganczarek, J.*, Ruggieri, V., **Nardi, D.**, & Olivetti-Belardinelli, M. (2014). Interaction of perception and imagination in pictorial space experience. In A. Scarinzi (Ed.), *Embodied Aesthetics: Proceedings of the 1st International Conference on Aesthetics and the Embodied Mind, 26th–28th August 2013* (pp. 38-58). Leiden, Netherlands: Brill Academic Publishers. doi: 10.1163/9789004281516
16. **Nardi, D.**, Meloni, R.*, Orlandi, M., & Olivetti-Belardinelli, M. (2014). Where is uphill? Sex differences reorienting on a sloped environment presented through 2D images. *Perception*, 43, 249-264
15. Weisberg, S. M., **Nardi, D.**, Newcombe, N.S., & Shipley, T.F. (2014). Up by Upwest: Is Slope like North? *Quarterly Journal of Experimental Psychology*, 67, 1959-1976.
14. **Nardi, D.**, & Bingman, V.P. (2013). Making a stronger case for comparative research to investigate the behavioral and neurological bases of 3D navigation. *Behavioral and Brain Sciences*, 36, 557-558. doi: 10.1017/S0140525X13000472

13. Schinazi, V.R., **Nardi, D.**, Newcombe, N.S., Shipley, T.F., & Epstein, R.A. (2013). Hippocampal size predicts rapid learning of a cognitive map in humans. *Hippocampus*, 23, 515-528.
12. Twyman, A.D., **Nardi, D.**, Newcombe, N.S. (2013). Two fields are better than one: Developmental and comparative cognition perspectives on understanding spatial reorientation. *Comparative Cognition & Behavior Reviews*, 8, 78-97.
11. **Nardi, D.**, Newcombe, N.S., & Shipley, T.F. (2013). Reorienting with terrain slope and landmarks. *Memory & Cognition*, 41, 214-228.
10. **Nardi, D.** (2012). Does terrain slope really dominate goal searching? *Cognitive Processing*, 13, 281-284.
9. **Nardi, D.**, Mauch, R.J.*, Klimas, D.B., & Bingman, V.P. (2012). Use of Slope and Feature Cues in Pigeon Goal Searching Behavior. *Journal of Comparative Psychology*, 126, 288-293.
8. **Nardi, D.**, Newcombe, N.S., & Shipley, T.F. (2011). The world is not flat: Can people reorient using slope? *Journal of Experimental Psychology: Learning, Memory and Cognition*, 37, 354-367.
7. **Nardi, D.**, Nitsch, K.P.*, & Bingman, V.P. (2010). Slope-Driven Goal Location Behavior in Pigeons. *Journal of Experimental Psychology: Animal Behavior Processes*, 36, 430-442.
6. **Nardi, D.**, Newcombe, N.S., & Shipley, T.F. (2010). The Role of Slope in Human Reorientation. *Proceedings of the International Conference Spatial Cognition 2010, Mt. Hood, Portland, OR, August 2010*.
5. **Nardi, D.**, & Bingman, V.P. (2009). Slope-based Encoding of a Goal Location is Unaffected by Hippocampal Lesions in Homing Pigeons (*Columba livia*). *Behavioural Brain Research*, 205, 322-326.
4. **Nardi, D.**, Funk, A.Y.*, Newcombe, N.S., & Shipley, T.S. (2009). Reorientation by Slope Cues in Humans. *Cognitive Processing*, 10, 260-262.
3. **Nardi, D.**, & Bingman, V.P. (2009). Pigeon (*Columba livia*) Encoding of a Goal Location: The Relative Importance of Shape Geometry and Slope Information. *Journal of Comparative Psychology*, 123, 204-216.
2. **Nardi, D.**, & Bingman, V.P. (2007). Asymmetrical participation of the left and right hippocampus for representing environmental geometry in homing pigeons. *Behavioural Brain Research*, 178, 160-171.
1. Gagliardo, A., Vallortigara, G., **Nardi, D.**, & Bingman, V.P. (2005). A lateralized avian hippocampus: Preferential role of the left hippocampal formation in homing pigeon sun compass-based spatial learning. *European Journal of Neuroscience*, 22, 2549-2559.

