CURRICULUM VITAE

F. Gregory Ashby
May 7, 2022

Contact Information:

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Education:

Ph.D., Mathematical Psychology
Purdue University, West Lafayette, Indiana, 1980
Ph.D. Advisor: James T. Townsend

M.S., Psychology
Purdue University, West Lafayette, Indiana, 1976

B.S., Mathematics and Psychology
University of Puget Sound, Tacoma, Washington, 1975

Professional Experience:

2021-	Distinguished Professor Emeritus, UC Santa Barbara
2018-2020	Chair, Academic Program Review Panel, UC Santa Barbara
2013-2015	Chair, Interdepartmental Graduate Program in Dynamical Neuroscience, UC Santa Barbara
2013-2021	Distinguished Professor of Psychological & Brain Sciences (i.e., Professor Above Scale), UC Santa Barbara
2009-2012	Chair, Department of Psychological & Brain Sciences, UC Santa Barbara
2004-2006	Director, UCSB Brain Imaging Center
1994-2013	Professor of Psychology, UC Santa Barbara
1988-1994	Associate Professor of Psychology, UC Santa Barbara
1986-1988	Assistant Professor of Psychology, UC Santa Barbara
1980-1986	Assistant Professor of Psychology, Ohio State University

1981-1982 National Science Foundation Postdoctoral Fellow,
Sponsored by W. K. Estes, Harvard University
1975-1980 Teaching Assistant to Ben J. Winer, Purdue University

Research Interests:

My research combines cognitive neuroscience, cognitive psychology, computational modeling, and empirical data collection to study the basic mechanisms of human learning, from initial acquisition through automaticity. The goals are to understand the underlying perceptual, cognitive, and neural processes, and to build and test neurobiologically detailed computational models. My lab conducted behavioral and neuroimaging (i.e., fMRI) studies of healthy adults. Most experiments studied category learning because categorization affords excellent observability of decision processes. In addition, via collaboration, we studied categorization in other species (monkeys and pigeons).

Honors and Awards:

Howard Crosby Warren Medal (Society of Experimental Psychologists, 2017)
Clifford T. Morgan Best Article Award, Psychonomic Society, 2015
For the article: Cantwell, G., Crossley, M. J., & Ashby, F. G. (2015). Multiple stages of learning in perceptual categorization: Evidence and neurocomputational theory. *Psychonomic Bulletin & Review, 22*, 1598-1613.
Northshore School District (WA), Wall of Honor, 2016
Chair, Interdepartmental Graduate Program in Dynamical Neuroscience, UC Santa Barbara, 2013-2015
Chair, Department of Psychological & Brain Sciences, UC Santa Barbara, 2009-2012
Fellow, Society for Experimental Psychology (elected 2000)
Fellow, Psychonomic Society
President, Society for Mathematical Psychology, 1995-1996
Chair, NIH Cognition and Perception Study Section, 2005-2007
Associate Editor, *Journal of Experimental Psychology: Learning, Memory & Cognition*, 2000-2002
Director, UCSB Brain Imaging Center, 2004-2006
Fellow, American Psychological Society (elected 1998)
Donald O. Hebb Lecturer, McGill University, 2003
Board of Editors, *Journal of Mathematical Psychology*, 1989-2009
Editorial Board, *Psychological Science*, 1999-2005
Panel Member, NSF Program on Human Cognition and Perception, 1995-1998
Director, Week 2, 2007 Summer Institute for Cognitive Neuroscience
National Science Foundation Postdoctoral Fellow, 1981-1982

Fellowships:

Philip Morris Visiting Scientist, Philip Morris Research Center, Richmond, VA, 1991
National Science Foundation Postdoctoral Fellow, 1981-1982
David Ross Research Fellow, 1978-1980
David Ross Summer Research Fellow, 1979
Visiting Researcher, Technische Universität Braunschweig, West Germany, 1976-1977

Societies:

American Association for the Advancement of Science
American Psychological Society
    Elected Fellow, 1998
Cognitive Neuroscience Society
Psychonomic Society
    Elected Fellow
Society for Experimental Psychology
    Elected Fellow, 2000
Society for Mathematical Psychology
    President, 1995-1996
    Executive Board, 1993-1999
    Young Investigator Award Committee, 1994,1995, 1999
        Chair, 1995
Society for Neuroscience

Grants and Contracts:

Ashby, F. G. (PI). The cognitive neuroscience of human category learning. National Institute of Mental Health. November 1, 2014 – April 30, 2020.

Ashby, F. G. (co-PI, PI: Todd Maddox). Computational cognitive neuroscience modeling of sequential skill learning. US Air Force Office of Scientific Research. July 15, 2012-July 14, 2016.

Ashby, F. G. (PI on Project 4). Spatial and temporal scales of motor sequence learning. Program Project Grant from the National Institute of Neurological Disorders and Stroke. September 1, 2009 – August 31, 2014.

Ashby, F. G. (co-PI, PI: Grafton). Acquisition of a magnetic resonance imaging system for the UCSB Brain Imaging Center. National Science Foundation. 2006.

Ashby, F. G. (co-PI, PI: D. Morse). Dynamic classification. U.S. Army Research Office grant through the Institute for Collaborative Biotechnologies. June 1, 2007-September 30, 2016.

Ashby, F. G. The cognitive neuroscience of human category learning. National Institute of Mental Health. September 15, 2005 – September 14, 2010.

Ashby, F. G. The cognitive neuroscience of human category learning. National Institute of Mental Health. September 1, 2002 - August 31, 2005.

Ashby, F. G. Perceptual and cognitive processes in category learning. National Science Foundation. September 1, 1999 - August 31, 2002.

Ashby, F. G., & Fikes, T. Dynamical systems modeling of category learning. National Science Foundation. June 1, 1997 - August 31, 1997.

Ashby, F. G. Perceptual and cognitive processes in identification and categorization. National Science Foundation. April 1, 1996 - March 31, 2000.

Isen, A. M., Lawless, H. T., & Ashby, F. G. The influence of odor-induced affect on creativity, categorization, and decision-making. Olfactory Research Fund. January 1, 1996 - December 31, 1997.

Prinzmetal, W., Maddox, W. T., Ivry, R., & Ashby, F. G. A formal model of visual feature integration. National Science Foundation. May 15, 1994 - May 14, 1996.

Ashby, F. G. Perceptual and cognitive processes in identification and categorization. National Science Foundation. August 15, 1992 - August 14, 1995.

Ashby, F. G. Theoretical foundations of product identification. Philip Morris Research Center. June 1, 1990 - May 31, 1991.

Ashby, F. G. The stochastic general recognition theory. National Science Foundation. February 15, 1989 - January 31, 1992.

Ashby, F. G. Investigating the stochastic general recognition theory. Academic Senate, University of California, Santa Barbara. July 1, 1988 - June 30, 1989.

Ashby, F. G. Identifying psychological features. Academic Senate, University of California, Santa Barbara. July 1, 1986 - June 30, 1987.

