

## Curriculum Vitae

ROBERT M. NOSOFSKY

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### Mailing Address

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### Academic Positions

February, 2006 - Present	Distinguished Professor, Indiana University
February, 2003 - Present	Chancellor's Professor, Indiana University
July, 1990 - February, 2003	Professor of Psychology, Indiana University
July, 1988 - July, 1990	Associate Professor of Psychology, Indiana University
January, 1987 - May, 1987	Visiting Assistant Professor, University of Michigan
1984 - 1988	Assistant Professor of Psychology, Indiana University

### Education

1979 - 1984	Harvard University (Ph.D., Psychology, 1984)
1974 - 1978	State University of New York at Binghamton (B.A., Psychology and Mathematics, 1978)

## **Honors**

Indiana University Outstanding Young Faculty Award, 1987

First Winner of the New Investigator Research Award of the Society for Mathematical Psychology, 1987

Elected to Executive Board of the Society for Mathematical Psychology, 1991-1997; Elected President of the Society for Mathematical Psychology, 1996

APA Distinguished Scientific Award for an Early Career Contribution to Psychology, 1993

Open Invitation to Visit as a Fellow at the Center for Advanced Studies in the Behavioral Sciences, Stanford University, 1994

Troland Research Award, National Academy of Sciences, 1995

Elected to the Society of Experimental Psychologists, 1998

Distinguished Faculty Award, Indiana University Alumni Association, 1998

Elected to Governing Board of the Psychonomic Society, 2006

Howard Crosby Warren Medal, Society of Experimental Psychologists, 2012

Elected to American Academy of Arts and Sciences, 2015

## **Editorial Service and Grant Review Panels**

Editor, Psychonomic Bulletin & Review, 2006-2010

Associate Editor, Psychonomic Bulletin & Review, 2001-2006

Associate Editor, Journal of Experimental Psychology: Learning, Memory, and Cognition, 1993-1994

Consulting Editor, Psychological Review, 1996-present

Consulting Editor, Journal of Experimental Psychology: Learning, Memory, and Cognition, 1991-1992, 1995-1998, 2000-2005

Consulting Editor, Memory and Cognition, 1988-1992

Consulting Editor, Psychonomic Bulletin & Review, 2000

National Science Foundation Grants Review Panel, Human Cognition and Perception, 1992-1996

National Institute of Mental Health Grants Review Panel, Perception and Cognition, 1998-2002

## Grants

1984 - 1985	Biomedical Research Support Grant administered by Indiana University Research and Graduate Development Office
1986 - 1988	National Science Foundation Grant: "Identification and Classification of Multidimensional Stimuli"; \$69,288
1988 - 1991	National Science Foundation Grant Renewal; \$111,885
1991	National Science Foundation Grant Supplement; \$38,986
1991 - 1994	National Science Foundation Grant: "Perceptual Classification, Learning, and Memory"; funding offered but declined.
1991 - 1995	National Institute of Mental Health Grant: "Perceptual Classification, Learning, and Memory"; \$446,662
1995 - 1998	National Science Foundation Grant: "Perceptual Classification, Learning, and Memory"; funding offered but declined.
1995 - 1999	National Institute of Mental Health Grant: "Perceptual Classification, Learning, and Memory"; \$466,222
1999 - 2003	National Institute of Mental Health Grant: "Perceptual Classification, Learning, and Memory"; \$571,519
2003 - 2008	National Institute of Mental Health Grant: "Perceptual Classification, Learning, and Memory"; \$1,325,504
2008-2011	Air Force Office of Scientific Research: "Response-Time Approach to Contrasting Models of Perceptual Classification"; \$450,000
2009-2010	Bridge Award, NIMH Grant; \$185,000
2014-2017	Air Force Office of Scientific Research: "Computational Modeling of the Time Course of Decision Making in Visual Working Memory"; \$450,000
2015-2018	National Science Foundation, EHR Core Research: "Enhancing Learning of Science Categories Through Guidance of Psychological Models of Classification"; \$946,386

## **Publications**

- Luce, R.D., Nosofsky, R.M., Green, D.M., & Smith, A.F. (1982). The bow and sequential effects in absolute identification. Perception & Psychophysics, 32, 397-408.
- Nosofsky, R.M. (1983). Information integration and the identification of stimulus and criterial noise in absolute judgment. Journal of Experimental Psychology: Human Perception and Performance, 9, 299-309.
- Nosofsky, R.M. (1983). Shifts of attention in the identification and discrimination of intensity. Perception & Psychophysics, 33, 103-112.
- Luce, R.D., & Nosofsky, R.M. (1984). Attention, stimulus range, and identification of loudness. In S. Kornblum and J. Requin (Eds.), Preparatory states and processes. Hillsdale, NJ: Erlbaum.
- Nosofsky, R.M. (1984). Choice, similarity, and the context theory of classification. Journal of Experimental Psychology: Learning, Memory, and Cognition, 10, 104-114.
- Nosofsky, R.M. (1985). Luce's choice model and Thurstone's categorical judgment model compared: Kornbrot's data revisited. Perception & Psychophysics, 37, 89-91.
- Nosofsky, R.M. (1985). Overall similarity and the identification of separable-dimension stimuli: A choice model analysis. Perception & Psychophysics, 38, 414-432.
- Nosofsky, R.M. (1986). Attention, similarity, and the identification-categorization relationship. Journal of Experimental Psychology: General, 115, 39-57.
- Nosofsky, R.M. (1987). Attention and learning processes in the identification and categorization of integral stimuli. Journal of Experimental Psychology: Learning, Memory, and Cognition, 13, 87-108.
- Nosofsky, R.M. (1988). Similarity, frequency, and category representations. Journal of Experimental Psychology: Learning, Memory, and Cognition, 14, 54-65.
- Nosofsky, R.M. (1988). Exemplar-based accounts of relations between classification, recognition, and typicality. Journal of Experimental Psychology: Learning, Memory, and Cognition, 14, 700-708.
- Nosofsky, R.M. (1988). On exemplar-based exemplar representations: Comment on Ennis. Journal of Experimental Psychology: General, 117, 412-414.
- Nosofsky, R.M., Clark, S.E., & Shin, H.J. (1989). Rules and exemplars in categorization, identification, and recognition. Journal of Experimental Psychology: Learning, Memory, and Cognition, 15, 282-304.
- Nosofsky, R.M. (1989). Further tests of an exemplar-similarity approach to relating identification and categorization. Perception & Psychophysics, 45, 279-290.
- Nosofsky, R.M. (1990). Relations between exemplar-similarity and likelihood models of classification. Journal of Mathematical Psychology, 34, 393-418.

