

Laura A. Carlson

CURRICULUM VITA

Personal Information

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Educational History

- 1987 Dartmouth College, A. B., *cum laude*, Special Major: Psychology of Language
- 1991 Michigan State University, M.A.
- 1994 University of Illinois, Urbana-Champaign, Ph.D.

Positions

Academic

- 2008 – present Professor of Psychology, University of Notre Dame
- 1999 – 2008 Associate Professor of Psychology, University of Notre Dame
- 1994 - 1999 Assistant Professor of Psychology, University of Notre Dame

Administrative

- 2013 – present Vice President, Associate Provost, and Dean of the Graduate School, University of Notre Dame
- 2009 – 2013 Associate Dean of Professional Development, The Graduate School
- 2007 – 2009 Associate Chair, Psychology, University of Notre Dame
- 2001 – 2005 Director of Graduate Studies, Psychology, University of Notre Dame
Committee on Appointment and Promotions (multiple elections)
Full Professor Committee (multiple elections)

Professional

- 2018 – 2019 Chair-elect, Governing Board, Psychonomic Society
Chair in 2019-2020; Past-Chair in 2020-2021
- 2016 - 2021 Elected member, Governing Board, Psychonomic Society
- 2011 - 2016 Elected member, Governing Board, The Cognitive Science Society
- 2011 Program Co-Chair, Annual Meeting of the Cognitive Science Society

2008 - 2010 Secretary-Treasurer, Psychonomic Society
 2006 - 2008 Program Committee, Midwestern Psychological Association
 2005 - 2010 Local Representative, Midwestern Psychological Association

Editorial

2012 - present Editorial Boards for *Journal of Experimental Psychology: Learning, Memory and Cognition*; and *Attention, Perception, & Psychophysics*
 2011 - 2014 Associate Editor, *Cognitive Psychology*
 2010 Guest Editor (with Nora Newcombe and James Hoffman), Special Section entitled "Spatial reference frames: Integrating Cognitive, Behavioral, and Cognitive Neuroscience Approaches," *Journal of Experimental Psychology: Learning, Memory and Cognition*
 2008 - 2012 Associate Editor, *Journal of Experimental Psychology: Learning, Memory and Cognition*
 2005 - 2008 Associate Editor, *Memory & Cognition*

Ad hoc Reviewer: *Acta Psychologica*, *Cognitive Psychology*; *Cognition*; *Environment and Behavior*; *Journal of Cognitive Science*; *Journal of Cognitive Neuroscience*; *Psychological Science*; *Spatial Cognition and Computation*; *Journal of Experimental Psychology: Animal Behavioral Processes*; *Journal of Experimental Psychology: Human Perception and Performance*; *Journal of Experimental Psychology: General*; *Memory & Cognition*; *Psychology and Aging*; *Journal of Pragmatics*; *Psychonomic Bulletin and Review*

Evaluative

2018 External Reviewer, Departmental Review
 2014 - present External Reviewer, Tenure and Promotion Cases
 2005 - 2008 Consultant in Spatial Cognition, Sandia National Labs
 2011 National Science Foundation, Graduate Research Fellowship Panel
 2009 National Science Foundation, Cross-Directorate Review Panel (CDI)
 2005 National Science Foundation, Cross-Directorate Review Panel
 2001 National Science Foundation, SBE Advance Grant Review Panel
 1999 - 2000 National Science Foundation SBE POWRE Grant Review Panel

Accomplishments

Graduate School

Innovation in Graduate Training and Student Development

- Planned and executed a strategic cultural shift toward the perception of the Graduate School as a service and resource unit.

- Launched *Your Research Matters/You Matter* campaign
 - Initiated 5 year (2018-2023) strategic plan with measurable objectives around the components of top programs, top students, your research matters, you matter and an inclusive environment.
 - Completed redesign of website, 8/2018 (graduateschool.nd.edu).
 - Communicated vision and goals to internal and external constituencies
- Developed and implemented a scorecard to assess and communicate the strength of a graduate program.
- Established Grants and Fellowship office (2 fulltime staff and pool of readers) solely for graduate students; Notre Dame ranked 2nd in nation for Fulbright grantees; in last 5 years, 71 ND students have won NSF GRFP; a further 63 received honorable mention; \$6.5 M in external awards to graduate students in 2016-2017.
- Established Grad Career Services office (5 full time staff) in partnership with Student Affairs that offers dedicated career discernment and consultation.
- Established Grad Student Life office (1 full time staff) in partnership with Student Affairs that offers services to support all dimensions of wellness (physical, social, emotional, spiritual, intellectual) for graduate student.
- Creator, University-wide Professional Development Program for Graduate Students (annually 100+ events across research, teaching, career and ethics).
- Winner, Team Irish Award for the Professional Development Team.
 - Team formation through influence rather than direct reporting lines
 - Powerful illustration of the success of a collaborative team approach
- Facilitator for International Experiences for Graduate Students
 - Cultivation of opportunities and MOUs with international institutions
 - Development of support programming for graduate students at Notre Dame's Global Gateways
 - Development of international travel information for students.

