

Stephen Robert Mitroff

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Education, Employment, & Academic Interests

Academic Appointments

2005 –	Assistant Professor	Duke University Center for Cognitive Neuroscience
2005 –	Assistant Professor	Duke University Department of Psychology & Neuroscience
2012 –	Adjunct Assistant Professor	University of North Carolina, Chapel Hill School of Dentistry, Department of Orthodontics
2002 - 2005	Postdoctoral Research Fellow	Yale University Department of Psychology Sponsors: Karen Wynn & Brian J. Scholl

Education

2002	Ph.D.	Harvard University Department of Psychology Advisor: Daniel J. Simons
2000	M.A.	Harvard University Department of Psychology Advisor: Daniel J. Simons
1998	B.A., <i>summa cum laude</i>	University of California, Berkeley The Institute of Cognitive Studies Advisor: Alison Gopnik

General Research Interests

Individual differences and malleability in visual cognition
Visual perception, attention, & memory
Cognitive development

Specific Research Questions

How are items detected in rare, multi-target & real-world visual search (e.g., baggage screening/radiology)?
What makes one individual a 'better' visual searcher than another?
How can specific training regimens enhance sports vision?
How and why does videogame playing enhance visual perception and general motivation?
What is the underlying nature of persisting object representations?
How are visual changes detected and what does this tell us about the nature of representations and attention?
What is the relationship between awareness and visual perception?
In what ways are visual representations similar and different for infants, young adults, and older adults?

Funding

Current Research Support

- Title:* Identifying and enhancing superior searching abilities
Funding Source: Army Research Office Award #54528LS
PI: Stephen R. Mitroff
Grant period: April 1, 2009 through March 31, 2013
Total funding: \$415,870
- Title:* Improving visual search accuracy and identifying superior performance
Funding Source: Transportation Security Administration
PI: Stephen R. Mitroff
Grant period: October 1, 2011 through September 30, 2012
Total funding: \$250,000
- Title:* Sports training and the malleability of visual cognition
Funding Source: Nike Sparq Sensory Training, Nike, Inc.
PI: Stephen R. Mitroff
Grant period: December 16, 2009 through January 31, 2012
Total funding: \$115,000
- Title:* Identifying predictive markers of individual difference in threat sensitivity
Funding Source: Institute of Homeland Security Solutions
PI: Stephen R. Mitroff
Co-PI: Ahmad Hariri
Grant period: March 1, 2010 through May 31, 2012
Total funding: \$200,000

Completed Research Support

- Title:* Training that addresses individual differences in sustained vigilance tasks
Funding Source: Institute of Homeland Security Solutions
PI: Robert C. Hubal
Grant period: July 1, 2009 through December 31, 2010
Total funding: \$249,441
Funding for SRM: \$96,185
- Title:* The nature of persisting object representations
Funding Source: NIH/NIMH, R03 Award #R03 MH080849-01
PI: Stephen R. Mitroff
Grant period: July 1, 2007 through June 30, 2009
Total funding: \$156,000
- Title:* Identifying predictive markers of individual difference in threat sensitivity
Funding Source: Institute of Homeland Security Solutions & RTI
PI: Stephen R. Mitroff
Grant period: October 10, 2009 through November 9, 2009
Total funding: \$5,500
- Title:* The representation of persisting objects
Funding Source: NIMH NRSA Individual Postdoctoral Fellowship, F32 MH66553
PI: Stephen R. Mitroff
Grant period: July 1, 2002 through June 30, 2005

Total funding: \$194,774

Funding Source: National Science Foundation Graduate Research Fellowship

PI: Stephen R. Mitroff

Grant period: July 1, 1999 through June 30, 2002

Publications & Presentations

Referred Journal Articles (in reverse chronological order)

1. Appelbaum, L. G., Cain, M. S., Darling, E. F., Stanton, S. J., Nguyen, M. T., & **Mitroff**, S. R. (2012). What is the identity of a sports spectator? *Personality and Individual Differences*, 52, 422-427.
2. Cain, M. S., & **Mitroff**, S. R. (2011). Distractor filtering in media multitaskers. *Perception*, 10, 1183-1192.
3. Appelbaum, L. G., Schroeder, J. E., Cain, M. S., & **Mitroff**, S. R. (2011). Improved visual cognition through stroboscopic training. *Frontiers in Psychology*, 2:276. doi: 10.3389/fpsyg.2011.00276
4. Cain, M. S., Dunsmoor, J. E., LaBar, K. S., & **Mitroff**, S. R. (2011). Anticipatory anxiety hinders detection of a second target in dual-target search. *Psychological Science*, 22, 866-871. doi:10.1177/0956797611412393
5. Clark, K., Fleck, M. S., & **Mitroff**, S. R. (2011). Enhanced change detection performance reveals improved strategy use in avid action video game players. *Acta Psychologica*, 136, 67-72.
6. Wu, W., Tiesinga, P., Tucker, T., Heiner, J., **Mitroff**, S. R., & Fitzpatrick, D. (2011). Dynamics of Population Response to Changes of Motion Direction in Primary Visual Cortex. *Journal of Neuroscience*, 31(36), 12767-12777.
7. Costello, M. C., Madden, D. J., **Mitroff**, S. R., & Whiting, W. L. (2010). Age-related decline of visual processing components in change detection. *Psychology & Aging*, 25(2), 356-368.
8. Costello, M. C., Madden, D. J., Shepler, A. M., **Mitroff**, S. R., & Leber, A. B. (2010). Age-related preservation of top-down control over distraction in visual search. *Experimental Aging Research*, 36(3), 249-272.
9. Donohue, S. E., Woldorff, M. G., & **Mitroff**, S. R. (2010). Video game players show more precise multisensory temporal processing abilities. *Attention, Perception, & Psychophysics*, 72, 1120-1129.
10. Jordan, K. E., Clark, K., & **Mitroff**, S. R. (2010). See an object, hear an object file: Object correspondence transcends sensory modality. *Visual Cognition*, 18, 492-503.
11. Fleck, M. S., Samei, E., & **Mitroff**, S. R. (2010). Generalized 'satisfaction of search': Adverse influences on dual-target search accuracy. *Journal of Experimental Psychology: Applied*, 16, 60-71.
12. Dunsmoor, J. E., **Mitroff**, S. R., & LaBar, K. S. (2009). Generalization of conditioned fear along a dimension of increasing fear intensity. *Learning & Memory*, 16, 460-469.
13. **Mitroff**, S. R., Arita, J. T., & Fleck, M. S. (2009). Staying in bounds: Contextual constraints on object file coherence. *Visual Cognition*, 17, 195-211.
14. Wang, S., & **Mitroff**, S. R. (2009). Preserved visual representations despite change blindness in infants. *Developmental Science*, 12, 681-687.
15. Cheries, E., **Mitroff**, S. R., Wynn, K., & Scholl, B. J. (2008). Cohesion as a constraint on object persistence in infancy. *Developmental Science*, 11, 427-432.
16. **Mitroff**, S. R., Scholl, B. J., & Noles, N. S. (2007). Object files can be purely episodic. *Perception*, 36, 1730-1735.