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Publications, continued

- Nosofsky, R.M. (1991). Stimulus bias, asymmetric similarity, and classification. Cognitive Psychology, 23, 94-140.
- Nosofsky, R.M. (1991). Tests of an exemplar model for relating perceptual classification and recognition memory. Journal of Experimental Psychology: Human Perception and Performance, 17, 3-27.
- Nosofsky, R.M. (1991). Typicality in logically-defined categories: Exemplar similarity versus rule instantiation. Memory & Cognition, 19, 131-150.
- Nosofsky, R.M. (1991). Relation between the rational model and the context model of classification. Psychological Science, 2, 416-421.
- Nosofsky, R.M. (1992). Similarity scaling and cognitive process models. Annual Review of Psychology, 43, 25-53.
- Nosofsky, R.M., Kruschke, J.K., & McKinley, S.C. (1992). Combining exemplar-based category representations and connectionist learning rules. Journal of Experimental Psychology: Learning, Memory, and Cognition, 18, 211-233.
- Nosofsky, R.M., & Smith, J. E. K. (1992). Similarity, identification, and categorization: Commentary on Ashby and Lee (1991). Journal of Experimental Psychology: General, 121, 237-245.
- Nosofsky, R.M. (1992). Exemplars, prototypes, and similarity rules. In A. Healy, S. Kosslyn, & R. Shiffrin (Eds.), From Learning Theory to Connectionist Theory: Essays in Honor of William K. Estes, Volume 1. Hillsdale, NJ: Erlbaum.
- Nosofsky, R.M. (1992). Exemplar-based approach to relating categorization, identification, and recognition. In F.G. Ashby (Ed.), Multidimensional Models of Perception and Cognition, Hillsdale, NJ: Erlbaum.
- Shin, H.J., & Nosofsky, R.M. (1992). Similarity scaling studies of dot pattern classification and recognition. Journal of Experimental Psychology: General, 121, 278-304.
- Nosofsky, R.M. & Kruschke, J.K. (1992). Investigations of an exemplar-based connectionist model of category learning. The Psychology of Learning and Motivation, 28, 207-250.
- Nosofsky, R.M. (1993). Tests of a generalized MDS-choice model of stimulus identification. Cognitive Science Technical Report #83, Indiana University.
- Palmeri, T.J., & Nosofsky, R.M. (1993). Generalizations by rule models and exemplar models of category learning. In Proceeding of the Fifteenth Annual Meeting of the Cognitive Science Society, Boulder, CO.
- Nosofsky, R.M., Palmeri, T.J., & McKinley, S.C. (1994). Rule-plus-exception model of classification learning. Psychological Review, 101, 53-79.

(Continued)

Publications, continued

- Nosofsky, R.M., Gluck, M.A., Palmeri, T.J., McKinley, S.C., & Glauthier, P. (1994). Comparing models of rule-based classification learning: A replication and extension of Shepard, Hovland, and Jenkins (1961). Memory & Cognition, 22, 352-369.
- Shiffrin, R.M., & Nosofsky, R.M. (1994). Seven plus or minus two: A commentary on capacity limitations. Psychological Review, 101, 357-361.
- McKinley, S.C., & Nosofsky, R.M. (1995). Investigations of exemplar and decision bound models in large, ill-defined category structures. Journal of Experimental Psychology: Human Perception and Performance, 21, 128-148.
- Palmeri, T.J., & Nosofsky, R.M. (1995). Recognition memory for exceptions to the category rule. Journal of Experimental Psychology: Learning, Memory, and Cognition, 21, 548-568.
- McKinley, S.C., & Nosofsky, R.M. (1996). Selective attention and the formation of linear decision boundaries. Journal of Experimental Psychology: Human Perception and Performance, 22, 294-317.
- Nosofsky, R.M., & Palmeri, T.J. (1996). Learning to classify integral-dimension stimuli. Psychonomic Bulletin & Review, 3, 222-226.
- Nosofsky, R.M., & Palmeri, T.J. (1997). An exemplar-based random-walk model of speeded classification. Psychological Review, 104, 266-300.
- Nosofsky, R.M., & Palmeri, T.J. (1997). Comparing exemplar-retrieval and decision-bound models of speeded classification. Perception & Psychophysics, 59, 1027-1048.
- Nosofsky, R.M. (1997). An exemplar-retrieval model of speeded classification and unidimensional absolute judgment. In A.A.J. Marley (Ed.), Choice, Decision, and Measurement: Essays in Honor of R. Duncan Luce, Mahwah, NJ: Erlbaum.
- Nosofsky, R.M. (1998). Optimal performance and exemplar models of classification. In M. Oaksford & N. Chater, (Eds.), Rational Models of Cognition. London: Oxford University Press.
- Nosofsky, R.M. (1998). Selective attention and the formation of linear decision boundaries: Reply to Maddox and Ashby (1998). Journal of Experimental Psychology: Human Perception and Performance, 24, 322-339.
- Nosofsky, R.M., & Palmeri, T.J. (1998). A rule-plus-exception model for classifying objects in continuous-dimension spaces. Psychonomic Bulletin & Review, 5, 345-369.
- Nosofsky, R.M., & Zaki, S.R. (1998). Dissociations between categorization and recognition in amnesic and normal individuals: An exemplar-based interpretation. Psychological Science, 9, 247-255.

