

Leanne Boucher, Ph.D.
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Contact Information and Current Position

Nova Southeastern University | College of Psychology
Department of Psychology and Neuroscience
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08/14 – Present	Associate Professor of Psychology
01/10 – 08/14	Assistant Professor of Psychology
08/11 – 08/14	Chair, Undergraduate Psychology Program

Education

2012 Ph.D. in Experimental Psychology, Dartmouth College, Hanover, NH
1997 B.A. with High Honors in Psychology, cum laude, Brandeis University, Waltham, MA

Funded Research

2012 – 2013 Faculty Mini-Grant from NSU; Grant Title: *Brain Training: Fact or Fiction*
2010 – 2011 Faculty Mini-Grant from NSU; Grant Title: *Inhibiting or changing a previously planned response*
2005 – 2008 F32 EY016679 NIH/NEI, *Modeling Interactive Neural Processes*
2002 Dartmouth College Arts and Sciences Graduate Alumni Research Award
1996 – 1997 Brandeis University Undergraduate Research Fellow

Honors and Fellowships

2012 – 2013 Team Fellowship Grant from NSU for *Science Alive!* events
2012 Outstanding Teacher of the Year from the Farquhar College of Arts
2011 – 2012 Team Fellowship Grant from NSU for *Brain Awareness Week* events
2009 Vanderbilt University Chancellor's Award for Excellence in Research
2008 Travel Award from the Society for the Teaching of Psychology
2001 Dartmouth College Marie A. Center Graduate Award for Excellence in Research
1999 First Place, Dartmouth Graduate Student Poster Conference
1996 Psi Chi National Honor Society

Peer-Reviewed Publications

- Ebersole, C. R., Atherton, O. E., Belanger, A. L., Skulborstad, H. M., Allen, J. M., Banks, J. B., Baranski, E., Bernstein, M. J., Bonfiglio, D. B. V., **Boucher, L.**, Brown, E. R., Budiman, N. I., Cairo, A. H., Capaldi, C. A., Chartier, C. R., Chung, J. M., Cicero, D. C., Coleman, J. A., Conway, J. G., Davis, W. E., Devos, T., Fletcher, M. M., German, K., Grahe, J. E., Hermann, A. D., Hicks, J. A., Honeycutt, N., Humphrey, B., Janus, B., Johnson, D. J., Joy-Gaba, J. A., Juzeler, H., Keres, A., Kinney, D., Kirshenbaum, J., Klein, R. A., Lucas, R. E., Lustgraaf, C. J. N., Martin, D., Menon, M., Metzger, M., Moloney, J. M., Morse, P. J., Prislin, R., Razza, T., Re, D. E., Rule, N. O., Sacco, D. F., Sauerberger, K., Shrider, E., Shultz, M., Siemsen, C., Sobocko, K., Sternglanz, R. W., Summerville, A., Tskhay, K. O.,