17. **Mitroff**, S. R., & Alvarez, G. A. (2007). Space and time, not surface features, underlie object persistence. *Psychonomic Bulletin & Review*, *14*, 1199-1204.
18. Fleck, M. S., & **Mitroff**, S. R. (2007). Rare targets are rarely missed in correctable search. *Psychological Science*, *18*, 943-947.
19. **Mitroff**, S. R., Sobel, D. M., Gopnik, A. (2006). Reversing how to think about ambiguous figure reversals: Spontaneous alternating by uninformed observers. *Perception*, *35*, 709-715.
20. Noles, N. S., Scholl, B. J., & **Mitroff**, S. R. (2005). The persistence of object file representations. *Perception & Psychophysics*, *67*, 324-334.
21. **Mitroff**, S. R., Scholl, B. J., & Wynn, K. (2005). The relationship between object files and conscious perception. *Cognition*, *96*, 67-92.
22. **Mitroff**, S. R. & Scholl, B. J. (2005). Forming and updating object representations without awareness: Evidence from motion-induced blindness. *Vision Research*, *45*, 961-967.
23. **Mitroff**, S. R. & Scholl, B. J. (2004). Seeing the disappearance of unseen objects. *Perception*, *33*, 1267-1273.
24. **Mitroff**, S. R., Scholl, B. J., & Wynn, K. (2004). Divide and conquer: How object files adapt when a persisting object splits into two. *Psychological Science*, *15*, 420-425.
25. **Mitroff**, S. R., Simons, D. J., & Levin, D. T. (2004). Nothing compares 2 views: Change blindness can occur despite preserved access to the changed information. *Perception & Psychophysics*, *66*, 1268-1281.
26. **Mitroff**, S. R. & Simons, D. J. (2002). Changes are not localized until they are explicitly detected. *Visual Cognition*, *9*, 937-968.
27. **Mitroff**, S. R., Simons, D. J., & Franconeri, S. L. (2002). The siren song of implicit change detection. *Journal of Experimental Psychology: Human Perception and Performance*, *28*, 798-815.

Book Chapters, Research Briefs, & Peer-Reviewed Conference Papers

1. Hubal, R., Cain, M. S., & **Mitroff**, S. R. (2011). Simulating a vigilance task: Technology for homeland security research. Interservice/Industry Training, Simulation, and Education Conference (IITSEC). Orlando, FL.
2. Clark, K., Cain, M. S., & **Mitroff**, S. R. (in preparation). Perception and human information processing in visual search. In R. Hoffman, J. Szalma, P. Hancock, R. Parasuraman, & M. Scerbo (Eds.), *Cambridge University Handbook on Applied Perception Research*. Cambridge University Press.
3. Clark, K., Cain, M. S., Adamo, S. H., & **Mitroff**, S. R. (submitted). Examining influences on applied visual search performance.
4. Cain, M. S., Vul, E., Clark, K., & **Mitroff**, S. R. (2011). Optimal models of human multiple-target visual search. In L. Carlson, C. Hölscher, & T. Shipley (Eds.), *Proceedings of the 33rd Annual Conference of the Cognitive Science Society*. Boston, MA: Cognitive Science Society.
5. Hubal, R., **Mitroff**, S. R., Cain, M. S., Scott, B., & DeWitt, R. (2010). Simulating a vigilance task: Extensible technology for baggage security assessment and training. *Proceedings of the IEEE Conference on Technologies for Homeland Security* (pp. 543-548). Los Alamitos, CA: IEEE.
6. **Mitroff**, S. R., & Hariri, A. (2010). Identifying Predictive Markers of Field Performance: The Potential Role of Individual Differences in Threat Sensitivity. *Institute for Homeland Security Solutions Research*

Brief. <https://www.ihssnc.org>

7. Madden, D. J., & **Mitroff**, S. R. (2010). Aging and Top-Down Attentional Control in Visual Search. *Institute for Homeland Security Solutions Research Brief*. <https://www.ihssnc.org>
8. Cheries, E., **Mitroff**, S. R., Wynn, K. & Scholl, B. J. (2009). Constraints on Persisting Object Representations in Infants and Adults. In B. Hood & L. Santos (Eds.), *The Origins of Object Knowledge*. London: Oxford University Press.
9. Simons, D. J., **Mitroff**, S. R., & Franconeri, S. L. (2003). Scene perception: What we can learn from visual integration and change detection. In M. Peterson & G. Rhodes (Eds.), *Perception of faces, objects, and scenes: Analytic and holistic processes. Advances in visual cognition* (pp. 335-351). London: Oxford University Press.
10. Simons, D. J., & **Mitroff**, S. R. (2001). The role of expectation in change detection and attentional capture. In L.R. Harris & M. Jenkin (Eds.), *Vision and Attention* (pp. 189-207). Springer.

