

CURRICULUM VITAE

M. Jeanne Sholl

December, 2007

OFFICE ADDRESS

Department of Psychology
Boston College
Chestnut Hill, Massachusetts 02167
Office phone: (617) 552-4554
FAX: (617) 552-0523
E-mail: sholl@bc.edu

HOME ADDRESS

38 Jameson Road
Newton, MA 01772
(617) 332-8329

EDUCATION

1967	B. S.	Biology	Bucknell University, Lewisburg, PA
1978	M.S.	Psychology	Idaho State University, Pocatello, ID
1980	M.A.	Psychology	Johns Hopkins University, Baltimore, MD
1982	Ph.D.	Psychology	Johns Hopkins University, Baltimore, MD

ACADEMIC POSITIONS HELD

1977-81	Instructor, part-time: Idaho State University, Goucher College, University of Baltimore, Towson State University, Johns Hopkins University
1982-88	Assistant Professor, Boston College
1988-02	Associate Professor, Boston College
2002-present	Professor, Boston College

ACADEMIC ADMINISTRATIVE EXPERIENCE

School of Arts and Sciences, Boston College
Director Cognitive Science Minor (1988–92)

Psychology Department, Boston College
Director, Graduate Program (Ph.D.) (1988–92)
Chairperson (1992–2001)

PROFESSIONAL SERVICE

American Psychological Association Committee on Accreditation (CoA),

Member (1998 – 2003);
Executive Committee, Member (1998-2000; 2003)
Council of Graduate Departments of Psychology (COGDOP),
Member (1992 – 2001);
Executive Board, Elected Member (1999-2001)
NCGIA Specialist Meeting on *Scale and Detail in the Cognition of Geographic Information*,
Core Planning Group Member, 1998.
Editorial Board
Memory & Cognition
Journal of Spatial Computation and Cognition

ACADEMIC SERVICE

University, Boston College

Project Delta Faculty-Staff Support Design Team, Member (1996-97); Local Service Center, Advisory Committee, Member (1999-2000); Search Committee, Director of Academic Research Support, IT, Member (2000)

School of Arts and Sciences, Boston College

A & S Faculty Senate, Elected Member (1984-87); Premedical Advisory Committee, Member (1985-92); Board of Chairs, Member (1992 – 2001); Board of Chairs, Subcommittee on Technology and Staff Support, Member (1994-95); Graduate Educational Policy Committee, Elected Member (2003-2006)

Psychology Department, Boston College

Graduate Program Planning Committee, Member (1982-85); Search Committees, Member (1983, '87, '90, '99, '00, '03, '04); Graduate Evaluation Committee, Chair (1988-92), Member (2002-06); Graduate Program Committee, Chair, (1988-92); Planning and Goals Committee, Chair (1992-94); Executive Committee, Chair, (1994 – 2001); Urban Minority Affairs Search Committee, Member (1996-99); Ad Hoc Committee on Graduate Areas (2004-05); Graduate Admissions Committee (2005-06).

PUBLICATIONS

- Sholl, M. J., and Egeth, H. E. (1980). Interpreting direction from graphic displays: Spatial frames of reference. In P. S. Kohlers, M. E. Wrolstad, and H. Bouma (Eds.), *Processing of Visible Language 2*. New York: Plenum Press.
- Sholl, M. J., and Egeth, H. E. (1981). Right-left confusion in the adult: A verbal labeling effect. *Memory & Cognition*, 9, 339-350.
- Sholl, M. J., and Egeth, H. E. (1982). Cognitive correlates of map reading ability. *Intelligence*, 6, 215-230.
- Sholl, M. J., and Easton, R. D. (1986). The effect of referent object familiarity on verbal learning in the sighted and the blind. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 12, 190-200.
- Sholl, M. J. (1987). Cognitive maps as orienting schemata. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 13, 615-628.

