

Rebecca J. Woods

Curriculum Vitae

Department of Human Development & Family Science
North Dakota State University
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Fargo, ND 58108-6050

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Professional Positions

- 2017 – Present *Department Head*
Department of Apparel, Design, and Hospitality Management, North Dakota State University
- 2015 – Present *Associate Professor*
Department of Human Development & Family Science, North Dakota State University
- 2015 – 2016 *Undergraduate Program Coordinator*
Department of Human Development & Family Science, North Dakota State University
- 2008 – 2015 *Assistant Professor*
Department of Human Development & Family Science, North Dakota State University
- 2007 – 2008 *Visiting Assistant Professor*
Department of Psychology, Stephen F. Austin State University
- 2006 – 2007 *Post-doctoral Research Associate*
Brain and Gender Lab, Texas A&M University
Advisors: Gerianne Alexander & Teresa Wilcox
- 2006 *Lecturer*
Department of Psychology, Texas A&M University
Course: Developmental Psychology
- 2001 – 2006 *Graduate Research Assistant*
Infant Cognition Lab, Texas A&M University
Advisor: Teresa Wilcox

Education

- 2006 Ph. D., Psychology
“Infants’ use of color and luminance information to individuate objects”
Advisor: Teresa Wilcox
Texas A&M University, College Station, Texas
- 2004 M. S., Psychology
“Infants’ use of luminance information in object individuation”

Texas A&M University, College Station, Texas

1999 B. A., *Summa cum laude*, in Psychology and Art (double major)
Stephen F. Austin State University, Nacogdoches, Texas

Research Statement

Humans possess an amazing capacity for organizing their experiences into rich, meaningful memories that can be utilized according to task demands. To do so, they must attend to and encode pertinent information while disregarding irrelevant information. I am interested in the foundations and development of this ability. Broadly, my research focus is on learning, attention, and memory in infancy and toddlerhood. More specifically, I seek to identify elements of the environment that are particularly salient early in life and to shed light on how and why attention to specific information changes throughout development. My studies center on learning how infants begin to identify new forms of information as important and how parents' interactions with infants and toddlers contribute to the emergence of basic cognitive abilities.

Selected Publications

Boe, J. L., & Woods, R. J. (2017). Parents' influence on infants' gender-typed toy preferences. *Sex Roles*. Advance online publication. doi: <https://doi.org/10.1007/s11199-017-0858-4>

Johnson, K. M., & Woods, R. J. (2015). Give me a hand: Adult involvement during object exploration affects object individuation in infancy. *Infant and Child Development*, 25, 406-425. doi: 10.1002/icd.1942

Balas, B., & Woods, R. J. (2014). Infant preference for natural texture statistics is modulated by contrast polarity. *Infancy*, 19, 262-280. doi: 10.1111/infa.12050

Woods, R. J., & Schuler, J. (2014). Experience with malleable objects influences shape-based object individuation by infants. *Infant Behavior and Development*, 37, 178-186. doi: 10.1016/j.infbeh.2014.01.005

Woods, R. J., & Wilcox, T. (2012). Posture support improves object individuation in infants. *Developmental Psychology*, 49, 1413-1424. doi: 10.1037/a0030344

Wilcox, T., Smith, T., & Woods, R. (2011). Priming infants to use pattern in an object individuation task: The role of comparison. *Developmental Psychology*, 47, 886-897. doi: 10.1037/a0021792

Woods, R. J., & Wilcox, T. (2010). Co-variations of color and luminance facilitate object individuation in infancy. *Developmental Psychology*, 46, 681-690. doi: 10.1037/a0019161

Woods, R. J., Wilcox, T., Alexander, G., & Armstrong, J. (2010). Infants' representations of three-dimensional occluded objects. *Infant Behavior and Development*, 33, 663-671. doi: 10.1016/j.infbeh.2010.09.002

McCurry, S., Wilcox, T., & Woods, R. (2009). Beyond the search barrier: A new task for assessing object individuation in young infants. *Infant Behavior and Development, 32*, 429-436. doi: 10.1016/j.infbeh.2009.07.002

Alexander, G. M., Wilcox, T., & Woods, R. (2009). Sex differences in infants' visual interest in toys. *Archives of Sexual Behavior, 38*, 427-433. doi: 10.1007/s10508-008-9430-1

Wilcox, T., Bortfeld, H., Woods, R., Wruck, E., Armstrong, J., & Boas, D. (2009). Hemodynamic changes in the infant cortex during the processing of featural and spatiotemporal information. *Neuropsychologia, 47*, 657-662. doi: 10.1016/j.neuropsychologia.2008.11.014

Wilcox, T., & Woods, R. (2009). Experience primes infants to individuate objects: Illuminating learning mechanisms. In A. Woodward & A. Needham (Eds.), *Learning and the Infant Mind* (pp. 117-143). New York, NY: Oxford University Press.

