

Barbara Anne Doshier

Department of Cognitive Science
3151 SSPA School of Social Sciences
University of California
Irvine, CA 92697-5100
(949) 824-7373 bdoshier@uci.edu

EDUCATION

Ph.D. in Experimental Psychology, University of Oregon, 1977
M.S. in Experimental Psychology, University of Oregon, 1975
B.A. in Psychology (Minor: Biochemistry), Honors.
University of California, San Diego, 1973

PROFESSIONAL EXPERIENCE

Dean of the School of Social Science, University of California at Irvine, 2002 -
Professor, Department of Cognitive Science, University of California at Irvine, 1992-
Professor, Department of Psychology, Columbia University, 1990-1992
Associate Professor (Tenured), Department of Psychology, Columbia University,
1985-1990
Visiting Scholar, Department of Psychology, Stanford, 1984
Assistant Professor, Department of Psychology, Columbia University, 1977-1985

ORGANIZATIONS

American Psychological Society (Elected Fellow 2006)
Society for Experimental Psychologists (Elected Fellow 1997)
Center for Neurobiology of Learning and Memory (Senior Fellow 1994)
Society for Mathematical Psychology (Board, 1985-1991, President 1988)
Association for Research in Vision and Ophthalmology
Vision Sciences Society
Psychonomics Society.

EDITORIAL WORK & SERVICE

Associate Editor, *Psychological Review* (2000-2003)
Editorial Board, *Vision Research* (2002-2005) (action editor)
Editorial Board, *Journal of Vision* (2001 - 2002) (action editor)
Editorial Board, *Journal of Experimental Psychology: General* (1996-2002)
Editorial Board, *Psychological Science* (1999-2001)
Editorial Board, *Psychonomic Bulletin and Review* (1993-2000).
Editorial Board, *Journal of Experimental Psychology: Learning, Memory and Cognition*
(1982-1987, 1989-91, 1999-2000)
Editorial Board, *Memory and Cognition* (1993-1996)
Panel Member, NSF Learning and Intelligent Systems Panel (1997)
Panel Member, NSF Cognition and Perception Panel (1991-1994)
Panel Member, NIMH Cognition Panel (2001-2005);

GRANTS

NEI, "Functions and mechanisms of perceptual learning", (2006-2011)
 AFOSR, "Functions and mechanisms of perceptual attention" (2001-2005).
 NIMH, "Functions and Mechanisms of Perceptual Learning (2000-2005),
 NSF, "Mechanisms of Perceptual Learning" (2000-2004).
 AFOSR, "Mechanisms of perceptual attention" (1997-2001).
 NSF/AFOSR, "Forgetting in short term memory" (1990-1995).
 NSF, "Retrieving facts and context" (1984-1988).
 NIE, (Co-PI), "Human information processing limitations and reading" (1980-1983).
 NSF, "The retrieval of information from human memory" (1980-1983).
 Spencer Foundation Award "Memory retrieval processes" (1978-1980).
 NIE, (Co-PI), "Reading comprehension and semantic memory" (1977-1979).

UNIVERSITY SERVICE

University of California, Irvine:

University:

Board Member, Irvine Campus Housing Authority (2003-present)
 (Independent Not-for Profit Corporation for Faculty/Staff Housing)
 Dean, School of Social Science, Irvine Division (2002-present).
 Member, Chancellor's Advisory Council (2002-present)
 Member, Academic Council (2002-present)
 Chair, Universitywide Committee on Academic Personnel (2001-2002).
 Member, Universitywide Academic Council (2001-2002).
 Member, Corporate Board, Irvine Campus Housing Authority (2001-2003)
 Vice-Chair, Universitywide Committee on Academic Personnel (2000-2001).
 Chair, Academic Senate, Irvine Division (1999-2000)
 Chair, Study Group on Academic Graduate Education of the Academic Senate (2000-2001)
 Member, Universitywide Academic Council (1999-2000).
 Vice-Chair (Chair-Elect), Academic Senate, Irvine Division (1998-1999).
 Cabinet of the Academic Senate, Irvine Division (1998-1999).
 Council on Planning and Budget for the Irvine Division (1998-1999).
 Chancellor's Advisory Committee (1998-2000).
 Committee on Academic Personnel, Irvine Division [Tenure and Promotions] (1995-1998).
 Chair, Committee on Academic Personnel, Irvine Division (1996-97).
 Executive Committee of the Senate of the Irvine Division (1996-97).
 Universitywide Committee on Academic Personnel (1996-97).

School:

School of Social Science Budget Committee (1995).