External Funding and Benefaction for Graduate Studies

- Cultivating Leaders for Ethical STEM Program: NSF CCE STEM (#SES-1449469) (PI) (co-PIs: Don Howard, Melinda Gormley, Mark Bourgeois, Paul Slaggert); \$410,340.
- Council of Graduate Schools Career Pathways Project Awardee, (funded by National Science Foundation grant #1661272 and Andrew W. Mellon Foundation). PI, \$80,000.
- Co-chair, Advisory Council for Graduate Studies and Research,
 - Profile and raise funds for the development of research and graduate studies at Notre Dame
 - Secure benefaction for endowed graduate fellowships and programming
 - Articulate the needs and opportunities that are unique to graduate training
 - Advocate for the importance of graduate studies to our institutional mission

- Educate on the importance of graduate student wellness and a holistic training model
- Innovate fundraising opportunities for graduate fellowships, including successfully securing proceeds from the Shamrock Series 5K race that occurs during the Notre Dame Shamrock Series weekend to graduate fellowships
- Connect graduate training and the concept of “your research matters” to the underlying mission of the University to be a force for good in the world (<https://youtu.be/6DP8sizrqo7w>)

Management and Financial Oversight

- Manage a Graduate School staff of 21 with dotted line responsibility to 6 additional staff
- Oversee and administer the Graduate School budget and operations
 - Office budget of \$1.8M. (88% labor)
 - Operations endowment of \$200k per year.
 - Stipend funding of \$25M
 - Tuition funding of \$90M
 - Recruitment and professional development funding
 - Distribution to colleges of \$750k
 - Central control of 125k

Provost Office

Diversity and Inclusion

- Awarded Funding:
 - *Supporting Diverse Applicants: NSF GRFP Bootcamp at the Compact for Faculty Diversity's Institute on Teaching and Mentoring.* Grad School Team: Lead PI, Assoc. Dean Nyreé McDonald. National Science Foundation. \$143,532.
 - *Empowering Women Leaders in STEM.* Grad School Team: Lead PI, Samantha Lee. American Association for University Women, \$5498
- Chair, University Committee for Women Faculty and Students
 - Issues taken up in 2017-2018:
 - Policy development with human resources on parental leave, emergency care
 - Analysis of service – how it is defined by departments, reported by faculty, evaluated and compensated; leading to the creation of a Working Group on Service to address these issues, on which I serve as chair.
 - Design and implementation of Sr. Kathleen Cannon Distinguished Lecture Series to bring distinguished scholars to campus
- Faculty Experience Survey
 - Carried out recommendations from the Blue Ribbon Report presenting the findings of the Faculty Experience Survey in 2013.

- Served on the revision team for the next iteration of the survey, and oversaw the addition of questions on faculty governance and service based on recommendations from the Faculty Governance Report, discussion at the University Committee for Women Faculty and Students, and conversations with faculty.
- Founder, Office of Military and Veteran Affairs
 - Designed, proposed and developed the office to offer stronger infrastructure support and recruit larger number of military-connected students.
 - Initiated Storm the Stadium event in support of financial aid for military-connected students, receiving \$59,000 in support with 1400 participants in the inaugural year in 2018.
- Member, President's Committee on Diversity and Inclusion, Notre Dame
- Member, Steering Committee for THRIVE, Supporting Women at Notre Dame
- Member, Steering Committee, Women in Cognitive Science (WICS), a professional society and affiliate of the Psychonomic Society
- Member, Diversity and Inclusion Committee, Psychonomic Society

Faculty Leadership Development

- Designer/Director for ND Lead, Notre Dame Faculty Development Program
- Vice-Chair, Steering Committee for the ACC Leadership Network, a cross-institution leadership program. Roles included design of program, securing funding from the ACC provosts, and implementing program in year 1 (2018-2019, including hosting at Notre Dame in May 2019)

Champion for Interdisciplinary Collaboration

- Centered on my research expertise in spatial cognition with a focus on our representations of the places and objects around us, and the implications these representations have for how we act on the world.
- With this foundation, I have developed these interdisciplinary collaborations:
 - With biomedical engineers (asking whether apraxic patients who are challenged in reaching for objects have impoverished representations);
 - With design engineers (asking whether psychological Gestalt properties such as symmetry underlie consumer preferences for certain designs);
 - With computer scientists (asking whether home-assistance robots can be programmed to understand instructions by nursing home residents such as "put my glasses on the nightstand in my bedroom");
 - With architects (asking how the form and structure of a building impacts wayfinding);
 - With linguists (asking how frames of reference that are used to understand space vary across languages and cultures).
- Centered on my teaching:
 - Opened my graduate level Advanced Methods in Psychology course to engineering students
 - Taught an undergraduate course entitled "Deciding to be Green" to

- students from business, science, engineering and social science.
- Centered on my work as an administrator:
 - Facilitated the course of study for PhD and master's students at Notre Dame, enabling them to take whatever classes in whatever programs are relevant to their research
 - e.g., a physics student taking advanced French before going to Switzerland to study at the particle accelerator at CERN, and an engineering doctoral student simultaneously pursuing a master's degree in entrepreneurship.

