

Matthew D. Langley

Department of Psychology, Whitman College
413-461 Boyer Ave., Walla Walla, WA 99362
Office 327, Maxey Hall
(509) 527-5250 | langleym@whitman.edu

EDUCATION

- 2021- Ph.D. in Cognitive Science Psychology | Arizona State University
Dissertation: *TBD*
- 2017-2021 M.A. in Cognitive Science Psychology | Arizona State University
Thesis: *Tops Versus Bottom Saliency Bias in Object and Scene Perception*
Committee: Michael K. McBeath (Chair), Kelsey Lucca, & Gene A. Brewer
- 2008-2011 B.S. in Psychology | Northern Illinois University
Cum Laude
Honors Thesis: *Exploring How Pre-Reading Instructions Affect Personal Reading Intentions*
Undergraduate Advisors: M. Anne Britt & Katja Wiemer

PUBLICATIONS

- Nguyen, T, Magaldino C. M., Landfair, J., **Langley, M. D.**, & Amazeen, P. G. (2024). Perception of Affordances in Interaction with Autonomous Systems. In *The Modern Legacy of Gibson's Affordances for the Sciences of Organisms* (pp. 348-363). Routledge.
- Langley, M.D.**, Van Houghton, K., McBeath, M.K., & Lucca, K. (2023). Children and Adults Exhibit a Common Vertical Attention Bias for Object Tops and Scene Bottoms. *Developmental Psychology*.
- Langley, M.D.**, & McBeath, M.K. (2023). Vertical Attention Bias for Tops of Objects and Bottoms of Scenes. *Journal of Experimental Psychology: Human Perception and Performance*.
- Jordan, J.S., Cialdella, V.T., Dayer A., **Langley, M.D.**, & Stillman, Z. (2017). Wild bodies don't need to perceive, detect, or create meaning: They ARE meaning. *Frontiers in Psychology*.
- Farmer-Dougan, V., **Langley, M.D.**, Gavin, J., & Berenbaum, A. (2017). Disequilibrium as an Alternative to Internal States and Affordance. *The Behavior Analyst*.

Wagman, J. B., **Langley, M. D.**, & Farmer-Dougan, V. (2017). Carrying their own weight: Dogs perceive changing affordances for reaching. *Quarterly Journal of Experimental Psychology*.

Wagman, J. B., **Langley, M. D.**, & Farmer-Dougan, V. (2017). Doggone affordances: Canine perception of affordances for reaching. *Psychonomic Bulletin & Review*.

Wagman, J. B., **Langley, M. D.**, & Higuchi, T. (2016). Perception of whole and partial length of an object wielded by the head. *Experimental Brain Research*.

CONFERENCE PROCEEDINGS

Wagman, J. B., **Langley, M. D.**, & Farmer-Dougan, V. (2017). Carrying their own weight: Dogs perceive dynamically changing affordances for reaching. In J. West-Knapp & G-J. Pepping (Eds.). *Studies in Perception and Action XIV. Proceedings from the Nineteenth International Conference on Perception and Action*. (pp. xxx-xxx). New York: Taylo and Francis Group.

PRESENTATIONS

McBeath, M.K., **Langley, M. D.**, Van Houghton, K., & Lucca, K. (2023) *Vertical Attention Bias for Tops of Objects and Bottoms of Scenes is Larger with Animate Objects and Indoor Scenes, Consistent with the Location of Interactive Affordances*. Talk presented at the 64th Annual meeting of the Psychonomic Society, San Francisco.

Langley, M. D. (2022). *The Developmental Trajectory of the Vertical Attention Bias*. Talk presented at the Science of Art, Music, and Brain Activity (SAMBA) Seminar, Tempe, AZ. Invited talk.

Langley, M. D. (2022). *The Developmental Trajectory of the Vertical Attention Bias*. Talk presented at Cognition, Action, and Perception Professional Development Seminar, Tempe, AZ.

McBeath, M.K., Bills, K., & **Langley, M. D.** (2021) *Walking the Right Way: Bias to Pass Approaching Pedestrians on the Right-Side Increases with Group Size*. Talk presented at the 62nd Annual meeting of the Psychonomic Society, Virtual Meeting.

Langley, M. D. (2021). *An Ecological Approach to the Right-Side Bias*. Talk presented at Cognition, Action, and Perception Professional Development Seminar, Tempe, AZ.

Langley, M. D. (2021). *Multi-Modal Influences on Slant Perception in Virtual Environments*. Talk presented at Cognition, Action, and Perception Professional Development Seminar, Virtual Meeting.