Department:

Department Chairperson (2000—2002)
 Faculty Search Committee (1995, 1997 1998, 1999)
 Graduate Committee for Department of Cognitive Sciences (1992-94)

Columbia University:

Graduate Program Committee (1992).
 Chair, Cognitive Search Committee (1992).
 Organizer, Cognitive Research Seminar (1986-1988, 1989-90, 1991-92).
 Chair, Computer and Technology Committee (1987-91).
 Curriculum Committee of the College (1985-1987).
 Head, Graduate Program (1985-1986).
 Cognitive Search Committee (1985-1987).
University Faculty Senate (Elected 1981-1983, 1983-1985).
 Space Committee (1978-1980, 1985-1987).
 Computer Committee (1978-1983, 1985-1987).
 Columbia University Affirmative Action Panel (1985-1987).
 Columbia College Committee on Instruction (1986-1987).
 Executive Committee of the Graduate School of Arts and Sciences (1988).
 University Senate (Elected 1989-1991).
Departmental: Head, Graduate Admissions Committee (1977-1982).

PUBLICATIONS

- 2006 Doshier, B., & Lu, Z.-L. The functional form of performance improvements in perceptual learning: Learning rates and transfer, *Psychological Science*, in press.
- 2006 Doshier, B., & Lu, Z.-L. Levels and mechanisms of perceptual learning: Learning 1st order luminance and 2nd order texture objects. *Vision Research*, 46, 1996-2007. [11 pp]
- 2006 Lu, Z.-L., Chu, W., & Doshier, B. Perceptual learning of motion direction discrimination in fovea: Separate mechanisms. *Vision Research*, 46, 2315-2327. [13 pp]
- 2006 Lesmes, L., Jeon, S.-T., Lu, Z.-L., & Doshier, B. Bayesian adaptive estimation of threshold versus contrast external noise functions. *Vision Research*, 46, 3160-3176. [16 pp]
- 2006 Dao, D. Y., Lu, Z.-L., & Doshier, B. Adaptation to sine wave gratings selectively reduces the sensory gain of the adapted stimulus. *Journal of Vision*, 6(7), 739-759. [20 pp]
- 2006 Petrov, A., Doshier, B., & Lu, Z.-L. Perceptual learning without feedback in non-stationary environments: Data and model. *Vision Research*, 46, 3177-3197. [20 pp]
- 2005 Lu, Z.-L., Chu, W., Doshier, B., & Lee, S. Perceptual learning of Gabor orientation identification in visual periphery: Complete inter-ocular transfer of learning mechanisms, *Vision Research*, 45, 2500-2510. [11 pp]
- 2005 Doshier, B., & Lu, Z. Perceptual learning in clear displays optimizes performance: Learning the limiting process. *Proceedings of the National Academy of Sciences, USA* 104, 5286-5290. [5 pp]

- 2005 Lu, Z., Chu, W., & Doshier, B. Independent perceptual learning in monocular and binocular motion systems. *Proceedings of the National Academy of Sciences, USA*, 102, 5624-5629. [6 pp]
- 2005 Lu, Z.-L., Chu, W., Doshier, B., & Lee, S. Perceptual learning of Gabor orientation identification in visual periphery: Complete inter-ocular transfer of learning mechanisms, *Vision Research*, in press.
- 2005 Lu, Z., Neuse, J., Madigan, S., & Doshier, B. Fast decay of iconic memory in observers with mild cognitive impairment. *Proceedings of the National Academy of Sciences, USA*, 102, 1797-1802. [6 pp]
- 2005 Petrov, A. A., Doshier, B., & Lu, Z. The dynamics of perceptual learning: An incremental channel reweighting. *Psychological Review*, 112-715-743. [28 pp]
- 2005 Lu, Z.-L. & Doshier, B. Brain mechanisms of attention. In *Cognitive Neuroscience (translated into Chinese)*, Edited by Y.-J. Luo, J. Yang and K. Cheng. Peking University Press, Beijing, China.
- 2004 Doshier, B., Liu, S.-H., Blair, N., & Lu, Z.-L. The spatial window of the perceptual template and endogenous attention. *Vision Research*, Special Issue on Attention, 44, 1257-1271. [15 pp]
- 2004 Lu, Z.-L., Jeon, T.-S., & Doshier, B. Temporal tuning of the perceptual template: Effects of cuing of spatial attention. *Vision Research*, Special Issue on Attention, 44, 1333-1350. [18 pp]
- 2004 Gersh, T. M., Kowler, E., & Doshier, B. Dynamic allocation of visual attention during the execution of sequences of saccades. *Vision Research*, Special Issue on Attention, 44, 1469-1483. [15 pp]
- 2004 Lu, Z.-L. & Doshier, B. Spatial attention excludes external noise without changing the spatial frequency tuning of the perceptual template. *Journal of Vision*, 4, 955-966. [12 pp]
- 2004 Doshier, B., & Lu, Z.-L. Mechanisms of perceptual learning. In Itti, L. & Rees, G. (Eds.), *Neurobiology of Attention*. MIT Press, 471-476. [6 pp]
- 2004 Lu, Z.-L., & Doshier, B. External noise discriminates mechanisms of attention. In Itti, L., & Rees, G. (Eds.) *Neurobiology of Attention*. MIT Press. [6 pp]
- 2004 Lu, Z.-L., & Doshier, B. Perceptual learning retunes the perceptual template in foveal orientation identification. *Journal of Vision*, 4, 44-56. [13 pp]
- 2004 Doshier, B, Han, S. & Lu, Z.-L. Time course of asymmetric visual search. *Journal of Experimental Psychology: Human Perception and Performance*, 30, 3-37. [34 pp]
- 2003 Doshier, B. Working memory. *Encyclopedia of Cognitive Science*, Vol. 4. .p. 569-577. [9 pp]
- 2003 Han, S., Doshier, B., & Lu, Z.-L. Object attention revisited: Boundary conditions and mechanisms. *Psychological Science*, 14, 598-604. [7 pp]