(Continued)

### Publications, continued

- Nosofsky, R.M., & Alfonso-Reese, L.A. (1999). Effects of similarity and practice on speeded classification response times and accuracies: Further tests of an exemplar-retrieval model. Memory & Cognition, 27, 78-93.
- Nosofsky, R.M., & Zaki, S.R. (1999). Math modeling, neuropsychology, and category learning: Response to B. Knowlton (1999). Trends in Cognitive Sciences, 3, 125-126.
- Nosofsky, R.M., & Johansen, M.K. (2000). Exemplar-based accounts of "multiple-system" phenomena in perceptual categorization. Psychonomic Bulletin & Review, 7, 375-402.
- Nosofsky, R.M. (2000). Exemplar representation without generalization?: Commentary on "Thirty categorization results in search of a model". Journal of Experimental Psychology: Learning, Memory, and Cognition, 26, 1735-1743.
- Cohen, A.L., & Nosofsky, R.M. (2000). An exemplar-retrieval model of speeded same-different judgments. Journal of Experimental Psychology: Human Perception and Performance, 26, 1549-1569.
- Palmeri, T.J., & Nosofsky, R.M. (2001). Central tendencies, extreme points, and prototype enhancement effects in ill-defined perceptual categorization. Quarterly Journal of Experimental Psychology, 54A(1), 197-235.
- Zaki, S.R., & Nosofsky, R.M. (2001). Exemplar accounts of blending and distinctiveness effects in perceptual old-new recognition. Journal of Experimental Psychology: Learning, Memory, and Cognition, 27, 1022-1041.
- Cohen, A.L., Nosofsky, R.M., & Zaki, S.R. (2001). Category variability, exemplar similarity, and perceptual classification. Memory & Cognition, 29, 1165-1175.
- Zaki, S.R., & Nosofsky, R.M. (2001). A single system interpretation of dissociations between recognition and categorization in a task involving object-like stimuli. Cognitive, Affective, and Behavioral Neuroscience, 1, 344-359.
- Nosofsky, R.M., & Kruschke, J.K. (2002). Single-system models and interference in category learning. Psychonomic Bulletin & Review, 9, 169-174.
- Nosofsky, R.M., & Zaki, S.R. (2002). Exemplar and prototype models revisited: Response strategies, selective attention, and stimulus generalization. Journal of Experimental Psychology: Learning, Memory, and Cognition, 28, 924-940.
- Viken, R.J., Treat, T.A., Nosofsky, R.M., McFall, R.M., & Palmeri, T.J. (2002). Modeling individual differences in perceptual and attentional processes related to bulimic symptoms. Journal of Abnormal Psychology, 111, 598-609.
- Treat, T.A., McFall, R.M., Viken, R.J., Nosofsky, R.M., MacKay, D.B., & Kruschke, J.K. (2002). Assessing clinically relevant perceptual organization with multidimensional scaling techniques. Psychological Assessment, 14, 239-252.

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Publications, continued

- Stanton, R.D., Nosofsky, R.M., & Zaki, S.R. (2002). Comparisons between exemplar-similarity and mixed-prototype models using a linearly separable category structure. Memory & Cognition, *30*, 934-944.
- Zaki, S.R., Nosofsky, R.M., Jessup, N.M., & Unverzagt, F.W. (2003). Categorization and recognition performance of a memory-impaired group: Evidence for single-system models. Journal of the International Neuropsychological Society, *9*, 394-406.
- Cohen, A.L., & Nosofsky, R.M. (2003). An extension of the exemplar-based random-walk model to separable-dimension stimuli. Journal of Mathematical Psychology, *47*, 150-165.
- Zaki, S.R., Nosofsky, R.M., Stanton, R.D., & Cohen, A.L. (2003). Prototype and exemplar accounts of category learning and attentional allocation: A reassessment. Journal of Experimental Psychology: Learning, Memory, and Cognition, *29*, 1160-1173.
- Nosofsky, R.M., & Zaki, S.R. (2003). A hybrid-similarity exemplar model for predicting distinctiveness effects in perceptual old-new recognition. Journal of Experimental Psychology: Learning, Memory, and Cognition, *29*, 1194-1209.
- Zaki, S.R., & Nosofsky, R.M. (2004). False-prototype enhancement effects in dot-pattern categorization. Memory & Cognition, *32*, 390-398.
- Nosofsky, R.M., & Stanton, R.D. (2005). Speeded classification in a probabilistic category structure: Constrasting exemplar-retrieval, decision-boundary, and prototype models. Journal of Experimental Psychology: Human Perception and Performance, *31*, 608-629.
- Nosofsky, R.M., Stanton, R.D., & Zaki, S.R. (2005). Procedural interference in perceptual classification: Implicit learning or cognitive complexity? Memory & Cognition, *33*, 1256-1271.
- Nosofsky, R.M., & Kantner, J. (2006). Exemplar similarity, study-list homogeneity, and short-term perceptual recognition. Memory & Cognition, *34*, 112-124.
- Knapp, B.R., & Nosofsky, R.M., & Busey, T. (2006). Recognizing distinctive faces: A hybrid-similarity exemplar-model account. Memory & Cognition, *34*, 877-889.
- Nosofsky, R.M., & Stanton, R.D. (2006). Speeded old-new recognition of multidimensional perceptual stimuli: Modeling performance at the individual participant and individual item levels. Journal of Experimental Psychology: Human Perception and Performance, *32*, 314-334.
- Bergert, F.B., & Nosofsky, R.M. (2007). A response-time approach to comparing generalized rational and take-the-best models of decision making. Journal of Experimental Psychology: Learning, Memory, and Cognition, *33*, 107-129.
- Zaki, S.R., & Nosofsky, R.M. (2007). A high-distortion enhancement effect in the prototype-learning paradigm: Dramatic effects of category learning during test. Memory & Cognition, *35*, 2088-2096.

