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Curriculum Vitae

Education

2012	University of Iowa	Ph.D. Neuroscience
2006	University of Iowa	B.S. Honors in Psychology

Experience

2012 – Present	NIH Postdoctoral Fellow, Vanderbilt University Department of Psychology Advisors: Geoffrey F. Woodman & Jeffrey D. Schall
2009 – Present	Neuroscience Consultant, Digital Artefacts LLC.
2006 – 2011	Graduate Student, University of Iowa Department of Neuroscience Advisor: Shaun P. Vecera
2003 – 2006	Research Assistant, University of Iowa Department of Psychology Advisor: Shaun P. Vecera
2004 – 2009	Research Assistant, Neuroergonomics Laboratory University of Iowa Department of Neurology Advisor: Matthew Rizzo
2005 – 2007	Research Assistant, ERP Laboratory University of Iowa Department of Neurology Advisor: Erik K. St. Louis

Research Interests

Perception, Attention, Memory, Electrophysiology, Neurophysiology, Aging, Neuropsychology, Human Factors

Affiliations

Vision Sciences Society
Society for Neuroscience
American Academy for the Advancement of Science (AAAS)
Association for Psychological Science (APS)

Grants, Awards, and Honors

2013	NIH F32 Individual National Research Service Award (NRSA)
2013	NIMH R41 Small Business Technology Transfer Award

2012	NIH T32 Postdoctoral Fellowship, Vanderbilt Vision Research Center
2012	Finalist, 2012 Alzheimer's Challenge
2011	Elsevier/Vision Research Travel Award, VSS
2010	NIH/NEI Travel Award OPAM
2010	UIHC MRI Research Committee Internal Project Award
2010	University of Iowa Graduate Fellowship
2006	NIMH Scholarship, ERP Boot Camp
2006	Honors in Psychology, University of Iowa
2003 – 2005	University of Iowa Merit Scholarship

Academic Service

Editorial Board, *Journal of Experimental Psychology: Human Perception and Performance*
 Editorial Board, *Attention, Perception, and Psychophysics*
 Organizing Board, *Object Perception, Attention, and Memory (OPAM) Conference, 2012-2014*

Ad-hoc Reviewing

Psychological Science – Journal of Experimental Psychology: Human Perception and Performance – Psychonomic Bulletin & Review – Cognition – Journal of Experimental Psychology: General – Attention, Perception, & Psychophysics – Human Brain Mapping – Memory & Cognition – Neuropsychologia – Visual Cognition – Frontiers in Human Neuroscience – Cortex – PLoS One – NeuroReport – Acta Psychologica – Brain Research – Frontiers in Human Neuroscience – Frontiers in Perception Science – Journal of Experimental and Clinical Neuropsychology – Biological Psychiatry – Neuropsychology – Journal of Gerontology: Psychological Sciences – Philosophical Psychology – Accident Analysis and Prevention – Canadian Journal of Experimental Psychology – Journal of Applied Research in Memory and Cognition – Transportation Review Board (TRB)

Funding

NEI F32 1F32EY023922 (Kirschstein Individual NRSA), 7/1/13 -7/1/15
 PI, direct costs of \$106,132 (support for 2 years).
 “The role of long-term contextual memory in attentional control.”

NIMH R41 MH099964-01 (Phase I STTR), 4/1/13-3/31/14
 Co-PI (with T. Marcotte and J. Severson), direct costs of \$159,005.
 “A brief iPad-based screening measure for HIV-associated neurocognitive disorders.”

Manuscripts Published or In Press

1. **Cosman, J.D.**, Vecera, S.P. (2014). Establishment of an attentional set via statistical learning. *Journal of Experimental Psychology: Human Perception & Performance*, 40, 1-6.
2. Vecera, S.P., **Cosman, J.D.**, Vatterott, D.B., & Roper, Z.J.J. (2014). The control of visual attention: Toward a unified account. *Psychology of Learning and Motivation*, 60, 383-407.
3. Zhao, L., **Cosman, J.D.**, Vatterott, D.B. Gupta, P., Vecera, S.P. (2014). Visual statistical learning can drive object-based attentional selection. *Attention, Perception, & Psychophysics*
4. Matsukura, M., **Cosman, J.D.**, Roper, Z.J., Vatterott, D.B., Vecera, S.P. (2014). Location specific effects of attention during visual short-term memory maintenance. *Journal of Experimental Psychology: Human Perception & Performance*, 40, 1103-1116.