Committee Leadership

- Secretary, Provost Advisory Committee:
 - Deliberate and vote on all tenure and promotion cases across the university
 - Oversee the reappointment, promotion and tenure process for all tenure/tenure-track faculty
- Secretary, Academic Council:
 - Creation/revision/deletion of academic programs;
 - Academic articles revision;
 - University policy creation and revision
- Additional Committee Assignments (partial list)
President's Leadership Council; Dean's Council; Provost Cabinet; ND National Security Working Group; California Initiative, University Committee on Sponsored Research Programs; Advanced Studies of the Academic Council; Executive Committee of the Academic Council; Digital Learning Initiatives...

Distinctions, Honors & Awards

2016	Participant, Academy for Innovative Higher Education Leadership
2012	Fellow, Association of Psychological Science (Elected)
2011	Member of founding cohort, NDLead
2008	Rev. Edmund P. Joyce C.S.C Award for Excellence in Undergraduate Teaching, University of Notre Dame
2005	Kaneb Teaching Award, College of Arts and Letters, Notre Dame
2002	Kaneb Center Teaching Fellow, University of Notre Dame
2001	Kaneb Teaching Award, College of Arts and Letters, Notre Dame
1994	American Psychological Association Dissertation Award
1987	Benjamin Benner Research Award in Psychology, Dartmouth College
1984	Class of 1846 Latin Prize, Dartmouth College

Professional Memberships

Psychonomic Society, Fellow
 Association for Psychological Science, Fellow
 Cognitive Science Society, Member

External Funding for Research

Skubic, M. & Carlson, L. A. Human-Driven Spatial Language for Human-Robot Interaction. National Science Foundation, Information & Intelligent Systems: Human-centered computing program. \$499,008. 9/1/10 - 8/31/13.

Schmiedeler, J. & Carlson, L. A. Differential use of egocentric and allocentric information in the use of robotic devices using upper limb rehabilitation for stroke patients. ND-PDT, Indiana Clinical and Translational Sciences Institute, NIH RR025761, \$18,388, 9/15/2010- 9/14/2011

Carlson-Radvansky, L. A. Interpreting Spatial Relations. National Science Foundation, SBR 52,1889727638, \$179,856. 1998-2001.

Carlson-Radvansky, L. A., Radvansky, G. A. & Gibson, B. S., *Acquisition of a Dual Purkinje Image Eye Tracker for Use in Cognitive Psychology*. National Science Foundation, 9602477, 9/1/1996 – 8/31/1997.

Undergraduate Research Funding

- Kevin Mickey, Kevin Kimberly (UROP)
- Greg Davis, Jeremy Hillyard, Kevin Kimberly, Jared Miller (Spatial Cognition Conference in Freiburg, Germany) (Learning Beyond the Classroom Grant)
- Meaghan Jennings, Beck Roan, Amanda Spiegelberg, Matt Grosso, Gabrielle Michalak (Green Festival in San Francisco in conjunction with the Deciding to be Green Class) (Learning Beyond the Classroom Grant)

Postdocs Directed

Ben Nelligan
Deanne Adams
Holger Schultheis
Xiaou Li
Aaron Ashley

Graduate Students Directed

Jared Miller, Ph.D.
Jennifer Kolesari, Ph.D.
Jose Lugo, Ph.D., co-director
Chris Galuceia, M.A.
Edwin Covell, M.A.
Patrick Hill, M. A.
Shannon van Deman, M.A.
Eric Covey, M.A.

Psychology Undergraduate Honors Theses Directed

Alexandra Amorati
Corinne Swearingen
Kevin Kimberly
Kevin Mickey
Ashley Herrmann

Books

Carlson, L. A. & van der Zee, E (Eds). (2005). Functional features in language and space: Insights from perception, categorization and development. Oxford University Press.

Interdisciplinary Research

Refereed Publications (*designates graduate student/postdoc; † designates undergraduate)

*Lugo J, Schmiedeler J, Batill S, Carlson L. (2016). Relationship Between Product Aesthetic Subject Preference and Quantified Gestalt Principles in Automobile Wheel Rims. *Journal of Mechanical Design*, 138 (5), 051101.

*Lugo, JE, Schmiedeler, J.P., Batill, S. M., & Carlson, L. A. (2015). Quantification of Classical Gestalt Principles in Two-Dimensional Product Representations. *Journal of Mechanical Design*, 137(9), 094502.

Carlson, L. A., Skubic, M., *Miller, J., Huo, Z., & Alexenko, T. (2014). Strategies for human-driven robot comprehension of spatial descriptions by older adults in a robot fetch task. *Topics in Cognitive Science*, 6 (3), 513-533.

Carlson, L. A., Skubic, M., Miller, J., Huo, Z., & Alexenko, T. (2013). Assessing the effectiveness of older adults' spatial descriptions in a fetch task. *Proceedings of the Cognitive Science Society, Annual Meeting, Berlin, (2013/7)*.

