

July, 2023

CURRICULUM VITAE
RICHARD M. SHIFFRIN

Biographical Data:

Name: Richard Martin Shiffrin

Birthplace: New Haven, Connecticut, March 13, 1942

Current Address: Psychology Department, Indiana University, Bloomington, IN 47405

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Current Positions: Distinguished Professor

Luther Dana Waterman Professor

Professor of Psychological and Brain Sciences

Professor of Cognitive Science

Adjunct Professor of Statistics

Education:

1960-1964: Yale University; B.A. (Mathematics): 1964

1964-1968: Stanford University; Ph.D. (Experimental and Mathematical Psychology): 1968

Academic Positions:

1968-1970: Assistant Professor of Psychology, Indiana University

1970-1971: Visiting Assistant Professor of Psychology, The Rockefeller University

1971-1973: Associate Professor of Psychology, Indiana University

1973-present Professor of Psychology, Indiana University

1980-present Luther Dana Waterman Professor

2002-present Distinguished Professor

1975-1976: Visiting Professor of Psychology, The Rockefeller University

1988, Fall: Visiting Professor of Psychology, University of Queensland, Brisbane, Australia

1994-1995: Visiting Professor of Psychology, University of Amsterdam, The Netherlands

2006-present Adjunct Professor of Statistics, Indiana University

Awards, Honors, Fellowships , Honorary/Elected Positions:

- 2023: Senior Fellow, Society for Mathematical Psychology
2018: Atkinson Prize, National Academy of Sciences
2014: President's Medal for Excellence, Indiana University
2014: Chair, American Academy of Arts and Sciences panel for Cognitive Science
2013: Council, American Philosophical Society
2009: Henry R. Besch Promotion of Excellence Award, IU Alliance of Distinguished and Titled Professors
2007: William James Fellow Award, Association for Psychological Science
2006: Hermes Award, School of Informatics, Indiana University
2005: Member, American Philosophical Society
2004: American Psychological Association (APA) Distinguished Scientific Contribution Award.
2003: Fellow of the Cognitive Science Society
2002: Distinguished Professor, Indiana University
2002: The David E. Rumelhart Prize for Contributions to the Formal Analysis of Human Cognition, Gluschnko-Samuels Foundation
1999: Howard Crosby Warren Medal, Society of Experimental Psychologists
1997: Honorary Doctorate, University of Amsterdam
1996: Member, American Academy of Arts and Sciences
1996: Fellow, American Psychological Society
1995: Member, National Academy of Sciences
1994-95: James McKeen Cattell Sabbatical Fellowship
1991-2001: MERIT Award, National Institutes of Mental Health
1987: Chairman, Governing Board, Psychonomic Society
1985: Chairman, Society for Mathematical Psychology
1981: Society of Experimental Psychologists
1980-present Luther Dana Waterman Research Professor, Indiana University
1978: Advisory Council Int. Association for the Study of Attention and Performance
1977-present: Fellow of the American Association for the Advancement of Science
1975-1976: John Simon Guggenheim Fellowship
1967-1968: NSF Fellowship, Stanford University
1964-1967: NDEA Fellow in Mathematical Psychology, Stanford University

Grants:

Current:

- 2023: Luther Dana Waterman Professorship
--- Foundation
2022: Luther Dana Waterman Professorship
--- Foundation
2018/2019: CTSI (FRSP) Grant-in-Aid, Indiana University
2019: NSF for Student travel to the NAS Sackler Colloquium "The Brain Forms Mind by Modeling"

2019: Army Research Office for Student travel to the NAS Sackler Colloquium “The Brain Forms Mind by Modeling”

2018: FRSP Seed Grant: “EEG Measures of Short-term Memory”, Indiana University

1980-present Indiana University: *Luther Dana Waterman Research Award*

Previous Awards:

- 2015: NSF: Student Travel Support for the Sackler Colloquium, ‘Drawing Causal Inference from Big Data’.
- 2012-2015: AFOSR: Principal Investigator: A Dynamic Model for Decision Making During Memory Retrieval.
- 2009-2012: AFOSR: Principal Investigator: *Co-Evolution of Event Memory and Knowledge*
- 2009-2011: NSF: Co-Principal Investigator (with Dave Huber, UCSD): *Modeling Perception and Memory: Studies in Priming*
- 2008-2009: NSF: Co-Principal Investigator (with Dave Huber, UCSD): *Modeling Perception and Memory: Studies in Priming*
- 1968-2007: NIH: Principal Investigator, PHS NIMH MH 12717: *Information Processing, Search and Retrieval*
- 2001-2007: NIH: Co-Principal Investigator (with Dave Huber), PHS NIMH MH 63993: *Modeling Perception and Memory: Studies in Priming* (with subcontract to UC San Diego)
- 1993-2008: NIH: Co-Principal Investigator, NIMH Training Grant, MH19879, *Modeling of Cognition*
- 1991-2002: NIMH MERIT Award
- 1998-2001: NSF: Co-PI, Education Directorate DUE 9752299: *An Undergraduate Curriculum for Cognitive and Information Sciences*
- 1995-1999: NSF, SBR 9512089, *Processing Visual Information from Unattended Locations*
- 1996-1999: Indiana University: P.I., Indiana University Strategic Directions Charter Grant: *Undergraduate Major in Cognitive Science*
- 1991-1993: AFOSR 870089: Associate Director, *Institute for the Study of Human Capabilities*
- 1986-1990: AFOSR 870089: Co-PI: *Institute for the Study of Human Capabilities*
- 1968-1980: PHS NIMH 11219: Asst. Invest. *Training Grant in Mathematical Psychology*
- 1977-1978: NSF Grant: *Controlled and Automatic Information Processing*
- 1969-1972: NIH Biomedical Sciences Support Grants Program (BSSGP)

Courses Taught:

Undergraduate: Introductory Statistics, Advanced Statistics, Bayesian Statistics, Introduction to Mathematical Psychology, Cognitive Psychology, Human Memory

Graduate: Introductory Statistics, Mathematical Psychology, Cognitive Psychology, Perception, Information Processing, Sensory Information Processing, Short-term Memory, Long-term Memory, Attention and Automatism, Parallel Distributed Processing Models, Machine Learning, Bayesian Inference, Data Mining Techniques, Computational Statistics, Rationality and Reasoning

Research Interests:

Cognition and Modeling of Cognition; Machine Learning; Computational Statistics; Learning; Memory; Sensory Coding; Information Processing; Forgetting; Information Retrieval; Attention and

Automatism; Organization and Structure of Memory; Control Processes in Memory and Cognition; Decision Theory and Experimentation; Optimal Decision Making; Rationality and Reasoning; Causal Reasoning; Vision Processing and Visual Features; Visual Priming and Inference; Psychological Representation; Statistical Learning; Explanations for Quantitative Data; Model Selection; Statistical Methodology; Use of machine learning methods for data analysis; Bayesian Modeling and Bayesian Inference; Co-Evolution of Event memory and Knowledge; Practices of science, practices of statistics, and their inter-relationship; Defending scientific practice from attacks sparked by the so-called ‘reproducibility crisis’. Methods for practicing science. Game Theory.

Mathematical and Computational Modeling of these areas

Recent Research Service to the Field:

- 2023: Chief Organizer, conference on the practices of science, *Scientific Inference and Statistical Inference*, Selva, Val Gardena, Italy
- 2023: Organizer, 2023 Annual Summer Interdisciplinary Conference, Kranjska Gora, Slovenia
- 2022: Organizer, 2022 Annual Summer Interdisciplinary Conference, December 2022, Queenstown New Zealand
- 2022: Organizer, 2022 Annual Summer Interdisciplinary Conference, Chamonix, France
- 2021: Organizer, 2021 Annual Summer Interdisciplinary Conference, San Martino di Castrozza, Italy.
- 2019: Organizer, 2019 Annual Summer Interdisciplinary Conference, Seefeld, Austria
- 2019: Chief Organizer, Sackler Colloquium, “The Brain Forms Mind by Modeling”
- 2018: Chief Organizer, Symposium at the Association for Psychological Science: “Rapid Progress amid Reproducibility Failure: Paradox Resolved”
- 2018: Chief Organizer, Symposium at the Annual Meetings of the Society for Mathematical Psychology: “Should Statistics Determine the Practice of Science, or Science Determine the Practice of Statistics?”
- 2018: Chief Organizer, Symposium at the Psychonomic Society Annual Meetings: “Should Statistics Determine the Practice of Science, or Science Determine the Practice of Statistics?”
- 2018: Testimony to the National Academy of Sciences Committee: Reproducibility and Replicability in Science
- 2018: Co-Editor, *Memory and Cognition* Special Issue *Special Issue to Commemorate the 50th Anniversary of Atkinson and Shiffrin Human Memory: A Proposed System and Its Control Processes*.
- 2018: Organizer, 2018 Annual Summer Interdisciplinary Conference, Loano, Italy
- 2018: Co-Editor, *Proceedings of the National Academy of Science* Special Issue for the Sackler Colloquium listed next:
- 2017: Co-Organizer of the Sackler Colloquium at the National Academy of Sciences: “Reproducibility of Research: Issues and Proposed Remedies”
- 2017: Organizer, 2017 Annual Summer Interdisciplinary Conference, Interlaken Switzerland
- 2016: Chief editor of *Proceedings of the National Academy of Sciences* special issue: ‘Drawing Causal Inference from Big Data.
- 2016: Organizer, 2016 Annual Summer Interdisciplinary Conference, Selva, Italy