5. Baniqued, P., Kranz, M.B., Voss, M.W., Lee, H., **Cosman, J.D.**, Severson, J., Kramer, A.F. (2014). Cognitive training with casual video games: points top consider. *Frontiers in Cognition*, 4, 1-19.
6. **Cosman, J.D.**, Vecera, S.P. (2013). Learned control over distraction is disrupted following medial temporal lobe damage. *Psychological Science*, 24, 1584-90.
7. Roper, Z., **Cosman, J.D.**, Vecera, S.P. (2013) Perceptual load corresponds with factors known to influence visual search. *Journal of Experimental Psychology: Human Perception and Performance*, 39, 1340-51.
8. **Cosman, J.D.**, Vecera, S.P. (2013). Context-dependent control over attentional capture. *Journal of Experimental Psychology: Human Perception and Performance*, 39, 836-48.
9. Baniqued, P., Lee, H.K., Voss, M.W., Basak, C., **Cosman, J.D.**, DeSouza, S., Severson, J., Salthouse, T., Kramer, A.F. (2013) Selling points: What cognitive abilities are tapped by casual video games?, *Acta Psychologica*, 142, 74-86.
10. **Cosman, J.D.**, Vecera, S.P. (2012). Object-based attention overrides perceptual load to modulate visual distraction. *Journal of Experimental Psychology: Human Perception and Performance*, 38, 576-579.
11. **Cosman, J.D.**, Lees, M.N., Vecera, S.P., Lee, J.D., Rizzo, M.R. (2012) Impaired attentional disengagement in older adults with useful field of view decline. *Journal of Gerontology Series B: Psychological Sciences*, 67, 405-412.
12. Gaspelin, N., Ruthruff, E., Jung, K., **Cosman, J.D.**, Vecera, S.P., (2012). Does low perceptual load enable capture by color singletons? *Journal of Cognitive Psychology*, 24, 735-750.
13. Lees, M.N., **Cosman, J.D.**, Vecera, S.P., Lee, J.D., Rizzo, M.R. (2012) Cross-modal warnings for orienting attention in older drivers with and without attention impairments. *Applied Ergonomics*. 43, 768-776.
14. **Cosman, J.D.**, Lees, M.N., Vecera, S.P., Lee, J.D., Rizzo, M.R. (2012) Visual search for features and conjunctions following decline in the useful field of view. *Experimental Aging Research* 38, 411-421.
15. Lee, H.K., Baniqued, P., **Cosman, J.D.**, Mullen, S., McAuley, E., Severson, J. & Kramer, A.F. (2012) Examining Cognitive Function Across the Lifespan using a Mobile Application, *Computers in Human Behavior*, 28, 1934-1946.
16. **Cosman, J.D.**, Vecera, S.P. (2011). The contents of visual working memory reduce uncertainty during visual search. *Attention, Perception, & Psychophysics*, 73, 996-1002.
17. **Cosman, J.D.**, Vecera, S.P. (2010). Perceptual grouping determines the locus of attentional selection. *Visual Cognition*, 18, 1506-1510.
18. **Cosman, J.D.**, Vecera, S.P. (2010). Attentional capture under high perceptual load. *Psychonomic Bulletin & Review*, 17, 983-986.
19. **Cosman, J.D.**, Vecera, S.P. (2010). Perceptual Load Modulates Attention Capture by Motion Onsets. *Attention, Perception, & Psychophysics*, 72, 2095-2105.
20. **Cosman, J.D.**, Vecera, S.P. (2010). Attention Affects Visual Perceptual Processing Near the Hand. *Psychological Science*, 21, 1254-1258.