Carlson, L. A., Hoffman, J., & Newcombe, N. (2010). Introduction to the Special Section on Spatial Reference Frames: Examining what and how information is encoded through the integration of cognitive, behavioral, and neuroscience approaches. *Journal of Experimental Psychology: Learning, Memory & Cognition*, 36, 573-575.

Conference Proceedings

*Lugo, J., Schmiedeler, J., Batill, S., & Carlson, L. A. (2014). Relationship between Product Aesthetic Subject Preference and Quantified Gestalt Principles. *ASME 2014 International Design Engineering Technical Conference & Computers and Information in Engineering Conference*, (2014/8/17), V007T07A045-V007T074045.

Skubic, M., Huo, Z., Alexenko, T., Carlson, L. A., & Miller, J. (2013). Testing an assistive fetch robot with spatial language from older and younger adults- RO-MAN, 2013 IEEE 697-702.

Lugo, J., Batill, S., & Carlson, L. (2012). Modeling Product form Preference Using Gestalt Principles, Semantic Space and Kansei. In *Proceedings of the ASME 2012 International Design Engineering Technical Conference & Computers and Information in Engineering Conference*.

Skubic, M., Alexenko, T., Huo, Z., Carlson, L. A., & *Miller, J. (2012). Investigating spatial language for robot fetch commands. Grounding Language for Physical Systems. *AAAI Technical Report WS-12-07*. Workshops at the Twenty-Sixth AAAI Conference on Artificial Intelligence.

Skubic, M., Zhiyu, H., Carlson, L. A., Li, X. O., & *Miller, J. (2011). Human-driven spatial language for human-robot interaction. *Human-Robot Interaction in ElderCare: Papers from the 2011 AAAI Workshops (WS-11-12)*. Twenty-fifth AAAI Conference on Artificial Intelligence.

Invited Book Chapters with Peer Review

Shelton, A., Marchette, S., Holscher, C., ^Nelligan, B., Shipley, T., & Carlson, L. (2016). Why people get lost in the Seattle Central Library. In R. C. Dalton & C. Holscher (Eds). *Take one building: Interdisciplinary Research Perspectives of the Seattle Central Library*. Routledge.

Spatial Cognition

Refereed Publications (*designates graduate student/postdoc; † designates undergraduate)

*Schultheis, H. & Carlson, L. A. (2018). Inter-Process Relations in Spatial Language: Feedback and Graded Compatibility. *Cognition*, 176, 140-158.

*Kolesari, J. & Carlson, L. A. (2018). How the Physicality of Space Affects How We Think About Time. *Memory & Cognition*, 46(3), 438-449.

*Schultheis, H., & Carlson, L. A. (2017). Mechanisms of Reference Frame Selection in Spatial Term Use: Computational and Empirical Studies. *Cognitive Science*, 41 (2), 276-325.

*Li, X., Carlson, L. A., Mou, W., *Williams, M. R., & *Miller, J. E. (2011). Describing spatial locations from perception and memory: The influence of intrinsic axes on reference object selection. *Journal of Memory and Language*, 65, 222-236.

*Miller, J.E., Carlson, L. A., & *Hill, P. L. (2011). Selecting a reference object. *Journal of Experimental Psychology: Learning, Memory & Cognition*, 37, 840-850.

*Miller, J. E., & Carlson, L. A. (2011). Selecting landmarks in a novel environment. *Psychonomic Bulletin & Review*, 18(1), 184-191.

- Carlson, L. A., Hölscher, C., Shipley, T. F., & Conroy Dalton, R. (2010). Getting Lost in Buildings. *Current Directions in Psychological Science*, 19(5), 284-289.
- Carlson, L. A. & *Hill, P. L. (2008). Processing the presence, placement and properties of a distractor during spatial language tasks. *Memory & Cognition*, 36, 240-255
- Carlson, L. A. & *Van Deman, S. (2008). Inhibition within a reference frame during the interpretation of spatial language. *Cognition*, 106, 384-407.
- *Ashley, A. & Carlson, L.A. (2007). Interpreting proximity terms involves computing distance and direction. *Language and Cognitive Processes*, 22,1021-1044.
- Carlson, L. A, Regier, T., †Lopez, B. & Corrigan, B. (2006). Attention unites form and function in spatial language. *Spatial Cognition and Computation*, 6, 295-308.
- Carlson, L. A. & †Kenny, R. (2006). Interpreting spatial terms involves simulating interactions. *Psychonomic Bulletin & Review*, 13, 682-688. [24/68; 1.76; 0]
- Carlson, L. A. & *Covey, E. S. (2005). How far is near? Inferring distance from spatial descriptions. *Language and Cognitive Processes*, 20, 617-632.
- Carlson, L. A. & *van Deman, S. (2004). The space in spatial language. *Journal of Memory and Language*, 51(3), 418-436.
- Carlson, L. A. (2003). Using spatial language. *Psychology of Learning and Motivation*, 43, 127-161.
- Carlson, L. A., West, R., Taylor, H. A., & †Herndon, R. (2002). Neural correlates of spatial term use. *Journal of Experimental Psychology: Human Perception and Performance*, 28, 1391-1408.
- Carlson, L. A. & Logan, G. D. (2001). Using spatial terms to select an object. *Memory & Cognition*, 29, 883-892.
- Regier, T. & Carlson, L. A. (2001). Grounding spatial language in perception: An empirical and computational investigation. *Journal of Experimental Psychology: General*, 130, 273-298. Order of authorship is arbitrary.
- Carlson-Radvansky, L. A., & *Tang, Z. (2000). Functional influences on orienting a reference frame. *Memory & Cognition*, 28, 812-820.
- Carlson, L. A. (1999). Selecting a reference frame. *Spatial Cognition and Computation*, 1, 365-379.
- Carlson-Radvansky, L. A., *Covey, E. S., & †Lattanzi, K. M. (1999). "What" effects on "where":

