

Leanne Boucher, Ph.D.

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
05/16 – Present	Coordinator, First Year Seminar
01/10 – 08/14	Assistant Professor of Psychology
08/11 – 08/14	Chair, Undergraduate Psychology Program

Education

2003 – 2009	Postdoctoral Fellow, Vanderbilt University, Nashville, TN
2002	Ph.D. in Experimental Psychology, Dartmouth College, Hanover, NH
1997	B.A., High Honors in Psychology, cum laude, Brandeis University, Waltham, MA

Funded Research

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

Honors and Fellowships

2016	Professor of the Year Award, STUEY, <i>Nova Southeastern University</i>
2012 – 2013	Team Fellowship Grant from NSU for <i>Science Alive!</i> events
2012	Outstanding Teacher of the Year from the Farquhar College of Arts
2011 – 2012	Team Fellowship Grant from NSU for <i>Brain Awareness Week</i> 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

1. 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. (2016). Many Labs 3: Evaluating participant pool quality across the academic semester via replication. *Journal of Experimental Social Psychology, 67*, 68-82.
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, Sensation & Perception, First Year Seminar.
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.

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

Graduate Student Thesis Committee Member, Nova Southeastern University, Davie, FL

- 2013 – 2016 Brittney Gonzalez | Embodied Cognition: Exploring the Importance of Gesturing in Reading

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

Undergraduate Student Symposium Faculty Advisor, Nova Southeastern University,

- 2016 Ashley Lonergan and Alexis Koob | Does Fidgeting Affect Cognition? *Awarded third place.*
- 2015 Basmatee Manohar | Exhausted from Decision Fatigue: Do Personality Differences Influence Decision Making? *Awarded second place.*
- 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 *Awarded honorable mention.*
- 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.

Community Outreach

09/12 – present	<i>Science Alive!</i> , program that brings interactive science demonstrations to Broward County elementary schools and the library.
2012 – present	<i>Presenter</i> , Miami Brain Fair (annual event)
2011 – present	<i>TEDxNSU</i> , chair of committee to develop an evening of engaging lectures and demonstrations to inspire thought and action
03/11 – present	Science outreach presentations at the Alvin Sherman Library <ul style="list-style-type: none"> - <i>I Lobe the Brain</i>, children’s event created for the Alvin Sherman Library as part of Brain Awareness Week (annual event) - <i>Brain Games</i>, after-school STEM program at Alvin Sherman Children’s Library (2/15) - <i>Brain and Neuroscience</i>, summer STEM program for children and teens (7/14, 6/23/15, 6/24/15) - <i>Mysteries of the Mind</i>, teen event created for the Alvin Sherman Library (10/12)
05/2016	<i>Lecturer</i> , Sheep brain dissection and lecture on forensics at
2013 – 2015	<i>Panel member</i> , <i>NEURO.tv</i> . Interview guests online for a web-based neuroscience program.
2012 – 2014	<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.
2012	<i>TEDxNSU presentation</i> , in collaboration with a dance instructor, we created a modern dance interpretation of sound through the ear.
2011 – 2016	<i>NeurOnline Champion</i> for the Brain Awareness Week discussion thread. NeurOnline is an online research based community run by the Society for Neuroscience
01/2015	<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”
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.

Invited Guest Lectures

2016,	Faculty welcome speech at Convocation
2016,	McLaughlin Middle Fine Arts Academy, Polk County, FL, <i>Neuroscience and Forensics</i>
2015,	Faculty welcome speech to honors students
2014,	Neuroscience Club, <i>Cognitive benefits of exercise</i>
2013,	Psychology Club, <i>What brain science can tell us about exercise</i>

- 2012, Faculty welcome speech at Convocation
- 2012 – present, Nova Southeastern University’s Faculty Lecture
- *Response inhibition in the lab* (2010)
 - *The Untruthful Power of our Memories* (2012)
- 2012 - present, High School Psychology / Neuroscience Camp
- *Taste Perception* (2012)
 - *Sensation and Perception* (2016)
- 2010 – present, Nova Southeastern University’s Lifelong Learning Institute
- 2010: *Memory*
 - 2011: *The Aging Brain, The Plastic Brain*
 - 2012: *Memory and the Brain, Perceptual Illusions, Developmental Psychology*
 - 2013: *Perceptual illusions and Brain Function, Cognitive benefits of exercise*
 - 2014: *Neuroscience Demonstrations*

Professional Service

- 2014 – present **Chair, member**, *Nova Southeastern University*, Foundations of Excellence committee (co-chair Philosophy dimension, member of writing committee, member of overseeing committee)
- 2013 – present **Vice President**, NEURO.tv
- 2013 – present **Vice President**, Miami Chapter of the Society for Neuroscience
- 2010 – present **Judge**, *Nova Southeastern University*, Undergraduate Student Symposium
- 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*, *PLoS One*, *Journal of Neuroscience*
- 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 & Professional Ethics 2-wk 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