*Supervised Student Co-author

Research Support | Funded Grants

2026-2027	Principal Investigator Ball State University Joseph and Marcella Hollis Award Project title: “Childhood Trauma and Neural Mechanisms of Recognition Memory: An ERP Study” \$2,500
2024	Principal Investigator Ball State University ASPIRE Ad-Hoc Grant Project title: “EEG Study of Mnemonic Strategy in a Virtual Reality Task” \$2,873
2023	Co-Principal Investigator Ball State University Summer Assessment Grant Project title: “Validation among professors” \$1,500
2020-2021	Principal Investigator Ball State University ASPIRE Junior Faculty Research Grant Project title: “Proprioceptive Decline and Floor-Slant Awareness in Older Adults” \$15,000
2019-2020	Principal Investigator Ball State University Teacher-Scholar Research Grant Project title: “Gender differences in proprioceptive-based navigation” \$5,000
2018	Principal Investigator Eastern Illinois University College of Sciences Travel Fund Award \$750
2017	Principal Investigator Eastern Illinois University Summer Research and Creative Activity Award Project title: “Aging and the perception of slanted floors” \$4,000
2015	Principal Investigator Eastern Illinois University Early Research Support Grant \$500
2011-2014	Principal Investigator European Commission Marie Curie Grant FP-PEOPLE-2010-RG Project # 276798 Project title: “The role of the vertical dimension in memory and navigation” \$85,207

Peer-reviewed Conference Presentations

Gavin, D.W.*, Jarosinski, E., Stefanovski, J., Erny, C.*, Gick, A.C.*, Griffin, C.J.*, Jones, G.L.*, Maxwell, K.M.*, Trujillo, D.*, Fu, H., Perrone, K., Simon-Dack, S., & Nardi, D. (2026, August). *Real Memory in False Reality: Efficacy of Method of Loci in Virtual*

Spaces [Poster presentation]. American Psychological Association Annual Conference, Washington, D.C., United States.

Erny, C.*, Gavin, D.*, Gick, A.*, Griffin, C.*, Jones, G.*, Maxwell, K.*, Trujillo, D.*, & Nardi, D. (2026, April). *Examining Method of Loci Effectiveness in a VR Reality*. [Conference presentation]. Midwestern Psychological Association 2026, Chicago, IL.

Gick, A.*, Jones, G.*, Maxwell, K.*, Trujillo, D.*, & Nardi, D. (2026, April). *The Beauty of Memory: How Facial Attractiveness Affects Cued Recall*. [Poster session]. Midwestern Psychological Association Annual Conference, Chicago, IL.

Griffin, C.*, Nardi, D., Fu, H., Perrone, K., & Simon-Dack, S. (2025, November 20). *An ERP study of mnemonic strategy in virtual reality* [Poster Presentation]. Psychonomic Society Annual Meeting, Denver, CO.

Armstrong, M.*, Merriweather, C.*, Erny, C.*, Gick, A.*, Ibarra-Escobar, D.*, Griffin, C.*, Nardi, D. (2025, May). *Examining the Impact of the Method of Loci Strategy on Memory Retrieval and ERP*. [Poster Presentation]. Association for Psychological Science Annual Convention, Washington, DC.

Merriweather, C.*, Armstrong, M.*, Erny, C.*, Gick, A.*, Ibarra-Escobar, D.*, & Nardi, D. (April, 2025). *An ERP Study of Mnemonic Strategy in Virtual Reality*. [Poster session]. Midwestern Psychological Association Annual Conference, Chicago, IL.

Edwards, B.*, & Nardi, D. (April, 2025). *The effects of the Method of Loci on state anxiety*. [Poster session]. Midwestern Psychological Association Annual Conference, Chicago, IL.

Weseman, C.*, & Nardi, D. (2024, April). *How Spatial Anxiety and Working Memory Impact Nonvisual Spatial Reorientation*. Poster Presented at the 2024 Midwestern Psychological Association Conference, Chicago, IL.

Detrich, A.N.*, & Nardi, D. (2023, November). Contagion Fear: Influence of Mask-Wearing on Distance Perception. *Psychonomic Society, San Francisco, CA*.

Nardi, D., Detrich, A.*, & Huber, R. N.* (2023, April). Effect of Weight in a Nonvisual Spatial Reorientation Task. *Annual Meeting of the Midwestern Psychological Association, Chicago, IL*.

Detrich, A.*, Pellegrino, A.*, Price, K.*, & Nardi, D. (2022, May). Floor-Slant Perception in Older Adults. *Association for Psychological Science Annual Conference, Chicago, IL*.

Coppola, V.J., Nardi, D., & Bingman, V.P. (2022, April). A preliminary investigation of the cholinergic hypothesis of cognitive aging in birds. *Ohio Academy of Science Annual Meeting, Findlay, OH*