- 2015: Chief Organizer, National Academy of Science Sackler Colloquium: 'Drawing Causal Inference from Big Data';
- 2015: Organizer, 2015 Annual Summer Interdisciplinary Conference, Mammoth Lakes, CA
- [47 more years omitted]

Other Professional and National Service (selected):

Editor, *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 1981-1984.
Associate Editor, *Psychological Review*, 1976-1982; 1989-1997
Present Masthead Consulting Editor, *Journal of Mathematical Psychology*,
Action Editor, *Proceedings of the National Academy of Sciences*, 1997-present
Former Masthead Consulting Editor, *Acta Psychologica*, *Memory & Cognition*, *Journal of Experimental Psychology: Learning, Memory, and Cognition*, and *Perception & Psychophysics*.
Regular reviewer for journals in the field of cognitive psychology. Reviewer of grants from the National Science Foundation and the Public Health Service.
Public Health Service Committee on evaluation of pre- and post-doctoral fellowship applications.
Co-organizer of Indiana Mathematical and Cognitive Psychology Meetings, 1968-1976.
Director, Cognitive Science Program, Indiana University, 1988-2000
Director, Cognitive Science Program, Indiana University, 2002-4
Co-organizer of VI, VII, VIII, IX, X, XI, and XII Annual Interdisciplinary Conferences, 1980-present.
Founder, Indiana Alliance of Distinguished and Titled Professors, 1990
Co-chair, Distinguished Rank Professors, Indiana University, 1991-4
Governing Boards of the Psychonomic Society, 1982-88, and Society for Mathematical Psychology, 1983-89.
Editor, *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 1981-4
Publication Committee, Psychonomic Society, 1982-88.
Governing Board, Society for Mathematical Psychology, 1983-8
Governing Board of the Psychonomic Society, 1982-7
National Science Foundation Panel on Human Cognition and Perception, 1989-92
Co-Organizer of the 24th Annual Meetings of the Society for Mathematical Psychology, 1991.
Co-Organizer of the 30th Annual Meetings of the Society for Mathematical Psychology, 1997.
Organizer, Annual Meetings of the Society for Mathematical Psychology, 1997, Tutorial Day on Model Selection
Host, of the 1992 Annual Meetings of the Cognitive Science Society.
Associate Director, Institute for the Study of Human Capabilities, IU, 1991-2004
Co-director, Alliance of Distinguished Rank Professors, Indiana University, 1990-9
National Research Council Panel on Representing Human Behavior in Military Simulations, 1996-1998, Member
External Review Committee for the National Science Foundation for the Panel on Cognition and Perception, 1996.
External Review Panel, Psychology Department, University of Maryland, 1997.
External Review Panel, Ohio State Program in Cognitive Sciences (Jan, 2003)
External Review Panel, University of California, Irvine Institute for Mathematical and Behavioral Sciences (Mar, 2003)
Head, External Review Panel, Hebrew University, Psychology Department, 2007
NRC Committee Member, Division of Behavioral and Social Sciences and Education, 1999-2005.