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### Publications, continued

- Stanton, R.D., & Nosofsky, R.M. (2007). Feedback interference and dissociations of classification: Evidence against the multiple learning-systems hypothesis. Memory & Cognition, *35*, 1747-1758.
- Nosofsky, R.M., & Bergert, F.B. (2007). Limitations of exemplar models of multi-attribute paired-comparison inference. Journal of Experimental Psychology: Learning, Memory, and Cognition, *33*, 999-1019.
- Fific, M., Nosofsky, R.M., & Townsend, J.T. (2008). Information-processing architectures in multidimensional classification: A validation test of the systems-factorial technology. Journal of Experimental Psychology: Human Perception and Performance, *34*, 356-375.
- Fific, M., Little, D.R., & Nosofsky, R.M. (2010). Logical-rule models of classification response times: A synthesis of mental-architecture, random-walk, and decision-bound approaches. Psychological Review, *117*, 309-348.
- Nosofsky, R.M., & Little, D.R. (2010). Classification response times in probabilistic rule-based category structures: Contrasting exemplar-retrieval and decision-bound models. Memory & Cognition, *38*, 916-927.
- Nosofsky, R.M. (2011). The generalized context model: An exemplar model of classification. In E. Pothos and A. Wills (Eds.), Formal approaches in categorization. Cambridge University Press.
- Candy T.R., Mishoulam S.R., Nosofsky R.M., & Dobson V. (2011). Adult discrimination performance for pediatric acuity test optotypes. Investigative Ophthalmology & Visual Science, *52*, 4307-4313.
- Gureckis, T.M., James, T.W., & Nosofsky, R.M. (2011). Re-evaluating dissociations between implicit and explicit category learning: An event-related fMRI study. Journal of Cognitive Neuroscience, *23*, 1697-1709.
- Little, D.R., Nosofsky, R.M., & Denton, S.E. (2011). Response-time tests of logical-rule models of categorization. Journal of Experimental Psychology: Learning, Memory, and Cognition, *37*, 1-27.
- Nosofsky, R.M., Little, D.R., Donkin, C., & Fific, M. (2011). Short-term memory scanning viewed as exemplar-based categorization. Psychological Review, *118*, 280-315.
- Nosofsky, R.M., Little, D.R., & James, T.W. (2012). Activation in the neural network responsible for categorization and recognition reflects parameter changes. Proceedings of the National Academy of Sciences, *109*, 333-338.
- Donkin, C., & Nosofsky, R.M. (2012a). A power-law model of psychological memory strength in short-term and long-term recognition. Psychological Science, *23*, 625-634.
- Donkin, C., & Nosofsky, R.M. (2012b). The structure of short-term memory scanning: An investigation using response-time distribution models. Psychonomic Bulletin & Review, *19*, 363-394. {Note: awarded "best article" in Psychonomic Bulletin & Review, 2012}

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Publications, continued

- Nosofsky, R.M., Denton, S.E., Murphy-Knudsen, A.F., & Unverzagt, F.W. (2012). Studies of implicit prototype extraction in patients with mild cognitive impairment and early Alzheimer's disease. Journal of Experimental Psychology: Learning, Memory, and Cognition, *38*, 860-880.
- Little, D.R., Nosofsky, R.M., Donkin, C., & Denton, S.E. (2013). Logical rules and the classification of integral-dimension stimuli. Journal of Experimental Psychology: Learning, Memory, and Cognition, *39*, 801-820.
- Stanton, R.D., & Nosofsky, R.M. (2013). Category number impacts rule-based and information-integration category learning: A reassessment of evidence for dissociable category-learning systems. Journal of Experimental Psychology: Learning, Memory, and Cognition, *39*, 1174-1191.
- Donkin, C., Nosofsky, R.M., Gold, J.M., & Shiffrin, R.M. (2013). Discrete-slots models of visual working-memory response times. Psychological Review, *120*, 873-902.
- Donkin, C., Tran, S.C., & Nosofsky, R.M. (2014). Landscaping analyses of the ROC predictions of discrete-slots and signal-detection models of visual working memory. Attention, Perception & Psychophysics, *76*, 2103-2116.
- Nosofsky, R.M., Cox, G.E., Cao, R., & Shiffrin, R.M. (2014). An exemplar-familiarity model predicts short-term and long-term probe recognition across diverse forms of memory search. Journal of Experimental Psychology: Learning, Memory and Cognition, *40*, 1524-1539.
- Nosofsky, R.M., Cao, R., Cox, G.E., & Shiffrin, R.M. (2014). Familiarity and categorization processes in memory search. Cognitive Psychology, *75*, 97-129.
- Donkin, C., Nosofsky, R.M., Gold, J., & Shiffrin, R.M. (2015). Verbal labeling, gradual decay, and sudden death in visual short-term memory. Psychonomic Bulletin & Review, *22*, 170-178.
- Donkin, C., Newell, B.R., Kalish, M., Dunn, J.C., & Nosofsky, R.M. (2015). Identifying strategy use in category learning tasks: A case for more diagnostic data and models. Journal of Experimental Psychology: Learning, Memory and Cognition, *41*, 933-948.
- Nosofsky, R.M., & Palmeri, T.J. (2015). An exemplar-based random-walk model of categorization and recognition. In J.R. Busemeyer, J.T. Townsend, Z.J. Wang, & A. Eidels (Eds.), Oxford Handbook of Computational and Mathematical Psychology, Oxford University Press.
- Nosofsky, R.M. (2015). An exemplar-model account of feature inference from uncertain categorizations. Journal of Experimental Psychology: Learning, Memory and Cognition, *41*, 1929-1941.
- Nosofsky, R.M., & Gold, J. (2016). Memory strength versus memory variability in visual change detection. Attention, Perception, & Psychophysics, *78*, 78-93.

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Publications, continued

- Nosofsky, R. M. (2016). An exemplar-retrieval model of short-term memory search: Linking categorization and probe recognition. Psychology of Learning and Motivation, *65*, 47-84.
- Nosofsky, R.M., & Donkin, C. (2016). Response-time evidence for mixed memory states in a sequential-presentation change-detection task. Cognitive Psychology, *84*, 31-62.
- Nosofsky, R.M., & Donkin, C. (2016). Qualitative contrast between knowledge-limited mixed-state and variable-resources models of visual change detection. Journal of Experimental Psychology: Learning, Memory, and Cognition, *42*, 1507-1525.
- Little, D. R., Wang, T., & Nosofsky, R. M. (2016). Sequence-sensitive exemplar and decision-bound accounts of speeded-classification performance in a modified Garner-tasks paradigm. Cognitive Psychology, *89*, 1-38.
- Cao, R., Nosofsky, R.M., & Shiffrin, R.M.,(2016). Learning to search short-term memory: Items or categories? Proceedings of the 38th Annual Conference of the Cognitive Science Society.
- Cao, R., Nosofsky, R.M., & Shiffrin, R.M. (2017). The development of automaticity in short-term memory search: Item-response learning and category learning. Journal of Experimental Psychology: Learning, Memory, and Cognition, *43*, 669-
- Nosofsky, R.M., Sanders, C., Gerdman, A., Douglas, B., & McDaniel, M. (2017). On learning natural science categories that violate the family-resemblance principle. Psychological Science, *28*, 104-114.
- Nosofsky, R.M. (2017) Exemplar-model accounts of dissociations between categorization and old–new recognition. In J.T. Wixted, J.T. (ed.), *Cognitive Psychology of Memory, Vol. 2 of Learning and Memory: A Comprehensive Reference, 2nd edition*, Byrne, J.H. (ed.). pp. 243–264. Oxford: Academic Press.
- Meagher, B.J., Carvalho, P.F., Goldstone, R.L., & Nosofsky, R.M. (2017). Organized simultaneous displays facilitate learning of complex natural science categories. Psychonomic Bulletin & Review, *24*, 1987-1994.
- Nosofsky, R.M., Sanders, C., Meagher, B.J., & Douglas, B.J (2018). Toward the development of a feature-space representation for a complex natural category domain. Behavior Research Methods, *50*, 530-556.
- Nosofsky, R.M., & Gold, J.M. (2017). Biased guessing in a complete-identification visual-working-memory task: Further evidence for mixed-state models. Journal of Experimental Psychology: Human Perception and Performance. Advance online publication. <http://dx.doi.org/10.1037/xhp0000482>.