Wilcox, T., Woods, R., & Chapa, C. (2008). Color-function categories that prime infants to use color information in an object individuation task. *Cognitive Psychology, 57*(3), 220-261. doi: 10.1026/j.cogpsych.2008.02.001

Wilcox, T., Bortfeld, H., Woods, R., Wruck, E., & Boas, D. (2008). Hemodynamic response to featural changes in the occipital and inferior temporal cortex in infants: a preliminary methodological exploration. *Developmental Science, 11*(3), 361-370. doi: 10.1111/j.1467-7687.2008.00681.x

Wilcox, T., Woods, R., Chapa, C., & McCurry, S. (2007). Multisensory exploration and object individuation in infancy. *Developmental Psychology, 43*, 479-495. doi: 10.1037/0012-1649.43.2.479

Woods, R. J., & Wilcox, T. (2006). Infants' ability to use luminance information to individuate objects. *Cognition, 99*, B31-B40. doi: 10.1016/j.cognition.2005.04.010

Wilcox, T., Woods, R., Tuggy, L., & Napoli, R. (2006). Shake, rattle, and.... one or two objects? Infants' use of sound information to individuate objects. *Infancy, 9*, 97-123. doi: 10.1207/s15327078in0901_5

Wilcox, T., Bortfeld, H., Woods, R., Wruck, E., & Boas, D. (2005). Using Near-infrared spectroscopy to assess neural activation during object processing in infants. *Journal of Biomedical Optics, 10*, 0110101-9-0110101-10.

Woods, R., Davis, K., & Scharff, L. (2005). Effects of typeface and font size on legibility for children. *American Journal of Psychological Research, 1*, 86-102.

Posters and Presentations

Boe, J., Woods, R., & Benson, K. (June, 2016). *Parents, babies, and gendered toys: Clinical implications*. Poster session presented at the American Family Therapy Academy 2016 annual conference, Denver, CO.

Woods, R. J. (May, 2016). *Toddler's discrimination of shadow and reflectance*. Poster session presented at the Vision Science Society Annual Meeting, St. Pete's Beach, FL.

Woods, R. J. (June, 2015). *Brain development and its impact on children and learning*. Presentation at the FACS Summer Update and Professional Development event, Fargo, ND.

Woods, R. J., & Murphy, M. (October, 2013). *Brain play: Practices that promote brain development in babies*. Presentation at the NDHSA Head Start & Early Head Start Conference, Fargo, ND.

Woods, R. J. (April, 2013). *Infants' object representations of pattern from light and pigment*. Poster session presented at the Society for Research in Child Development Biennial Meeting, Seattle, WA.

Woods, R. J., & Schuler, J. (July, 2012). *Infants' attention to object shape depends on experience*. Poster session presented at the IDeA States Mini-Conference on Visual and Cognitive Neuroscience, Fargo, ND.

Woods, R. J., & Schuler, J. (June, 2012). *Infants' understanding of shape's (un)reliability for object reasoning*. Poster session presented at the International Conference on Infant Studies, Minneapolis, MN.

Lohse, R. L., & Woods, R. J. (June, 2012). *Sound enhances 10-month-olds' attention to object color*. Poster session presented at the International Conference on Infant Studies, Minneapolis, MN.

Woods, R. J. (February, 2012). *Multisensory learning and object individuation in infancy*. Presentation at the weekly talk series of the Developmental Psychology program, Vanderbilt University, Nashville, TN.

Woods, R. J. (April, 2011). *Visual priming and object individuation in infancy*. Poster session presented at the Society for Research in Child Development Biennial Meeting, Montreal, Quebec, Canada.

Johnson, K., & Woods, R. J. (April, 2011). *Adult assistance during multisensory exploration enhances object individuation in infancy*. Poster session presented at the Society for Research in Child Development Biennial Meeting, Montreal, Quebec, Canada.

Johnson, K., & Woods, R. J. (April, 2010). *Give me a hand: Helping babies explore objects*. Invited presentation at the HDFS colloquium series, North Dakota State University, Fargo, ND.

Woods, R. J. (October, 2009). *The latest links in motor and cognitive development*. Round table discussion at the Extension Service conference at North Dakota State University, Fargo, ND.

Woods, R. J. (April, 2009). *Thinking outside the Crayola box: Infants' use of color and pattern for object individuation*. Invited presentation at the Visual Neuroscience colloquium series at North Dakota State University, Fargo, ND.

Woods, R. J. (April, 2008). *Using eye tracking to assess infants' tracking of 3-dimensional objects*. Paper presented at the Southwestern Psychological Association Annual Meeting, Kansas City, MO.

Woods, R. J., Wilcox, T., & Armstrong, J. (April, 2007). *Infants' tracking of objects through occlusion in 3-dimensional displays*. Poster session presented at the Society for Research in Child Development Biennial Meeting, Boston, MA.