Langley, M. D. (2020). *I've Scene Better Days: Investigation of Saliency Bias in Shape and Scene Perception*. Talk presented at Cognition, Action, and Perception Professional Development Seminar, Virtual Meeting.

Langley, M. D. (2020). *Neural Correlates of the Conscious Perception of Visual Location Lies Outside Visual Cortex*. Talk presented at Cognition, Action, and Perception Professional Development Seminar, Tempe, AZ.

Langley, M. D. (2019). *Exploratory Behavior and Strategy Formation in a Novel Typing Task*. Talk presented at Cognition, Action, and Perception Professional Development Seminar, Tempe, AZ.

Langley, M. D. (2017). *Exploratory Behavior and Insight Learning in a Novel Typing Task*. Talk presented at Cognition, Action, and Perception Professional Development Seminar, Tempe, AZ.

Langley, M. D. (2017). *Hysteresis, Stress Signs, & Response Latency for Canine Reaching Affordances*. Talk presented at Cognitive and Behavioral Sciences Professional Development Seminar, Normal, IL.

Langley, M. D. (2016). *Perception of properties of an object wielded by head*. Talk presented at Cognitive and Behavioral Sciences Professional Development Seminar, Normal, IL.

POSTERS

Langley, M.D., Vu, M., McBeath, M.K. (May - 2024). *A Turn of Events: Upside-Down Figure Judgments Support a Vertical Attention Bias toward Affordance Location*. Poster presented at the 24th Annual meeting of the Vision Sciences Society. St. Pete Beach, FL.

McBeath, M.K., **Langley, M.D.,** Baia, S. (2023). *Upside-Down Selfies Look Much More Alert and Awake*. Poster presented at the 23rd Annual meeting of the Vision Sciences Society. St. Pete Beach, FL.

Vu, M., **Langley, M.D.,** Van Houghton, K., McBeath, M.K., & Lucca, K. (2023). *Vertical Attention Bias Replicated in Young Children & Adults*. Poster presented at the Cross-Area Poster Session. Tempe, AZ.

Van Houghton, K., **Langley, M.D.,** McBeath, M.K., & Lucca, K. (2023). *Attention from Top to Bottom: Children and Adults Exhibit Common Opposing Vertical Attention Bias for Objects vs Scenes*. Poster presented at the 2023 Biennial meeting of the Society for Research in Child Development (SRCD). Salt Lake City, UT.

Langley, M.D., Van Houghton, K., McBeath, M.K., & Lucca, K. (2022). *Vertical Attention Bias in Pictorial Similarity Judgments for Young Children & Adults*.

Poster presented at the 63rd Annual meeting of the Psychonomic Society. Boston, MA.

Langley, M.D., & McBeath, M.K. (2022). * *Bayesian Analysis of the Vertical Saliency Bias for Objects and Scenes*. Poster presented at the 22nd Annual meeting of the Vision Sciences Society. St. Pete Beach, FL.

Bills, K.A., **Langley, M.D.**, & McBeath, M.K. (2022). *When Encountering a Fork, Sun-Devils Go Right*. Poster presented at the Arizona Psychology Undergraduate Research Conference (AZPURC). Tempe, AZ

Van Houghton, K., Lucca, K., McBeath, M.K., **Langley, M.D.**, (2022). Full Attention Location Bias in Image Processing in Young Children. Poster presented at the 2022 Honors Thesis Colloquium. Tempe, AZ.

Van Houghton, K., Lucca, K., McBeath, M.K., **Langley, M.D.**, (2022). Full Attention Location Bias in Image Processing in Young Children. Poster presented at the Celebrating Honors Symposium of Research and Creative Projects. Tempe, AZ.

Langley, M.D., & McBeath, M.K. (2021). *Top to Bottom: A Complete Analysis of Object & Scene Location Saliency*. Poster presented at the 62nd Annual meeting of the Psychonomic Society. Virtual Meeting.

Langley, M.D., Mikell, J., & McBeath, M.K. (2021). *Top to Bottom Saliency Bias: Analysis of Object & Scene Location*. Poster presented at the Institute for Social Science Research (ISSR). Virtual Meeting.

Bills, K.A., **Langley, M.D.**, Rutkowski, R. & McBeath, M.K. (2021). *Pedestrian Walking-Bias Behavior During A Pandemic*. Poster presented at the Undergraduate Honors Thesis Colloquium. Virtual Meeting.

Taylor, H., **Langley, M.D.**, Yu, C., McBeath, M.K., & Tang, S. (2021). *Multi-Modal Influences on Slant Perception in Virtual Environments*. Poster presented at the Arizona Psychology Undergraduate Research Conference (AZPURC). Virtual Meeting.