- Sholl, M. J. (1988). The relation between sense of direction and geographic orientation ability. *Intelligence, 12*, 299-314.
- Sholl, M. J. (1989). The relation between horizontality, rod-and-frame, and vestibular navigational performance. *Journal of Experimental Psychology: Learning, Memory & Cognition, 15*, 110-125.
- Sholl, M. J. (1992). Landmarks, places, environments: Multiple mind/brain systems for spatial orientation. *Geoforum (Special Issue on Geography, Environment and Cognition), 23*, 151-164.
- Easton, R. D., & Sholl, M. J. (1995). Object-array structure, frames of reference, and retrieval of spatial knowledge. *Journal of Experimental Psychology: Learning, Memory, & Cognition, 21*, 483-500.
- Sholl, M. J., & Liben, L. S. (1995). Illusory tilt and Euclidean Schemes as Factors in Performance on the Water-Level Task. *Journal of Experimental Psychology: Learning, Memory, & Cognition, 21*, 1624-1638.
- Sholl, M. J. (1995). The representation and retrieval of map and environment knowledge. *Geographical Systems, 2*, 177-195.
- Sholl, M. J. (1996). From visual information to cognitive maps. In J. Portugali (Ed.) *The Construction of Cognitive Maps*. Dordrecht: Kluwer Academic Publishers.
- Sholl, M. J. & Nolin, T. L. (1997). Orientation specificity in representations of place. *Journal of Experimental Psychology: Learning, Memory, & Cognition, 23*, 1496-1507.
- Sholl, M. J. (1999). Egocentric frames of reference used for the retrieval of survey knowledge learned by map and navigation. *Journal of Spatial Cognition and Computation, 1*, 475-494.
- Sholl, M. J. (2000). The Functional Separability of Self-Reference and Object-to-Object Systems in Spatial Memory. In S. O Nuallain (Ed.). *Spatial cognition : foundations and applications : selected papers from Mind III, Annual Conference of the Cognitive Science Society of Ireland, 1998*. Amsterdam: John Benjamins Publishing.
- Sholl, M. J., Acacio, J. C., Makar, R. O, Leon, C. (2000). The relation of sense of direction to orientation in an unfamiliar environment. *Journal of Environmental Psychology, 20*, 17-28.
- Sholl, M. J. (2001). The role of a self-reference system in spatial navigation. In D. Montello (Ed.). *Spatial information theory: Foundations of geographic information science (International Conference, COSIT 2001 Proceedings)* (pp. .217-232). Berlin: Springer-Verlag Lecture Notes in Computer Science Vol. 2205.
- Sholl, M. J., & Bartels, G.P. (2002). The role of self-to-object updating in orientation-free performance on spatial memory tasks. *Journal of Experimental Psychology: Learning, Memory, & Cognition. 28*, 422-436.

- Sholl, M. J., & Fraone, S. (2004). Spatial working memory systems. In G. Allen (Ed.), *Remembering where: Advances in understanding spatial memory* (pgs. 67-100). Mahwah, NJ: Lawrence Erlbaum.
- Muehl, K. A., & Sholl, M. J. (2004). The acquisition of vector knowledge and its relation to self-rated direction sense. *Journal of Experimental Psychology: Learning, Memory, & Cognition*, 30, 129-141.
- Sholl, M. J., & Kenny, R.J. (2005). The Interface between egocentric and allocentric coding systems in spatial retrieval. *Journal of Spatial Cognition and Computation. Special Issue on Spatial and Visual Components in Mental Reasoning about Large-Scale Space*. 5, 187-215.
- Holmes, M. C. & Sholl, M. J. (2005). Allocentric Coding of Object-to-Object Relations in Over-learned and Novel Environments. *Journal of Experimental Psychology: Learning, Memory, & Cognition*, 31, 1069-1087.
- Sholl, M. J., Kenny, R. J., & DellaPorta, K. (2006). Allocentric-Heading Recall and its Relation to Self-Reported Sense-of-Direction. *Journal of Experimental Psychology: Learning, Memory, & Cognition*, 32, 516-533.
- Sholl, M. J. (submitted). Spatial orientation and ability. Invited submission to *Current Directions in Psychological Science*.

PRESENTATIONS

- Sholl, M. J., and Egeth, H. E. (1979). *On telling which end is up*. Presented by H. E. Egeth at the Conference on Processing of Visible Language, Ontario, 1979.
- Sholl, M. J., and Egeth, H. E. (1979, April). *When judging right and left is as easy as judging up and down*. Presented at the annual meeting of the Eastern Psychological Association, Hartford, CO.
- Sholl, M. J. (1980, April). *The orientation of cognitive maps: A study in flexibility*. Paper presented at the annual meeting of the Eastern Psychological Association, New York, NY.
- Sholl, M. J., and Easton, R. D. (1984, April). *The effect of tactual familiarity on verbal recall*. Paper presented at the annual meeting of the Eastern Psychological Association, Baltimore, MD.
- Sholl, M. J. (1989, November). *Environmental Images: A kinesthetic component*. Paper presented at the meeting of the Psychonomic Society, Atlanta, GA.
- Sholl, M. J. (1990, March). How do people acquire knowledge of water-level invariance? In R. Vasta (Chair), *Do gender differences in horizontality result primarily from cognitive or*

perceptual factors? Symposium conducted at the Annual Meeting of the Eastern Psychological Association, Philadelphia, PA.