- van Allen, Z., Vaughn, L. A., Walker, R. J., Weinberg, A., Wilson, J. P., Wirth, J. H., Wortman, J., & Nosek, B. A. (*in press*). Many Labs 3: Evaluating participant pool quality across the academic semester via replication. *Journal of Experimental Social Psychology*.
2. Xie, D., **Boucher, L.**, Kubie, J., Miller, S, Gariépy, J. –F. (2014). NEURO.tv: neuroscience education on the Internet. *Malaysian Journal of Medical Sciences*, 21(3), 78-80.
 3. Williams, M., Pouget, P., **Boucher, L.**, & Woodman, G.F. (2013). Visual-spatial attention aids the maintenance of object representations in visual working memory. *Memory and Cognition*, 41(5), 698-715.
 4. Pouget, P, Logan, G.D., Palmeri, T.J., **Boucher, L.**, Paré, M., & Schall, J.D. (2011). Neural basis of adaptive response time adjustment during saccade countermanding. *Journal of Neuroscience*, 31 (35), 12604-12612.
 5. Domingo, S., Lalwani, L.N., **Boucher, L.**, & Tartar, J.L. (2011). Individuals with grapheme-color associations exhibit creativity. *Imagination, Cognition, and Personality*, 30(3), 289-299.
 6. Thakker, K.N., Schall, J.D., **Boucher, L.**, Logan, G.D., & Park, S. (2011). Response inhibition and response monitoring in a saccadic countermanding task in schizophrenia. *Biological Psychiatry*, 69, 55-62.
 7. Nelson, M.J., **Boucher, L.**, Logan, G.D., Palmeri, T.J., & Schall, J.D. (2010). Nonindependent and Nonstationary response times in stopping and stepping tasks. *Attention, Perception, & Psychophysics*, 72(7), 1913-1929.
 8. Lo, C.-C., **Boucher, L.**, Paré, M., Schall, J. D., & Wang, X.-J. (2009). Attractor dynamics and proactive inhibitory control in countermanding action: a spiking neural circuit model. *Journal of Neuroscience*, 29 (28), 9059-9071.
 9. Schall, J.D. & **Boucher, L.** (2007). Executive Control of Gaze by the Frontal Lobes. *Cognitive Affective and Behavioral Neuroscience*, 7(4), 396-412.
 10. **Boucher, L.**, Stuphorn, V., Logan, G.D., Schall, J.D., & Palmeri, T.(2007). Stopping eye and hand movements: Are the processes independent? *Perception and Psychophysics*, 69(5), 785–801.
 11. **Boucher, L.**, Palmeri, T., Logan, G.D., & Schall, J.D. (2007). Inhibitory control in mind and brain: An interactive race model of countermanding saccades. *Psychological Review*, 114(2), 376-397.
 12. Emeric, E. E., Brown, J. W., **Boucher, L.**, Carpenter, R.H.S., Hanes, D. P., Harris, R., Logan, G. D., Mashru, R. N., Paré, M., Pouget, P., Stuphorn, V., Taylor, T. L., & Schall, J.D. (2007). Influence of history on countermanding performance in humans and macaque monkeys. *Vision Research*, 47(1), 35-49.
 13. **Boucher, L.**, Cohen, Y.E., Lee, A.L., & Hughes, H.C. (2004). Ocular tracking as a measure of auditory motion perception. *Journal of Physiology, Paris*, 98(1-3), 235-248.
 14. Berryhill, M., Kveraga, K., **Boucher, L.**, Hughes, H.C. (2004). Smooth pursuit under stimulus-response uncertainty does not follow Hick’s law. *Cognitive Brain Research*, 19, 100-102.
 15. Kveraga, K.V., **Boucher, L.**, & Hughes, H.C. (2002). Saccades operate in violation of Hick’s Law. *Experimental Brain Research*, 146(3), 307-314.
 16. **Boucher, L.**, Groh, J.M., & Hughes, H.C. (2001). Afferent delays and the mislocalization of perisaccadic stimuli. *Vision Research*, 41(20), 2631-2644.

Monograph

1. Case study and commentary published in *Research Ethics: Cases and Commentaries, Volume 6*. Schrag, B., ed. Association for Practical and Professional Ethics; Bloomington, IN, 2002. Prepared under NSF Grant Number SES-9817880.

Manuscripts in preparation

1. Viparina, B.L., Collins, W.C, & **Boucher, L.** Working memory load selectively influences the STOP process in a stop signal task.
2. Rack-Wildner, M. & **Boucher, L.** The influence of walking on cognition.

Conference Abstracts

1. Grodner, K., Viparina, B., Collins, W.M., & **Boucher, L.** (2014). Deconstructing the sensory and cognitive components of hearing loss. *Society for Neuroscience*.
2. Dabrowski, K. & **Boucher, L.** (2013). The effect of physical and mental exercise on executive functioning. *Society for Neuroscience*.
3. Rack-Wildner, M. & **Boucher, L.** (2013). The influence of walking on cognition. *Society for Neuroscience*.
4. Viparina, B., Adames, L., Cruz, L., Dugan, S.N., & **Boucher, L.** (2013). Working memory load selectively influences the STOP process in a stop signal task. *Society for Neuroscience*.
5. K. Anderson, P. Belin, S. Bingham, M. Birnbaum, **L. Boucher**, V. Bracchi-Ricard, R. Brambilla, K. Callwood, T. Carreon, J. Chin-you Wingerter, N. Colwell, J. Datto, K. Doyle, B. Dollinger, S. Fernandez, S. Gajavelli, S. Gavassa, A. Hackam, A. Hackett, J. Hernandez, G. Hotz, N. Johnson, I. Koncza-Oddone, M. Koncza-Oddone, D. Libman, R. Moyer, A. Norris, A. Oliva, M. Polo, A. Nevares, N. Nissanka, J. Santer, M. Schladant, T. Stewart, T. Steffey, A. Tapanes-Castillo, D. Titus, N. Wilson, and C.M. Atkins. (2013). Expanding teaching opportunities for trainees through the Miami Brain Fair. *Society for Neuroscience*.
6. Orozco, N., Collins, W.M., & **Boucher, L.** (2013). Power Posing: Do Brief Nonverbal Displays Influence Attentional Processes? *Psychonomics Society*.
7. **Boucher, L.** (2013). Demonstrations that work for sensation and perception courses. *National Institute on the Teaching of Psychology*.
8. Yassin, S, Srour, A., Tartar, J.L., **Boucher, L.** (2011). Selective attention to negative emotional stimuli. *Society for Neuroscience*.
9. Burgraff, K., Armstrong, L., **Boucher, L.**, Collins, W.M. (2011). The Role of Categorization in Memory. *Psychonomic Society*.
10. Thakkar, K.N., Schall, J.D., **Boucher, L.**, Logan, G.D., & Park, S. (2009). Response inhibition and response monitoring of saccades in a stop signal task in schizophrenia and bipolar disorder. *International Congress on Schizophrenia Research (ICOSR)*.
11. Carlisle, N. B., **Boucher, L.**, Woodman, G. F. (2008). Strategic interactions between visual working memory and attention: Evidence from eye-tracking. *Vision Sciences Society*.
12. **Boucher, L.**, Logan, G.D., Palmeri, T.J., & Schall, J.D. (2008). The effect of instruction on response inhibition. *Society for Neuroscience*.
13. Carlisle, N., Boucher, L., & Woodman, G. (2008). Strategic interactions between visual working memory and perceptual attention as revealed by eye movements. *Vision Sciences Society*.