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### Publications, continued

Cao, R., Shiffrin, R.M., & Nosofsky, R.M. (2017). Item frequency in probe-recognition memory search: Converging evidence for a role of item-response learning. Memory & Cognition. DOI: 10.3758/s13421-017-0777-1.

Nosofsky, R. M., Sanders, C. A., & McDaniel, M. A. (2018). Tests of an exemplar-memory model of classification learning in a high-dimensional natural-science category domain. Journal of Experimental Psychology: General, *147*, 328-353.

Nosofsky, R.M., Sanders, C., & McDaniel, M. (2018). A formal psychological model of classification applied to natural-science category learning. Current Directions in Psychological Science, *27*, 129-135.

Miyatsu, T., Gouravajhala, R., Nosofsky, R.M., & McDaniel, M.A. (in press). Feature highlighting enhances learning of complex natural-science categories. Journal of Experimental Psychology: Learning, Memory, and Cognition.

Sanders, C. A., & Nosofsky, R. M. (in press). Using deep-learning representations of complex natural stimuli as input to psychological models of classification. Proceedings of the 40th Annual Conference of the Cognitive Science Society.

Meagher, B.J., Cataldo, K., Douglas, B.J., McDaniel, M.A., & Nosofsky, R.M. (in press). Training of rock classifications: The use of computer images versus physical-rock samples. Journal of Geoscience Education.

### **Submitted Articles**

Nosofsky, R. M., Sanders, C. A., Zhu, X., & McDaniel, M. A. (invited revision). *Model-Guided Search for Optimal Training Exemplars in a Natural-Science Category Domain*.

## Conference Papers and Invited Addresses

- Luce, R.D. & Nosofsky, R.M. (1982). Attention, stimulus range, and identification of loudness. Franco-American Conference on Preparatory States and Processes, Ann Arbor, Michigan.
- Nosofsky, R.M. (1985). A similarity-scaling model for identification and categorization. Ninth Annual Interdisciplinary Conference, Jackson Hole, Wyoming.
- Nosofsky, R.M. (1986). Rules and exemplars in identification, categorization, and recognition. 19'th Annual Meeting of the Society for Mathematical Psychology, Cambridge, Massachusetts.
- Nosofsky, R.M. (1988). Invited Address: The New Investigator Award. Exemplar-based approach to relating categorization and recognition. Symposium on Probabilistic Multidimensional Models of Perception. Twenty-First Annual Mathematical Psychology Meeting, Evanston, Illinois.
- Nosofsky, R.M., & Clark, S.E. (1988). Rules and exemplars in categorization, identification, and recognition. Twenty-Ninth Annual Meeting of the Psychonomic Society, Chicago, Illinois.
- Nosofsky, R.M. (1989). Invited Speaker: Similarity and categorization. Second Conference of the International Federation of Classification Societies, Charlottesville, Virginia.
- Nosofsky, R.M. (1989). Exemplar-similarity and likelihood models of classification. Twenty-Second Annual Mathematical Psychology Meeting, Irvine, California.
- Nosofsky, R.M. (1989). Invited speaker: Exemplar-based approach to relating categorization, identification, and recognition. 20th European Mathematical Psychology Group Meeting, Nijmegen, the Netherlands.
- Nosofsky, R.M. & Gluck, M.A. (1989). Adaptive networks, exemplars, and classification rule learning. Thirtieth Annual Meeting of the Psychonomic Society, Atlanta, Georgia.
- Nosofsky, R.M. (1991). Explorations of generalized similarity-likelihood models. Twenty-Fourth Annual Mathematical Psychology Meeting, Bloomington, Indiana
- Kruschke, J.K., & Nosofsky, R.M. (1991). ALCOVE: An exemplar-based connectionist model of category learning. Thirty-Second Annual Meeting of the Psychonomic Society, San Francisco, California.
- McKinley, S.C., & Nosofsky, R.M. (1993). Exemplar models of large-size category distributions. Twenty-Sixth Annual Mathematical Psychology Meetings, Norman, Oklahoma.
- Nosofsky, R.M. (1993). Exemplar model of perceptual classification. Fifth Far-West Imaging Conference, Newport, RI.
- Nosofsky, R.M., Palmeri, T.J., & McKinley, S.C. (1993). Rule-plus-exception model of classification learning. Thirty-Fourth Annual Meeting of the Psychonomic Society, Washington, D.C.
- Nosofsky, R.M. (1993). Invited speaker: Rules and exemplars in categorization and recognition. Inductive Categorization and the Frame Problem, Paris, France.

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Conference Papers and Invited Addresses, continued