Sholl, M. J. (1990, November). *The role of attention in the acquisition of spatial knowledge.* Paper presented at the Annual Meeting of the Psychonomic Society, New Orleans, LA.

Nolan, T. & Sholl, M. J. (1991, November). *The role of viewing angle in the orientation specificity of cognitive maps.* Poster presented at the Annual Meeting of the Psychonomic Society, San Francisco, CA.

Sholl, M. J. (1992, November). *Frames of reference in accessing spatial knowledge.* Paper presented at the Annual Meeting of the Psychonomic Society, St. Louis, MO.

Sholl, M. J. (1993, November). *The effect of restricting vision to the central field on spatial knowledge acquisition.* Paper presented at the Annual Meeting of the Psychonomic Society, Washington, DC.

Sholl, M. J. (1994, March). *The role of central and peripheral vision in the acquisition of spatial knowledge.* Poster presented at the Cognitive Science Society Inaugural Meeting, San Francisco, CA.

Sholl, M. J. (1994, March). *How spatial knowledge of environments differs from map knowledge.* Paper presented at the Annual Meeting of the American Association of Geographers, San Francisco, CA.

Sholl, M. J. (1994, November). *The role of illusory tilt in water-level acquisition.* Poster presented at the Annual Meeting of the Psychonomic Society, St. Louis, MO.

Bentzen, B. L., Sholl, M. J., & Easton, R. E. (1995, March). *Viewpoint specificity in spatial representation of the sighted and the blind.* Poster presented at the Annual Meeting of the Cognitive Neuroscience Society, San Francisco, CA.

Sholl, M. J., & Hansen, K. (1995, November). *The effect of word frequency and referent-object familiarity on verbal recognition memory.* Paper presented at the Annual Meeting of the Psychonomic Society, Los Angeles, CA.

Tay, V. E., & Sholl, M. J. (1996, October). *Effects of perceptive and apperceptive rehearsal on memory for emotional and neutral events.* Poster presented at the Annual Meeting of the New England Psychological Association.

Sholl, M. J. & Nolan, T. L. (1996, November). *Orientation specificity in spatial representation.* Paper presented at the Annual Meeting of the Psychonomic Society, Chicago, IL.

Srinivas, K., & Sholl, M. J. (1997, November). *WebScholar: A Set of Java-Based Instructional Tools for Teaching Statistics and Research Methods on the Internet.* Paper presented at the Annual Meeting for the Society for Computers in Psychology, Philadelphia, PA.

Sholl, M. J., & Friedman, O. (1997, November). *Place Learning: Factors Contributing to Orientation-Free Performance.* Paper presented at the Annual Meeting of the Psychonomic Society, Philadelphia, PA.

Sholl, M. J. (1998, August). *The accessibility of metric relations in self-reference and object-to-object systems*. Paper presented at the Mind III Conference of the Cognitive Science Society of Ireland on Spatial Cognition, Dublin, Ireland.

Sholl, M. J. (1998, November). *Interactions between cognitive representational and perceptual spatial systems*. Paper presented at the Annual Meeting of the Psychonomic Society, Dallas, Texas.

Sholl, M. J. (1999, April). *Types of self-reference systems used for retrieving knowledge of large scale spatial relations*. Paper to be presented at International Workshop on Systems of Reference for Spatial Knowledge, Hamburg, Germany.

Sholl, M. J. & Srinivas, K. (1999, November). *Web based instruction integrating statistics and research methods*. Paper presented at the annual meeting of The Society for Computers in Psychology, Los Angeles, CA.

Sholl, M. J. (1999, November). *What happens to environment knowledge over time*. Poster presented at the Annual Meeting of the Psychonomic Society, Los Angeles, CA.

Sholl, M. J. & Muehl, K. (2000, November). *The contribution of idiothetic and visual information to sense of direction*. Paper presented at the Annual Meeting of the Psychonomic Society, New Orleans, LA.

Sholl, M. J., & Fraone, S. (2001, July). *How does memory for large-scale spatial relations degrade over long retention intervals?* Paper presented at The 3rd International Conference on Memory, Valencia, Spain.

Sholl, M. J. (2001, September). *The role of a self-reference system in spatial navigation*. Paper presented at the fifth international Conference on Spatial Information Theory '01, Morro Bay, CA.

Sholl, M. J., & Fraone, S. (2001, November). *Do spatial memories degrade over long retention intervals?* Poster to be presented at the Annual Meeting of the Psychonomic Society, Orlando, FL.

Fraone, S., & Sholl, M. J. (2002, November). *Landmark recognition: Holistic or parts-based processing?* Poster to be presented at the Annual Meeting of the Psychonomic Society, Kansas City, MO.