Manuscripts under review & under revision

1. Cain, M. S., Vul, E., Clark, K., & **Mitroff**, S. R. (revised manuscript under review). A Bayesian optimal foraging model of human visual search.
2. **Mitroff**, S. R., Friesen, P., Bennett, D., Yoo, H., & Reichow, A. (under review). Enhancing ice hockey skills through stroboscopic visual training.
3. Madden, D. J., **Mitroff**, S. R., Shepler, A. M., Fleck, M. S., Costello, M. & Voss, A. (under revision). Adult age differences in top-down attentional control during rare target search.
4. Donohue, S., James, B., Eslick, A. N., & **Mitroff**, S. R. (under revision). Cognitive Pitfall!: Video game players are not immune from dual-task costs.
5. Fleck, M. S., & **Mitroff**, S. R. (under revision). Video game players excel at rare target search.
6. Jordan, K. E., & **Mitroff**, S. R. (under revision). Videogame players show enhanced ability to equate information across senses.
7. **Mitroff**, S. R., Scholl, B. J., & Wynn, K. (under revision). One plus one equals one: The effects of merging on object files.

Manuscripts in preparation

1. Appelbaum, L. G., Cain, M. S., Schroeder, J. E., Darling, E. F., & **Mitroff**, S. R. (in preparation). Stroboscopic visual training enhances sensory memory encoding.
2. Carter, O., Luedeman, R., **Mitroff**, S. R., & Nakayama, K. (in preparation). Motion induced blindness: The more you attend the less you see.
3. Clark, K., Adcock, R. A., & **Mitroff**, S. R. (in preparation). Motivational influences on satisfaction of search errors in multiple-target visual search.
4. Clark, K., Fleck, M. S., & **Mitroff**, S. R. (in preparation). Reducing satisfaction of search errors in visual search.
5. Clark, K., Zucker, N., Watson, K., Stanton, S. J., & **Mitroff**, S. R. (in preparation). Revealing individual differences in visual search: ADHD leads to seeing too little and anorexia nervosa leads to seeing too much.
6. Donohue, S. E., Darling, E. F., **Mitroff**, S. R. (in preparation). Links between multisensory processing and autism.

Conference Presentations (*in reverse chronological order*)

1. Adamo, S. H., Cain, M. S., & **Mitroff**, S. R. (2012, May). Targets need their own personal space. Presentation submitted to the annual meeting of the Vision Sciences Society, Naples, FL.
2. Cain, M. S., Adamo, S. H., & **Mitroff**, S. R. (2012, May). What eye-tracking can tell us about multiple-target visual search. Presentation submitted to the annual meeting of the Vision Sciences Society, Naples, FL.
3. Clark, K., Appelbaum, L. G., **Mitroff**, S. R., & Woldorff, M. G. (2012, May). Neural correlates of learning during a visual search task. Presentation submitted to the annual meeting of the Vision Sciences Society, Naples, FL.
4. Dowd, E. W., & **Mitroff**, S. R. (2012, May). Attentional guidance by working memory overrides saliency cues in visual search. Presentation submitted to the annual meeting of the Vision Sciences Society, Naples, FL.
5. **Mitroff**, S. R., Biggs, A. T., Cain, M. S., Darling, E. F., Clark, K., Adamo, S. H., & Dowd, E. W. (2012, May). Visual search at the airport: Testing TSA officers. Presentation submitted to the annual meeting of the Vision Sciences Society, Naples, FL.
6. **Mitroff**, S. R., Appelbaum, L. G., Schroeder, J. E., & Cain, M. S. (2011, November). Improved visual cognition through stroboscopic training. Paper presented at the annual meeting of the Psychonomic Society, Seattle, WA.
7. Clark, K., Samei, E., Baker, J., & **Mitroff**, S. R. (2011, November). Expertise in radiological screening and satisfaction of search. Poster presented at the annual Object Perception, Attention, and Memory meeting. Seattle, WA.
8. Cain, M. S., & **Mitroff**, S. R. (2011, November). Examining relationships between attentional traits and media multitasking behavior. Poster presented at the annual Object Perception, Attention, and Memory meeting. Seattle, WA.
9. Cain, M. S., Vul, E., Clark, K., & **Mitroff**, S. R. (2011, July). Optimal models of human multiple-target visual search. Paper presented at the 33rd Annual Conference of the Cognitive Science Society. Boston, MA.
10. Clark, K., Cain, M. S., Adcock, R. A., & **Mitroff**, S. R. (2011, May). *Interactions between reward, feedback, and timing structures on dual-target search performance*. Poster presented at the annual meeting of the Vision Sciences Society, Naples, FL.
11. Cain, M. S., Dunsmoor, J. E., LaBar, K. S., & **Mitroff**, S. R. (2011, May). *Accuracy in dual-target visual search is hindered by anticipatory anxiety*. Poster presented at the annual meeting of the Vision Sciences Society, Naples, FL.
12. Schroeder, J. E., Appelbaum, L. G., Cain, M. S., & **Mitroff**, S. R. (2011, May). *Examining the effects of stroboscopic vision*. Poster presented at the annual meeting of the Vision Sciences Society, Naples, FL.
13. Cain, M. S., Dunsmoor, J. E., LaBar, K. S., & **Mitroff**, S. R. (2011, April). *Anticipatory anxiety decreases accuracy in dual-target visual search*. Poster presented at the 59th Annual Symposium on Motivation, Lincoln, NE.
14. Clark, K., Cain, M. S., Adcock, R. A., & **Mitroff**, S. R. (2011, April). *Motivational influences of monetary reward and performance feedback on dual-target search performance*. Poster presented at the 59th Annual Symposium on Motivation, Lincoln, NE.
15. **Mitroff**, S. R. (2011, April). *Examining influences on applied visual search performance*. Invited paper presented at the 59th Annual Symposium on Motivation. Lincoln, NE.