- 2003 Doshier, B., & McElree, B. Memory search. For Squire, L. R. & Wachsberger, K. (Eds.) Encyclopedia of Learning and Memory, NY: MacMillan. [5pp]
- 2002 McBride, D. M., & Doshier, B. Conceptual and automatic processing of implicit memory for pictures and words. Consciousness and Cognition: An International Journal, 11, 423-460. [37pp]
- 2002 Lu, Z.-L., Lesmes, L., & Doshier, B. Spatial attention excludes noise at the target location. Journal of Vision, 2, 312-323. [12 pp]
- 2001 McBride, D. M., Doshier, B., & Gage, N. A comparison of forgetting for conscious and automatic memory processes in word fragment completion tasks. Journal of Memory and Language, 45, 585-615. [30 pp]
- 2001 Lu, Z.-L., & Doshier, B. Characterizing the spatial frequency characteristics of perceptual templates. Journal of the Optical Society of America, A, 18, 2041-2053 [12 pp]
- 2001 McElree, B. M. & Doshier, B. The focus of attention in space and time. Behavior and Brain Sciences.
- 2001 Munnich, E., Landau, B. & Doshier, B. Spatial language and visual memory for location. Cognition, 81, 171-207.
- 2000 Lu, Z.-L., Liu, C. Q., & Doshier, B. Attention mechanisms for first- and second-order motion perception. Vision Research, 40, 173-186. [14 pp]
- 2000 Doshier, B., & Lu, Z.-L. Noise exclusion in spatial cuing of attention. Psychological Science, 11, 139-146. [8 pp].
- 2000 Doshier, B., & Lu, Z.-L. Mechanisms of perceptual attention in multi-location cueing. Vision Research, 40, 1269-1292 [23 pp]
- 2000 Lu, Z. L., & Doshier, B. Spatial attention: Different mechanisms for central and peripheral temporal cues? Journal of Experimental Psychology: Human Perception and Performance, 26, 1534-1548. [14 pp]
- 1999 McBride, D., & Doshier, B. Forgetting rates are comparable in conscious and automatic memory: A process-dissociation study. Journal of Experimental Psychology: Learning, Memory, & Cognition, 25,508-607. [25 pp]
- 1999 Lu, Z.-L., & Doshier, B. Characterizing human perceptual inefficiencies with equivalent internal noise. Journal of the Optical Society of America, A, 16, 764-778. [15 pp]
- 1999 Doshier, B., and Lu, Z.-L. Mechanisms of perceptual learning. Vision Research, 39, 3197-3221. [25 pp]

- 1999 Doshier, B. Forgetting due to items and time during output from short term memory. International Journal of Psychology (Special Issue on Working Memory), 34, 276-285. (Reprinted in I. Neath, G.D.A. Brown, M. Poirer, C. Fortin (Eds.) *Short-term/Working Memory*. Psychology Press, Taylor & Francis Co.) [10 pp]
- 1998 McBride, D. M., & Doshier, B. A comparison of forgetting in implicit and explicit memory tasks. Journal of Experimental Psychology: General, 126, 371-392. [22 pp]
- 1998 Doshier, B. Models of visual search: Finding a face in the crowd. In Sternberg, S., & Scarborough, D. (Eds.), Invitation to Cognitive Science, Vol 4, 455-521. [67 pp]
- 1998 Doshier, B., & Ma, J.-J. Output loss or rehearsal loop? Output time vs pronunciation time limits in immediate recall in forgetting-matched materials. Journal of Experimental Psychology: Learning, Memory & Cognition, 24, 316-335. [20 pp]
- 1998 Lu, L.-L., & Doshier, B. External noise distinguishes attention mechanisms. Vision Research, 38, 1172-1198. [16 pp]
- 1998 Doshier, B. The response window regression method: Some problematic assumptions. Journal of Experimental Psychology: General, 127, 311-317. [7 pp]
- 1998 Doshier, B., & Sperling, G. A century of human information processing theory: Vision, attention, memory. In Hochberg, J. (Ed.) *Perception and Cognition at Century's End: Handbook of Perception and Cognition* .p. 199-252. [54 pp]
- 1998 Doshier, B., & Lu, Z.-L. Perceptual learning reflects external noise filtering and internal noise reduction through channel reweighting. Proceedings of the National Academy of Science, 95, 13988-13993. [6 pp]
- 1997 Doshier, B., & Rosedale, G. Configural processes in multi-cue priming of recognition. Cognitive Psychology, 33, 209-267. [57 pp]
- 1995 Sperling, G., & Doshier, B. Depth from motion. In Pappathomas, T. V., et. al (Eds.) Early Vision and Beyond. Cambridge, MA: MIT Press. [11 pp]
- 1995 Kowler, E., Anderson, E., Doshier, B., Blaser, E. The role of attentional shifts in the programming of saccades. Vision Research, 35, 1897-1916. [20 pp]
- 1993 McElree, B., & Doshier, B. Serial comparison processes in judgements of order. Journal of Experimental Psychology: General, 122, 291-315. [25 pp]
- 1992 Doshier, B. A., & McElree, B. Memory search: Retrieval processes in short-term and long-term recognition. For Squire, L. R., et. al (Eds.) Encyclopedia of Learning and Memory, NY: MacMillan. (pp. 398-406) [9 pp]