- Nosofsky, R.M. & Gluck, M.A. (1989). Adaptive networks, exemplars, and classification rule learning. Thirtieth Annual Meeting of the Psychonomic Society, Atlanta, Georgia.
- Nosofsky, R.M. (1991). Explorations of generalized similarity-likelihood models. Twenty-Fourth Annual Mathematical Psychology Meeting, Bloomington, Indiana
- Kruschke, J.K., & Nosofsky, R.M. (1991). ALCOVE: An exemplar-based connectionist model of category learning. Thirty-Second Annual Meeting of the Psychonomic Society, San Francisco, California.
- McKinley, S.C., & Nosofsky, R.M. (1993). Exemplar models of large-size category distributions. Twenty-Sixth Annual Mathematical Psychology Meetings, Norman, Oklahoma.
- Nosofsky, R.M. (1993). Exemplar model of perceptual classification. Fifth Far-West Imaging Conference, Newport, RI.
- Nosofsky, R.M., Palmeri, T.J., & McKinley, S.C. (1993). Rule-plus-exception model of classification learning. Thirty-Fourth Annual Meeting of the Psychonomic Society, Washington, D.C.
- Nosofsky, R.M. (1993). Invited speaker: Rules and exemplars in categorization and recognition. Inductive Categorization and the Frame Problem, Paris, France.
- Nosofsky, R.M. (1994). Invited address: Rules and exemplars in categorization and recognition. APA Award Address, Los Angeles, CA.
- Nosofsky, R.M. (1995). Exemplar-based random walk model of speeded classification. Twenty-Eight Annual Mathematical Psychology Society Meetings, Irvine, CA.
- Nosofsky, R.M. (1996). Invited Address: Optimum performance and exemplar models of categorization. Rational Models of Cognition, University of Warwick, England.
- Nosofsky, R.M. (1996). Comparing exemplar-retrieval and decision-bound models of speeded classification. Twenty-Ninth Annual Mathematical Psychology Society Meetings, Chapel Hill, NC.
- Nosofsky, R.M., Alfonso-Reese, L., Cohen, A., & Palmeri, T.J. (1997). Tests of an exemplar model for predicting categorization and same-different response times. Thirtieth Annual Mathematical Psychology Society Meetings, Bloomington, IN.
- Alfonso-Reese, L., & Nosofsky, R.M. (1997). Categorization strategies in unfamiliar regions of the stimulus space. Thirtieth Annual Mathematical Psychology Society Meetings, Bloomington, IN.
- Nosofsky, R.M. (1997). Invited Keynote Talk: An exemplar-based random-walk model of speeded classification. Workshop on Process Models of Categorization, University of Birmingham, England.
- Nosofsky, R.M. (1998). Invited Talk: Exemplar-based accounts of rule-described phenomena in categorization. Workshop on the Relation between Learning Artificial Categories and the Mental Representation of Natural Language Categories, University of Leuven, Belgium.

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Conference Papers and Invited Addresses, continued

- Nosofsky, R.M., & Johansen, M. (1998). Exemplar-based accounts of rule-described categorization. Thirty-First Annual Mathematical Psychology Society Meetings, Nashville, TN.
- Cohen, A.L., & Nosofsky, R.M. (1998). An exemplar-retrieval model of speeded same-different judgment. Thirty-First Annual Mathematical Psychology Society Meetings, Nashville, TN.
- Nosofsky, R.M. (1998). Invited Talk: Exemplar-based accounts of rule-described phenomena in categorization. Workshop on the Relation between Learning Artificial Categories and the Mental Representation of Natural Language Categories, University of Leuven, Belgium.
- Nosofsky, R.M., & Johansen, M. (1998). Exemplar-based accounts of rule-described categorization. Thirty-First Annual Mathematical Psychology Society Meetings, Nashville, TN.
- Cohen, A.L., & Nosofsky, R.M. (1998). An exemplar-retrieval model of speeded same-different judgment. Thirty-First Annual Mathematical Psychology Society Meetings, Nashville, TN.
- Zaki, S.R., & Nosofsky, R.M. (1998). Dissociations between categorization and recognition in amnesics and normals: An exemplar-based interpretation. Thirty-First Annual Mathematical Psychology Society Meetings, Nashville, TN.
- Nosofsky, R.M., & Johansen, M. (1998). Exemplar-based accounts of rule-described categorization. Thirty-Ninth Annual Meeting of the Psychonomic Society, Dallas, TX.
- Nosofsky, R.M. (2000). An exemplar model of perceptual classification. Invited seminar presentation to the Department of Radiology, Indiana University.
- Cohen, A.L., & Nosofsky, R.M. (2000). An extension of the exemplar-based random walk model to separable dimension stimuli. Thirty-Third Annual Mathematical Psychology Society Meetings, Kingston, Canada.
- Nosofsky, R.M., & Zaki, S.R. (2000). Exemplar accounts of blending and distinctiveness effects in perceptual old-new recognition. Thirty-Third Annual Mathematical Psychology Society Meetings, Kingston, Canada.
- Nosofsky, R.M., & Zaki, S.R. (2000). Category learning and amnesia: An exemplar model perspective. Invited symposium talk at the Memory Disorders Research Society Annual Meeting, Toronto, Canada.
- Nosofsky, R.M., & Zaki, S.R. (2001). Exemplar and prototype models revisited. Forty-First Annual Meeting of the Psychonomic Society, Orlando, FL.
- Nosofsky, R.M., & Zaki, S.R. (2002). False prototype enhancement effects in perceptual categorization. Thirty-Fifth Annual Mathematical Psychology Society Meetings, Oxford, Ohio.
- Nosofsky, R.M., & Zaki, S.R. (2002). Exemplar-based accounts of dissociations between categorization and recognition. Invited talk at the Cognitive Neuroscience of Category Learning Consortium, New York, New York.

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Conference Papers and Invited Addresses, continued

- Nosofsky, R.M. (2002). An exemplar model of perceptual categorization and recognition. Invited talk at the Purdue Winer Memorial Lectures, West Lafayette, IN.
- Nosofsky, R.M. (2003). Exemplar-based accounts of dissociations between categorization and recognition. Invited talk at the Seventh International Conference on cognitive and neural systems, Boston, MA.
- Nosofsky, R.M. (2003). Category representation. Invited talk at the UQAM Summer Institute in Cognitive Sciences on Categorization, Montreal, Quebec.
- Stanton, R.D., & Nosofsky, R.M. (2003). An exemplar-retrieval model for predicting perceptual recognition response times. Poster presentation at the Thirty-Six Annual Mathematical Psychology Society Meetings, Ogden, Utah.
- Kantner, J., & Nosofsky, R.M. (2003). An exemplar model for predicting short-term perceptual recognition. Poster presentation at the Thirty-Six Annual Mathematical Psychology Society Meetings
- Nosofsky, R.M. (2004). Selecting among exemplar, prototype, and decision-bound models of perceptual classification. Invited talk at the Model Selection Selection Workshop, Columbus, OH.
- Nosofsky, R.M. (2004). Tests of response-time models of perceptual classification and recognition. Annual Summer Interdisciplinary Conference, Cavalese, Italy.
- Nosofsky, R.M., & Stanton, R.D. (2004). Speeded classification in a probabilistic category structure. Forty-Fifth Annual Meeting of the Psychonomic Society, Minneapolis, Minnesota.
- Zaki, S.R., Nosofsky, R.M., & Stanton, R.D. (2004). Examining categorization dissociations. Forty-Fifth Annual Meeting of the Psychonomic Society, Minneapolis, Minnesota.
- Nosofsky, R.M., & Bergert, F.B. (2006). Response-time tests of take-the-best and rational models of decision making. Forty-Seventh Annual Meeting of the Psychonomic Society, Houston, Texas.
- Stanton, R.D., & Nosofsky, R.M. (2006). The role of perceptual discriminability in dissociating rule-based and information-integration category learning. Forty-Seventh Annual Meeting of the Psychonomic Society, Houston, Texas.
- Nosofsky, R.M., & Fific, M. (2007). Response-time approach to contrasting rule and exemplar models of classification. Forty-Eighth Annual Meeting of the Psychonomic Society, Long Beach, CA.
- Nosofsky, R.M., & Fific, M. (2008). Short-term memory scanning viewed as categorization. Forty-Ninth Annual Meeting of the Psychonomic Society, Chicago, IL.
- Nosofsky, R.M. (2008). Rule and exemplar models of classification response times. 2008 Meeting of the Society of Experimental Psychologists, Bloomington, IN.
- Nosofsky, R.M. (2009) Response-time approach to contrasting models of perceptual classification. Program Review Meeting of the AFOSR's Math Modeling of Cognition and Decision Program, Washington, D.C.