16. Cain, M. S., Vul, E., Clark, K., & **Mitroff**, S. R. (2010, November). Human search strategies are informed by complex target distribution statistics. Paper presented at the annual Object Perception, Attention, and Memory meeting, St. Louis, MO.
17. Clark, K., Zucker, N., Watson, K., & **Mitroff**, S. R. (2010, November). Revealing individual differences in visual search: ADHD leads to see too little and anorexia nervosa leads to seeing too much. Poster presented at the annual Object Perception, Attention, and Memory meeting, St. Louis, MO.
18. Cain, M. S., & **Mitroff**, S. R. (2010, November). *Impact of media multitasking on attentional filtering and disengagement*. Poster presented at the annual meeting of the Psychonomic Society, St. Louis, MO.
19. **Mitroff**, S. R., Clark, K., & Cain, M. S. (2010, November). *Identifying and reducing satisfaction of search errors: How to alleviate dual-target search costs*. Paper presented at the annual meeting of the Psychonomic Society, St. Louis, MO.
20. Hubal, R., **Mitroff**, S. R., Cain, M. S., Scott, B. & DeWitt, R. (2010, November). *Simulating a vigilance task: Extensible technology for baggage security assessment and training*. Poster presented at the 2010 IEEE International Conference on Technologies for Homeland Security, Waltham, MA.
21. **Mitroff**, S. R., Clark, K., & Cain, M. S. (2010, October). *Improving DHS Performance with visual cognition research*. Poster presented at the 2nd Annual Research Summit of the Institute for Homeland Security Solutions, Cary, NC.
22. **Mitroff**, S. R. & Hariri, A. R. (2010, October). *Exploring behavioral, neural and genetic markers of threat sensitivity*. Paper presented at the 2nd Annual Research Summit of the Institute for Homeland Security Solutions, Cary, NC.
23. Cain, M. S., & **Mitroff**, S. R. (2010, May). *Distractor filtering in media multitaskers*. Poster presented at the annual meeting of the Vision Sciences Society, Naples, FL.
24. Clark, K., Fleck, M. S., & **Mitroff**, S. R. (2010, May). *Reducing satisfaction of search errors in visual search*. Poster presented at the annual meeting of the Vision Sciences Society, Naples, FL.
25. Clark, K., Fleck, M. S., & **Mitroff**, S. R. (2009, November). *Video game players excel at change detection*. Poster presented at the annual Object Perception, Attention, and Memory meeting, Boston, MA.
26. Fleck, M. S., Samei, E., & **Mitroff**, S. R. (2009, November). *Generalized 'satisfaction of search': Adverse influences on dual-target search accuracy*. Paper presented at the annual meeting of the Psychonomic Society, Boston, MA. (presented by S. R. Mitroff)
27. Hubal, R., & **Mitroff**, S. R. (2009, October). *Improving vigilance for homeland security personnel*. Paper presented at the Inaugural Research Summit of the Institute for Homeland Security Solutions, Chapel Hill, NC.
28. Carter, O., Luedeman, R., **Mitroff**, S. R., Nakayama, K. (2009, September). *Motion Induced Blindness: The more you attend the less you see*. Paper presented at the 32nd Annual Meeting of the Japan Neuroscience Society, Nagoya, Japan.
29. Clark, K., Fleck, M. S., & **Mitroff**, S. R. (2009, May). *Effects of videogame expertise on change detection abilities*. Poster presented at the annual meeting of the Vision Sciences Society, Naples, FL.
30. Donohue, S. E., Woldorff, M. G., & **Mitroff**, S. R. (2009, May). *Multisensory benefits of playing video games*. Poster presented at the annual meeting of the Vision Sciences Society, Naples, FL.
31. Jordan, K. E., Clark, K., & **Mitroff**, S. R. (2009, May). *See an object, hear an object file: Object correspondence transcends sensory modality*. Poster presented at the annual meeting of the Vision Sciences Society, Naples, FL.
32. Dunsmoor, J. E., **Mitroff**, S. R., & LaBar, K. S. (2009, March). *Generalization of human fear learning*