Functional influences on spatial relations. *Psychological Science*, 10, 516-521.

Carlson-Radvansky, L. A. & *Jiang, Y. (1998). Inhibition accompanies reference frame selection. *Psychological Science*, 9, 386-391.

Carlson-Radvansky, L. A., & Logan, G. D. (1997). The influence of reference frame selection on spatial template construction. *Journal of Memory and Language*, 37, 411-437.

Carlson-Radvansky, L. A. & Radvansky, G. A. (1996). The influence of functional relations on spatial term selection. *Psychological Science*, 7, 56-60.

Carlson-Radvansky, L. A., & Irwin, D. E. (1994). Reference frame activation during spatial term assignment. *Journal of Memory and Language*, 33, 646-671.

Carlson-Radvansky, L. A. & Irwin, D. E. (1993). Frames of reference in vision and language: Where is above? *Cognition*, 46, 223-244.

Conference Proceedings

*Adams, D., *Galeucia, C., *Kolesari, J., Carlson, L.A., & Coventry, K. R. (2015). Priming dynamic-kinematic routines using spatial language. Proceedings of the Cognitive Science Society, Annual Meeting, Philadelphia, (2015/7).

Carlson, L.A., *Kolesari, J., *Galeucia, C. & *Adams, D. (2015). Selecting landmarks when giving directions to different addressees on campus. Proceedings of the Cognitive Science Society, Annual Meeting, Philadelphia, (2015/7).

Invited Book Chapters with Peer Review

*Schultheis, H. & Carlson, L. A. (2013). *Spatial Reasoning*. Oxford Handbook of Cognitive Psychology, D. Reisberg (Ed.). Oxford University Press. DOI: 10.1093/oxfordhb/9780195376746.013.0045

*Miller, J. E., & Carlson, L. A. (2012). *Functional Effects in Spatial Language*. Y. Coello & A. Bartolo (Eds.). Language and action in the cognitive neurosciences. Psychology Press, (2012/12/7), 193.

Carlson, L. A. Parsing space around objects (2010). In V. Evans & P. Chilton (Eds.). *Language, Cognition, and Space: The state of the art and new directions*. Advances in Cognitive Linguistics Series, Equinox Publishers.

Carlson, L. A. (2010). Encoding space in spatial language. *Spatial Foundations of Cognition and Language* (p. 157-187) (Eds, K. S. Mix, L. B. Smith & M. Graesser), Language and Space Series (General Editor, E. van der Zee), Oxford University Press.

Carlson, L. A. & *Hill, P. L. (2009). Formulating spatial descriptions across various dialogue contexts (pg. 89-103). In K. Coventry, T. Tenbrink, & J. Bateman (Eds.). *Spatial language and Dialogue*, Language and Space Series, Oxford University Press.

- Carlson, L. A. Commentator on “Thinking and Talking about Space”. (2007). In J. Plumert & J. Spencer (Eds.). *The emerging spatial mind*, pp. 248-263. Oxford University Press.
- Carlson, L. A. & *Hill, P. L. (2007). Experimental methods for studying language and space. In M. Gonzalez-Marquez, I. Mittelberg, S. Coulson, & M. Spivey (Eds.) *Methods in Cognitive Linguistics*, pp. 250-276, Amsterdam: John Benjamins.
- Carlson, L. A. & Logan, G. D. (2005). Attention and spatial language. In L. Itti, G. Rees, & J. Tsotsos (Eds.). *Neurobiology of attention* (pp. 330-336). Academic Press.
- Carlson, L. A. & †Kenny, R. (2005). Constraints on Spatial Language Comprehension. In D. Pecher & R. A. Zwaan (Eds.), *The Grounding of Cognition: The role of perception and action in memory, language and thinking* (pp. 35-64). Cambridge University Press.
- Carlson, L. A., Regier, T., & *Covey, E. S. (2003). Defining spatial relations: Reconciling axis and vector representations. In E. van der Zee & J. Slack (Eds.). *Representing direction in language and space* (pp. 111-131). Oxford University Press.
- Carlson, L. A. (2000). Object use and object location: The effect of function on spatial relations. In E. van der Zee & U. Niskanen (Eds.) *Cognitive interfaces: Constraints on linking cognitive information* (pp 94-115). Oxford University Press.