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Conference Papers and Invited Addresses, continued

- Nosofsky, R.M., Fific, M., & Little, D.R. (2009). Logical-rule models of classification response times. Forty-second Annual Mathematical Psychology Society Meetings, Amsterdam.
- Nosofsky, R.M., Fific, M., & Little, D.R. (2009). Logical-rule models of classification response times. Fiftieth Annual Meeting of the Psychonomic Society, Boston, MA.
- Nosofsky, R.M. (2010) Logical-rule models of classification response times. Program Review Meeting of the AFOSR's Math Modeling of Cognition and Decision Program, Washington, D.C.
- Nosofsky, R.M. (2010). Response-time tests of logical-rule models of categorization. 2010 Meeting of the Society of Experimental Psychologists, Philadelphia, PA.
- Nosofsky, R.M. (2011). Short-term memory scanning viewed as exemplar-based categorization. Invited talk at the 2011 Context and Episodic Memory Symposium, Philadelphia, PA.
- Nosofsky, R.M., & Denton, S.E. (2011). Categorization-based and recognition-based memory scanning. Forty-fourth Annual Mathematical Psychology Society Meetings, Boston, MA.
- Nosofsky, R.M., & Denton, S.E. (2011). Categorization-based and recognition-based memory scanning. Fifty-Second Annual Meeting of the Psychonomic Society, Seattle, WA.
- Nosofsky, R.M. (2012) Combining formal cognitive modeling and brain-imaging research. 2012 Meeting of the Society of Experimental Psychologists, Houston, TX.
- Nosofsky, R.M. (2012). Global familiarity and short-term memory search. Invited talk given at the Festschrift for M. Richard Shiffrin: Modeling of Perception and Cognition, Bloomington, IN.
- Nosofsky, R.M., Donkin, C., Gold, J.M., & Shiffrin, R.M. (2013). Discrete-slots models of visual working-memory response times. Talk given at the 109<sup>th</sup> Meeting of the Society of Experimental Psychologists, Providence, RI.
- Nosofsky, R.M., Donkin, C., Gold, J.M., & Shiffrin, R.M. (2013). Discrete-slots models of visual working-memory response times. Invited talk given at the 2013 Context and Episodic Memory Symposium, Philadelphia, PA.
- Donkin, C., Nosofsky, R.M., Shiffrin, R.M., & Gold, J.M. (2013). Discrete-slots models of visual working-memory response times. Fifty-Fourth Annual Meeting of the Psychonomic Society, Toronto, CA.
- Nosofsky, R.M. (2014). Short-term and long-term memory search. 2014 Meeting of the Society of Experimental Psychologists, Los Angeles, CA.
- Nosofsky, R.M. (2014). Exemplar-model interpretation of brain-imaging dissociations between categorization and recognition. Invited symposium talk at 2014 Annual Meeting of the Association for Psychological Science, San Francisco, CA.

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Conference Papers and Invited Addresses, continued

- Nosofsky, R.M. (2014). Mixed-state model of visual working-memory response times. Program Review Meeting of the Air Force Office of Scientific Research, Washington, DC.
- Nosofsky, R.M. (2015). Learning at low and high levels of a category hierarchy. 2015 Meeting of the Society of Experimental Psychologists, Charlottesville, VA.
- Nosofsky, R.M. (2015). Mixed-state versus continuous models of visual working memory. Invited symposium talk at 2015 Annual Meeting of the Association for Psychological Science, NY, NY.
- Nosofsky, R.M. (2015). Mixed-state versus continuous models of visual working memory response times. Forty-eighth Annual Mathematical Psychology Society Meetings, Newport, CA.
- Nosofsky, R.M. (2015). Mixed-state versus continuous models of visual working memory response times. Program Review Meeting of the Air Force Office of Scientific Research, Arlington, VA.
- Cao, R., Nosofsky, R.M., & Shiffrin, R.M. (2015). Item learning vs. high-level categorization in consistent-mapping memory search. Poster presented at the Fifty-Sixth Annual Meeting of the Psychonomic Society, Chicago, IL.
- Cao, R., Nosofsky, R.M., & Shiffrin, R.M. (2015). Learning to search short-term memory: Items or categories? Poster presented at the Thirty-Eighth Annual Conference of the Cognitive Science Society.
- Nosofsky, R.M, Sanders, C., Gerdman, A., Miyatsu, T., & McDaniel, M. (2015). Teaching real-world categories at low and high levels of a hierarchy. Fifty-Sixth Annual Meeting of the Psychonomic Society, Chicago, IL.
- Nosofsky, R.M., Douglas, B., & McDaniel, M. (2016). Enhancing teaching of science categories through guidance of psychological models of classification. Poster presented at the NSF Symposium on Envisioning the Future of Undergraduate STEM Education, Washington D.C.
- Nosofsky, R.M, Sanders, C., & Meagher, B. (2016). Enhancing learning of natural categories through guidance of formal models of human classification. Forty-ninth Annual Mathematical Psychology Society Meetings, New Brunswick, N.J.
- Cao, R., Nosofsky, R.M., & Shiffrin, R.M. (2016). Item response learning versus familiarity processing in memory search. Forty-ninth Annual Mathematical Psychology Society Meetings, New Brunswick, N.J.
- Nosofsky, R.M. (2016). Qualitative contrast between mixed-state and continuous models of visual change detection. 2016 Meeting of the Society of Experimental Psychologists, N.Y., N.Y.
- Nosofsky, R.M. (2016). Sequence-sensitive exemplar-model account of speeded-classification performance in a modified Garner-tasks paradigm. Program Review Meeting of the Air Force Office of Scientific Research, Arlington, VA.