- along a perceptual gradient of expression intensity*. Poster presented at the annual meeting of the North Carolina Cognition Conference, Durham, NC.
33. Dunsmoor, J. E., **Mitroff**, S. R., & LaBar, K. S. (2008, November). *Generalization of human fear learning along a perceptual gradient of expression intensity*. Poster presented at the annual meeting of the Society for Neuroscience, Washington, DC.
 34. Wu, W., Tiesinga, P. H., Tucker, T. R., **Mitroff**, S. R., Heiner, J. A., & Fitzpatrick, D. (2008, November). *V1 population response to changes in direction of stimulus motion: modeling and perception*. Poster presented at the annual meeting of the Society for Neuroscience, Washington, DC.
 35. **Mitroff**, S. R. (2008, November). *Motivational benefits of video game playing*. Paper presented at the annual meeting of the Psychonomic Society, Chicago, IL.
 36. **Mitroff**, S. R. (2008, October). *Identification and Training of "Hyperfocusers": those with remarkable attentional capability*. Invited Paper presented at the Neuroergonomics and Neuromorphics Workshop sponsored by the Life Sciences Division of the U.S. Army Research, Development, and Engineering Command of the Army Research Office. University of Maryland, MD.
 37. **Mitroff**, S. R. (2008, August). *The malleability of visual cognition: Effects of videogame playing on vision and motivation*. Paper presented at the annual meeting of the Cognitive Science Association for Interdisciplinary Learning, Hood River, OR.
 38. Carter, O., Luedeman, R., & **Mitroff**, S. R., & Nakayama, K. (2008, May). *Motion induced blindness: The more you attend the less you see*. Paper presented at the annual meeting of the Vision Sciences Society, Naples, FL.
 39. Fleck, M. S., & **Mitroff**, S. R. (2008, May). *Videogamers excel at finding rare targets*. Poster presented at the annual meeting of the Vision Sciences Society, Naples, FL.
 40. **Mitroff**, S. R., & Jordan, K. E. (2008, May). *Videogame players demonstrate enhanced multi-sensory abilities*. Poster presented at the annual meeting of the Vision Sciences Society, Naples, FL.
 41. Wu, W., Tiesinga, P., Tucker, T., Heiner, J., **Mitroff**, S. R., & Fitzpatrick, D. (2008, May). *The dynamics of V1 population response to instantaneous changes in direction of stimulus motion*. Poster presented at the annual meeting of the Vision Sciences Society, Naples, FL.
 42. **Mitroff**, S. R., Arita, J. T., & Fleck, M. S. (2007, November). *Staying in Bounds: Contextual constraints on object file coherence*. Paper presented at the annual meeting of the Psychonomic Society, Long Beach, CA.
 43. Fleck, M. S., & **Mitroff**, S. R. (2007, May). *Catching a miss: Error reduction in low prevalence search*. Poster presented at the annual meeting of the Vision Sciences Society, Sarasota, FL.
 44. **Mitroff**, S. R., & Wang, S. (2007, May). *Preserved visual representations despite change blindness in 11-month-old infants*. Poster presented at the annual meeting of the Vision Sciences Society, Sarasota, FL.
 45. **Mitroff**, S. R., & Alvarez, G. A. (2006, November). *Space and time, not surface features, underlie object persistence*. Paper presented at the annual meeting of the Psychonomic Society, Houston, TX.
 46. Arita, J. T. & **Mitroff**, S. R. (2006, May), *Staying in bounds: A critical role of closure for object files*. Poster presented at the annual meeting of the Vision Sciences Society, Sarasota, FL.
 47. **Mitroff**, S. R., Sobel, D. M., Gopnik, A. (2006, May). *Reversing how to think about ambiguous figure reversals: Spontaneous alternating by uninformed observers*. Poster presented at the annual meeting of the Vision Sciences Society, Sarasota, FL.
 48. **Mitroff**, S. R. (2006, May). *Seeing without seeing: Complex perception outside of awareness*. Invited talk presented at the annual meeting of the American Psychological Society, New York, NY.

49. **Mitroff**, S. R. (2006, February). *Visual perception without awareness: Evidence from motion-induced blindness*. Invited talk presented at the annual meeting of the North Carolina Cognition Conference, Greensboro, NC.
50. **Mitroff**, S. R., Scholl, B. J., & Wynn, K. (2005, November). *One plus one equals one: The effects of merging on object files*. Poster presented at the annual meeting of the Psychonomic Society, Toronto, ON, Canada.
51. **Mitroff**, S. R., Cheries, E. W., Scholl, B. J., & Wynn, K. (2005, May). *Cohesion as a principle of object persistence in infants and adults*. Poster presented at the annual meeting of the Vision Sciences Society, Sarasota, FL.
52. **Mitroff**, S. R., Scholl, B. J., & Wynn, K. (2005, April). *What vision scientists can learn from infants: Evidence of core principles guiding adult object persistence*. Paper presented at the Yale Object Symposium, New Haven, CT.
53. **Mitroff**, S. R., Wynn, K., & Scholl, B. J. (2005, April). *Exploring persisting object representations with infants and adults*. Paper presented at the biennial meeting of the Society for Research in Child Development, Atlanta, GA.
54. **Mitroff**, S. R. & Scholl, B. J. (2004, May). *Online grouping and segmentation without awareness: Evidence from motion-induced blindness*. Paper presented at the annual meeting of the Vision Sciences Society, Sarasota, FL.
55. **Mitroff**, S. R., Wynn, K., Scholl, B. J., Johnson, S. P., & Shuwairi, S. M. (2004, May). *'Bouncing vs. streaming' as a measure of infants' dynamic object individuation*. Poster presented at the annual meeting of the International Society on Infant Studies, Chicago, IL.
56. **Mitroff**, S. R. & Scholl, B. J. (2003, November). *Perceiving the disappearances of unseen objects in Motion-induced Blindness*. Paper presented at the annual *Object Perception, Attention, and Memory* meeting, Vancouver, B.C.
57. **Mitroff**, S. R., Scholl, B. J., & Wynn, K. (2003, May). *The relationship between object files and conscious perception*. Poster presented at the annual meeting of the Vision Sciences Society, Sarasota, FL.
58. Noles, N. S., Scholl, B. J., **Mitroff**, S. R. (2003, May). *The persistence of object-file representations*. Poster presented at the annual meeting of the Vision Sciences Society, Sarasota, FL.
59. **Mitroff**, S. R., Simons, D. J., & Levin, D. T. (2002, November). *Three blinding devices: See how change detection runs*. Paper presented at the annual *Object Perception, Attention, and Memory* meeting, Kansas City, MO.
60. **Mitroff**, S. R. & Simons, D. J. (2001, May). *A lack of confidence in implicit change detection*. Poster presented at the annual meeting of the Vision Sciences Society, Sarasota, FL.
61. **Mitroff**, S. R. & Simons, D. J. (2000, November). *Without explicit detection, change localization is chance localization*. Poster presented at the annual *Object Perception, Attention, and Memory* meeting, New Orleans, LA.
62. **Mitroff**, S. R. & Simons, D. J. (2000, March). *Changes are not localized until they are explicitly detected*. Poster presented at the annual meeting of the Association for Research in Vision and Ophthalmology, Ft. Lauderdale, FL.