Ashby, F. G. Affect, cognitive organization, and decision making. University of Maryland (National Science Foundation subcontract). August 1, 1984 - January 31, 1986.

Ashby, F. G. Mathematical and empirical research in human information processing. College of Social and Behavioral Sciences, The Ohio State University. January, 1981.

Publications:

Books:

Ashby, F. G. (Ed.). (1992). *Multidimensional models of perception and cognition*. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc..

Ashby, F. G. (2011). *Statistical analysis of fMRI data*. Cambridge, MA: MIT Press.

Ashby, F. G. (2019). *Statistical Analysis of fMRI Data, Second Edition*. Cambridge, MA: MIT Press.

Ashby, F. G., Colonius, H. & Dzhafarov, E. (Eds.). (in press). *The new handbook of mathematical psychology, Volume 3*. Cambridge University Press.

Townsend, J. T., & Ashby, F. G. (1983). *Stochastic modeling of elementary psychological processes*. New York: Cambridge University Press.

Journal Articles and Book Chapters:
(reprints available at: https://labs.psych.ucsb.edu/ashby/gregory/publications)

Alfonso-Reese, L. A., Ashby, F. G., & Brainard, D. H. (2002). What makes a categorization task difficult? *Perception & Psychophysics*, *64*, 570-583.

Ashby, F. G. (1982). Testing the assumptions of exponential additive reaction time models. *Memory & Cognition*, *10*, 125-134.

Ashby, F. G. (1982). Deriving exact predictions from the cascade model. *Psychological Review*, *89*, 599-607.

Ashby, F. G. (1983). A biased random walk model of two choice reaction times. *Journal of Mathematical Psychology*, *27*, 277-297.

Ashby, F. G. (1987). Counting and timing models in psychophysics and the conjoint Weber's law. *Journal of Mathematical Psychology*, *31*, 419-428.

Ashby, F. G. (1988). Estimating the parameters of multidimensional signal detection theory from simultaneous ratings on separate stimulus components. *Perception & Psychophysics*, *44*, 195-204.

Ashby, F. G. (1989). Stochastic general recognition theory. In D. Vickers & P. L. Smith (Eds.), *Human Information Processing: Measures, Mechanisms and Models* (pp. 435-457). Amsterdam: Elsevier Science Publishers B.V..

Ashby, F. G. (1992). Multivariate probability distributions. In F. G. Ashby (Ed.), *Multidimensional models of perception and cognition* (pp. 1-34). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc..

Ashby, F. G. (1992). Multidimensional models of categorization. In F. G. Ashby (Ed.), *Multidimensional models of perception and cognition* (pp. 449-483). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc..

Ashby, F. G. (1999). Multidimensional psychology. In *McGraw-Hill Yearbook of Science & Technology 2000* (pp. 264-265). New York: McGraw-Hill.

Ashby, F. G. (2000). A stochastic version of general recognition theory. *Journal of Mathematical Psychology, 44*, 310-329.

Ashby, F. G. (2001). Categorization and similarity models: Neuroscience applications. In *International Encyclopedia of the Social and Behavioral Sciences* (pp. 1535-1538). Amsterdam: Pergamon Press.

Ashby, F.G. (2009). Human category learning, Neural basis. In H. Pashler (Ed.), *Encyclopedia of the Mind*. Thousand Oaks, CA: Sage Publishing.

Ashby, F. G. (2010). Response time. In B. Goldstein (Ed.), *Encyclopedia of Perception* (Vol. 2, pp. 867-868). Thousand Oaks, CA: Sage Publishing.

Ashby, F. G. (2013). Categorization, neural basis. In H. Pashler (Ed.), *Encyclopedia of the Mind*. Thousand Oaks, CA: Sage Publishing.

Ashby, F. G., (2014). Is state-trace analysis an appropriate tool for assessing the number of cognitive systems? *Psychonomic Bulletin & Review, 21*, 935-946.

Ashby, F. G. (2015). An introduction to fMRI. In B. U. Forstmann & E.-J. Wagenmakers (Eds.), *An introduction to model-based cognitive neuroscience* (pp. 91-112). New York: Springer.

Ashby, F. G. (2018). Computational cognitive neuroscience. In W. Batchelder, H. Colonius, E. Dzhafarov, & J. Myung (Eds.), *New handbook of mathematical psychology, Volume 2* (pp. 223-270). New York: Cambridge University Press.

Ashby, F. G. (2019). State-trace analysis misinterpreted and misapplied: Reply to Stephens, Matzke, and Hayes (2019). *Journal of Mathematical Psychology, 91*, 195-200.

Ashby, F. G., & Alfonso-Reese, L. (1995). Categorization as probability density estimation. *Journal of Mathematical Psychology, 39*, 216-233.

Ashby, F. G., Alfonso-Reese, L. A., Turken, A. U., & Waldron, E. M. (1998). A neuropsychological theory of multiple systems in category learning. *Psychological Review, 105*, 442-481.

Ashby, F. G., & Bamber D. (in press). State trace analysis: What it can and cannot do. *Journal of Mathematical Psychology*.

Ashby, F. G., & Berretty, P. M. (1997). Categorization as a special case of decision-making or choice. In A. A. J. Marley (Ed.), *Choice, decision, and measurement: Essays in honor of R. Duncan Luce* (pp. 367-388). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc..

Ashby, F. G., Boynton, G., & Lee, W. W. (1994). Categorization response time with multidimensional stimuli. *Perception & Psychophysics, 55*, 11-27.

Ashby, F. G., & Casale, M. B. (2002). The cognitive neuroscience of implicit category learning. In L. Jiménez (Ed.), *Attention and implicit learning*. Amsterdam & Philadelphia: John Benjamins Publishing Company.

Ashby, F. G., & Casale, M. B. (2003). A model of dopamine modulated cortical activation. *Neural Networks, 16*, 973-984.

Ashby, F. G., & Casale, M. B. (2005). Empirical dissociations between rule-based and similarity-based categorization: Comment on Pothos. *Behavioral and Brain Sciences, 28*, 15-16.

Ashby, F. G., & Crossley, M. J. (2010). The neurobiology of categorization. In D. Mareschal, P. C. Quinn, & S. E. G. Lea (Eds.), *The making of human concepts* (pp. 75-98). New York: Oxford University Press.

Ashby, F. G., & Crossley, M. J. (2010). Interactions between declarative and procedural-learning categorization systems. *Neurobiology of Learning and Memory, 94*, 1-12.

Ashby, F. G., & Crossley, M. J. (2011). A computational model of how cholinergic interneurons protect striatal-dependent learning. *Journal of Cognitive Neuroscience, 23*, 1549-1566.

Ashby, F. G., & Crossley, M. J. (2012). Automaticity and multiple memory systems. *WIREs Cognitive Science, 3*, 363-376.

Ashby, F. G., Crossley M. J., & Inglis J. B. (in press). Mathematical models of human learning. In F. G. Ashby, H. Colonius, & E. Dzhafarov (Eds.), *The new handbook of mathematical psychology, Volume 3*. Cambridge University Press.