- 1991 Landy, M.S., Doshier, B.A., Sperling, G., & Perkins, M.E. Kinetic depth effect and optic flow. II. Fourier and nonFourier motion. Vision Research, 31, 859-876. [18 pp]
- 1991 Doshier, B.A., & Rosedale, G. Judgments of semantic and episodic relatedness: Common time-course and failure of segregation. Journal of Memory and Language, 30, 125-160. [36 pp]
- 1991 Doshier, B. A. Bias and discrimination in cuing of memory: A weighted decisions model. In Hockley, W. & Lewandowsky, S. (Eds.) Relating theory and data in memory, NJ: Erlbaum, pp. 14-1 - 14-30. [30 pp]
- 1990 Sperling, G., Doshier, B.A., & Landy, M.S. How to study the kinetic depth effect empirically. Journal of Experimental Psychology: Human Perception and Performance, 16, 445-450. [6 pp]
- 1989 Sperling, G. & Doshier, B.A. Strategy and optimization in human information processing. In K. Boff, L. Kaufman, & J. Thomas (Eds.). Handbook of Perception and Performance. New York, NY: Wiley. [66 pp]
- 1989 Doshier, B.A., McElree, B., Hood, R.M., & Rosedale, G. Retrieval dynamics of priming in recognition memory: Bias or discrimination effect. Journal of Experimental Psychology: Learning, Memory, & Cognition, 15, 868-886. [19 pp]
- 1989 Doshier, B.A., & Rosedale, G. Integrated retrieval cues as a mechanism for priming. Journal of Experimental Psychology: General, 118, 191-218. [28 pp]
- 1989 McElree, B.M., & Doshier, B.A. Serial position and set size in short term memory: Time course of recognition. Journal of Experimental Psychology: General, 118, 346-373. [28 pp]
- 1989 Doshier, B.A., Landy, M.S., & Sperling, G. Ratings of kinetic depth in multi-dot displays. Journal of Experimental Psychology: Human Perception and Performance, 15, 816-825. [10 pp]
- 1989 Sperling, G., Landy, M.S., Doshier, B.A., & Perkins, M.E. The kinetic depth effect and the identification of shape. Journal of Experimental Psychology: Human Perception and Performance, 15, 826-840. [15 pp]
- 1989 Doshier, B.A., Landy, M.S., & Sperling, G. Kinetic depth effect and optic flow. I. 3D shape from Fourier motion. Vision Research, 29, 1789-1813. [25 pp]
- 1986 Doshier, B.A., Sperling, G. & Wurst, S. Tradeoffs between stereopsis and proximity luminance covariance as determinants of perceived 3D structure. Vision Research, 26, 973-990. [18 pp]
- 1984 Doshier, B.A. Discriminating preexperimental (semantic) from experimental (episodic) associations: A speed accuracy analysis. Cognitive Psychology, 16, 519-555. [37 pp]
- 1984 Doshier, B.A. Degree of learning and retrieval speed: Study time and multiple exposures. Journal of Experimental Psychology: Learning, Memory and Cognition, 10, 541-574. [34 pp]