Research

Awards

Institute for Homeland Security Solutions Grant, 2010-2011
 Nike, Inc. Research Grant, 2009-2011
 Army Research Office Grant, 2009-2013
 NIMH R03 Award, 2007-2009
 NIMH National Research Service Award, Post-doctoral Fellow, 2002 to 2005
 National Science Foundation Graduate Fellow, 1999 to 2002
 Derek Bok Teaching Award, Harvard University, Spring 2001
 George W. Goethals Teaching Prize, Harvard University, 2001-2002

Invited Talks and Colloquia

Apr 2012	Duke University	Center for Cognitive Neuroscience
Mar 2012	Duke University	Computer Science-Visualization Technology Group
Jan 2012	U. of Illinois, Urbana-Champaign	Department of Psychology
Oct 2011	Athletic Republic	Facility Conference on Sports Vision Training
Mar 2011	North Dakota State University	Department of Psychology
Feb 2011	Durham Academy High School	High School Assembly
Feb 2011	UC Riverside	Department of Psychology
Nov 2009	Duke University	Department of Psychology & Neuroscience
Sep 2009	Duke University	Osher Life Long Learning Institute
Mar 2009	Univ. of North Carolina, Greensboro	Department of Psychology
Feb 2009	Brown University	Cognitive, Linguistic & Psychological Sciences
Jan 2009	Emory University	Department of Psychology
Oct 2008	Wofford College	Department of Psychology
Sep 2008	University of Delaware	Department of Psychology
Aug 2008	University of Oregon	Posner & Keele Center for Cognitive Neurosciences
May 2008	Duke University	Duke Advanced Imaging Labs, Medical Center
May 2008	Alienware Computers	Research & Development, Emerging Technologies
Jan 2008	Duke University	Center for Cognitive Neuroscience
Oct 2007	University of California, Berkeley	Institute of Cognitive and Brain Sciences
Sep 2007	North Carolina State University	Computer Science-Digital Games Research Center
Sep 2007	U. of North Carolina, Chapel Hill	Department of Psychology
Apr 2007	University of Hong Kong	Department of Psychology
Feb 2007	Penn State University	Department of Psychology
Jan 2007	Yonsei University, South Korea	Department of Psychology
Nov 2006	Duke University	Computer Science-Visualization Technology Group
Oct 2005	Harvard University	Vision Lab, Department of Psychology
Mar 2005	Duke University	Center for Cognitive Neuroscience
Feb 2005	U. Colorado, Boulder	Institute of Cognitive Sciences
Feb 2005	U. Colorado, Boulder	Department of Psychology
Feb 2005	University of California, Santa Cruz	Department of Psychology
Feb 2005	University of California, Irvine	Department of Cognitive Sciences
Dec 2004	Boston College	Department of Psychology
Dec 2004	Duke University	Psychological and Brain Sciences, Lunchbox
Oct 2004	Stanford University	Department of Psychology, Cognitive Seminar
Oct 2004	University of California, Berkeley	Cognition, Brain, & Behavior Colloquium
Mar 2003	Yale University	Current Work in Cognitive Psychology
Oct 2000	Harvard University	Cognition, Brain, & Behavior Seminar

Professional Service

Academic Consulting

Army Research Office Grant: “*Neurobiological Basis For Individual Differences in Pattern-Detection Within Low Signal/Noise Environments: An FMRI Study.*”

PI: Lilianne Mujica-Parodi, Dept. of Biomedical Engineering, State University of New York, Stony Brook

Role: Consultant on individual differences measures.

Organizational Duties

Psychonomic Society Annual Meeting

Session Chair, 2007; 2009

Object Perception, Attention, & Memory Workshop

Organizer; 2004, 2005

University Service (Duke University)

2009 – 2010 *Director of Graduate Studies*, Cognitive Neuroscience Graduate Admitting Program

2010 Sophomore Year Experience, Career Luncheon speaker

2009 Responsible Conduct of Research Graduate Student Orientation, Faculty Panel member

2009 Responsible Conduct of Research Graduate Student Orientation, Breakout session leader

2007 – 2009 Center for Instructional Technology Faculty Ambassador, P&N Department

2006 Student Center for Integrated Education, Research, and Development Networking participant

Departmental & Center Service (Duke University)

2010 – Cognitive Neuroscience Graduate Admitting Program Steering/Admissions Committee

2009 – 2010 *Chair*, Cognitive Neuroscience Graduate Admitting Program Admissions Committee

2009 – 2010 *Chair*, Cognitive Neuroscience Graduate Admitting Program Steering Committee

2008 – 2010 Center for Cognitive Neuroscience Retreat Committee

2007 – 2008 Psychology & Neuroscience Cognition and Cognitive Neuroscience LunchBox committee

2007 – Psychology & Neuroscience Department Colloquium Committee

2008 Center for Cognitive Neuroscience Colloquium Series Coordinator

2005 – 2008 Interdisciplinary Program in Cognitive Neuroscience Graduate Admissions Committee