Ashby, F. G., & Ell, S. W. (2001). The neurobiology of human category learning. *Trends in Cognitive Sciences, 5*, 204-210.

Ashby, F. G., & Ell, S. W. (2002). Single versus multiple systems of category learning: Reply to Nosofsky and Kruschke (2002). *Psychonomic Bulletin & Review, 9*, 175-180.

Ashby, F. G., & Ell, S. W. (2002). Single versus multiple systems of learning and memory. In J. Wixted & H. Pashler (Eds.), *Stevens handbook of experimental psychology: Vol. 4 Methodology in Experimental Psychology* (3rd. ed., pp. 655-692). New York: Wiley.

Ashby, F. G., Ell, S. W., Valentin, V. V., & Casale, M. B. (2005). FROST: A distributed neurocomputational model of working memory maintenance. *Journal of Cognitive Neuroscience, 17,* 1728-1743.

Ashby, F. G., Ell, S. W., & Waldron, E. M. (2003). Procedural learning in perceptual categorization. *Memory & Cognition, 31*, 1114-1125.

Ashby, F. G., & Ennis, D. M. (2002). A Thurstone-Coombs model of concurrent ratings with sensory and liking dimensions. *Journal of Sensory Studies, 17,* 43-59.

Ashby, F. G., & Ennis, D. M. (2007). Similarity measures. *Scholarpedia*, p. 26727.

Ashby, F. G., & Ennis, J. M. (2006). The role of the basal ganglia in category learning. *The Psychology of Learning and Motivation, 46,* 1-36.

Ashby, F. G., Ennis, J. M., & Spiering, B. J. (2007). A neurobiological theory of automaticity in perceptual categorization. *Psychological Review, 114,* 632-656.

Ashby, F. G., & Gott, R. E. (1988). Decision rules in the perception and categorization of multidimensional stimuli. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 14,* 33-53.

Ashby, F. G., & Hélie, S. (2011). A tutorial on computational cognitive neuroscience: Modeling the neurodynamics of cognition. *Journal of Mathematical Psychology, 55,* 273-289.

Ashby, F. G., Isen, A. M., & Turken, A. U. (1999). A neuropsychological theory of positive affect and its influence on cognition. *Psychological Review, 106,* 529-550.

Ashby, F. G., & Lee, W. W. (1991). Predicting similarity and categorization from identification. *Journal of Experimental Psychology: General, 120,* 150-172.

Ashby, F. G., & Lee, W. W. (1992). On the relationship among identification, similarity, and categorization: Reply to Nosofsky and Smith (1992). *Journal of Experimental Psychology: General, 121,* 385-393.

Ashby, F. G., & Lee, W. W. (1993). Perceptual variability as a fundamental axiom of perceptual science. In S.C. Masin (Ed.), *Foundations of perceptual theory* (pp. 369-399). Amsterdam: Elsevier Science Publishers B.V..

Ashby, F. G., Lee, W. W., & Balakrishnan, J. D. (1992). Comparing the biased choice model and multidimensional decision bound models of identification. *Mathematical Social Sciences, 23,* 175-197.

Ashby, F. G., & Maddox, W. T. (1990). Integrating information from separable psychological dimensions. *Journal of Experimental Psychology: Human Perception and Performance, 16,* 598-612.

Ashby, F. G., & Maddox, W. T. (1991). A response time theory of perceptual independence. In J. P. Doignon & J. C. Falmagne (Eds.), *Mathematical psychology: Current developments* (pp. 389-413). New York: Springer Verlag.

Ashby, F. G., & Maddox, W. T. (1992). Complex decision rules in categorization: Contrasting novice and experienced performance. *Journal of Experimental Psychology: Human Perception and Performance, 18,* 50-71.

Ashby, F. G., & Maddox, W. T. (1993). Relations between prototype, exemplar, and decision bound models of categorization. *Journal of Mathematical Psychology, 37,* 372-400.

Ashby, F. G., & Maddox, W. T. (1994). A response time theory of separability and integrality in speeded classification. *Journal of Mathematical Psychology, 38,* 423-466.

Ashby, F. G., & Maddox, W. T. (1998). Stimulus categorization. In M. H. Birnbaum (Ed.), *Measurement, judgment, and decision making*: *Handbook of perception and cognition* (pp. 251-301). San Diego: Academic Press.

Ashby, F. G., & Maddox, W. T. (2005). Human category learning. *Annual Review of Psychology, 56,* 149-178.

Ashby, F. G., & Maddox, W. T. (2011). Human category learning 2.0. *Annals of the New York Academy of Sciences, 1224,* 147-161.

Ashby, F. G., & Maddox, W. T., & Bohil, C. J. (2002). Observational versus feedback training in rule-based and information-integration category learning. *Memory & Cognition, 30,* 665-676.

Ashby, F. G., Maddox, W. T., & Lee, W. W. (1994). On the dangers of averaging across subjects when using multidimensional scaling or the similarity-choice model. *Psychological Science, 5,* 144-151.

Ashby, F. G., Noble, S., Filoteo, J. V., Waldron, E. M., & Ell, S. W. (2003). Category learning deficits in Parkinson's disease. *Neuropsychology, 17,* 115-124.

Ashby, F. G., & O'Brien, J. B. (2005). Category learning and multiple memory systems. *Trends in Cognitive Sciences, 9,* 83-89.

Ashby, F. G., & O'Brien, J. B. (2007). The effects of positive versus negative feedback on information-integration category learning. *Perception & Psychophysics, 69,* 865-878.

Ashby, F. G., & O'Brien, J. B. (2008). The P_{rep} statistic as a measure of confidence in model fitting. *Psychonomic Bulletin & Review, 15,* 16-27.

Ashby, F. G., Paul, E. J., & Maddox, W. T. (2011). COVIS. In E. M. Pothos & A. J. Wills (Eds.), *Formal approaches in categorization* (pp. 65-87). New York: Cambridge University Press.

Ashby, F. G., & Perrin, N. A. (1988). Toward a unified theory of similarity and recognition. *Psychological Review, 95,* 124-150.

Ashby, F. G., Prinzmetal, W., Ivry, R., & Maddox, W. T. (1996). A formal theory of feature binding in object perception. *Psychological Review, 103,* 165-192.

Ashby, F. G., Queller, S., & Berretty, P. M. (1999). On the dominance of unidimensional rules in unsupervised categorization. *Perception & Psychophysics, 61,* 1178-1199.

Ashby, F. G., & Rosedahl, L. (2017). A neural interpretation of exemplar theory. *Psychological Review, 124,* 472-482.

Ashby, F. G., Smith, J. D., & Rosedahl, L. (2020). Dissociations between rule-based and information-integration categorization are not caused by differences in task difficulty. *Memory & Cognition, 48,* 541–552.