14. Nelson, M.J., **Boucher, L.**, Logan, G.D., Palmeri, T.J., & Schall, J.D. (2008). Nonstationarity of saccade response time in stopping and stepping tasks. *Society for Neuroscience*.
15. Pouget, P., Logan, G.D., Palmeri, T.J., **Boucher, L.**, Paré, M., & Schall, J.D. (2008). Neural basis of adaptive response time adjustment in saccade countermanding. *Society for Neuroscience*.
16. **Boucher, L.**, Logan, G.D., Palmeri, T., & Schall, J.D. (2007). Interactive race model of the stopping mechanism for combined eye and hand movements. *Society for Neuroscience*.
17. Nelson, M.J., **Boucher, L.**, Murthy, A., Thompson, K. G., Logan, G.D., Palmeri, T., & Schall, J.D. (2007). Executive control of search-step saccade performance investigated through trial history. *Society for Neuroscience*.
18. **Boucher, L.**, Logan, G.D., Palmeri, T., & Schall, J.D. (2006). Modeling trial history of saccade countermanding. *Society for Neuroscience*.
19. Woodman, G. F. & **Boucher, L.** (2006). Eye movements reveal strategic interactions between perceptual attention and visual working memory during visual search. *Cognitive Science Association for Interdisciplinary Learning*.
20. **Boucher, L.** & Woodman, G. F. (2005). Eye movements reveal strategic interactions between perceptual attention and visual working memory during visual search. *Psychonomic Society*.
21. Camalier, C. R., Palmeri, T. J., **Boucher, L.**, Schall, J.D., & Logan, G. D. (2005). Stochastic models of neurophysiology and behavior of visually guided saccades. *Society for Neuroscience*.
22. Emeric, E. E., **Boucher, L.**, Brown, J. W., Stuphorn, V., & Schall, J.D. (2005). Absence of post-error slowing of countermanded saccades. *Society for Neuroscience*.
23. Schall, J.D., **Boucher, L.**, Logan, G.D., & Palmeri, T.J. (2005). Choice, decision and action investigated with visually guided saccades. *Neurobiology of Decision Making Meeting*, Cold Spring Harbor, NY.
24. **Boucher, L.**, Stuphorn, V., Logan, G.D., Palmeri, T., & Schall, J.D. (2004). Dissecting the Stop Process: Eye-hand coordination in a stop task. *Society for Neuroscience*.
25. Camalier, C.R., **Boucher, L.**, & Schall, J.D. (2004). Influence of non-target stimulus features on saccade target selection. *Society for Neuroscience*.
26. Pouget, P., **Boucher, L.**, & Schall, J.D. (2004). Orbital position effects on countermanding saccades. *Society for Neuroscience*.
27. Woodman, G.F., **Boucher, L.**, Schall, J.D, & Luck, S.J. (2004). Do the Contents of Visual Working Memory Automatically Bias Attentional Selection during Visual Search? *Society for Neuroscience*.
28. **Boucher, L.**, Logan, G.D., Palmeri, T., & Schall, J.D. (2004). An interactive race model of countermanding saccades. *Computational and Systems Neuroscience*, Cold Spring Harbor, NY.
29. **Boucher, L.**, Logan, G.D., Palmeri, T., & Schall, J.D. (2003). An interactive race model of countermanding saccades. *Society for Neuroscience*.
30. **Boucher, L.**, Fendrich, R., & Hughes, H.C. (2003). Cues to the relative spatial locations of visual targets presented in the dark. *Vision Sciences Society*.
31. **Boucher, L.**, Fendrich, R., & Hughes, H.C. (2002). Eye movements during attempted fixation in the dark and in the light. *Society for Neuroscience*.