Woods, R. J. (April, 2006). *Pattern-based object individuation in young infants: Touching, seeing, and sitting*. Paper session presented at the Cognoscenti speaker series, Texas A&M University, College Station, TX.

Woods, R., & Wilcox, T. (April, 2005). *What's so great about color and luminance? Infants' use of luminance differences on chromatic objects in an individuation task*. Poster session presented at the Society for Research in Child Development Biennial Meeting, Atlanta, GA.

Woods, R., & Wilcox, T. (May, 2004). *Infants' use of color and luminance differences to individuate objects*. Poster session presented at the International Conference on Infant Studies, Chicago, IL.

Woods, R., & Wilcox, T. (October, 2003). *The development of infants' use of luminance in object individuation*. Poster presented at Armadillo: The Southwest Cognition Conference, College Station, TX.

Woods, R., & Wilcox, T. (April, 2003). *Infants' use of luminance in object individuation*. Poster session presented at the Society for Research in Child Development Biennial Meeting, Tampa, FL

Grants and Awards

2016 Gold, A. (Co-PI) and Woods, R. J. (Co-PI), North Dakota State University Development Foundation. \$1000.00.

2013 Woods, R. J. College of Human Development & Education Support for Grant Writing and Research, 9/1/13-6/29/14, \$2,448.

2011 Woods, R. J. "Ontogenesis of pattern-based visual object representation", NSF grant to the NDSU Advance FORWARD program, HRD-0811239, 8/30/2011-8/31/2012, \$26,870.

2010 McCourt, M. E. (PI/PD) and Woods, R. J. (Co-I), "Infants' use of Visual Information in Object Individuation", ARRA Administrative Supplement (Enhancing NCRR Pilot Project Mechanism) to National Center for Research

- Resources, P20 RR020151, "COBRE Center for Visual and Cognitive Neuroscience", 9/23/10-9/22/12, \$179,659.
- 2010 Woods, R. J. College of Human Development & Education Support for Research and Grant Writing, 7/1/10-6/29/11, \$1,728.
- 2009 Woods, R. J. *Multisensory processing and object individuation in infants*. NIH P20 RR016741 INBRE grant for the Program of the National Center for Research Resources through the NDSU *Center for Science and Math*. \$3680.
- Advance FORWARD Travel Award for travel to the Society for Research in Child Development biennial meeting, April 2009, Denver, CO. \$500.
- 2008 Woods, R. J. (PI), EPSCoR, EPS-0814442, 8/16/08-3/31/09, \$5,300.

Current Courses Taught

Physical & Cognitive Development across the Lifespan, Graduate class (Fall 2017)
Prenatal, Infant, & Toddler Development
Introduction to Research Methods in Human Development & Family Science
Topics in Cognitive Development: Cognition through Play
Topics in Cognitive Development: Memory and Attention
Honors Seminar - The Deceptive Eye: An Examination of Truth versus Experience

Other Courses

Child Development
Adult Development and Aging
Lifespan Development
Introduction to Psychology
Research Methods in Psychology
Developmental Science Colloquium
Topics in the Biological Basis of Development: Neural Plasticity (*prepped, not taught*)

Professional Memberships

International Society on Infant Studies
Society for Research in Child Development
Psi-Chi National Honors Society
American Psychological Association – Division 2 Society for the Teaching of Psychology
American Psychological Association – Division 7 Developmental Psychology
National Association for the Education of Young Children
Vision Science Society

Ad Hoc Reviewer

British Journal of Child Development
British Journal of Developmental Psychology
Child Development
Cognition
Infancy
Infant and Child Development

Journal of Experimental Child Psychology
Sex Roles

Department, College, and University Service

University Honors Program Advisory Board
QUEST General Education ad hoc Committee
Extension publication article *Child's play: Playtime for your infant or toddler*
Extension publication article *Practices for parent-infant play*
College of Human Development & Education Research Group Facilitator
HDFS Website Development
Developmental Science Doctoral Program Committee
Undergraduate Committee
Hinsz Lecture
Faculty Advisor to HDFS Undergraduate Student Organization (HDFS Club)

Community Service

Red River Valley Autism/Asperger Network, volunteer, 2013-2016
Head Start Outreach Committee, member, 2013-2015
Parenting, Life-skills Class, Jeremiah Program, Fargo, ND, April 4, 2012.
How to get the most out of baby toys. "Bringing Science to You" community presentation at NDSU, Fargo, ND, May 11, 2010.
Expanding Your Horizons Science/Math Conference for Girls Grades 6-8, Workshop Leader, February, 2008, 2010, 2012, 2016
Girl Scouts of America, Co-leader, 2006-2007
Head Start Policy Council, Member, 2002-2003
Vice President and Public Relations Officer, Nacogdoches Doula Registry, 1998-1999