- Nardi, D., & Singer, K.J.* (2022, April). Distance Perception during a Pandemic: The Effect of Mask-Wearing. *Annual Meeting of the Midwestern Psychological Association, Chicago, IL.*
- Singer, K.J.*, & Nardi, D. (2021, November). The influence of Mask-Wearing in Distance Perception. *Psychonomic Society, Virtual Meeting.*
- Nardi, D., Singer, K.J.*, & Price, K.M.* (2021, April). Spontaneous Slant-Guided Blind Navigation. *Annual Meeting of the Midwestern Psychological Association, Virtual Meeting.*
- Singer, K.J.*, & Nardi, D. (2020, November). Non-Visual Spatial Navigation: A Field Study. *Psychonomic Society, Virtual Meeting.*
- Nardi, D., Carpenter, S.E.*, & Johnson, S.R.* (2020, April). Encoding of Geometry in Auditory-Guided Spatial Reorientation. *Annual Meeting of the Midwestern Psychological Association, Chicago, IL. (Conference cancelled for Coronavirus pandemic)*
- Carpenter, S.E.*, Johnson, S.R.*, Gilliland, G.A.*, Melo, V.L.*, & Nardi, D. (2019, November). Incidental Encoding of Geometry in Auditory-Based Spatial Reorientation. *Psychonomic Society, Montreal, Canada.*
- Nardi, D., Twyman, A.D., Holden, M.P., & Clark, J.M.* (2019, April). Functional Equivalence in Spatial Reorientation? *Annual Meeting of the Midwestern Psychological Association, Chicago, IL.*
- Nardi, D., Clark, J.M.*, Holden, M.P., & Twyman, A.D. (2018, November). Encoding of Certain and Ambiguous Cues in Auditory-Guided Reorientation. *Psychonomic Society, New Orleans, LA.*
- Nardi, D., Anzures, B.J.*, Clark, J.M.*, & Griffith, B.V.* (2018, May). Spatial Reorientation with Non-Visual Cues: Failure to Use White Noise. *Association for Psychological Science Annual Convention, San Francisco, CA.*
- Hammond, A.G.*, & Nardi, D. (2017, May). No Evidence of Context Effects of Physical Activity on Object Location Memory. *Association for Psychological Science Annual Convention, Boston, MA.*
- Nardi, D., & Johnston, J.R.* (2017, April). Sex difference in non-visual spatial reorientation. 89th *Annual Meeting of the Midwestern Psychological Association, Chicago, IL.*
- Ganczarek, J., Nardi, D., & Olivetti-Belardinelli, M. (2016, December). Am I here or there? Space and action in aesthetic experience. *A Body of Knowledge: Embodied Cognition and the Arts Conference, Irvine, CA.*
- Nardi, D., Johnston, J.R.*, & Guenther, B.A. (2016, November). Exploring the role of effort and sex in non-visual location memory. *Psychonomic Society, Boston, MA.*

- Ganczarek, J.*, Ruggieri, V., Olivetti-Belardinelli, M., & Nardi, D. (2015, September). Intersection of reality and fiction in art perception. *6th International Conference on Spatial Cognition: Space and Situated Cognition, Rome, Italy*.
- Nardi, D., Holmes, C.A., Newcombe, N.S., & Weisberg, S.M. (2015, September). More on the ability to use slope for navigation: evidence from children. *6th International Conference on Spatial Cognition: Space and Situated Cognition, Rome, Italy*.
- Nardi, D., Meloni, R.*, & Olivetti-Belardinelli, M. (2013, August). Where is uphill? The contribution of visual cues for slope detection in 2D images. *European Society for Cognitive Psychology conference, Budapest, Hungary*.
- Ganczarek, J.*, Ruggieri, V., Olivetti-Belardinelli, M., & Nardi, D. (2013, August). Interaction of perception and imagination in pictorial space experience. *1st International Conference on Aesthetics and The Embodied Mind, Delmenhorst, Germany*.
- Holmes, C.A., Newcombe, N.S., Weisberg, S.M., & Nardi, D. (2013, April). Hitting the Slopes: Children's Use of Gradient Cues in Reorientation. *Society for Research in Child Development Biennial Meeting, Seattle, WA*.
- Weisberg, S.M., Nardi, D., Newcombe, N.S. & Shipley, T.F. (2012, November). Sensing the slopes: Sensory modality effects on a goal location task. *Psychonomic Society, Minneapolis, MN*.
- Nardi, D. (2012, September). Does terrain slope really dominate goal searching behavior? *5th International Conference on Spatial Cognition: Space and Embodied Cognition, Rome, Italy*.
- Nardi, D., Newcombe, N.S., & Shipley, T.F. (2012, August). Representing vertical spaces: a case of sex differences in spatial abilities. *Cognitive Science Society Annual Conference, Sapporo, Japan*.
- Nardi, D., Newcombe, N.S., & Shipley, T.F. (2011, May). Individual Differences in Reorientation. *Association for Psychological Science Annual Convention, Washington, DC*.
- Nardi, D., Newcombe, N.S., & Shipley, T.F. (2010, August). The Role of Slope in Human Reorientation. *Spatial Cognition International Conference, Mt. Hood, Portland, OR*.
- Schinazi, V.R., Epstein, R.A., Nardi, D., Newcombe, N.S., & Shipley, T.F. (2009, November). The acquisition of spatial knowledge in an unfamiliar campus environment. *Psychonomic Society, Boston, MA*.
- Nardi, D., Funk, A.Y.*, Newcombe, N.S., & Shipley, T.F. (2009, September). Reorientation by Slope Cues in Humans. *4th International Conference on Spatial Cognition, Rome, Italy*.