Ashby, F. G., & Soto, F. A. (2015). Multidimensional signal detection theory. In: J. R. Busemeyer, Z. Wang, J. T. Townsend, & A. Eidels (Eds.), *Oxford handbook of computational and mathematical psychology* (pp. 13-34). New York: Oxford University Press.

Ashby, F. G., & Soto, F. A. (2016). The neural basis of general recognition theory. In J. W. Houpt & L. M. Blaha (Eds.), *Mathematical models of perception and cognition: A Festschrift for James T. Townsend* (pp. 1 - 31). New York: Psychology Press.

Ashby, F. G., & Spiering, B. J. (2004). The neurobiology of category learning. *Behavioral and Cognitive Neuroscience Reviews, 3,* 101-113.

Ashby, F. G., Tein, J. Y., & Balakrishnan, J. D. (1993). Response time distributions in memory scanning. *Journal of Mathematical Psychology, 37,* 526-555.

Ashby, F. G., & Townsend, J. T. (1980). Decomposing the reaction time distribution: Pure insertion and selective influence revisited. *Journal of Mathematical Psychology, 21,* 93-123.

Ashby, F. G., & Townsend, J. T. (1986). Varieties of perceptual independence. *Psychological Review, 93,* 154-179.

Ashby, F. G., Turner, B. O., & Horvitz, J. C. (2010). Cortical and basal ganglia contributions to habit learning and automaticity. *Trends in Cognitive Sciences, 14*, 208-215.

Ashby, F. G., & Valentin, V. V. (2005). Multiple systems of perceptual category learning: Theory and cognitive tests. In H. Cohen & C. Lefebvre (Eds.), *Handbook of categorization in cognitive science* (pp. 547-572). New York: Elsevier.

Ashby, F. G., & Valentin, V. V. (2007). Computational cognitive neuroscience. Building and testing biologically plausible computational models of neuroscience, neuroimaging, and behavioral data. In M. J. Wenger & C. Schuster (Eds.), *Statistical and process models for cognitive neuroscience and aging* (pp. 15-58). Mahwah, NJ: Erlbaum.

Ashby, F. G., & Valentin, V. V. (2017). Multiple systems of perceptual category learning: Theory and cognitive tests. In H. Cohen and C. Lefebvre (Eds.), *Handbook of categorization in cognitive science, 2nd Edition* (pp. 157-188). New York: Elsevier.

Ashby, F. G., & Valentin, V. V. (2018). The categorization experiment: Experimental design and data analysis. In E. J. Wagenmakers & J. T. Wixted (Eds.), *Stevens' handbook of experimental psychology and cognitive neuroscience, Fourth Edition, Volume Five: Methodology* (pp. 307-347). New York: Wiley.

Ashby, F. G., Valentin, V. V., & von Meer, S. S. (2015). Differential effects of dopamine-directed treatments on cognition. *Neuropsychiatric Disease and Treatment, 11*, 1859-1875.

Ashby, F. G., Valentin, V. V., & Turken, A. U. (2002). The effects of positive affect and arousal on working memory and executive attention: Neurobiology and computational models. In S. Moore & M. Oaksford (Eds.), *Emotional Cognition: From Brain to Behaviour* (pp. 245-287). Amsterdam: John Benjamins.

Ashby, F. G., & Vucovich, L. E. (2016). The role of feedback contingency in perceptual category learning. *Journal of Experimental Psychology: Learning, Memory, & Cognition, 42*, 1731-1746.

Ashby, F. G., & Waldron, E. M. (1999). On the nature of implicit categorization. *Psychonomic Bulletin & Review, 6*, 363-378.

Ashby, F. G., & Waldron, E. M. (2000). The neuropsychological bases of category learning. *Current Directions in Psychological Science, 9*, 10-14.

Ashby, F. G., Waldron, E. M., Lee, W. W., & Berkman, A. (2001). Suboptimality in human categorization and identification. *Journal of Experimental Psychology: General, 130*, 77-96.

Ashby, F. G., & Waldschmidt, J. G. (2008). Fitting computational models to fMRI data. *Behavior Research Methods, 40*, 713-721.

Ashby, F. G., & Wang, Y. (in press). Computational cognitive neuroscience models of categorization. In R. Sun (Ed.), *The Cambridge Handbook of Computational Cognitive Sciences*. New York: Cambridge University Press.

Ashby, F. G., & Wenger M. J. (in press). Statistical decision theory. In F. G. Ashby, H. Colonius, & E. Dzhafarov (Eds.), *The new handbook of mathematical psychology, Volume 3*. Cambridge University Press.

Balakrishnan, J. D., & Ashby, F. G. (1991). Is subitizing a unique numerical ability? *Perception & Psychophysics, 50*, 555-564.

Balakrishnan, J. D., & Ashby, F. G. (1992). Subitizing: Magical numbers or mere superstition? *Psychological Research, 54*, 80-90.

Cantwell, G., Crossley, M. J., & Ashby, F. G. (2015). Multiple stages of learning in perceptual categorization: Evidence and neurocomputational theory. *Psychonomic Bulletin & Review, 22*, 1598-1613.

Cantwell, G., Riesenhuber, M., Roeder, J. L., & Ashby, F. G. (2017). Perceptual category learning and visual processing: An exercise in computational cognitive neuroscience. *Neural Networks, 89*, 31-38.

Casale, M. B., & Ashby, F. G. (2008). A role for the perceptual representation memory system in category learning. *Perception & Psychophysics, 70*, 983-999.

Casale, M. B., Roeder, J. L., & Ashby, F. G. (2012). Analogical transfer in perceptual categorization. *Memory & Cognition, 40*, 434-449.

Crossley, M. J., & Ashby, F. G. (2015). Procedural learning during declarative control. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 41*, 1388-1403.

Crossley, M. J., Ashby, F. G., & Maddox, W. T. (2013). Erasing the engram: the unlearning of procedural skills. *Journal of Psychology: General, 142*, 710-741.

Crossley, M. J., Ashby, F. G., & Maddox, W. T. (2014). Context-dependent savings in procedural category learning. *Brain & Cognition, 92*, 1-10.

Crossley, M. J., Horvitz, J. C., Balsam, P. D., & Ashby, F. G. (2016). Expanding the role of striatal cholinergic interneurons and the midbrain dopamine system in appetitive instrumental conditioning. *Journal of Neurophysiology, 115*, 240-254.

Crossley, M. J., Maddox, W. T., & Ashby, F. G. (2018). Increased cognitive load enables unlearning in procedural category learning. *Journal of Experimental Psychology: Learning, Memory, & Cognition, 44*, 1845-1853.

Crossley, M.J.**,** Madsen, N.R., & Ashby, F.G. (2012). Procedural learning of unstructured categories. *Psychonomic Bulletin & Review, 19,* 1202-1209.

Crossley, M. J., Paul, E. J., Roeder, J., & Ashby, F. G. (2016). Declarative strategies persist under increased cognitive load. *Psychonomic Bulletin & Review, 23*, 213-222.