21. Lees, M. N., **Cosman, J. D.**, Fricke, N., Lee, J. D. & Rizzo, M. (2010). Translating cognitive neuroscience to the driver's operational environment: a neuroergonomics approach. *American Journal of Psychology*, 123, 391-412.
22. **Cosman, J.D.**, Vecera, S.P. (2010). Action influences figure-ground assignment. *Visual Cognition*, 18, 110.
23. **Cosman, J.D.**, Vecera, S.P. (2009). Perceptual Load Modulates Attention Capture by Abrupt Onsets. *Psychonomic Bulletin & Review*, 16, 404-410.

Available Manuscripts Under Revision or Review

- Cosman, J.D.**, & Woodman, G.F. (under review). Reduction of visual distraction following transcranial direct-current stimulation of middle frontal gyrus.
- Cosman, J.D.**, Arita, J.T., Ianni, J.D., & Woodman, G.F. (under revision). Electrophysiological measurement of flow control in the human brain
- Branson, M., **Cosman, J.D.**, & Vecera, S.P. (under revision). Body position influences maintenance in visual working memory.
- Cosman, J.D.**, & Vecera, S.P. (under review). Implicit short-term binding deficits in amnesia
- Cosman, J.D.**, Mordkoff, J.T., & Vecera, S.P. (under revision). Recognition and learning of irrelevant information under high perceptual load
- Lee, H.K., **Cosman, J.D.**, Baniqued, P. Severson, J. & Kramer, A.F. (under review) Association between lifestyle and cognition across the lifespan: an iPad application-based study.
- Cosman, J.D.**, Hecht, L.N., Vecera, S.P. (under revision). Perceptual enhancement of figures following figure-ground assignment.

Book Chapters

- Cosman, J.D.**, Rizzo, M. (2013). "Attention." in *Behavioral Neurology and Neuropsychiatry*. Arciniegas, D.B, Anderson, C.A., Filley, C. (Eds.) Cambridge University Press.

Conference Presentations

1. **Cosman, J.D.**, Schall, J.D., Woodman, G.F. (2014, November) Correlates of salient distractor suppression in macaque frontal eye field. *Poster to be presented at the Annual Meeting of the Society for Neuroscience, Washington D.C.*
2. **Cosman, J.D.**, Schall, J.D., Woodman, G.F. (2014, May) Macaque monkeys exhibit event-related potentials indexing distractor suppression during visual search. *Poster to be presented at the Annual Meeting of the Vision Sciences Society, St. Pete Beach, FL*
3. **Cosman, J.D.** (2014, February). Mobile tests for assessing cognition in aging and disease. *Invited symposium talk to be given at the annual meeting of the International Neuropsychological Society, Denver, CO.*
4. Sakamoto, M., Deutsch, R., **Cosman, J.D.**, Severson, J., Hendrix, T., Merickel, M., & Grant, I., Marcotte, T.D., (2014, February) Development of an iPad-based screening tool for detection of HIV-related neuropsychological disorders. *Poster to be presented at the annual meeting of the International Neuropsychological Society, Denver, CO.*