32. Gifford, G.W., **Boucher, L.**, & Cohen, Y.E. (2002). Area LIP neurons are modulated by salient auditory stimuli. *Society for Neuroscience*.
33. Kveraga, K., **Boucher, L.**, & Hughes, H.C. (2002). Learning to look the other way. *Vision Sciences Society*.
34. Berryhill, M.B., **Boucher, L.**, Kveraga, K., & Hughes, H.C. (2002). Latency of smooth pursuit under conditions of stimulus-response uncertainty. *Vision Sciences Society*.
35. **Boucher, L.**, Groh, J.M., & Hughes, H.C. (2001). Afferent delays and the mislocalization of perisaccadic stimuli. *York University: Levels of Perception Conference*.
36. **Boucher, L.**, Groh, J.M., & Hughes, H.C. (2000). Oculomotor localization of perisaccadic auditory targets. *Society for Neuroscience*. (Paper presentation)
37. **Boucher, L.**, Groh, J.M., & Hughes, H.C. (1999). Contributions of visual processing delays to mislocalization of perisaccadic stimuli. *Society for Neuroscience*.
38. **Boucher, L.**, Nelson, M.D., & Hughes, H.C. (1999). Eye-head coordination during express shifts of gaze. *Association for Research in Vision and Ophthalmology*.
39. **Boucher, L.**, Sekuler, R.W., Talwalker, A., & Sekuler, A.B. (1998). Motion perception is influenced by accompanying sound: two- and three-dimensional motion. *Association for Research in Vision and Ophthalmology*.

University Teaching Experience

07/14 – present	Associate Professor , <i>Nova Southeastern University</i> , Davie, FL
01/10 – 06/14	Assistant Professor , <i>Nova Southeastern University</i> , Davie, FL Introduction to Psychology, Research Methods in Psychology, Biological Basis of Behavior, Research Practicum, Experimental Psychology, Senior Seminar, and Sensation & Perception.
06/06 – 08/09	Lecturer in Psychology , <i>Vanderbilt University</i> , Nashville, TN Introduction to Psychology, Quantitative Methods: Statistics, Freshman Writing Seminar in General Psychology, and Perception.
05/08 – 05/09	Visions Faculty Member , <i>Vanderbilt University</i> Nashville, TN The Vanderbilt Visions program is a semester-long orientation program for first-year students which focuses on their social, academic, and cultural transition into college life.
09-97 – 05/02	Lab Instructor/Teaching Assistant , <i>Dartmouth College</i> , Hanover, NH Introduction to Psychological Methods Lab, Perception and Sensation Lab, Cognitive Psychology lab, Perception, Introductory Neuroscience, and Statistics.

Community Outreach

2013 – present	<i>Panel member, NEURO.tv</i> . Interview guests online for a web-based neuroscience program.
2012 – present	<i>BrainFacts.org Blogger</i> , BrainFacts.org is a website dedicated to educating the public about brain science run by the Society for Neuroscience and funded by the SfN, The Kavli Foundation, and the Gatsby Charitable Foundation.
2011 – present	<i>TEDxNSU</i> , chair of committee to develop an evening of engaging lectures and demonstrations to inspire thought and action

09/11 – present	<i>NeurOnline Champion</i> for the Brain Awareness Week discussion thread. NeurOnline is an online research based community run by the Society for Neuroscience
03/11 – present	<i>I Love the Brain</i> , children’s event created for the Alvin Sherman Library as part of Brain Awareness Week
09/12 – present	<i>Science Alive!</i> , program that brings interactive science demonstrations to elementary schools
2/2015 – present	<i>Organizer</i> , “Brain Games”, after-school STEM program at Alvin Sherman Children’s Library
1/2015	<i>Panel member</i> , Career Connections at the University School of NSU
10/2014	<i>Panel member</i> , Society for Neuroscience webinar “Doing Outreach: Supporting Your Career, Supporting the Field”
10/2012	<i>Mysteries of the Mind</i> , teen event created for the Alvin Sherman Library
05/06, 09/09	<i>Sheep Brain Dissection</i> , St. Bernard Academy Science Club (Nashville, TN), Homeschool Group (Franklin, TN)
01/06 – 05/06	<i>Science Mentor</i> , high school students in the Gifted Program at Ravenwood High School (Brentwood, TN) visited the lab weekly to learn more about brain science.