Crossley, M. J., Roeder, J. L., Hélie, S., & Ashby, F. G. (2018). Trial-by-trial switching between procedural and declarative categorization systems. *Psychological Research, 82*, 371-384.

Ell, S. W., & Ashby, F. G. (2004). Dynamical trajectories in category learning. *Perception & Psychophysics, 66,* 1318-1340.

Ell, S. W., & Ashby, F. G. (2006). The effects of category overlap on information-integration and rule-based category learning. *Perception & Psychophysics, 68,* 1013-1026.

Ell, S.W., & Ashby, F.G. (2012). The impact of category separation on unsupervised categorization. *Attention, Perception & Psychophysics, 74*, 466–475.

Ell, S.W., Ashby, F.G., & Hutchinson, S. (2012). Unsupervised category learning with integral-dimension stimuli. *The Quarterly Journal of Experimental Psychology, 65*, 1537-1562.

Ennis, D. M., & Ashby, F. G. (1993). The relative sensitivities of same-different and identification judgment models to perceptual dependence. *Psychometrika*, *58*, 257-279.

Filoteo, J. V., Maddox, W. T., & Ashby, F. G. (2017). Quantitative modeling of category learning deficits in various patient populations. *Neuropsychology, 31*, 862-876.

Filoteo, J. V., Paul, E. J., Ashby, F. G., Frank, G. K.W., Hélie, S., Rockwell, R., Bischoff-Grethe, A., Wierenga, C., & Kaye, W. H. (2014). Simulating category learning and set shifting deficits in patients weight-restored from Anorexia Nervosa. *Neuropsychology, 28*, 741-751.

Hélie, S., & Ashby, F. G. (2009). A neurocomputational model of automaticity and maintenance of abstract rules. *Proceedings of the International Joint Conference on Neural Networks* (pp. 1192-1198). Atlanta, GA: IEEE Press.

Hélie, S., & Ashby, F. G. (2012). Learning and transfer of category knowledge in an indirect categorization task. *Psychological Research, 76,* 292-303.

Hélie, S., Ell, S. W., Ashby, F. G. (2015). Learning robust cortico-cortical associations with the basal ganglia: An integrative review. *Cortex, 64*, 123-135.

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Valentin, V. V., Maddox, F. G., & Ashby, F. G. (2014). A computational model of the temporal dynamics of plasticity in procedural learning: Sensitivity to feedback timing. *Frontiers in Psychology – Cognitive Science, 5,* 643.

Valentin, V. V., Maddox, W. T., & Ashby, F. G. (2016). Dopamine dependence in aggregate feedback learning: A computational cognitive neuroscience approach. *Brain & Cognition, 109,* 1-18.

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Waldschmidt, J. G., & Ashby, F. G. (2011). Cortical and striatal contributions to automaticity in information-integration categorization. *NeuroImage*, *56*, 1791-1802.

Wang, Y., & Ashby, F. G. (2020). A role for the medial temporal lobes in category larning. *Learning & Memory*, *27*, 441-450.

Book Reviews:

Ashby, F. G. (1989). Review of "Response Times", by R. Duncan Luce. *Psychometrika*, *54*, 542-545.

Ashby, F. G. (1991). Review of "Foundations of Measurement, Volume III", by R. Duncan Luce, David H. Krantz, Patrick Suppes, and Amos Tversky. *Applied Psychological Measurement*, *15*, 105-108.

Ashby, F. G. (1992). Pattern recognition by human and machine. Review of "Adaptive Pattern Recognition and Neural Networks", by Yoh-Han Pao. *Journal of Mathematical Psychology*, *36*, 146-153.

Ashby, F. G. (1995). Resurrecting information theory: A review of "Information, Sensation, and Perception," by Kenneth H. Norwich. *The American Journal of Psychology*, *108*, 609-614.

Conference Presentations and Invited Colloquia:

Annual Meeting of the Midwestern Psychological Association, Chicago, 1976
Ninth Annual Mathematical Psychology Meetings, New York University, 1976
Ninth Midwestern Cognitive/Mathematical Psychology Conference, Bloomington, Indiana, 1976
German Experimental Psychology Meetings, Konstanz, West Germany, 1977
Tenth Annual Mathematical Psychology Meetings, U.C.L.A., 1977
Twelfth Annual Mathematical Psychology Meetings, Brown University, 1979
Thirteenth Annual Mathematical Psychology Meetings, Madison, Wisconsin, 1980
University of Southern California, Invited Colloquium, 1980
University of New Hampshire, Invited Colloquium, 1980
University of California at Berkeley, Invited Colloquium, 1980
Ohio State University, Invited Colloquium, 1980
Fourteenth Annual Mathematical Psychology Meetings, Santa Barbara, 1981
Bell Telephone Laboratories, Murray Hill, New Jersey, Invited Colloquium, 1982
Fifteenth Annual Mathematical Psychology Meetings, Princeton University, 1982
Ninth Annual Interdisciplinary Conference, Steamboat Springs, Colorado, 1983 (Invited Paper)
Midwestern Psychological Association, Chicago, 1983 (Invited Paper)
Sixteenth Annual Mathematical Psychology Meetings, Boulder, Colorado, 1983 (Invited Paper)
Annual Meeting of the Psychometric Society, Santa Barbara, 1984 (2 papers)