5. Lee, H.K., Baniqued, P., **Cosman, J.D.**, Severson, J. & Kramer, A.F. (2014, May) Association between lifestyle and cognition across the lifespan: an iPad application-based study. *Poster presented at the Annual meeting of the Association for Psychological Science, San Francisco, CA*
6. Sakamoto, M., Marcotte, T.D., Severson, J., Hendrix, T., **Cosman, J.D.**, Merickel, M., & Grant, I. (2014, November) Development of an iPad-based screening tool for detection of HIV-related neuropsychological disorders. *Poster to be presented at the Annual Meeting of National Academy of Neuropsychology, Fajardo, Puerto Rico.*
7. **Cosman, J.D.**, Woodman, G.F., Vecera, S.P. (2012, October) Disrupted cognitive control following medial temporal lobe damage. *Poster presented at the Annual Meeting of the Society for Neuroscience, New Orleans, LA*
8. Matsukura, M., **Cosman, J.D.**, Roper, Z., Vatterott, D., Vecera, S.P. (2012, November). Location-specific effects of attention during visual short-term memory maintenance. *Annual Meeting of the Psychonomic Society, Minneapolis, MN.*
9. **Cosman, J.D.**, Vecera, S.P. (2012, May) Assessing the role of the medial temporal lobes in visual probability learning. Poster presented at the *Annual Meeting of the Vision Sciences Society*, Naples, Florida.
10. Baniqued, P. Lee, H.K., **Cosman, J.D.**, Severson, J. & Kramer, A.F. (2012, April) CrossFit: Forging mental and physical fitness for optimal cognitive function across the lifespan. *Poster presented at the Cognitive Aging Conference, Atlanta, GA.*
11. Lee, H.K., Baniqued, P., **Cosman, J.D.**, Severson, J. & Kramer, A.F. (2012, April) Video game play and healthy cognitive function across the lifespan. *Poster presented at the Cognitive Aging Conference, Atlanta, GA.*
12. **Cosman, J.D.**, Vecera, S.P. (2011, November) Attentional control via implicitly learned associations. *Annual Meeting of the Psychonomic Society, Seattle, WA.*
13. **Cosman, J.D.**, Vecera, S.P. (2011, May) Learned control over attention capture is disrupted following medial temporal lobe damage. Talk presented at the *Annual Meeting of the Vision Sciences Society*, Naples, Florida.
14. Roper, Z., **Cosman, J.D.**, Mordkoff, J.T., Vecera, S.P. (2011, May) Perceptual Load effect is determined by resource demand and data limitation. Poster presented at the *Annual Meeting of the Vision Sciences Society*, Naples, Florida.
15. **Cosman, J.D.**, Vecera, S.P. (2010, November) Covert recognition of distractors under high perceptual load. Talk presented at the *Annual Meeting of the Psychonomic Society*, St. Louis, MO.
16. **Cosman, J.D.**, Vecera, S.P. (2010, November) Perceptual grouping determines the locus of attentional selection. Talk presented at the *Annual Object Perception and Memory (OPAM) Conference*, St. Louis, MO.
17. Roper, Z., **Cosman, J.D.**, Mordkoff, J.T., Vecera, S.P. (2010, May) Response terminated displays produce flanker effects despite high perceptual load. Poster presented at the *Annual Object Perception and Memory (OPAM) Conference*, St. Louis, MO.

