

Joshua D. Cosman, Ph.D.

Department of Neuroscience
University of Iowa
E305 Seashore Hall
University of Iowa
Iowa City, IA 52242-1407
joshua-cosman@uiowa.edu
(319)335-1556

Curriculum Vitae

Education

2011	University of Iowa	Ph.D. Neuroscience
2006	University of Iowa	B.S. Honors in Psychology

Research Experience

2012 – Present	Postdoctoral Fellow, Vanderbilt University Department of Psychology Advisor: Geoffrey F. Woodman
2009 – Present	Senior Scientist, 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

Affiliations

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

Academic Awards and Honors

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
2010	University of Iowa Graduate Student Senate Travel Award
2009	University of Iowa Graduate Student Senate Travel Award
2007	2 nd Place, James F. Jakobsen Conference
2006	NIMH Scholarship, ERP bootcamp

2006
2003 – 2005

Honors in Psychology, University of Iowa
University of Iowa Merit Scholarship

Ad-hoc Reviewing

Psychological Science – Psychonomic Bulletin & Review – Cognition – Attention, Perception, & Psychophysics – Journal of Experimental Psychology: Human Perception and Performance – Memory & Cognition – Neuropsychologia – Visual Cognition – NeuroReport – Acta Psychologica – Brain Research – Journal of Experimental and Clinical Neuropsychology – Biological Psychiatry – Neuropsychology – Journal of Gerontology: Psychological Sciences – Philosophical Psychology – Accident Analysis and Prevention

Manuscripts Published or In Press

Cosman, J.D., Vecera, S.P. (in press). Object-based attention modulates visual distraction. *Journal of Experimental Psychology: Human Perception and Performance*

Cosman, J.D., Lees, M.N., Vecera, S.P., Lee, J.D., Rizzo, M.R. (in press) Impairments in the disengagement of attention accompany deficits in the useful field of view. *Journal of Gerontology Series B: Psychological Sciences*

Cosman, J.D., Lees, M.N., Vecera, S.P., Lee, J.D., Rizzo, M.R. (in press) Visual search for features and conjunctions following decline in the useful field of view. *Experimental Aging Research*

Cosman, J.D., Vecera, S.P. (2011). The contents of visual working memory reduce uncertainty during visual search. *Attention, Perception, & Psychophysics, 73*, 996-1002.

Cosman, J.D., Vecera, S.P. (2010). Perceptual grouping determines the locus of attentional selection. *Visual Cognition, 18*, 1506-1510.

Cosman, J.D., Vecera, S.P. (2010). Attentional capture under high perceptual load. *Psychonomic Bulletin & Review, 17*, 983-986.

Cosman, J.D., Vecera, S.P. (2010). Perceptual Load Modulates Attention Capture by Motion Onsets. *Attention, Perception, & Psychophysics, 72*, 2095-2105.

Cosman, J.D., Vecera, S.P. (2010). Attention Affects Visual Perceptual Processing Near the Hand. *Psychological Science, 21*, 1254-1258.

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.

Cosman, J.D., Vecera, S.P. (2010). Action influences figure-ground assignment. *Visual Cognition, 18*, 110.

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

Branson, M., Cosman, J.D., Vecera, S.P. (under review). Body position influences maintenance in working memory.

Lees, M.N., Cosman, J.D., Vecera, S.P., Lee, J.D., Rizzo, M.R. (under revision) An Evaluation of Cross-modal Alerting Parameters in the Orienting of Attention in Attention Impaired Drivers. *Applied Ergonomics*.

Cosman, J.D., Vecera, S.P., Mordkoff, J.T. (under revision). Distraction in the face of high perceptual load

Gaspelin, N., Cosman, J.D., Vecera, S.P., Ruthruff, E. (under revision). Do Color Singletons Capture Attention? The Role of Perceptual Load.

Book Chapters

Cosman, J.D., Rizzo, M. (in press). "Attention." To appear in Behavioral Neurology and Neuropsychology. Arciniegas, D.B, Anderson, C.A., Filley, C. (Eds.) Cambridge University Press.

Presentations.

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.*

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.*

Cosman, J.D., Vecera, S.P. (2011, November) Attentional control via implicitly learned associations. *Annual Meeting of the Psychonomic Society, Seattle, WA.*

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.*

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.*

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.*

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.*

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.*

Cosman, J.D., Vecera, S.P. (2010, May) High Perceptual Load Does Not Induce Early Selection or Inattentive Blindness. Poster presented at the *Annual Meeting of the Vision Sciences Society, Naples, Florida.*

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.*

- 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
- 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.
- Lees MN, Cosman JD, Lee JD, Vecera SP, Jang M, Dawson JD, Rizzo MR. Cross-modal alerts for orienting of attention in attention impaired drivers. *Proceedings of the IEA 2009 XVIIth Triennial Congress, 2009 – Best Paper Award*.
- 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.
- 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.
- 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.
- 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
- 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.
- 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
- Dawson J.D., Cosman J.D., Lei Y., Dastrup E., Sparks J., and Rizzo M. 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
- Dawson J.D., Cosman J.D., Lei Y., Dastrup E., Sparks J., and Rizzo M. Factors Affecting Vehicular Lateral Control Measures in Driving Simulators. *International Biometric Society (ENAR) Annual Spring Meeting*, Atlanta,GA, March 11-14, 2007
- 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.

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

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

Shaun Vecera
Department of Psychology
E11 Seashore Hall
University of Iowa
Iowa City, IA 52242
(319) 335-0839

Daniel Tranel
Department of Neurology
2155 RCP
University of Iowa Hospitals and Clinics
Iowa City, IA 52242
(319) 384-6050

Toby Mordkoff
Department of Psychology
E11 Seashore Hall
University of Iowa
Iowa City, IA 52242
(319) 384-3387

Matthew Rizzo
Department of Neurology
2144 RCP
University of Iowa Hospitals and Clinics
Iowa City, IA 52242
(319) 356-8748