Unrefereed Publications

- Carlson, L. A. and *Covell, E. R. (2004). Defining functional features for spatial language. In L. Carlson & E. van der Zee (Eds.). *Functional features in language and space: Insights from perception, categorization and development*. Oxford University Press.
- Regier, T., Carlson, L. A., & Corrigan, B. (2004). Attention in spatial language: Bridging geometry and function. In L. Carlson & E. van der Zee (Eds.). *Functional features in language and space: Insights from perception, categorization and development*. Oxford University Press.
- Regier, T. & Carlson, L. A. (2002). Spatial language: Perceptual constraints and linguistic variation. In N. Stein, P. Bauer, and M. Rabinowitz (Eds.), *Representation, Memory, and Development: Essays in Honor of Jean Mandler (199-222)*, Lawrence Erlbaum, Mahwah, NJ.

Other Publications

- Carlson, L. A. (2004). *On the “whats” and “hows” of “where”* Review of K. Coventry & P. Olivier (Eds.). *Spatial Language: Cognitive and computational perspectives* Dordrecht: Kluwer Academic Publishers, 2002. *Contemporary Psychology*, 49, 482-485.
- Carlson-Radvansky, L. A. (1997). Room to talk: The language/space interface. Review of P. Bloom, M. A. Peterson, L. Nadel, and M. Garrett (Eds.), *Language and space* Cambridge, MA: MIT Press, 1996. *Contemporary Psychology*, 42, 1116.

Visual Attention and Perception

Refereed Publications (*designates graduate student/postdoc; † designates undergraduate)

- *Schultheis, H. & Carlson, L. A. (2013). Determinants of Attentional Modulation Near the Hands. *Frontiers in Psychology: Perception Science*, 18 November 2013 DOI: 10.3389/fpsyg.2013.00858
- *Miller, J. E., Carlson, L. A., & McAuley, J. D. (2013). When what you hear influences when you see: Listening to an auditory rhythm influences the temporal allocation of visual attention. *Psychological Science*, 24 (1), 11-18. DOI: 10.1177/0956797612446707.
- West, R. L., Carlson, L. A., & Cohen, A-L. (2007). What the eyes can tell us about prospective memory. *International Journal of Psychophysiology*, 64, 269-277.
- †Brockmole, J. R., Carlson, L. A., & Irwin, D. E. (2002). Inhibition of attended processing during saccadic eye movements. *Perception & Psychophysics*, 64, 867-881.
- Carlson, L.A., Covell, E. R., & †Warapius, T. (2001). Transsaccadic coding of multiple objects and features *Psychologica Belgica*, 41 (Special Issue: Transsaccadic Object Perception), 9-28.
- Currie, C., McConkie, G., Carlson-Radvansky, L. A., & Irwin, D. E. (2000). The role of the saccade target object in the perception of a visually stable world. *Perception & Psychophysics*, 62, 673-683.
- Carlson-Radvansky, L. A. (1999). Memory for relational information across eye movements. *Perception & Psychophysics*, 61, 919-934.
- Irwin, D. E., & Carlson-Radvansky, L. A. (1996). Cognitive suppression during saccadic eye movements. *Psychological Science*, 7, 83-88.
- Irwin, D. E., Carlson-Radvansky, L. A., & Andrews, R. V. (1996). Information processing during saccadic eye movements. *Acta Psychologica*, 90, 261-273.
- Carlson-Radvansky, L. A., & Irwin, D. E. (1995). Memory for structural information across eye movements. *Journal of Experimental Psychology: Learning, Memory and Cognition*, 21, 1441-1458.
- Radvansky, G. A., Carlson-Radvansky, L. A., & Irwin, D. E. (1995). Uncertainty in estimating distances from memory. *Memory & Cognition*, 23, 596-606.
- Irwin, D. E., McConkie, G. W., Carlson-Radvansky, L. A., & Currie, C. (1994). A localist evaluation solution for visual stability across saccades. *Behavioral and Brain Sciences*, 17, 265-266.
- Carlson, L. A., Alejano, A. & Carr, T. (1991). The level of focal attention hypothesis in oral

reading: Influence of strategies on the context specificity of lexical repetition effects. *Journal of Experimental Psychology: Learning, Memory and Cognition*, 17, 924-931.

Invited Book Chapters with Peer Review

Carlson, L. A. (2010). Top-down and bottom-up processing. In B. Goldstein (Ed.), *Encyclopedia of Perception*, Sage.

Carr, T.H., Dagenbach, D., Van Wieren, D. L., Carlson-Radvansky, L. A., Alejano, A., & Brown, J. (1994). Acquiring general knowledge from specific episodes of experience. In C. Umiltà & M. Moscovitch (Eds.) *Attention and Performance XV: Conscious and nonconscious information processing* (p. 697-724). MIT Press.

Unrefereed Publications

Carlson, L. A. (2004). On Applying the Science of Psychology to Life: A Research Methods Primer. In G. Howard (Ed.). *For the love of teaching*. Academic Publications, Notre Dame, IN.

Other Publications

Carlson, L. A., McCandliss, B., Alejano, A. & Carr, T. H. (1990). Does attention control the context specificity of repetition benefits in oral reading? *Bulletin of the Psychonomic Society*, 28, 488-488.