- 1983 Doshier, B.A. Relational information in sentence memory. Journal of Psycholinguistic Research, 12, 377-396. [20 pp]
- 1983 Russo, J.E. & Doshier, B.A. Strategies for multiattribute binary choice. Journal of Experimental Psychology: Learning, Memory and Cognition, 9, 676-696. [21 pp]
- 1982 Doshier, B.A. Effect of sentence size and network distance on retrieval speed. Journal of Experimental Psychology: Learning Memory and Cognition, 8, 173-207. [35 pp]
- 1982 Doshier, B.A. Of activation nets and consciousness. Contemporary Psychology, 27, 531-532. [2 pp]
- 1982 Doshier, B.A. & Corbett, A.T. Instrument activation and verb schemata. Memory and Cognition, 10, 531-539. [9 pp]
- 1981 Doshier, B.A. The effects of delay and interference on retrieval dynamics: Implications for retrieval models. Cognitive Psychology, 13, 551-582. [32 pp]
- 1980 Wickelgren, W.A., Corbett, A.T. & Doshier, B.A. Priming and retrieval from short-term memory: A speed-accuracy tradeoff analysis. Journal of Verbal Learning and Verbal Behavior, 19, 387-404. [18 pp]
- 1979 Doshier, B.A. Empirical approaches to information processing: Speed-accuracy tradeoff functions or reaction time. Acta Psychologica, 43, 347-359. [13 pp]
- 1978 Corbett, A.T. & Doshier, B.A. Instrument inferences in sentence encoding. Journal of Verbal Learning and Verbal Behavior, 17, 479-491. [13 pp]
- 1976 Doshier, B.A. The retrieval of sentences from memory: A speed-accuracy study. Cognitive Psychology, 8, 291-310. [20 pp]
- 1976 Doshier, B.A. & Russo, J.E. Memory for internally generated stimuli. Journal of Experimental Psychology: Human Learning and Memory, 2, 633-640. [8 pp]

CONFERENCE PRESENTATIONS and ABSTRACTS

- 2006 Chu, W., Lu, Z.-L., Doshier, B. (2006). Effects of perceptual learning on the temporal dynamics of perceptual decision. *Vision Sciences Society Abstract Book, Conference, May.*
- 2006 Jeter, P., Doshier, B., Lu, Z.-L. (2006). Transfer patterns of perceptual learning in simultaneous training of easy and difficult tasks. *Vision Sciences Society Abstract Book, Conference, May.*
- 2006 Gersch, T. M., Schnitzer, B. S., Singh, P. S., & Doshier, B. (2006). Attention enhancement along the path of a sequence of saccades. *Vision Sciences Society Abstract Book, Conference, May.*

- 2006 Jeon, S.-T., Lu, Z.-L., Doshier, B. (2006). Extending observer models for more difficult identification and discrimination. *Vision Sciences Society Abstract Book, Conference, May.*
- 2006 Lesmes, L. A., Lu, Z.-L., Tran, N. T., Doshier, B. Albright, T. D. (2006). An adaptive method for estimating criterion sensitivity (d') levels in yes/no tasks. *Vision Sciences Society Abstract Book, Conference, May*
- 2005 Doshier, B. Mechanisms and limits of perceptual learning: A reweighting model. Twenty-ninth Annual Interdisciplinary Conference.
- 2005 Jeter, P., Doshier, B., Petrov, A., & Lu, Z.-L. Identical transfer of perceptual learning following easy and difficult task training. *Vision Sciences Society Meeting Abstract Book.*
- 2005 Doshier, B., Liu, S.-H., Lu, Z.-L. The decay of perceptual representations in iconic memory. *Vision Sciences Society Meeting Abstract Book.*
- 2004 Doshier, B., & Lu, Z.-L. Perceptual learning in first- and second-order letter identification. *Vision Sciences Society Meeting Abstract Book.*
- 2004 Petrov, A., Doshier, B., Lu, Z.-L. Comparable perceptual learning with and without feedback in non-stationary context: Data and model. *Vision Sciences Society Meeting Abstract Book, in press.*
- 2004 Lu, Z.-L., Neuse, J., Madigan, S. A., & Doshier, B. Fast decay of iconic memory in observers at-risk for Alzheimer's disease. *Vision Sciences Society Meeting Abstract Book, in press.*
- 2003 Lu, Z.-L., H. C. Tse, Doshier, B. A., Lesmes, L. A., Posner, C., & Chu, W. Intra- and cross-modal cuing of visual spatial attention: The hyper-effective simultaneous auditory peripheral cues. *Vision Sciences Society Meeting Abstract Book, 234.*
- 2003 Petrov, A., Doshier, B. A. & Lu, Z.-L. A computational model of perceptual learning through incremental channel re-weighting predicts switch costs in non-stationary contexts. *Vision Sciences Society Meeting Abstract Book, 186.*
- 2003 Chu, W., Lu, Z.-L. & Doshier, B. A. Characterizing and modeling temporal dynamics of perceptual decision making. *Vision Sciences Society Meeting Abstract Book, 206.*
- 2003 Dao, D. Y., Lu, Z.-L. & Doshier, B. A. Adaptation to sine-wave gratings selectively reduces the sensory gain of the adapted stimuli. *Vision Sciences Society Meeting Abstract Book, 9.*
- 2003 Lesmes, L. A., Lu, Z.-L., Doshier, B. A. & Sperling, G. Comparing the temporal dynamics of intra- and cross-modal attention switching. *Vision Sciences Society Meeting Abstract Book, 57.*
- 2003 Doshier, B. A., Liu, S. H., Blair, N. & Lu, Z.-L. The spatial footprint of the perceptual template. *Vision Sciences Society Meeting Abstract Book, 158.*