- Nardi, D., Funk, A.Y.*, Newcombe, N. S., & Shipley, T.F. (2009, May). Reorientation by Slope Cues in Humans. *Conference of the International Mind, Brain and Education Society, Philadelphia, PA.*
- Nardi, D., Funk, A.Y.*, Newcombe, N.S., & Shipley, T.F. (2009, April). Reorientation by Slope Cues in Humans. *NSF Annual Site Visit for the Spatial Intelligence and Learning Center (SILC), Philadelphia, PA.*
- Nardi, D., Newcombe, N.S., & Shipley, T.F. (2009, February). The Salience of Slope Information for Goal Location. *Second Annual Inter-Science of Learning Center Student and Post-Doc Conference, Seattle, WA.*
- Nardi, D., & Bingman, V. P. (2008, November). The relationship between geometric shape and slope for the representation of a goal location in pigeons (*Columba livia*). *Spatial Learning in Geography Workshop, National Geographic Society, Washington, D.C.*
- Nardi, D., & Bingman, V. P. (2008, March). Pigeon encoding of a goal location: The relative importance of boundary geometry and the vertical dimension of slope. *Annual International Conference on Comparative Cognition, Melbourne Beach, FL.*
- Nardi, D., & Bingman, V.P. (2007, November). How pigeons encode geometry on a slope. *Poster session presented at the Bowling Green State University Research Conference, Bowling Green, OH.*
- Bingman, V.P., & Nardi, D. (2006, March). The avian hippocampus: space or spatial salience? *Annual International Conference on Comparative Cognition, Melbourne Beach, FL.*
- Nardi, D., Benvenuti, S., & Dall'Antonia, L. (2004, September). Foraging strategies of seabirds studied with data-logger. *National Meeting of the Italian Society of Ethology (SIE), Padova, Italy.*

*Supervised Student Co-author

Invited Talks

- Nardi, D., & Huber, R.N.* (2022, November). Individual Differences in Blind Navigation. *Invited speaker, John Cabot University, Rome, Italy.*
- Nardi, D. (2022, November). Orientation to Psychology: A Perspective from Cognitive Psychology. *Invited speaker, The University of Findlay, Findlay, OH.*
- Nardi, D. (2022, April). Undergraduate Research and Mentorship. *Invited speaker, High Impact Practices Faculty Learning Community, Ball State University, IN.*
- Nardi, D. (2021, March). Culture Exchange Program: Culture and Behavior in Italy. *Invited speaker, Rinker Center for International Programs, Ball State University, IN.*

- Nardi, D. (2018, October). Overview of Spatial Reorientation with Non-Visual Cues. *Invited speaker, Department of Psychological Science Speaker Series, Ball State University, IN.*
- Nardi, D., Anzures, B.J.*, Clark, J.M.*, & Griffith, B.V.* (2018, March). Spatial Reorientation with Non-Visual Cues: Failure to Use Auditory Information. *Invited speaker, Bowling Green State University, OH.*
- Nardi, D., Anzures, B.J.*, Clark, J.M.*, & Griffith, B.V.* (2017, June). Reorientation with Non-Visual Cues: Failure to Use Auditory Information. *Invited speaker, University of Pisa, Pisa, Italy.*
- Nardi, D. (2016, June). Exploring the role of effort and sex in non-visual location memory. *Invited speaker, Sapienza University of Rome, Rome, Italy.*
- Nardi, D. (2011, January). The World Is Not Flat: How Space Is Represented on Sloped Surfaces. *Invited speaker, The University of Chicago, Chicago, IL.*
- Nardi, D. (2011, January). The World Is Not Flat: How Space Is Represented on Sloped Surfaces. *Invited speaker, Northwestern University, Evanston, IL.*
- Nardi, D. (2010, March). The World Is Not Flat: How Space Is Represented on Sloped Surfaces. *Invited speaker, BGSU, Bowling Green, OH.*

*Supervised Student Co-author

Undergraduate Student Sponsored Presentations

- Walker, E. A. (2026, April). *The Role of 5-HT1A Autoreceptors in Drosophila Activity Levels and Circadian Rhythm and its Relationship to Sex* [Conference presentation]. Mid-America Undergraduate Psychology Research Conference, Franklin, IN, United States.
- Walker, E. A. (2026, April). *The Role of 5-HT1A Autoreceptors in Drosophila Activity Levels and Circadian Rhythm and its Relationship to Sex* [Conference presentation]. The Butler Undergraduate Research Conference, Indianapolis, IN, United States.
- Jose, J. (2026, April). *Charm and Recall: A Memory Study*. [Poster presentation]. Ball State University's annual Student Symposium, Muncie, IN, United States.
- Maxwell, K. (2026, April). *Mindfulness Practices and Their Influence on Working Memory*. [Poster presentation]. Ball State University's annual Student Symposium, Muncie, IN, United States.
- Gick, A., Jones, G., Maxwell, K., Trujillo, D., Nardi, D. (2026, April). *The Beauty of Memory: How Facial Attractiveness Affects Cued Recall*. [Poster presentation]. Ball State University's annual Student Symposium, Muncie, IN, United States.