Mikell, J., **Langley, M.D.**, & McBeath, M.K. (2021). *Up Top, Down Low, Too Slow?* Poster presented at the Arizona Psychology Undergraduate Research Conference (AZPURC). Virtual Meeting.

Langley, M.D., & McBeath, M.K. (2020). *Canonicity and Anthropomorphism of Cacti in Imagery and Comics*. Poster presented at the 61st meeting of the Psychonomic Society. Virtual Meeting.

Gaskins, J., **Langley, M.D.**, & Adams, A. (2020). *Extending the Boundary? Don't Get Too Aroused*. Poster presented at the 61st meeting of the Psychonomic Society, Virtual Meeting.

Berenbaum, A., Raymundo, I.M, **Langley, M. D.**, Farmer-Dougan, V. & Wagman, J.B. (2017). *Carrying their own weight: Dogs perceive changing affordances for reaching*. Poster presented at the 2017 Illinois State University Research Symposium. Normal, IL.

Raymundo, I.M, **Langley, M. D.**, & Farmer-Dougan, V. (2017). *Canines' Critical Point Stressors When Perceiving Affordances*. Poster presented at the 2017 Illinois State University Research Symposium. Normal, IL.

Langley, M.D., Wagman, J. B., & Farmer-Dougan, V. (2016). "Doggone Affordances: Perception of Vertical Reaching by Canines". Invited Poster Presentation at the Convention for the Association for Professional Dog Trainers. Las Vegas, NV.

Farmer-Dougan, V., **Langley, M.D.**, Gitelson, H., Bonilla, P., Catherine, C., Doughty, J., & Wilhelm, E. (2016). "*What's YOUR Bliss point? Differential Reinforcement Effects in Dogs Experienced and Inexperienced with Training.*" Invited Poster Presentation at the Convention for the Association for Professional Dog Trainers. Las Vegas, NV.

Langley, M. D., Farmer-Dougan, V., & Wagman, J. B. (2016). *Doggone affordances: Perception of Maximum Vertical Reaching Height by Canines*. Poster presented at the 56th meeting of the Psychonomic Society, Boston, MA.

Langley, M. D., Higuchi, T., & Wagman, J. B. (2016). *Length perception by head and by hand*. Poster presented at the 31st International Congress of Psychology, Yokohama, Japan.

Langley, M. D., Farmer-Dougan, V., & Wagman, J. B. (2016). *Doggone affordances: Perception of Maximum Vertical Reaching Height by Canines*. Poster presented at International Society for Ecological Psychology America Conference, Clemson, SC.

Langley, M. D., Higuchi, T., & Wagman, J. B. (2016). *Length perception by head and by hand*. Poster presented at International Society for Ecological Psychology America Conference, Clemson, SC.

Langley, M. D., Higuchi, T., & Wagman, J. B. (2016). *Length perception by head and by hand*. Poster presented at the 2016 Illinois State University Research Symposium. Normal, IL.

Rasmussen, M., Boveri, D., Wiemer, K., Clinton, J., & **Langley, M. D.** (2013). *Stereotype activation appears to influence distance estimates*. Poster presented at the 85th Annual Meeting of the Midwestern Psychological Association, Chicago, IL.

Rasmussen, M., Boveri, D., Wiemer, K., Clinton, J., & **Langley, M. D.** (2013). *Activation of both elderly stereotype and intent for action: Do these factors influence*

distance perception? Poster presented at the Annual Northern Illinois University Graduate Research Conference, DeKalb, IL.

Langley, M. D., Rasmussen, M., Boveri, D., & Wiemer-Hastings, K. (2012). *Activation of elderly stereotype prime and intent for action: Do these factors influence distance perception?* Poster presented at the 4th Annual Psychology Department Undergraduate Conference, DeKalb, IL.

Langley, M. D., Steffens, B., & Britt, M.A. (2011). *Understanding the context of historical controversy.* Poster presented at the 2nd Annual Undergraduate Research and Artistry Day Conference, DeKalb, IL.