2005 – 2008 Interdisciplinary Program in Cognitive Neuroscience Steering Committee

2006 Cognitive Psychology/Cognitive Neuroscience Faculty Search Committee

2005 Psychological & Brain Sciences Graduate Admissions Committee

Ad-hoc Journal Reviewing (40 Journals)

Acta Psychologica; Applied Cognitive Psychology; Attention, Perception & Psychophysics, Behavioral and Brain Functions, British Journal of Psychology, Child Development, Cognition, Cognitive Brain Research, Cognitive Processing, Cognitive Science, Consciousness and Cognition, Developmental Psychology, Developmental Science, Ergonomics, European Journal of Neuroscience, Experimental Psychology, Japanese Psychological Research, Journal of Cognition and Development, Journal of Cognitive Neuroscience, Journal of Gerontology: Psychological Sciences, Journal of Experimental Child Psychology, JEP: General, JEP: Human Perception & Performance, JEP: Learning, Memory, and Cognition, Journal of Neuroscience, Journal of Vision, Neuropsychologia, Perception, Perceptual & Motor Skills, Perspectives on Psychological Science, PLoS ONE (Public Library of Science), Proceedings of the National Academy of Sciences, Psychological Research / Psychologische Forschung, Psychological Science, Psychological Bulletin, Psychonomic Bulletin & Review, Public Health, Quarterly Journal of Experimental Psychology, Trends in Cognitive Sciences, Visual Cognition

Grant Review Panels

National Institute of Health, Cognition & Perception, 2/2008, Ad-hoc

Ad-hoc Grant Reviewing

Army Research Office
 Army Natick Research & Development Center
 National Science Foundation
 National Sciences and Engineering Research Council of Canada
 Macquarie University Research Fellowship Program

Editorial Boards

Acta Psychologica (2009–)
 Attention, Perception & Psychophysics (2008–)
 Frontiers in Perception Science (2010–)
 Psychological Science (2011–)
 Psychonomic Bulletin & Review (2011–)
 Visual Cognition (2007–)

Professional Society Membership

American Psychological Association	Member, 2003 –
American Psychological Society	Member, 2003 –
Association for Research in Vision and Ophthalmology	Member, 2000
Psychonomic Society	Member, 2004 –
Vision Sciences Society	Member, 2001 –

Teaching and SupervisionCourses Taught

2011, Fall	Duke Univ.	Seminar: Seeing & Knowing; Intro to Visual Cognition
2010, Fall	Duke Univ.	Seminar: Seeing & Knowing; Intro to Visual Cognition
2010, Spring	Duke Univ.	Seminar: Seeing & Knowing; Intro to Visual Cognition
2009, Fall	Duke Univ.	Cognitive Neuroscience Colloquia Course
2009, Fall	Duke Univ.	Introduction to Cognitive Psychology
2008, Fall	Duke Univ.	Seminar: Seeing & Knowing; Intro to Visual Cognition
2008, Spring	Duke Univ.	Seminar: Seeing & Knowing; Intro to Visual Cognition
2007, Fall	Duke Univ.	Introduction to Cognitive Psychology
2007, Spring	Duke Univ.	Neurobiology Graduate Seminar: Vision (<i>Co-Instructor</i>)
2006, Fall	Duke Univ.	Introduction to Cognitive Psychology
2006, Spring	Duke Univ.	Seminar: Seeing & Knowing; Intro to Visual Cognition
2002, Spring	Harvard Univ.	Sophomore Tutorial in Psychology
2001, Fall	Harvard Univ.	Sophomore Tutorial in Psychology
2001, Spring	Harvard Univ.	Vision and the Brain (<i>Teaching Fellow</i>)
2000, Fall	Harvard Univ.	Introduction to Cognitive Psychology (<i>Teaching Fellow</i>)
2000, Spring	Harvard Univ.	Vision and the Brain (<i>Teaching Fellow</i>)
1999, Fall	Harvard Univ.	Introduction to Cognitive Psychology (<i>Teaching Fellow</i>)

Other Teaching

2011, Fall	Duke Univ.	Introduction to Visual Culture (<i>Guest Lecturer</i>)
2011, Fall	Duke Univ.	Principles of Cog. Neuroscience I, Graduate level (<i>Guest Lecturer</i>)
2010, Spring	Duke Univ.	Principles of Cog. Neuroscience II, Graduate level (<i>Guest Lecturer</i>)
2010, Fall	Duke Univ.	Principles of Cog. Neuroscience I, Graduate level (<i>Guest Lecturer</i>)
2010, Fall	Duke Univ.	Duke Neuroscience Bootcamp, Graduate level (<i>Guest Lecturer</i>)
2010, Spring	Duke Univ.	Principles of Cog. Neuroscience II, Graduate level (<i>Guest Lecturer</i>)
2008, Spring	Duke Univ.	Principles of Cog. Neuroscience II, Graduate level (<i>Guest Lecturer</i>)

2008, Spring	Duke Univ.	Introduction to Cognitive Neuroscience, (<i>Guest Lecturer</i>)
2007, Fall	Duke Univ.	Principles of Cog. Neuroscience I, Graduate level (<i>Guest Lecturer</i>)
2006, Spring	Duke Univ.	Introduction to Cognitive Neuroscience (<i>Guest Lecturer</i>)

Postdoctoral Fellow Advising (Duke University)

Matthew S. Cain	2009 –
L. Gregory Appelbaum	12/2009 – 5/2011 (<i>10% effort</i>)
Adam Biggs	2011 –

Graduate Student Advising (Duke University)