- Trujillo, D., Gavin, D., Griffin, C., Gick, A., Jones, G., & Maxwell, K. (2026, April). *Using EEG to Examine Effectiveness of Method of Loci in Virtual Reality*. [Poster presentation]. Ball State University Annual Student Symposium, Muncie, IN.
- Walker, E. A. (2026, March). *The Role of 5-HT1A Autoreceptors in Drosophila Activity Levels and Circadian Rhythm and its Relationship to Sex*. [Conference presentation]. IAS 2026 Annual Meeting, Indianapolis, IN, United States
- Ibarra-Escobar, D., & Griffin, C. (2025, April). *Examining the Method of Loci using Memory Retrieval, ERP, and Virtual Reality*. [Oral Presentation]. Ball State CHIRPS Week, Muncie, IN.
- Gill, J.D., Jenkins, T.S.C., Wilson, J.B., & Weseman, C.E. (2024, April). *The Effect of Spatial Anxiety and Working Memory on Reorientation*. Poster Presented at the annual Student Symposium, Ball State University, Muncie, IN.
- Erny, C.E., & McBeath, I.D. (2024, April). *Spatial Anxiety and Working Memory's Impact on Spatial Navigation*. Poster Presented at the annual Student Symposium, Ball State University, Muncie, IN
- Erny, C.E., Gill, J.D., Jenkins, C.T., & McBeath, I.D. (2024, April). *Do Spatial Anxiety and Working Memory Play a Role in Spatial Reorientation?* Oral Presentation at the 2024 Mid-America Undergraduate Psychology Research Conference, Muncie, IN.
- Mitchell, K. B., & Van Duyn, A. D. (2023, April). Taking a step back: COVID-19, distance estimation, and the role of fear. *Mid-America Undergraduate Psychology Research Conference, Evansville, IN*.
- Van Duyn, A. D. (2023, April). Considering COVID-19: The role of mask-wearing on contagion fear and distance estimation. *Ball State University Teacher-Scholar Celebration, Muncie, IN*.
- Detrich, A., Weseman, C., Brizzi, L., Koch, T., & Mitchell, K. (2023, April). Contagion Fear: Influence of Mask Wearing On Distance Perception. *Ball State University Student Symposium, Muncie, IN*.
- Weseman, C., & Clapp, E.G. (2023, April). The Association Between Working Memory, Spatial Anxiety, and Navigation. *Ball State University Student Symposium, Muncie, IN*.
- Klaker, S. (2023, April). Individuals' Differences in Navigation. *Ball State University Teacher-Scholar Celebration, Muncie, IN*.
- Campbell, A., Maxwell, K., & Detrich, A. (2022, April). COVID-19 Anxiety and Its Effect on Proximity Estimation. *Ball State University Student Symposium, Muncie, IN*.
- Savage, C.J., Yantz, R.J., & Huber, R.N. (2022, April). Floor-Slant Perception. *Mid-America Undergraduate Psychology Research Conference, Richmond, IN*.

- Huber, R.N. (2022, April). Individual Differences in Floor Slant Perception. *Ball State University Annual Teacher-Scholar Celebration, Muncie, IN.*
- Epperly A. (2021, April). Cognitive effects of individual differences in sensory processing sensitivity. *Ball State Student Symposium, Virtual Meeting.*
- Detrich, A. N. (2021, March). Examining Gender Identity in Spatial Ability: Influences on Mental Rotation Tasks, Spatial Anxiety Scales, and Spatial Memory Tasks. *Mid-East Honors Association Conference, Virtual Meeting.*
- Detrich, A. N. (2021, April). Examining Gender Identity in Spatial Ability: Influences on Mental Rotation Tasks, Spatial Anxiety Scales, and Spatial Memory Tasks. *Ball State Student Symposium, Virtual Meeting.*
- Detrich, A. N. (2021, April). Examining Gender Identity in Spatial Ability: Influences on Mental Rotation Tasks, Spatial Anxiety Scales, and Spatial Memory Tasks. *Midwest Undergraduate Cognitive Science Conference, Virtual Meeting.*
- Detrich, A. N. (2021, April). Examining Gender Identity in Spatial Ability: Influences on Mental Rotation Tasks, Spatial Anxiety Scales, and Spatial Memory Tasks. *Mid-America Undergraduate Psychology Research Conference, Virtual Meeting.*
- Pairitz, A., Hatheway, K., Bryant, J., Johnson, J., Price, K., Singer, K., & Young, K. (2020, April). Sex Differences in Non-Visual Spatial Cognition. *Mid-America Undergraduate Psychology Research Conference, Virtual Meeting.*
- Singer, K., Young, K., Bryant, J., Hatheway, K., Johnson, J., Pairitz, A., & Price, K. (2020, April). Sex differences in blind navigation. *Ball State Student Symposium, Muncie, IN. (Conference cancelled for Coronavirus pandemic)*
- Price, K., Bryant, J., Johnson, J., Hatheway, K., Pairitz, A., Singer, K., & Young, K. (2020, April). Sex Differences in Navigation Using Non-Visual Cues. *Butler University's Undergraduate Research Conference, Indianapolis, IN. (Conference cancelled for Coronavirus pandemic)*
- Gilliland, G.A., Melo, V.L., Carpenter, S.E., & Johnson, S.R. (2019, April). Incidental Encoding of Auditory-Based Geometry. *Ball State University Student Symposium, Muncie, IN.*
- Melo, V.L., & Gilliland, G.A. (2019, April). Incidental Encoding of Auditory-Based Geometry. *Annual Mid-America Undergraduate Psychology Research Conference, Franklin, IN.*
- Crowne, A., & Swan, J. (2018, April). Physical Activity as a Context for Memory. *Annual Mid-America Undergraduate Psychology Research Conference, Charleston, IL.*
- Clark, J.M. (2018, April). Spatial Reorientation with Auditory Cues: Do Humans Encode Ambiguous Stimuli? *Annual Mid-America Undergraduate Psychology Research Conference, Charleston, IL.*