Mentoring Experience

Graduate Student Thesis Advising, Nova Southeastern University, Davie, FL

2013 – 2015	Kelsey Grodner Fidgeting and Cognitive Control
2012 – 2014	Mackenzie Rack-Wildner Movement and Cognition
2012 – 2014	Brandi Viparina Auditory Memory

Undergraduate Honor’s Thesis Advising, Nova Southeastern University, Davie, FL

2012 – 2013	Katie Dabrowski Mental vs. Physical Exercise’s Effect on Executive Function
2010 – 2012	Sarah Yassin The Influence of Emotional Stimuli on Response Inhibition

Undergraduate Honor’s Thesis Advising, Dartmouth College, Hanover, NH

1998 – 2001	Anna Lee Ocular tracking as a measure of auditory motion perception
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Undergraduate Student Symposium Faculty Advisor, Nova Southeastern University,

2015	Basmatee Manohar Exhausted from Decision Fatigue: Do Personality Differences Influence Decision Making? <i>Awarded second place.</i>
2015	Jana Mrkaja Posture and Cognition
2015	Karissa Delorme and Hannah Dean Don’t Think It, Don’t Do It: Controlling Executive Control
2015	Guy Merus, Andrea Moran, Bolarka Varga, Stephanie Ponce, Idania Carter, and Alexis Murphy Nova Southeastern University’s Participation in Many Labs 3: Evaluating Participant Pool Characteristics Across the Semester Via Replication <i>Awarded honorable mention.</i>
2014	Jana Mrkaja and Marianela Pena-Martinez Body Position and Attention
2013	Laurie Cruz, Lauren Adames, Katie Dabrowski, and Shannon Dugan Are Working Memory and Response Inhibition Correlated with Executive Function?

- 2012 Sarah Yassin | The Influence of Emotional Stimuli on Response Inhibition
 2012 Lauren Adames, Joe Cirno, Jacqueline Lefebvre, Christina Gobin | The Relationship Between Working Memory and Response Inhibition
 2011 Logan Armstrong, Kristin Burgraff | The Effects of Categorization on Memory
 2011 Alexandra Srour | The Influence of Emotional Regulation on Response Inhibition, *Awarded honorable mention.*
 2011 Terrence Singh | Change and Stop-signal paradigms with hands and feet

Graduate Advisor, Dartmouth College, Hanover, NH

08/98 – 08/02 Lived in undergraduate residence halls as the resident academic mentor and career advisor and provided advice on every aspect of post-graduate life including the graduate school application process and job hunting strategies.

Professional Service

- 2013 – present **Vice President**, NEURO.tv
 2013 – present **Vice President**, Miami Chapter of the Society for Neuroscience
 2001 – present **Peer Reviewer**, Cognition, Journal of Cognitive Neuroscience; Journal of Experimental Psychology: Human Perception and Performance; Journal of Experimental Psychology: General; Vision Research; Experimental Brain Research; The Open Psychology Journal; Neuroimage; Journal of Vision
 2011 – 2014 **Faculty Executive Council**, Nova Southeastern University, Davie, FL
 1998 – 2002 **Graduate Student Representative**, Dartmouth College
 1997 – 2002 **Coordinator and Founder**, Graduate Student Research Group, Dartmouth College

Professional Development

- 2008, 2013 National Institute for the Teaching of Psychology conference
 2007 – 2009 Vanderbilt's Teaching Certificate program
 2001 Association for Practical and Professional Ethics 2-week workshop, Bloomington, IN
 2002 Cold Spring Harbor Laboratory (NY), Computational Neuroscience: Vision 2-week course
 2002 University of Pittsburgh "Professional Skills Workshop", Society for Neuroscience conference
 2001 University of New Hampshire's Center for Excellence in Teaching and Learning
 1998 Dartmouth College, "Professional Development" course

Professional Affiliations

- Society for the Teaching of Psychology
- Society for Neuroscience
- Vision Science Society