Seventeenth Annual Mathematical Psychology Meetings, Chicago, 1984 (2 papers; one invited)
Twenty-Fifth Annual Meeting of the Psychonomic Society, San Antonio, Texas, 1984
Annual Meeting of the Midwestern Psychological Association, Chicago, 1985
GTE Laboratories, Waltham, Massachusetts, Invited Colloquium, 1985
Purdue University, Invited Colloquium, 1985
Twenty-Sixth Annual Meeting of the Psychonomic Society, Boston, 1985
University of California at Santa Barbara, Invited Colloquium, 1986
Philip Morris Research Center, Invited Colloquium, 1987
Twentieth Annual Mathematical Psychology Meetings, Berkeley, California, 1987
Twenty-Eighth Annual Meeting of the Psychonomic Society, Seattle, Washington, 1987
University of Puget Sound, Invited Colloquium, 1987
Annual Meeting of the American Educational Research Association, New Orleans, 1988
University of California at Los Angeles, Invited Colloquium, 1988
Twenty-First Annual Mathematical Psychology Meetings, Chicago, 1988 (Invited Paper)
XXIV International Congress of Psychology, Sydney, Australia, 1988 (Invited Paper)
New York University, Invited Colloquium, 1988
Annual Meeting of the Western Psychological Association, Los Angeles, 1989
Thirtieth Annual Meeting of the Psychonomic Society, Atlanta, Georgia, 1989
Twentieth Annual European Mathematical Psychology Group Meetings, Nijmegen, The Netherlands, 1989 (Invited Paper)
University of California at Irvine, Invited Colloquium, 1989
Annual Meeting of the Classification Society of North America, Logan, Utah, 1990
Recent Advances in the Analysis of Attention Conference, Eugene, Oregon, 1990
Thirty-First Annual Meeting of the Psychonomic Society, New Orleans, 1990
Twenty-Second Annual Mathematical Psychology Meetings, Irvine, California, 1990 (2 papers)
Twenty-Third Annual Mathematical Psychology Meetings, Toronto, 1991 (2 papers)
Dartmouth College, Invited Colloquium, 1991
McGill University, Invited Colloquium, 1991
Thirty-Second Annual Meeting of the Psychonomic Society, San Francisco, 1991
Twenty-Fourth Annual Mathematical Psychology Meetings, Bloomington, IN, 1991 (3 papers)
University of California at Santa Cruz, Invited Colloquium, 1991
Indiana University, Invited Colloquium, 1992
Ohio State University, Invited Colloquium, 1992
Purdue University, Invited Colloquium, 1992
Twenty-Fifth Annual Mathematical Psychology Meetings, Stanford, California, 1992
University of Washington, Invited Colloquium, 1992
Thirty-Fourth Annual Meeting of the Psychonomic Society, Washington, D.C., 1993
Twenty-Sixth Annual Mathematical Psychology Meetings, Norman, Oklahoma, 1993 (2 papers; one invited)
Twenty-Seventh Annual Mathematical Psychology Meetings, Seattle, Washington,1994 (4 papers)
University of California at Berkeley, Invited Colloquium, 1994
Ohio State University, Invited Colloquium, 1995
Annual Meeting of the Classification Society of North America, Denver, CO, 1995
Twenty-Eighth Annual Mathematical Psychology Meetings, Irvine, CA, 1995 (3 papers)
Thirty-Sixth Annual Meeting of the Psychonomic Society, Los Angeles, CA, 1995

Cornell University, Invited Colloquium, 1995
Third Annual Meeting of the Cognitive Neuroscience Society, San Francisco, CA, 1996
University of Utah, Invited Colloquium, 1996
Western Attention Conference, Invited Paper, 1996
Twenty-Ninth Annual Mathematical Psychology Meetings, Chapel Hill, NC, 1996 (2 papers)
XXVI International Congress of Psychology, Montreal, Canada, 1996 (Invited Paper)
Thirty-Seventh Annual Meeting of the Psychonomic Society, Chicago, IL, 1996 (Invited Paper)
University of California, Berkeley, Invited Colloquium, 1997
Fourth Annual Meeting of the Cognitive Neuroscience Society, Boston, MA, 1997
University of Puget Sound, Invited Colloquium, 1997
Annual Meeting of the Western Psychological Association, Invited Paper, 1997
Thirtieth Annual Mathematical Psychology Meetings, Bloomington, IN, 1997
Fifth Annual Meeting of the Cognitive Neuroscience Society, San Francisco, 1998
University of British Columbia, Invited Colloquium, 1998
University of California at Irvine, Invited Colloquium, 1999
Twenty-Fourth Annual Interdisciplinary Conference, Jackson, Wyoming, 1999
University of California at Los Angeles, Invited Colloquium, 1999
Current Topics in Sensory and Consumer Science, The Institute for Perception,
Sea Island, GA, Invited Colloquium, 1999
Sixth Annual Meeting of the Cognitive Neuroscience Society, Washington, D.C., 1999
University of Texas at Austin, Invited Colloquium, 1999
Thirty-second Annual Mathematical Psychology Meetings, Santa Cruz, CA (2 papers)
University of California at San Diego, Institute for Neural Computation,
Invited Colloquium, 1999
University of California at San Diego, Department of Psychology, Invited Colloquium, 1999
Seventh Annual Meeting of the Cognitive Neuroscience Society, San Francisco, 2000
Third International Meetings of the Sensometrics Society, Invited Address, Columbia, MO, 2000
Memory Disorders Research Society Annual Meeting, Invited Address, Toronto, Canada, 2000
Forty-first Annual Meeting of the Psychonomic Society, New Orleans, 2000.
Eighth Annual Meeting of the Cognitive Neuroscience Society, New York, 2001
Templeton Lecture Series on Science, Religion, and the Human Experience,
Invited Discussant, UCSB, 2001
Workshop on Speech Recognition as Pattern Classification, Invited Address,
Nijmegen, The Netherlands, 2001
Third International Conference on Memory, Invited Paper, Valencia, Spain, 2001
Society for Neuroscience, San Diego, 2002
Ninth Annual Meetings of the Cognitive Neuroscience Society, San Francisco, 2002
Summer Annual Interdisciplinary Conference, Squamish, BC, 2002
Annual Meeting of the Society for Mathematical Psychology, Oxford, Ohio, 2002
Columbia University, Invited colloquium, September, 2002
J. S. McDonnell Foundation Sponsored Conference on the Cognitive Neuroscience of Category
Learning, Invited address, New York, September, 2002.
Annual Meeting of the International Neuropsychological Society, Honolulu, 2003
Annual Meeting of the Cognitive Neuroscience Society, New York City, 2003 (2 papers)
University of California, Riverside, Invited colloquium, May, 2003
Summer Institute in Cognitive Sciences 2003, University of Quebec at Montreal,

Invited lecture, 2003
2nd Summer Annual Interdisciplinary Conference, Squamish, BC, 2003
Second Annual Meeting of the James S. McDonnell Foundation Consortium on the Cognitive Neuroscience of Category Learning New York, September 19, 2003.
McGill University, Invited colloquium, Oct. 16, 2003.
McGill University, Invited colloquium, Oct. 17, 2003.
McGill University, Donald O. Hebb Invited Lecture, Oct. 17, 2003.
University of New Mexico, Invited colloquium, April 9, 2004.
Annual Meeting of the Cognitive Neuroscience Society, San Francisco, 2004 (2 papers)
Dartmouth College, Invited colloquium, May 18, 2004
2004 Notre Dame Series on Quantitative Methodology, Keynote Address, May 28, 2004.
Third Annual Summer Interdisciplinary Conference, Cavalese, Italy, June 28, 2004.
Annual Meeting of the Society for Neuroscience, San Diego, CA, Oct. 25, 2004 (2 papers)
University of Pennsylvania, Invited colloquium February 28, 2005.
12th Annual Meeting of the Cognitive Neuroscience Society, New York, April, 2005 (3 papers).
University of Colorado, Invited colloquium, April 19, 2005.
Colorado State University, Invited colloquium, April 20, 2005.
First Annual Computational Cognitive Neuroscience Meetings, Invited address, Washington, DC, Nov. 10, 2005.
Goldsmiths College, London, UK, Invited colloquium, December 2, 2005.
Symposium on Motivation, Learning & Memory: A System Level Brain Modeling Approach. Lund, Sweden, Invited address, December 5, 2005.
103rd Annual Meeting of the Society of Experimental Psychologists, San Diego, CA, March 24-25, 2006.
Workshop on Cognitive Systems: Bridging Cellular to Social, Santa Fe, NM, Keynote address, June 27-29, 2006.
39th Annual Meeting of the Society for Mathematical Psychology, Vancouver, BC, July 29 – August 1, 2006 (2 papers, 1 invited).
Festschrift for Walter Freeman. Invited Address, Berkeley, CA, January 26-27, 2007.
Annual Meeting of the Cognitive Neuroscience Society, New York, NY, May 5, 2007 (2 papers).
University of Copenhagen, Invited colloquium, Copenhagen, Denmark, May 10, 2007.
Symposium on Concepts: Content and Constitution, Sponsored by the Danish Society for Philosophy and Psychology, Invited address, Copenhagen, Denmark, May 11, 2007.
2007 Summer Institute for Cognitive Neuroscience, Invited address, UC Santa Barbara, July 2, 2007.
Annual Meeting of the Society for Neuroscience, San Diego, CA, Nov. 4-5, 2007 (2 papers).
2007 Meetings of the Society for Computers in Psychology, Invited address, Long Beach, November 15, 2007.
Sustaining Performance Under Stress Symposium. Invited address, Austin, TX, December 5-6, 2007.
Workshop of the Evolution of Psychological Categories. Invited address, Irvine, CA, March 14-16, 2008.
Annual Meeting of the Cognitive Neuroscience Society, San Francisco, CA, April 12-15, 2008 (2 papers).
First International Workshop on Cognitive Dynamic Systems and Their Applications. Invited address, Niagara-on-the-Lake, Ontario, Canada, May 26-28, 2008.