- Clark, J.M. (2018, April). Spatial Reorientation with Auditory Cues: Do Humans Encode Ambiguous Stimuli? *National Conference on Undergraduate Research, Edmond, OK.*
- Clark, J.M. (2018, April). Spatial Reorientation with Auditory Cues: Do Humans Encode Ambiguous Stimuli? *Annual Meeting of the Midwestern Psychological Association, Chicago, IL.*
- Crowne, A. (2018, April). Physical Activity as a Context for Memory. *Butler University's Undergraduate Research Conference, Indianapolis, IN.*
- Clark, J.M. (2018, March). Spatial Reorientation with Auditory Cues: Do Humans Encode Ambiguous Stimuli? *Student Research and Creative Discovery Conference, Charleston, IL.*
- Crowne, A., & Swan, J. (2018, March). Physical Activity as a Context for Memory. *Student Research and Creative Discovery Conference, Charleston, IL.*
- Pantier, L. (2018, March). Dyslexia-Related Impairments in Auditory-Based Spatial Reorientation. *Student Research and Creative Discovery Conference, Charleston, IL.*
- Boomgarden, S.A. (2017, April). Cognitive Performance and Stereotype Threat. *36th Annual Mid-America Undergraduate Psychology Research Conference, Evansville, IN.*
- Anzures, B.J., Clark, J.M., & Griffith, B.V. (2017, April). Spatial Reorientation Using Only Auditory Cues. *36th Annual Mid-America Undergraduate Psychology Research Conference, Evansville, IN.*
- Silverman, B.M., & Murphy, E.M. (2017, April). Context Effect of Physical Effort on Object Location Memory. *National Conference on Undergraduate Research, Memphis, TN.*
- Murphy, E.M., & Silverman, B.M. (2017, April). Physical Effort as a Context for Object Location Memory. *Butler University's Undergraduate Research Conference, Indianapolis, IN.*
- Anzures, B.J., Clark, J.M., & Griffith, B.V. (2017, March). Spatial Cognition with Non-Visual Stimuli. *Student Research and Creative Discovery Conference, Charleston, IL.*
- Murphy, E.M., & Silverman, B.M. (2017, March). The Influence of Physical Activity on Spatial Location Memory. *Student Research and Creative Discovery Conference, Charleston, IL.*
- Johnston, J.R. (2016, May). The Role of Effort in Spatial Learning: Evidence from a Non-visual Task. *88th Annual Meeting of the Midwestern Psychological Association, Chicago, IL.*
- Johnston, J.R. (2016, April). Sex differences in a non-visual object location memory task. *35th Annual Mid-America Undergraduate Psychology Research Conference, Richmond, IN.*

Duffle, E., & Klein, J. (2016, April). An Eye-Tracking Approach to Studying the Body-Specificity Hypothesis. *35th Annual Mid-America Undergraduate Psychology Research Conference, Richmond, IN.*

Johnston, J.R. (2016, April). Sex differences in a non-visual object location memory task. *Undergraduate Research Conference, Indianapolis, IN.*

Farris, A.M., & Sven, M.T. (2015, April). Perception of Space in Computer Images. *34th Annual Mid-America Undergraduate Psychology Research Conference, Franklin, IN.*

Johnston, J.R. (2015, April). Testing the Action-Specific Hypothesis Against Slope and Auditory Cues: Which Cue Will Prove to be More Salient During Reorientation? *34th Annual Mid-America Undergraduate Psychology Research Conference, Franklin, IN.*