Mathias Fleck	Psychology & Neuroscience, 2006 – 2009, <i>primary advisor</i>
Kait Clark	Psychology & Neuroscience; Cog Neuro Admitting Program, 2008 –, <i>primary advisor</i>
Stephen Adamo	Psychology & Neuroscience, 2010 –, <i>primary advisor</i>
Emma Wu	Cognitive Neuroscience Admitting Program rotation, Fall 2010
Dina Devyatko	Psychology & Neuroscience, 2010 – 2011, Visiting Fulbright Scholar advisor
Anastasia Kiyonaga	Psychology & Neuroscience, practicum, Spring 2010
Joseph Dunsmoor	Psychology & Neuroscience, practicum, Spring 2008
Yonatan Mazuz	Cognitive Neuroscience Admitting Program rotation, Spring 2008
Jeffrey Nelson	Psychology & Neuroscience, practicum, Fall 2007
Klaus Libertus	Psychology & Neuroscience, practicum, Spring 2006
Sarah Donohue	Cognitive Neuroscience Admitting Program rotation, Spring 2007
Joseph Harris	Cognitive Neuroscience Admitting Program rotation, Fall 2007

M.A. Committees (Duke University)

David Bulkin	Neurobiology
Kait Clark	Psychology & Neuroscience
Simon Davis	Psychology & Neuroscience
Sarah Donohue	Neurobiology
Joseph Dunsmoor	Psychology & Neuroscience
Mathias Fleck	Psychology & Neuroscience
Joseph Harris	Psychology & Neuroscience
Jiefeng Jiang	Psychology & Neuroscience
Sarah Jones	Psychology & Neuroscience
Anastasia Kiyonaga	Psychology & Neuroscience
Klaus Libertus	Psychology & Neuroscience

Ph.D. Dissertation Committees (Duke University)

Kerry Jordan	Psychology & Neuroscience, Ph.D. awarded 2007
Chien-Te Vince Wu	Psychology & Neuroscience, Ph.D. awarded 2007
Mathias Fleck	Psychology & Neuroscience, Ph.D. awarded 2009 (chair)
David Bulkin	Neurobiology, Ph.D. awarded 2010
Simon Davis	Psychology & Neuroscience
Sarah Donohue	Neurobiology
Joseph Dunsmoor	Psychology & Neuroscience
Sarah Jones	Psychology & Neuroscience
Klaus Libertus	Psychology & Neuroscience

Graduate Committees – Outside of Duke University

James Niehaus	NC State Univ.	Computer Science	Ph.D. committee	awarded 2009
Tate Jackson	UNC-CH	Orthodontics	Residency committee	expected 2013

Undergraduate Honors Thesis Committees (Duke University)

Louis Bonacorsi	Psychology, B.A. expected 2011
Brittany James	Psychology, B.A. awarded 2009 (chair)
Laura Sestokas	Psychology, B.A. awarded 2009 (chair)
Viktoria Elgis	Psychology, B.A. awarded 2008 (chair)
Tina Liang	Psychology, B.A. awarded 2008
Margaret Bates	Psychology, B.A. awarded 2007

Undergraduate Supervised Research in Psychology (Duke University)

2010, Fall	Independent Study; Practicum
2011, Spring	Independent Study; Practicum
2010, Fall	Independent Study; Practicum
2010, Spring	Independent Study; Practicum
2009, Fall	Independent Study; Practicum
2009, Spring	Independent Study; Practicum
2008, Fall	Independent Study; Practicum
2008, Spring	Independent Study; Practicum; Robertson Program, UNC Chapel Hill;
2007, Fall	Independent Study; Practicum; Robertson Program, UNC Chapel Hill;
2007, Spring	Practicum

High School Student Supervised Research in Psychology

Soleille Everest	NC School of Science and Mathematics HS Mentorship Program, Fa2007-Sp2008
Somin Lee	U.S. Army High School Apprenticeship Program, Summer 2010
James Vanderburg	U.S. Army High School Apprenticeship Program, Summer 2010
Edward Liu	U.S. Army High School Apprenticeship Program, Summer 2011
Mary-Gray Southern	U.S. Army High School Apprenticeship Program, Summer 2011

Supervised Student Research Fellowships

NIMH NRSA Individual Pre-doctoral Fellowship
 “External influences on visual search” (F31 MH082582)
 Grant period: May 1, 2008 through April 30, 2009
 Student Investigator; Mathias S. Fleck

National Science Foundation Graduate Research Fellowship
 Awarded: 2011
 Student Investigator: Stephen Adamo

Ford Foundation Graduate Fellowship
 Awarded: 2011
 Student Investigator: Stephen Adamo

Supervised Student Research Support

Duke Visual Studies Initiative, Summer 2011
 Undergraduate Student Investigators: Michael Schallmo & Benjamin Crisp
 \$2000 in summer fellowships

Duke Vertical Integration Program, Summer 2010
 Graduate Student Investigators: Kait Clark
 Undergraduate Student Investigator: Katherine Grace Kohut
 \$3300 in research-based stipends

Duke Vertical Integration Program, Summer 2008

Graduate Student Investigators: Mathias S. Fleck & Sarah Donohue

Undergraduate Student Investigators: Laura Sestokas & Brittany James

\$8600 in research-based stipends

Duke Vertical Integration Program, Summer 2007

Graduate Student Investigators: Mathias S. Fleck

Undergraduate Student Investigators: Viktoria Elkis, Ricky Green

\$8600 in research-based stipends

Sigma Xi, Grants-in-Aid of Research, 2006

Student Investigator; Kerry E. Jordan

\$600 direct costs towards research

APA Dissertation Award, 2006

Student Investigator; Kerry E. Jordan

\$1000 direct costs towards research