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Conference Papers and Invited Addresses, continued

- Nosofsky, R.M, Sanders, C., & Meagher, B. (2016). High-dimensional category representations. Fifty-Seventh Annual Meeting of the Psychonomic Society, Boston, MA.
- Nosofsky, R.M. (2017). Tests of an exemplar-memory model of classification in a high-dimensional natural-science category domain. 2017 Meeting of the Society of Experimental Psychologists, Nashville, TN
- Nosofsky, R.M., Sanders, C., & Meagher, B. (2017). High-dimensional category representations. Context and Episodic Memory Symposium, Philadelphia, PA.
- Sanders, C., & Nosofsky, R.M. (2017). Using deep learning to automatically extract psychological representations of complex natural stimuli. Poster presented at the 58<sup>th</sup> Annual Meeting of the Psychonomic Society, Vancouver, Canada.
- Nosofsky, R.M., & Sanders, C. (2017). Optimal training examples in real-world classification learning. Talk presented at the 58<sup>th</sup> Annual Meeting of the Psychonomic Society: Human Learning and Instruction. Vancouver, Canada.
- Nosofsky, R.M., Douglas, B., & McDaniel, M.A. (2017). Tests of an exemplar-memory model of classification learning in a high-dimensional natural-science category domain. Poster presented at the NSF ECR PI Convening for Fundamental Research in STEM Education: Progress, Issues, & the Future. Arlington, VA.
- Nosofsky, R.M., Douglas, B., & McDaniel, M.A. (2017). Tests of an exemplar-memory model of human classification learning in the domain of rock categorization. Poster presented at the 2017 Geological Society of America Annual Meeting -- Geoscience Education Research: Implications for Undergraduate Geoscience Teaching and Learning. Seattle, WA.
- Nosofsky, R.M., & Sanders, C.A. (2018). Model-guided search for optimal training examples in a natural-science category domain. 2018 Meeting of the Society of Experimental Psychologists, Tucson, AZ.

### **Invited Colloquia**

Invited colloquia at University of Michigan, UC Irvine, Tufts University, University of Illinois, Philip Morris Research Center, Stanford University, New York University, Yale University, Dartmouth College, University of Pennsylvania, Purdue University, University of Buffalo, Miami of Ohio University, University of Arizona, Rutgers University, University of Minnesota, Johns Hopkins University, University of Maryland, Ohio State University, Carnegie-Mellon University, Washington University at St. Louis, University of Missouri, University of Maryland, University of Massachusetts.

### **Teaching Experience**

Courses Taught: Undergraduate - Introductory Psychology, Cognitive Psychology, Learning and Memory, Statistics, Computer and Math Models in Psychology, Experimental Methods in Cognitive Science, MATLAB Programming for Behavioral Experiments

Graduate - Categorization and Concepts, Mathematical Psychology, Multidimensional Scaling, Complex Cognitive Processes, Choice Behavior, Experimental Methods in Cognitive Science

Winner of Indiana University Teaching Excellence Recognition Award, 1997, 1998, 1999

Winner of Indiana University Alumni Association Distinguished Faculty Award, 1998

Promoted to Chancellor's Professor in 2003: Recognition of Joint Excellence in Research and Teaching

## **Service and Other Professional Experience**

### *National and International:*

Extensive editorial and grant-review panel service (see Editorial section of vita)

Secretary-Treasurer of Society of Experimental Psychologists, October 2012 – present

[Includes conducting elections, collecting dues and maintaining dues records, service on major awards committee, co-organizing the SEP conference, maintaining financial records, running the business meeting, maintaining society website, and many other duties]

Co-Organizer of Festschrift for Richard M. Shiffrin: Modeling of Perception and Cognition, held at Bloomington, IN, 2012.

Governing Board of Psychonomic Society, November 2006 – December 2012

[Includes chair and member of Program Committee, Membership Committee, Ethics Committee, and numerous other ad hoc committees]

President of Society for Mathematical Psychology, 1996

Executive Board of Society for Mathematical Psychology, 1991-1997

Co-Organizer of Twenty-Fourth Annual Mathematical Psychology Meeting, held at Bloomington, Indiana, 1991.

Co-Organizer of Thirtieth Annual Mathematical Psychology Meeting, held at Bloomington, Indiana, 1997.

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*Department, University, and Community Service:*

Chair of University Promotions Committee, 2013-2014

University Selection Committee for the Collaborative Research Grants Program, 2010-2011

University Promotions Committee, 2007-2010

University Distinguished Professor Selection Committee, 2006-2008

University Ad Hoc Committee for Establishing an Applied Statistics Department, 2005

Elected to Psychology Department Budgetary Affairs Committee, 1990-1994, 1996-1998

Elected to Psychology Department Space Committee, 1985-1988, 1988-1991

Cognitive Area Spokesperson, 1991-1994, 1997, 2004-2005

Organizer for Indiana University Cognitive Science Colloquium Series, 1988-1990

Steering Committee, Indiana University Cognitive Science Program, 1990-2004

Psychology Department Liaison for IU Cognitive Science Program, 1989-1995

Indiana University Ad Hoc Committee on Interdisciplinary Programs, 1989

*Other Service:* Frequent service on numerous department search committees; frequent service on Ph.D. Qualifying Exam Committees; Ph.D. and M.A. Dissertation Defense Committees; advisor for graduate student first and second year projects; Psychology Department Colloquium Committee; numerous ad hoc committees; consultant for use of multidimensional scaling models; frequent organizer of department "Cognitive Lunch"; IU Science Fair judge; coach for youth baseball, soccer, and basketball teams; past President of Monroe County Youth Soccer Association.

**Professional Memberships**

Fellow of the Association for Psychological Science

Fellow of the Psychonomic Society

Society of Experimental Psychologists

Society for Mathematical Psychology

American Academy for the Advancement of Science

American Academy of Arts and Sciences