18. **Cosman, J.D.**, Vecera, S.P. (2010, May) High Perceptual Load Does Not Induce Early Selection or Inattentional Blindness. Poster presented at the *Annual Meeting of the Vision Sciences Society*, Naples, Florida.
19. Roper, Z., **Cosman, J.D.**, Mordkoff, J.T., Vecera, S.P. (2010, May) Perceptual Load Corresponds to Known Factors Influencing Visual Search. Poster presented at the *Annual Meeting of the Vision Sciences Society*, Naples, Florida.
20. **Cosman, J.D.**, Vecera, S.P. (2009, November) Action Influences Figure-Ground Assignment. Talk presented at the *Annual Object Perception and Memory (OPAM) Conference*, Boston, MA
21. **Cosman, J.D.**, Vecera, S.P. (2009, May) Top-down control of attention capture takes time: Evidence from trial by trial analyses of capture by abrupt onsets. Poster presented at the *Annual Meeting of the Vision Sciences Society*, Naples, Florida.
22. Rizzo, M. Lees M.N., Lee J.D, Vecera S.P., **Cosman, J.D.**, Dawson J.D. (2009, September) In-car technology to alert attention impaired drivers. Talk presented at Eye and The Auto, Annual meeting, Detroit, MI.
23. Lees M.N., Cosman J.D., Lee J.D., Vecera S.P., Jang M., Dawson J.D., Rizzo M.R. (2009, March) Cross-modal alerts for orienting of attention in attention impaired drivers. *Proceedings of the IEA 2009 XVIIth Triennial Congress*, 2009 – *Best Paper Award*.
24. **Cosman, J.D.**, Anderson, S.W., Severson, M.A, Honick, B., Severson, J., Rizzo, M. (2009, April). Clinical Improvements in Cognitive Function With 3D Video Gameplay. *61st Annual Meeting of the American Academy of Neurology*, Seattle, WA.
25. **Cosman, J.D.**, Vecera, S.P. (2008, November) The Perceptual Fate of New Objects. Poster presented at the *49th Annual Meeting of the Psychonomic Society*, Chicago, IL.
26. **Cosman, J.D.**, Vecera, S.P. (2008, November) Perceptual Load Modulates Attentional Capture By Dynamic Stimuli. Poster presented at *Object Perception and Memory (OPAM) Conference*, Chicago, IL.
27. **Cosman, J.D.**, Vecera, S.P. (2008, May) New Objects Are Perceived Better: Perceptual Discrimination Benefits for Abrupt Onsets. *Poster presented at the Annual Meeting of the Vision Sciences Society*, Sarasota, Florida
28. **Cosman, J.D.**, Vecera, S.P. (2007, November) Perceptual Load Influences Attentional Capture by Abrupt Onsets. *Poster presented at the 48th Annual Meeting of the Psychonomic Society*. Long Beach, CA, November 15-18 2007.
29. **Cosman, J.D.** Lees, M.N., Vecera, S.P., Rizzo, M.R., Lee, J.D. (2007, November) Use of an in-vehicle alerting system to augment attention in impaired older-drivers *Poster presented at the Annual Meeting of the Society for Neuroscience*, San Diego, CA
30. Dawson J.D., Cosman J.D., Lei Y., Dastrup E., Sparks J., and Rizzo M (2007, July). The Relationship Between Driving Behavior and Entropy. *4th International Driving Symposium on Human Factors in Driver Assessment, Training, and Vehicle Design*, Stevenson, WA, July 9-12, 2007
31. Dawson J.D., Cosman J.D., Lei Y., Dastrup E., Sparks J., and Rizzo M (2007, March). Factors Affecting Vehicular Lateral Control Measures in Driving Simulators. *International Biometric Society (ENAR) Annual Spring Meeting*, Atlanta,GA, March 11-14, 2007

32. **Cosman, J.D.**, Hecht, L.N., Vecera, S.P. (2006, August). An Effect of Figure-Ground Assignment: Signal Enhancement. Paper presented at the *Annual Meeting of the Vision Sciences Society*, Sarasota, Florida.

Patents and Patent Applications

US Patent Application 20120214143, "System and Methods to Assess Cognitive Function" J.D. Cosman, M. Merickle, & J.M. Severson, filed August 23, 2012.

Teaching Experience

Teaching Assistant, <i>Elementary Psychology</i> University of Iowa Department of Psychology	Fall 2011
Instructor, <i>Biological Psychology</i> University of Iowa Department of Psychology	Summer 2011
Teaching Assistant, <i>Biological Psychology</i> University of Iowa Department of Psychology	Spring 2011
Teaching Assistant, <i>Research Methods in Psychology</i> University of Iowa Department of Psychology	Fall 2010
Teaching Assistant, <i>Research Methods in Psychology</i> University of Iowa Department of Psychology	Spring 2010
Teaching Assistant, <i>Research Methods in Psychology</i> University of Iowa Department of Psychology	Fall 2009
Teaching Assistant, <i>Advanced Laboratory in Psychology</i> University of Iowa Department of Psychology	Spring 2009
Teaching Assistant, <i>Neurobiology of Disease</i> University of Iowa Department of Neurology	Spring 2008

Undergraduate Thesis Advising

Priyanka Atreya, Current Member of Vanderbilt Visual Cognitive Neuroscience Lab
Mia Branson, Graduate Student, HANK/Visual Cognition Labs, University of Iowa
Nicholas Gaspelin, Graduate Student, U. of New Mexico
Vanessa Jimenez, Research Assistant, Oregon Health Science University
Jonathan Corpman, Graduate Student, Chicago School of Professional Psychology
Kelsey Winnike, Graduate Student, University of Iowa School of Social Work

References

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