TEACHING

Adjunct Instructor of Psychology

2024 - Psychological Statistics Lab | Whitman College

Instructor of Record

2020-2023 Research Methods Laboratory x 9 | Arizona State University

Teaching Assistant

2022 Sensation and Perception | Instructor: Michael K. McBeath | Arizona State University

2019 Introduction to Psychology | Instructor: Eevin Jennings | Arizona State University

Guest Lecture: *Introduction to Visual Perception*

2018-2019 Introduction to Statistics x 2 | Instructors: Éva Szeli, Cameron Gibbons | Arizona State University

2017 Embodied Cognition | Instructor: Arthur Glenberg | Arizona State University

Guest Lecture: *Bad Presentation: Tips and Tricks to Giving an In-Class Presentation*

2017 Introduction to Cognitive Neuroscience | Instructor: Samuel McClure | Arizona State University

2016-2017 Perception x 2 | Instructor: Jeffrey B. Wagman | Illinois State University

Guest Lecture: *Perception by Animals: Canine Affordances*

Guest Lecture: *Perception by Audition*

Guest Lecture: *Perception by Dynamic Touch*

Guest Lecture: *Perception of “What” and “Where”: Two Streams of Visual Perception*

- 2016 Introduction to Psychology x 2 | Instructors: Jeffrey B. Wagman, Amrita Puri | Illinois State University
Guest Lecture: *Introduction to Attention*
Guest Lecture: *Introduction to Conformity & Obedience*
Guest Lecture: *Introduction to Gestalt Psychology*
- 2015-2017 Laboratory in Operant Behavior x 4 | Instructors: Valeri Farmer-Dougan | Illinois State University
Guest Lecture: *Gibsonian Approach to Visual Perception: Canine Reaching Affordances are Body-Scaled*

MENTORSHIP

Honors Thesis Project Supervision

Co-mentor with a faculty member, my role was to provide the first line of direct mentorship with faculty supervision. I also served as third or fourth reader for defenses.

- 2022-2024 Patrick Kigin
Honors Thesis: *Downward Vantage Tendency Moderated by Task-Specific Context in Free Viewing*
- 2021-2022 Kaitlin Von Houghton
Honors Thesis: *Full Attention Location Biases in Image Processing in Young Children*
- 2019-2022 Koop Bills
Honors Thesis: *Strength in Numbers: Right-Side Walking Bias Influenced by Group Size*

Mentoring Programs

- 2021-2024 Graduate Student Peer Mentor | Arizona State University
- 2021-2022 Mentor for ENERGIZE Research Initiative serving groups underrepresented in science | Arizona State University

GRANTS & AWARDS

Grants

- 2022 Research Jumpstart Grant | Arizona State University Graduate and Professional Student Association (\$565)
- 2022 National Eye Institute Early Career Scientist Travel Grant | Vision Sciences Society (\$550)

2022 Travel Grant | Arizona State University Graduate and Professional Student Association (\$950)

Awards

2024 Teaching Excellence Award | Arizona State University Graduate and Professional Student Association (\$3,688)

2024 Graduate College Completion Fellowship | Arizona State University Graduate College (\$12,300)

2023 American Psychological Association (APA) Editor's Choice selection for *Vertical attention bias for tops of objects and bottom of scenes*.

2023 American Psychological Association (APA) Kudos Article Showcase for *Children and adults exhibit a common vertical attention bias for object tops and scene bottoms*.

2022 The College Graduate Excellence Award | Arizona State University Graduate College (\$100)

2021 1st place poster Award | Arizona State University Institute for Social Science Research Conference (ISSR) (\$1,200)

2021 1st place poster Award | Arizona State University Psychology Undergraduate Research Conference (AZPURC) (\$100)

2019 Graduate Fellowship | Arizona State University Graduate College (\$10,000)

2016 1st place poster Award | The Association for Professional Dog Trainers Foundation (\$750)

PROFESSIONAL SERVICE

2023-2024 Social Psychology Doctoral Program Graduate Studies Representative | Arizona State University

2022-2024 Early Start program lab tour | Arizona State University

2021 Arizona State University Psychology Undergraduate Research Conference (AZPURC) | Arizona State University

2019 Graduate and Professional Student Association Research Grant Reviewer | Arizona State University

2019 Graduate and Professional Student Association Teaching Excellence Award Reviewer | Arizona State University

2019-2024 ASU: Day of the Open-Door community outreach | Arizona State University

PROFESSIONAL AFFILIATIONS

Psi Chi: National Honor Society in Psychology
Psychonomic Society
SPARK Society
Student Psychological Association (SPA)
Vision Sciences Society

QUANTITATIVE TRAINING, SOFTWARE, AND OTHER SKILLS

Quantitative Training

Analysis of Variance (Kevin J. Grimm)
Multiple Regression (Leona S. Aiken)
Dynamical Systems Analyses (Polemnia G. Amazeen)
Bayesian Analyses in the Social Sciences (Kevin J. Grimm)

Software

R, SPSS, JASP, GPower, Excel, Qualtrics, Psychopy, Pavlovia

Other Skills

Computer eye tracking (Tobii), Mobile eye tracking (Tobii)