Muehl, K. A., & Sholl, M. J. (2002, November). *Does sense of direction predict learning in virtual space?* Poster to be presented at the Annual Meeting of the Psychonomic Society, Kansas City, MO.

Sholl, M. J. (2004, November). *In what direction are you heading?* Paper presented at the Annual Meeting of the Psychonomic Society, Minneapolis, MN.

Sholl, M. J. & Kenny, R. J. (2004, November) *The interface between egocentric and allocentric systems in the retrieval of spatial information*. Poster presented at the Annual Meeting of the Psychonomic Society, Minneapolis, MN.

Sholl, M. J. (2005, November). *Are inter-object spatial relations coded allocentrically in novel environments?* Paper presented at the Annual Meeting of the Psychonomic Society, Toronto, Canada.

Kenny, R. J., & Sholl, M. J. (2005, November) *Resource sharing within working memory.* Poster presented at the Annual Meeting of the Psychonomic Society, Toronto, Canada.

Sholl, M. J. (2006, November). *Does memory for metric inter-object relations survive disorientation in human adults?* Paper presented at a *Special Session: How Geometric Information Is Represented and Used* at the Annual Meeting of the Psychonomic Society, Houston, TX.

Sholl, M. J. (2007, November). *Do humans have an internal compass like other mammals do?* Paper presented at the Annual Meeting of the Psychonomic Society, Long Beach, CA.

INVITED TALKS AND COLLOQUIA

Sholl, M. J. (1994, March). *Spatial knowing: Environments and maps.* Colloquia presented at Department of Psychology, Northeastern University.

Sholl, M. J. (1997, August). Invited Symposium: *Spatial Representation and its development.* Discussant at the Annual Meeting of the American Psychological Association, Chicago, IL.

Sholl, M. J. (1998, May). *Cognitive Scale Classes within Room-Sized Space.* Invited Plenary Paper presented at NCGIA Meeting on Scale and Detail in the Cognition of Geographic Information, Santa Barbara, CA.

Sholl, M. J. (1999, October). *Understanding spatial competence in perspective taking.* Invited paper presented at NSF Spatial Intelligence Conference, October 16-17, 1999, Chicago.

Sholl, M. J. (2000, November). *The role of a self-reference system in human navigation.* Invited talk at the Neural Net/Vision Seminar Series, Department of Visual and Language Sciences, Brown University.

Sholl, M. J. (2007, November). *Egocentric and allocentric representational systems in human spatial memory.* Colloquium presented at Department of Psychology, University of California, Santa Barbara.

GRANT SUPPORT

Internal

Research Incentive Grant, Boston College (Summer 1983, Summer 1986), \$5000

Research Expense Grants, Boston College (multiple awards), \$500-\$2000

Undergraduate Instructional Laboratory and Graduate Research Workstation Grant, Boston College (1994), \$40,000

External

Increasing Cost Effectiveness in the Teaching of the Social Sciences through Innovative Use of Information Technology. Davis Educational Foundation (1996–1999). Project Director: Jeanne Sholl. \$235,000.

PROFESSIONAL MEMBERSHIPS

American Psychological Association, Member (1984-2003); APA Division 3, Experimental Psychology, Member (1995-2003); Psychonomic Society, Member (1988-2007); COGDOP, Member (1992-2001)

EDITORIAL SERVICE

Editorial Board, *Journal of Spatial Cognition and Computation*, (since 1998)
Consulting Editor, *Memory & Cognition*, (since 2006)

Ad Hoc Reviewer: *Developmental Psychology*, *Journal of Experimental Psychology: Learning, Memory, and Cognition*, *Journal of Experimental Psychology: General*, *Journal of Experimental Psychology: Human Perception and Performance*, *Journal of Experimental Child Psychology*, *Memory & Cognition*, *The Journal of the International Society for Ecological Psychology*, *Merrill Palmer Quarterly*, *Psychological Science*, *Canadian Journal of Experimental Psychology*, *British Journal of Psychology*, *Journal of Applied Social Psychology*, *Journal of Environmental Psychology*, *Child Development*, *Cognitive Psychology*.

REVIEWS FOR FUNDING AGENCIES

AdHoc Reviewer: *National Science Foundation, Human Cognition and Perception Program*,
United States Air Force Office for Scientific Research

Panel Member; *NSF Research on Learning in Education program (ROLE)*, (January, 2003)

TEACHING

Undergraduate: Introduction to Psychology as a Natural Science, Statistics, Cognitive Psychology

Graduate: Cognitive Neuropsychology, Advanced Topics in Cognitive Neuroscience