Invited Lectures, Addresses, and Engagements since 2010

Carlson, L. A. (2018). Invited Speaker for CLASP Workshop on Dialogue and Perception, Gothenburg, Sweden.

Carlson, L. A. (2018). Invited speaker at Psychological Scientists as Academic Leaders Symposium, Association for Psychological Science, San Francisco.

Carlson, L. A. (2017-present). Invited Participant in Human Factors in Forensic Practice Sourcebook Working Group, sponsored by RTI.

Carlson, L. A. (2017). Participant in Pre-Workshop *Internships, Practicums, and Other Models of Immersive Professional Development*, Council of Graduate Schools Annual Meeting, Scottsdale, AZ.

Carlson, L. A. (2016). Open Questions for Reference Frames use in the Domains of Language, Culture, and Environment. Invited talk at Universals and Variation in Spatial Referencing across Cultures and Languages, NSF Specialist Meeting, UC Santa Barbara.

- Carlson, L. A. (2016). Spatial Processing. Invited talk at Human Factors in Forensic Practice Sourcebook Working Group. Research Triangle Institute.
- Carlson, L. A. (2016): Presentation. Association for Women in Science, Notre Dame, IN, January 21, 2016.
- Carlson, L. A. (2014). Why we get lost, *Notre Dame Alumni Association Football Friday Lecture*, Notre Dame, IN, October 3, 2014.
- Carlson, L. A., Skubic, M., Miller, J., Huo, Z., & Alexenko, T. (2013). Assessing the effectiveness of older adults' spatial descriptions in a fetch task. Presented at *Cognitive Science Society, Annual Meeting*, Berlin. (read by Tim Shipley)
- Carlson, L. A. (2013). Deciding to be Green. *Hesburgh Lecture* presented to the Las Vegas Notre Dame Club.
- Carlson, L. A. (2013). Deciding to be Green. *Hesburgh Lecture* presented to the Greater Baltimore Notre Dame Club.
- Carlson, L.A. (2012). Invited participant at NSF-funded Specialist meeting: Spatial thinking across the college curriculum. December, Santa Barbara, CA.
- Carlson, L.A. (2011-2012). Member of the Inaugural ND Lead Class, Notre Dame, IN.
- Carlson, L.A. & Shelton, A. (2011). Organizers for Symposium to be given at *Psychonomics: Wayfinding in the Seattle Public Library: What can we learn about navigational styles?* Seattle, Washington, November.
- Carlson, L. A. (2011). Wayfinding in the Seattle Central Public Library: Methodology. Paper presented in symposium at the Psychonomic conference in Seattle, WA, November.
- Carlson, L. A. (2011). Wayfinding in the Seattle Central Public Library. Invited paper presented at the Spatial Cognition and Architectural Design conference, New York, NY, November.
- Carlson, L. A., Hoelscher, C. & Shipley, T., (2011). Navigating in buildings: Building features, cognitive maps and individual differences. Paper presented as part of a symposium entitled "Where are we now?: Understanding spatial skills, strategies, and navigation. Association for Psychological Science, Washington, D.C.
- Carlson, L. A. (2011). Deciding to be Green. *Hesburgh Lecture*,

University of Tennessee at Chattanooga, October, 2011.

Carlson, L. A. (2011). Deciding to be Green. *Hesburgh Lecture*, Seton Hill University, October, 2011

Carlson, L. A. (2011). Project Leader for weeklong intensive, *Experimental Methods in Cognitive Linguistics (EMCL 5.2)*, University of Chicago, June, 2011.

Carlson, L. A. (2011). *Wayfinding in buildings*. Invited address at the Dublin Institute of Technology, Computational Linguistics Group, Dublin, Ireland, May, 2011.

Carlson, L. A., Hölscher, C., Shipley, T. & Conroy Dalton, R. (2011). *A Spatial Cognition Framework for Understanding Wayfinding in Buildings*. Talk at the intensive "Design Implications of Spatial Cognition Research", EDRA MOVE, EDRA 42 Chicago, May 2011.

Carlson, L. A. (2010). *Getting lost in buildings*. Presentation at the Building Complexity, Spatial Cognition and Individual Differences Panel for the School of the Built and Natural Environment and the Cognition and Communication Research Center in the School of Psychology and Sport Science, Northumbria University, Newcastle, UK, September, 2010.

Carlson, L. A. (2010). *Encoding the locations of objects during navigation*. University of Freiburg, Germany, April, 2010.

Carlson, L. A. (2010). *Deciding to be Green*, Hesburgh Lecture, Alvernia University, April, 2010.

Carlson, L. A. (2010). *Deciding to be Green*, Hesburgh Lecture, Stockton College of New Jersey, April, 2010.

Conference presentations since 2010

(* designates graduate students/postdoc; † designates undergraduate)

*Kolesari, J. & Carlson, L. A. (2017). How features of contextual events alter the interpretations of *before* and *after*. Poster presented at the 58th Annual Meeting of the Psychonomic Society, Vancouver, Canada.