- 2003 Blair, N., Doshier, B. A. & Lu, Z.-L. Evaluation of token specificity in perceptual learning of phase discrimination. *Vision Sciences Society Meeting Abstract Book*, 187.
- 2003 Jeon, S., Doshier, B. A. & Lu, Z.-L. Temporal tuning characteristics of perceptual templates. *Vision Sciences Society Meeting Abstract Book*, 237.
- 2003 Doshier, B. Mechanisms and limits of perceptual learning. *The Bologna Workshop on Visual Perception*.
- 2003 Doshier, B., & Lu, Z.-L. Selection of inputs by spatial attention. *European Conference on Visual Perception*.
- 2003 Lu, Z.-L., Chu, W., & Doshier, B. Temporal dynamics of perceptual decision. *European Conference on Visual Perception*.
- 2002 Lu, Z.-L. & Doshier, B. A. External noise methods and observer models. 2002 Annual Meeting Abstract and Program Planner accessed at <http://www.arvo.org>. Association for Research in Vision and Ophthalmology. Abstract 275.
- 2002 Lu, Z.-L. & Doshier, B. A. Using External Noise Methods to Isolate Mechanisms of Attention / Perceptual Learning. *Vision Sciences Society Meeting Abstract Book*, 28.
- 2002 Doshier, B. A. & Lu, Z.-L. Threshold power laws of perceptual learning decouple improvements in noisy and noiseless conditions. *Vision Sciences Society Meeting Abstract Book*, 193.
- 2002 Chu, W., Lu, Z.-L. & Doshier, B. A. Perceptual Learning of Motion Direction Discrimination in Fovea Reflects Mixed but Separable Mechanisms of Stimulus Enhancement and Template Retuning. *Vision Sciences Society Meeting Abstract Book*, 32.
- 2002 Lu, J.-L., Lu, Z.-L. & Doshier, B. A. Perceptual Learning in Peripheral Vision with Attention Reflects (Mostly) Template Retuning. *Vision Sciences Society Meeting Abstract Book*, 29.
- 2002 Lesmes, L. A., Lu, Z.-L. & Doshier, B. A. Full Time-Course of Visual/Auditory Central/Peripheral Cuing of Visual Spatial Attention: $AP > VP=VC > AC$. *Vision Sciences Society Meeting Abstract Book*, 158.
- 2002 Lu, Z.-L. & Doshier, B. A., Brain mechanisms of attention. *Acta Psychologica Sinica*, **34** suppl., Proceedings of the International Conference on Cognitive Neuroscience, 41-43.
- 2002 Lu, Z.-L. & Doshier, B. Characterising observer and mechanisms underlying changes of observer state with external noise and observer models. *Perception*, **31** (Supplement),108.
- 2002 Doshier, B. A. & Lu, Z.-L. Mechanisms and models of observer state changes in perceptual learning. *Perception*, **31** (Supplement),108..
- 2001 Lu, Z.-L., & Doshier, B. External noise exclusion is the mechanism of perceptual learning for orientation discrimination in fovea. Investigative Ophthalmology and Visual Science, ARVO Supplement.

- 2001 Chu, W., Lu, Z.-L., Doshier, B., Lee, S. Perceptual learning: monocular for first-order motion, binocular for Gabor orientation & both via external noise exclusion and stimulus enhancement. Investigative Ophthalmology and Visual Science, ARVO Supplement.
- 2001 Han, S., Doshier, B., Lu, Z.-L. External noise exclusion and stimulus enhancement in object attention. Investigative Ophthalmology and Visual Science, ARVO Supplement.
- 2001 Doshier, B., Han, S., Lu, Z.-L. Perceptual learning reduces object attention effects. Investigative Ophthalmology and Visual Science, ARVO Supplement.
- 2001 Lesmes, L., Lu, Z.-L., Doshier, B., Sperling, G., Chu, W., & Posner, C. Intra- and Cross-Modal Activation of Attention Gates. *Investigative Ophthalmology and Visual Science, ARVO Supplement, 42*, No. 4, S945. (Abstract).
- 2001 Han, S.-M., Doshier, B., & Lu, Z.-L. External noise exclusion and stimulus enhancement in object attention. *Investigative Ophthalmology and Visual Science, ARVO Supplement, 42*, No. 4, S864. (Abstract).
- 2001 Lu, Z.-L. & Doshier, B. A. Perceptual learning via template re-tuning. Proceedings of the 3rd International Conference on Cognitive Science, 257. (Abstract).
- 2001 Lu, Z.-L. & Doshier, B. A. Retuning perceptual templates through perceptual learning, *Optics Express, 9*, (Abstract).
- 2001 Doshier, B. A. & Lu, Z.-L. Isolating mechanisms of spatial attention, *Optics Express, 9*, (Abstract).
- 2001 Doshier, B. A., Han, S. M. & Lu, Z.-L. Attentional mechanisms and perceptual learning in object attention. *Abstracts of the Psychonomic Society, 6*, 84. (Abstract).
- 2001 Lu, Z.-L. & Doshier, B. A. Retuning of perceptual template via perceptual learning. *Abstracts of the Psychonomic Society, 6*, 114. (Abstract).
- 2000 Doshier, B. Attention in noise. Twenty-fourth Annual Interdisciplinary Conference, January.
- 2000 Doshier, B. Representation and relational processing in working memory. *Investigative Ophthalmology and Visual Science, ARVO Supplement*
- 2000 Doshier, B., & Lu, Z.-L. Perceptual templates in spatial attention. *Investigative Ophthalmology and Visual Science, ARVO Supplement.*
- 2000 Lu, Z.-L., & Doshier, B. Different mechanisms of attention from central and peripheral precues. *Investigative Ophthalmology and Visual Science, ARVO Supplement.*
- 2000 Han, S.-M., Doshier, B., & Zu, Z.-L. Visual search asymmetry: A time course analysis. *Investigative Ophthalmology and Visual Science, ARVO Supplement.*