Research Interests

Perception and memory in the domain of space
Diversity, individual and sex differences
Age-related changes in cognition
Context-dependent memory
Neurological substrates of spatial representations
Functional equivalence of sensory modalities

Teaching Experience

Graduate courses:

- Perception and Cognition
- Physiological Psychology

Undergraduate courses:

- Capstone Research Seminar
- Psychology Seminar: Psychology of Space & Time
- Cognitive Neuroscience
- Neuroscience of Development and Aging
- Cognitive Psychology
- Introduction to Neuroscience
- Sensation & Perception
- Culture & Psychology
- Research Methods and Experimental Design
- Introductory Psychology

Supervision of Thesis and Dissertation

Committee Chair, Master's Thesis:

- Dan Gavin

- Anna Gick (2026)
- Claire Weseman (2024)
- Alex Detrich (2023)
- Katelyn Singer (2021)
- Leanna Pantier (2018)
- Alexandra Hammond (2017)

Committee Chair, Honors Thesis:

- Allison Dittmer (2023)
- Alex Detrich (2021)
- Alex Epperly (2021)
- Abigail Crowne (2019)
- Jamie Swan (2019)
- Josie Clark (2018)
- Samantha Boomgarden (2018)
- Jacob Johnston (2016)

Committee Member, Dissertation:

- Peyton York (proposed in 2024)
- Ellie Jarosinski
- Reed Akolgo (2026)

Committee Member, Master's Thesis:

- Meleah Hess, Master's (2024)

Awards for Students under my Mentorship

Ball State University

Student Symposium Honors College Sponsored Award | Emma Walker | 2026
 ASPIRE Student Travel award | Dan Gavin (grad) | 2026
 ASPIRE Student Travel award | Keegan Maxwell (undergrad) | 2026
 ASPIRE Student Travel award | Emma Walker (undergrad) | 2026
 ASPIRE Student Travel award | Daniel Trujillo (undergrad) | 2026
 ASPIRE Graduate Student Research Grant | Dan Gavin | 2026
 ASPIRE Undergraduate Student Research Grant | Keegan Maxwell | 2026
 ASPIRE Graduate Student Research Grant | Anna Gick | 2025
 Pepsi Undergraduate Research and Creative Endeavor Grant | Caroline Erny (undergrad) | 2025
 ASPIRE Student Travel award | Caroline Erny (undergrad) | 2025
 ASPIRE Student Travel award | Dana Ibarra (undergrad) | 2025
 ASPIRE Student Travel award | Corey Griffin (grad) | 2025
 ASPIRE Student Travel award | Anna Gick (grad) | 2025
 ASPIRE Student Travel award | Molly Armstrong (grad) | 2025
 ASPIRE Student Travel award | Carlie Merriweather (grad) | 2025

ASPIRE Undergraduate Student Research Grant | Bryn Edwards | 2024
 Keys, Litten, & Smith Award for Poster presented at the Student Symposium | Gill, J.D., Jenkins, T.S.C., Wilson, J.B., & Weseman, C.E. | The Effect of Spatial Anxiety and Working Memory on Reorientation | 2024
 ASPIRE Student Travel award | Caroline Erny (undergrad) | 2024
 ASPIRE Student Travel award | Jack Gill (undergrad) | 2024
 ASPIRE Student Travel award | Ian McBeath (undergrad) | 2024
 ASPIRE Student Travel award | Claire Weseman (grad) | 2024
 ASPIRE Student Travel award | Kayleen Mitchell (undergrad) | 2023
 ASPIRE Student Travel award | Alicia Van Duyn (undergrad) | 2023
 Pathways Undergrad Research Fellowship Award | Alicia Van Duyn (undergrad) | 2023
 ASPIRE Graduate Student Research Grant | Alex Detrich (grad) | 2022
 ASPIRE Undergraduate Student Research Grant | Alex Detrich (undergrad) | 2020
 ASPIRE Student Travel award | Sam Carpenter (grad) | 2019
 ASPIRE Student Travel award | Somer Johnson (grad) | 2019
 ASPIRE Student Travel award | Greg Gilliland (undergrad) | 2019
 ASPIRE Student Travel award | Viveka Melo (undergrad) | 2019

Eastern Illinois University

Undergraduate Research, Scholarship, and Creative Activities award | Josie Clark (undergrad) | 2018
 Graduate Student Investigator award | Leanna Pantier (grad) | 2018
 Bailey award | Alex Hammond (grad) | 2017

Service

Ball State University

Department level:

TL Promotion & Tenure Committee

- Chair 2025-2026
- Member 2023 -

DEI Committee, Member and Recorder 2024 -

Department Faculty Peer Mentor 2024 -

NTL Promotion Committee, Member 2024 - 2025

Graduate Committee, Member and Recorder 2021 – 2024

Research, Resources, and Enrichment Committee, Member and Recorder 2022 - 2024

Undergraduate Curriculum Committee

- Chair 2020 – 2022
- Member 2019 – 2020

Department NTL Search Committee, Member and Recorder 2021 – 2022

Department Chair Search Committee, Member 2020 – 2021

Department Chair Election Committee, Member 2020

College level:

CSH Course-Based Undergraduate Research Experiences Program Task Force, Member 2024 -
Restructuring Advisory Committee, Member 2023 -
Pedagogy Liaison to the CSH Faculty Pedagogy Fellow, 2023 - 2024

University level:

Representative at the Ball State Day at the State House in Indianapolis, 2024-
Global Engagement Committee, Member 2024 -
Ball State Research Week (CHIRPS) Task Force, Member 2023 –

- I help the organization of CHIRPS week and specifically the Oral Presentation Day event. I am also a moderator for the oral presentations.

Advisory Council on Scholarship, Member 2022 -

Organized a regional undergraduate research conference (MAUPRC) at BSU on April 13, 2024

- Attendance of 200 people
- I organized the oral sessions and the logistics for meals and space reservations.

Cardinal Preview Day, Department Representative, 2022 - 2024

Undergraduate Education Committee, Member 2021 - 2024

Fulbright Screening Committee, Member 2022 - 2024

Faculty Council, Member 2019 – 2021

Admissions & Credits Committee (Faculty Council Subcommittee), Member 2019 – 2020

University Senate, Member 2019 – 2020

Editorial Activity

Section Editor of *Cognitive Processing*, 2020 – 2024

Consulting Editor of *Cognitive Processing*, 2016 - 2020

Ad-Hoc Reviewer for: *JEP:LMC*, *Memory & Cognition*, *Quarterly Journal of Experimental Psychology*,
Journal of Comparative Psychology, *PLOS ONE*, *CR:PI*, *Cognition*, *Spatial Cognition and Computation*

Co-editor of special issue of *Cognitive Processing*, vol.13, August 2012

Scientific Organizations

Executive Committee member and Co-Director of Programming of *Mid-America Undergraduate Psychology Research Conference (MAUPRC)*, since 2019. Yearly conference.

Scientific Committee member of *International Conference on Spatial Cognition (ICSC)*, Rome, Italy, 2012 – 2021. Conferences held every 3 years.

Symposium Convenor “Perception and Representation of Vertical Spaces”: *International Conference on Spatial Cognition*, Rome, Italy, 4-9 September 2012.

Symposium Convenor “How Vertical Spaces Are Perceived and Represented”: *Cognitive Science Society annual Meeting*, Sapporo, Japan, 1-4 August 2012.

Organizer and Chair of the Doctoral Colloquium: *Spatial Cognition International Conference*, Mt. Hood, Portland, OR, 15-19 August 2010.

Service to the Local Community

Promotional Table at “We Fly Fest”, 2025

BSU Pathways Program Mentor, 2023 -
BSU Friendship Family Program, 2019 -

Previous Service at Eastern Illinois University

Academic Advisor for undergraduate majors in Psychology (~30 students per semester), 2015-2018
International Education Council, Member 2014-2017, Chair 2017-2018
Neuroscience Major Curriculum Committee, Chair 2016-2018
Psychology Club, Advisor 2017-2018
Research Participation Program Departmental Committee, Member 2014-2018, Chair 2017
Student Fee Apportionment Board, Member 2015-2016
IACUC, Member 2015-2018
Online Psychology B.A. Committee, Member 2016-2017
Study Abroad Coordinator Search Committee, Member 2018
Technology/Equipment Departmental Committee, Member 2014-2018
Psychology Doctoral Program Committee (Sapienza University), Member 2012-2014

Professional Development

MAC Academic Leadership Development Program Fellow | 2025-2026
Ball State University | Faculty Mentors Network Program | Grantwriting mentorship (matched with Dr. Ramirez) | 2025
Ball State University | DGS Workshop: Ethical Use of AI in Graduate Education. Presented by the Division of Online and Strategic Learning | 2025
Ball State University | Practical Application Session: Empowering Pedagogy with AI: Cross-College Conversations, Tools, and Teaching | 2025
Council on Undergraduate Research | Leadership webinar | 2024
Council on Undergraduate Research | ConnectUR Undergraduate Research Conference | 2024
Ball State University | Workshop on best practices with Qualtrics | 2023
Ball State University | Internationalization Faculty Fellow Program | I initiated a bilateral exchange agreement with John Cabot University | 2022-2023
Ball State University | EAB training | 2022
Ball State University | Enrollment Planning and Management Symposium | 2022
Ball State University | SPA Fellows Program | 2018-2019
Ball State University | New Faculty Academy | 2018

Professional Membership

Council on Undergraduate Research
Psychonomic Society
ECoNA Inter-university Center for Research and Services
Midwestern Psychological Association
Association for Psychological Science