From Objects to Categories: Visual Categorization in Big Brains, Small Brains and Machines. A Fyssen Colloquium. Invited address. Saint Germain en Laye, France, Oct. 3-6, 2008.
University of Leiden, Netherlands, Invited colloquium, Dec. 8, 2008.
Perceptual learning, motor learning, and automaticity. Conference marking the opening of the Netherlands Institute for Neuroscience and the 200th anniversary of the The Royal Netherlands Academy of Arts and Science. Invited address. Amsterdam, Netherlands, Dec. 9-12, 2008.
Annual meeting for the Society for Neuroscience. Washington, D.C., Nov. 15-18, 2008.
Stanford University, Invited colloquium, March 4, 2009.
University of California, Irvine, Invited colloquium, April 16, 2009.
Department of Probability and Statistics, University of California, Santa Barbara, Invited colloquium, May 6, 2009.
Control Frontiers Workshop, University of California, Santa Barbara, Invited address, May 28-29, 2009.
Descriptive analysis in sensory evaluation. Invited speaker. Pre-Annual Meeting Short Course, Annual Meeting of the Institute of Food Technologists, Anaheim, CA, June 4-5, 2009.
Annual meeting of the Society for Neuroscience. Chicago, IL, Oct. 21, 2009.
Symposium to Honor the Career and Accomplishments of James C. Houk, PhD. Invited address, Chicago, IL, Oct. 22, 2009.
Annual Meeting of the Cognitive Neuroscience Society, Montreal, Quebec, Canada, April 19, 2010.
The Penn State Institute of the Neurosciences, Pennsylvania State University, State College, PA, Invited colloquium, April 21, 2010.
Ninth Annual Southern California Learning and Memory Symposium. Invited address, UCLA, June 2, 2010.
Annual meeting of the Society for Neuroscience, San Diego, CA. November, 2010 (3 papers)
The Biocomplexity Institute, Indiana University, invited colloquium, February 22, 2011.
Department of Psychological and Brain Sciences, Indiana University, invited colloquium. February 23, 2011.
18th Annual Meeting of the Cognitive Neuroscience Society, San Francisco, CA, April 2011 (5 papers)
Department of Psychology, Arizona State University, invited colloquium, April 20, 2011.
Annual meetings of the Society for Mathematical Psychology, Boston, MA, July 2011.
Department of Psychology, University of California, Berkeley, invited colloquium, September 30, 2011.
Department of Behavioral & Social Neuroscience, California Technical University, invited colloquium, October 13, 2011.
52nd Annual Meeting of the Psychonomic Society, Seattle, WA, October, 2011.
Annual meetings of the Society for Neuroscience, Washington, D. C., November, 2011 (2 papers)
Department of Psychology, University of Arizona, invited colloquium, December 2, 2011.
19th annual meeting of the Cognitive Neuroscience Society, Chicago, IL, April, 2012
Annual meetings of the Society for Neuroscience, New Orleans, LA. October, 2012 (4 papers).
Southern Society for Psychology and Philosophy, Austin, TX, invited presentation, March 2, 2013.

20th Annual Meeting of the Society for Cognitive Neuroscience, San Francisco, CA, April, 2013.
Mathematical models of perception and cognition. Indiana University, Bloomington, IN, invited presentation, April, 2013.
Department of Psychological Sciences, Purdue University, invited colloquium, October 9, 2013.
43rd Annual Meeting of the Society for Neuroscience, San Diego, CA. October, 2013 (5 papers)
Society for Experimental Psychology, Los Angeles, April, 2014
Department of Neuroscience, Georgetown University, invited colloquium, April, 2014.
Department of Psychology, University of Texas, Austin, invited colloquium, May, 2014.
Department of Cognitive Science, University of California, Irvine, invited colloquium, May, 2014.
55th Annual Meeting of the Psychonomic Society, Long Beach, CA. November, 2014
2015 Annual Meeting of the Cognitive Neuroscience Society, San Francisco, CA. March, 2015
48th Annual Meeting of the Society for Mathematical Psychology, Newport Beach, CA. July, 2015.
Department of Psychological & Brain Sciences, University of Iowa, invited colloquium, September, 2015
Decision Neuroscience Laboratory, University of Illinois, invited colloquium, October, 2015.
Department of Psychological & Brain Sciences, Indiana University, invited colloquium, October, 2015.
Department of Psychology, University of Kentucky, invited colloquium, October, 2015.
Department of Psychology, Georgia State University, invited colloquium, October, 2015.
Computational Memory Lab, University of Pennsylvania, invited colloquium, November, 2015.
Department of Psychology, Ohio State University, invited colloquium, December, 2015.
2016 Annual Meeting of the Cognitive Neuroscience Society, New York, April, 2016 (5 papers).
International Meeting of the Psychonomic Society, Granada, Spain, talk in invited symposium, May, 2016.
Functional Brain Imaging: Past, Present, and the Future. A conference celebrating the 15th anniversary of the Umeå Center for Functional Brain Imaging. Umeå, Sweden, invited talk, June 2016.
46th Annual Meeting of the Society for Neuroscience, San Diego, CA. October, 2016 (2 papers)
Annual Meeting of the Society of Experimental Psychologists, invited talk, Vanderbilt University, March, 2017.
Annual Meeting of the Society for Mathematical Psychology, Madison, WI. July, 2018 (3 papers)
Department of Psychological Sciences, Texas Tech University, invited colloquium, April, 2019
University of Kaiserslautern, Germany, invited colloquium, May, 2021

Editorial Work:

Chair, NIH Special Emphasis Study Section, May, 2021
Chair, NIH Special Emphasis Study Section, November, 2016
Editorial Board, *Open Mind: Discoveries in Cognitive Science*, 2016-
Associate Editor, *Journal of Experimental Psychology: Learning, Memory & Cognition*, 2000-2002
Consulting Editor, *Journal of Experimental Psychology: Learning, Memory & Cognition*,

2002-2004
Board of Editors, *Journal of Mathematical Psychology*, 1989-
Editorial Board, *Psychological Science*, 1999-2005
Guest Editor, *Proceedings of the National Academy of the Sciences*
Panel Member, NSF Program on Human Cognition and Perception, 1995-1998
Panel Member, NIH Cognition and Perception Study Section, 2002-2007
Chair, 2005-2007
Site Visitor, CMU/Pittsburgh Proposal for an NSF Science & Technology Center in Computational Neuroimaging, Nov. 7-9, 2001
External Expert, (on site) External Review Committee, Neural Computation Unit, Okinawa Institute of Science and Technology, Okinawa, Japan, Jan. 4-6, 2015.

Ad Hoc Reviewing (Journals):

Acta Psychologica
American Journal of Psychiatry
Applied Psychological Measurement
Attention, Perception & Psychophysics
Australian Journal of Psychology
Behavior Research Methods, Instruments, & Computers
Behavioral and Brain Sciences
Biological Cybernetics
Biological Psychology
BioSystems
Brain
Brain and Cognition
Brain Research
Brain Research Reviews
British Journal of Mathematical and Statistical Psychology
Canadian Journal of Experimental Psychology
Cerebral Cortex
Chemical Senses
Cognition
Cognition & Emotion
Cognitive, Affective, and Behavioral Neuroscience
Cognitive Brain Research
Cognitive Neuropsychology
Cognitive Psychology
Cognitive Science
Computer Methods and Programs in Biomedicine
Cortex
Current Directions in Psychology
Developmental Review
eLife
Emotion

European Journal of Neuroscience
Food Quality and Preference
Frontiers in Computational Neuroscience
Frontiers in Psychology
Frontiers in Systems Neuroscience
Human Brain Mapping
IEEE Transactions on Neural Networks
International Journal of Geriatric Psychiatry
Journal of Applied Research in Memory and Cognition
Journal of Cognitive Neuroscience
Journal of Comparative Psychology
Journal of Consciousness Studies
Journal of Experimental Psychology: Animal Behavior Processes
Journal of Experimental Psychology: General
Journal of Experimental Psychology: Human Perception & Performance
Journal of Experimental Psychology: Learning, Memory & Cognition
Journal of Experimental Social Psychology
Journal of Integrative Neuroscience
Journal of the International Neuropsychological Society
Journal of Mathematical Psychology
Journal of Memory and Language
Journal of Neuroscience
Journal of Personality and Social Psychology: Attitudes and Social Cognition
Journal of Theoretical and Philosophical Psychology
Journal of Theoretical Biology
Journal of Vision
Mathematical Social Sciences
Memory & Cognition
Motivation & Emotion
Nature Reviews Neuroscience
Neural Computation
Neural Networks
NeuroImage
Neuroscience
Neuroscience and Biobehavioral Reviews
Neuropsychologia
Neuropsychology
New Ideas in Psychology
Perception & Psychophysics
PLoS: Biology
PLoS: Computational Biology
PLoS One
Proceedings of the National Academy of Sciences
Progress in Neurobiology
Psychological Bulletin
Psychological Methods

Psychological Research
Psychological Review
Psychological Science
Psychology and Aging
Psychometrika
Psychonomic Bulletin & Review
Quarterly Journal of Experimental Psychology
Review of Philosophy and Psychology
Scholarpedia
Science
Spatial Cognition and Computation
Spatial Vision
Synapse
Theoria
Trends in Cognitive Sciences
Visual Cognition
Vision Research
WIREs Cognitive Science

Ad Hoc Reviewing (Granting Agencies):

Air Force Office of Scientific Research
Australian Research Council
Canadian Research Council
Economic & Social Research Council of Britain
Israel Science Foundation
Maine Institute for Human Genetics & Health
Natural Science and Engineering Research Council of Canada
National Institutes of Health: Integrative and Clinical Endocrinology and Reproduction Study Section
National Institutes of Health: Origins and Mechanisms of Categorization
National Science Foundation: Panel on Cognitive Neuroscience
National Science Foundation: Panel on Decision, Risk, & Management Science
National Science Foundation: Panel on Geographic Sciences
National Science Foundation: Panel on Human Cognition and Perception
National Science Foundation: Panel on Measurement, Methodology, and Statistics
National Science Foundation: Panel on Memory and Cognitive Processes
National Science Foundation: Panel on Sensory Physiology and Perception
Wellcome Trust

Teaching Experience:

Undergraduate Courses:
Advanced Statistics

Cognitive Neuroscience
Formal Models in Psychology
Introduction to Sensation and Perception
Laboratory in Perception
Perception: Vision
Perception: Audition
Perception: The Chemical Senses
Psychophysics and Sensory Processes

Graduate Lecture Courses:
Computational Neuroscience
Dynamical Systems in Psychology
Experimental Design and Analysis of Variance
Measurement and Decision Making
Mathematical Models of Perceptual and Cognitive Processes
Perception
Statistical Analysis of fMRI Data
Statistics and Probability

Graduate Seminars:
Advanced Topics in Measurement Theory
Cognitive Neuroscience of Attention
Cognitive Neuroscience of Emotion
Identification and Pattern Recognition
Mathematical Models of Attention
Pharmacologic Models of Drug-Receptor Interaction

Ph.D. Students:

Alfonso-Reese, Leola A. (1996).
Balakrishnan, J. D. (1991).
Berretty, Patricia M. (1998).
Casale, M. B. (2007).
Crossley, Matthew J. (2011).
Ell, Shawn W. (2003).
Fikes, Thomas G. (1993). Co-chair with Roberta L. Klatzky.
Inglis, Jeffrey B. (2021).
Lee, W. William (1994).
Maddox, W. Todd (1992).
O'Brien, Jeffrey B. (2007).
Paul, Erick J. (2012).
Roeder, Jessica L. (2015).
Rosedahl, Luke (2021).
Spiering, Brian J. (2008).
Turken, And U. (2000). Co-chair with Diane Swick.

Turner, Benjamin O. (2012).
Valentin, V. V. (2005).
Von Meer, Stella (2019).
Vucovich, Lauren (2016).
Waldron, Elliott M. (2000).
Waldschmidt, Jennifer G. (2013).

Postdoctoral Scholars Supervised:

Matthew J. Crossley (2011-2012).
John M. Ennis (2005-2008).
Sebastien Hélie (2008-2012).
Jessica L. Roeder (2015).
Dennis Rünger (2009-2012).
Vivian V. Valentin (2012-2018).
Fabian Soto (2013-2015).