- 1999 Doshier, B. Mechanisms of perceptual learning. Twenty-fourth Annual Interdisciplinary Conference, January.
- 1999 Doshier, B., & Lu, Z.-L. Mechanisms of perceptual attention. *Vision99* [Special Conference of Vision Research]. [Invited Talk.]
- 1999 Han, S., Doshier, B., & Lu, Z.-L. A parallel model accounts for the time course of a difficult visual task. *Investigative Ophthalmology and Visual Science, ARVO Supplement* (B735).
- 1999 Doshier, B., & Lu, Z.-L. Attention to a validly cued location improves performance by excluding external noise. *Investigative Ophthalmology and Visual Science, ARVO Supplement*.
- 1999 Liu, C. Q., Lu, Z.-L., & Doshier, B. Attention in first- and second-order motion perception. *Investigative Ophthalmology and Visual Science, ARVO Supplement*.
- 1999 McBride, D. M., & Doshier, B. A comparison of conscious and automatic memory for pictures and words. *Abstracts of the Psychonomic Society: 40th Annual Meeting*, 4.
- 1999 Doshier, B., & Lu, Z.-L. Mechanisms of perceptual attention in multi-location cuing. *Abstracts of the Psychonomic Society: 40th Annual Meeting*, 4.
- 1999 Lu, Z.-L., & Doshier, B. Attention fine-tunes perceptual templates in spatial cuing. *Abstracts of the Psychonomic Society: 40th Annual Meeting*, 4.
- 1999 Doshier, B., Lu, Z.-L. Attention to a validly cued location improves performance by excluding external noise *Investigative Ophthalmology and Visual Science, ARVO Supplement*.
- 1998 Doshier, B. Memory retrieval. *Society for Experimental Psychology*.
- 1998 Doshier, B. & Lu, Z.-L. Mechanisms of perceptual learning. *Investigative Ophthalmology and Visual Science, ARVO Supplement*.
- 1998 Lu, Z.-L. & Doshier, B. Characterizing human perceptual inefficiencies. *Investigative Ophthalmology and Visual Science, ARVO Supplement*.
- 1998 Doshier, B. An interference - output delay model of STM. *International Conference on Short Term Memory*.
- 1998 Doshier, B., Han, S., & Lu, Z.-L. Time course of visual search among homogeneous and heterogeneous distractors. *Abstracts of the Psychonomic Society: 39th Annual Meeting*, 3, 57.
- 1998 Lu, Z.-L., & Doshier, B. Distractor exclusion underlies improvement in form discrimination. *Abstracts of the Psychonomic Society: 39th Annual Meeting*, 3, 21.
- 1997 Doshier, B., & Lu, Z.-L. Mechanisms of perceptual attention. *Investigative Ophthalmology and Visual Science, ARVO Supplement*.