*Kolesari, J., Lynch, D., Schmiedeler, J., and Carlson, L. (2016). Reaching to an Illusion Using Spatial Reference Frames. Poster presented at the 57th Annual Meeting of the Psychonomic Society, Boston, MA.

*Kolesari, J. & Carlson, L. (2016). Mapping Time onto a Spatial Reference Frame. Poster presented at

2016 Spatial Cognition Conference, Philadelphia, PA.

*Nelligan, B., & Amorati, A., *Adams, D., *Galeucia, C. and Carlson, L. (2016). How spatial ability and stress impact escape path. Poster presented at the 2016 Spatial Cognition Conference, Philadelphia, PA.

*Adams, D., Amorati, A. R., *Galeucia, C., & Carlson, L. A. (2015). Navigating in an emergency: the effects of stress and spatial ability. Poster presented at the Psychonomic Society's 56th Annual Meeting, Chicago, IL.

*Adams, D., *Galeucia, C., *Kolesari, J., Carlson, L. A., & Coventry, K. (2015). Priming dynamic-kinematic routines using spatial language. Poster presented at the Annual Meeting of The Cognitive Science Society, Pasadena, CA.

Carlson, L. A., *Kolesari, J., *Galeucia, C., & *Adams, D. (2015). Selecting landmarks when giving directions to different addressees on campus. Poster presented at the Annual Meeting of The Cognitive Science Society, Pasadena, CA.

Carlson, L. A., *Kolesari, J., *Galeucia, C., & *Adams, D. (2015). Selecting landmarks when giving directions to different addressees on campus. Poster presented at the Psychonomic Society's 56th Annual Meeting, Chicago, IL.

*Galeucia, C., Adams, D., Carlson, L. A., Miller, J., & Tenbrink, T. (2015). Choosing landmarks at intersections: navigational versus perceptual salience. Poster presented at the Psychonomic Society's 56th Annual Meeting, Chicago, IL.

*Adams, D., *Galeucia, C., *Kolesari, J., Carlson, L. A., & Coventry, K. (2014). Evidence for dynamic-kinematic routines in the use of spatial terms. Psychonomic Society's 55th Annual Meeting, Long Beach, CA, November 21, 2014.

*Kolesari, J., Carlson, L. A. (2014). Using space to understand time. Psychonomic Society's 55th Annual Meeting, Long Beach, CA, November 21, 2014.

*Galeucia, C., & Carlson, L. A. (2014). The effect of interaction on the selection of reference objects. Psychonomic Society's 55th Annual Meeting, Long Beach, CA, November 21, 2014.

Carlson, L. A., Skubic, M., Miller, J., Huo, Z., & Alexenko, T. (2013). Assessing the effectiveness of older adults' spatial descriptions in a fetch task. Presented at *Cognitive Science Society, Annual Meeting*, Berlin. (read by Tim Shipley)

Carlson, L. A., Skubic, M., *Miller, J., *Huo, Z, & *Li, X. (2011). A corpus of spatial descriptions for the development of human-driven spatial language robot algorithms. Poster to be presented at the *52nd Annual meeting of the Psychonomic Society*, Seattle, WA, November, 2011.

Carlson, L. A. & *Miller, J. (2011). Defining salience for landmark

selection. Poster to be presented at the *Cognitive Science Society Annual Meeting*, Boston, July, 2011.

Carlson, L. A., Hölscher, C., & Shipley, T. Navigating in Buildings: Building Features, Cognitive Maps, and Individual Differences. Talk presented as part of the symposium "Where Are We Now?: Understanding Spatial Skills, Strategies, and Navigation," *Annual Meeting of the Association for Psychological Science*, Washington, DC, May, 2011.

Carlson, L. A., Shipley, T., *Li, X., Hölscher, C. (2010). Learning about objects along a route through a novel environment. Presentation at the *51st Annual meeting of the Psychonomic Society*

Carlson, L. A., Shipley, T., *Li, X. & Hölscher, C. (2010). Why some people get lost in buildings. Paper presented at the unusual bodies and uncommon behaviors workshop at *Spatial Cognition Conference*, August, 2010, Portland, OR.

*Schultheis, H. & Carlson, L. A. (2010) "Towards a Comprehensive Computational Model of Spatial Term Use" Poster presented at *Spatial Cognition Conference*, August, 2010, Portland, OR.

*Li, X., Carlson, L. A., & Mou, W. (2010). Describing spatial locations from perception and memory: The effect of spatial reference directions on reference object selection" Poster presented at *Spatial Cognition Conference*, August, 2010, Portland, OR.

†Mickey, K., Carlson, L. A., & Friendschuh, S. (2010). "Location, Location, Location: Environmental constraints on interpreting spatial terms". Poster presented at the *Annual Cognitive Science Society Conference*, 2010, Portland, OR.

*Schultheis, H., Carlson, L.A., & Abrams, R. (2010). Attention for Action: Attentional Modulation by the Hands. Poster presented at *Spatial Cognition Conference*, August, 2010, Portland, OR.

REFERENCES AVAILABLE UPON REQUEST