- 1997 Doshier, B. Further tests of an output time model of recall. *Abstracts of the Psychonomic Society: 38th Annual Meeting*, 2, 28.
- 1997 Lu, Z-L., & Doshier, B. Characterizing attention mechanisms. *Abstracts of the Psychonomic Society: 38th Annual Meeting*, 2, 54.
- 1997 Munnich, E., Landau, B., & Doshier, B. Universals of spatial representation in language and memory. *Abstracts of the Psychonomic Society: 38th Annual Meeting*, 2, 66.
- 1996 Doshier, B. & McBride, D. M. Explicit and implicit memory tasks and forgetting. *Twenty-First Annual Interdisciplinary Conference, Jackson Hole, January*.
- 1996 Doshier, B. Visual search: Models and model testing. *Mathematical Behavioral Sciences Technical Report MBS-96-03*. University of California, Irvine.
- 1996 McBride, D. M. & Doshier, B. Forgetting in process dissociation: Familiarity and recollection. *Abstracts of the Psychonomics Society: Thirty-seventh Annual Meeting*, 1, 15.
- 1996 Doshier, B. & Rosedale, G. Configural processing in memory retrieval: Multiple cues and ensemble representations. *Mathematical Behavioral Sciences Technical Report MBS-96-27*, University of California, Irvine.
- 1995 Doshier, B. Limits on short term memory. *Twentieth Annual Interdisciplinary Conference, Jackson Hole, January*.
- 1995 McBride, D. M. & Doshier, B. Forgetting in implicit and explicit memory tasks. *Proceedings of the Thirty-sixth Annual Meeting of the Psychonomics Society, November*.
- 1994 Doshier, B. Forgetting in STM recall: Presentation rate and output time. *Proceedings of the Thirty-fifth Annual Meeting of the Psychonomics Society, November*.
- 1993 Kowler, E., Doshier, B., Srinivasan, P., & Blaser, E. Saccades and attention. *Investigative Ophthalmology and Visual Science*, 34, ARVO Supplement.
- 1993 Kowler, E., Doshier, B., Anderson, E., & Blaser, E. Saccadic eye movements and shifts of visual attention. *Proceedings of the Thirty-Fourth Annual Meeting of the Psychonomics Society, November*.
- 1992 Doshier, B.A., & Ma, J-J. Relation of recall output time and accuracy in STM. *Proceedings of the Thirty-Third Annual Meeting of the Psychonomics Society, November*.
- 1991 McElree, B., & Doshier, B. A. Serial comparison processes in judgments of order in STM. *Mathematical Behavioral Sciences Technical Report MBS-91-33*, University of California, Irvine.

- 1991 Doshier, B.A. An acquisition, loss, and decision model of retrieval from STM. Proceedings of the Thirty-Second Annual Meeting of the Psychonomics Society, November.
- 1991 McElree, B. & Doshier, B.A. Retrieving order and item information from STM: Serial and parallel mechanisms. Proceedings of the Thirty-Second Annual Meeting of the Psychonomics Society, November.
- 1990 Doshier, B.A., & Rosedale, G. Dual cues in recognition. Proceedings of the Thirty-First Annual Meeting of the Psychonomics Society, November.
- 1990 Wurst, S., Sperling, G., & Doshier, B. Central locus of short-term visual memory for repetitions. Proceedings of the Thirty-First Annual Meeting of the Psychonomics Society, November.
- 1988 Doshier, B.A., & McElree, B. Retrieval from short term memory is parallel. Proceedings of the Twenty-ninth Annual Meeting of the Psychonomics Society, November.
- 1987 Landy, M.S., Sperling, G., Doshier, B.A., & Perkins, M.E. Structure from what kind of motion? *Investigative Ophthalmology and Visual Science*, Supplement.
- 1987 Sperling, G., & Doshier, B.A. Predicting rigid and nonrigid perceptions. *Investigative Ophthalmology and Visual Science*, 28, No. 3, ARVO Supplement, 362.
- 1987 Landy, M.S., Sperling, G., Doshier, B.A., & Perkins, M.E. From what kind of motions can structure be inferred? *Investigative Ophthalmology and Visual Science*, 28, No. 3, 233.
- 1987 Landy, M.S., Doshier, B.A., Sperling, G., & Perkins, M.E. Perception of complex shape from optic flow. *Journal of the Optical Society of America A: Optics and Image Science*, 4.
- 1987 Doshier, B.A., & Rosedale, G. Composite cue model of priming. Proceedings of the Twenty-eighth Annual Meeting of the Psychonomics Society, November.
- 1986 Landy, M.S., Doshier, B.A., & Sperling, G. Assessing kinetic depth in multi-dot displays. *Bulletin of the Psychonomic Society*, 19, 23.
- 1985 Doshier, B.A., & Hood, R.M. The effect of related items on single item retrieval. Proceedings of the Fifty-sixth Annual Meeting of the Eastern Psychological Association, March.
- 1984 Doshier, B.A., Sperling, G. & Wurst, S. Stereopsis versus proximity luminance covariance as determinants of perceived 3D structure. *Journal of the Optical Society of America A: Optics and Image Science*, 1(12), 1254.
- 1984 Doshier, B.A. Item and relational information in judgments of association. Proceedings of the Twenty-fifth Annual Meeting of the Psychonomics Society, November.
- 1983 Doshier, B.A. Coding and sentence retrieval. *Journal of Psycholinguistic Research*, 12, 528.

- 1983 Doshier, B.A. Discriminating pre-experimental (semantic) from newly learned (episodic) associations. Proceedings of the Twenty-fourth Annual Meeting of the Psychonomics Society, November.
- 1981 Doshier, B.A. Monte Carlo Estimates of Asymptotic Variance of the Parameters of SAT Functions. Technical Manuscript.
- 1979 Seidenberg, M.S. & Doshier, B.A. Orthographic and phonetic information in word recognition. Paper based on a talk at the Eastern Psychological Association.
- 1978 Corbett, A.T. & Doshier, B.A. Instrument norms for 60 actions. Technical Manuscript.