National Research Council, Member, Panel on the Validity of Polygraph Testing, 2001-2002
 National Research Council, Workshop on Vitality of Research on Aging, 2001
 Vice Chair, National Research Council, Committee on Monitoring the Changing Need for
 Biomedical, Behavioral, and Clinical Research Personnel, 2002-4
 Chair, Membership Committee, Section 52, National Academy of Science, 1998-2000
 Class V Secretary, National Academy of Science, 1999-2002
 Class V Chair, National Academy of Science, 2002-2006
 Section 52 Chair, National Academy of Science, 2006-2009
 National Academy of Sciences, Committee on Nomination and Election in the 21st Century, 2002
 National Academy of Science, Troland Award Committee, 1994-2002
 Chair, National Academy of Science, Troland Award Committee, 2001
 Co-organizer, National Academy of Sciences Sackler Colloquium, 'Mapping Knowledge
 Domains', May 2003
 Editor, Proceedings of the National Academy of Science special issue "Mapping Knowledge
 Domains"
 Co-organizer, Annual Meetings of the Society for Mathematical Psychology, 2003, Tutorial Day
 on Bayesian Modeling
 Neural Information processing Systems Conference, Cognitive Science Program Chair, 2003, 2004
 National Research Council, Co-chair, Committee on Monitoring the Changing Needs for
 Biomedical and Behavioral Research Personnel
 Organizer, Annual Summer Interdisciplinary Conference, 2002, 2003, 2004, 2005, 2006, 2007,
 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017
 Organizer, NAS Sackler Colloquium 'Drawing Causal Inference from Big Data', March, 2015.
 Executive Editor, PNAS special issue, 'Drawing Causal Inference from Big Data'-planned 2016
 Planning NRC study: 'Protecting the Integrity of Science'
 Co-organizer, NAS Sackler Colloquium, 'Protecting the Integrity of Science'
 National Research Council Board on Behavioral, Cognitive, and Sensory Sciences 2009-13
 TNG Chair, Psychology, American Philosophical Society;
 Council, American Philosophical Society 2012
 Chair, American Academy of Arts and Sciences special panel for Cognitive Science 2014-2016

University Service (selected and recent)

Founder and Co-Director, Alliance of Distinguished Rank Professors, 1993-2000.
 Steering Committee, Alliance of Distinguished Rank Professors, 2000-2016.
 Founder and Director, Cognitive Science Program, 1988-2002.
 Strategic Planning Committee, IUB, 2002-3.
 Co-director, Committee on Applied Statistics, 2002-3.
 Co-organized proposal for fMRI, 2002.
 Chair, Committee to form a School of Informatics, 1998-9.
 Committee to initiate a Department of Statistics
 Distinguished Professor Committee, 2013-2019
 Organizer, Symposium Honoring the Accomplishments of President Michael McRobbie, 2017

Organizational Memberships (selected):

National Academy of Sciences, American Academy of Arts and Sciences, American Philosophical
 Society, Society of Experimental Psychologists, American Psychological Society, American
 Psychological Association, Society for Mathematical Psychology, Psychonomic Society, American

Association for the Advancement of Science, Advisory Council for the International Association for the Study of Attention and Performance, Acoustical Society of America, Midwestern Psychological Association, Cognitive Science Society, International Psychological Association,

Presentations at Conferences and Invited Colloquia: Too Many to list; e.g.:

Attended and gave research talks at the 2021, 2022, and 2023 meetings of the Psychonomic Society, the Society of Experimental Psychologists, and the Cognitive Science Society.

Gave invited colloquia in 2022 at the University of Warwick, UK (2); University of London (2); Google Deep Mind, London; University of Zurich (2), two Max Plancks in Tuebingen Germany (2), Advanced Study Institute, Bremen, Germany; University of Amsterdam; University of Newcastle, Australia (2); University of Sydney, Australia (2); University of Melbourne, Australia, (2).

Students [dissertation advisor & date; present position]:

Bruce Durdin, 1974; Researcher, IBM

Wilson Geisler, 1975; Professor, Psychology Dept., and Biomedical Engineering Program; Director, Center for Vision and Image Sciences, University of Texas; National Academy of Sciences

Walter Schneider, 1975; Professor of Psychology and Center for the Neural Basis of Cognition, Univ. of Pittsburgh

Bill Burnside, 1975; Captain and Research Scientist, Army Research Institute, Fort Knox

Don McKay, 1975; Senior Scientist, Unisys Center for Advanced Information Technology

Bill Scholz, 1976, Director, Unisys NL Software Architecture

Susan Dumais, 1979; Former Principal Researcher, Context, Learning and User Experience for Search (CLUES) Group, Microsoft Research; now Technical Fellow and Managing Director, Microsoft Research New England, New York City and Montreal. SIGCHI Lifetime Research Award; National Academy of Sciences

Jeroen Raaijmakers, 1980; Professor of Psychology, University of Amsterdam

Dave Foyle, 1981; Senior Scientist, NASA Ames Research Center

Gary Gillund, 1982; Associate Professor, Dept. Psychology, College of Wooster

Tim Feustel, 1982; Scientist, Telcordia Technologies (retired)

Aita Salasoo, 1984; Senior Director Telcordia Technologies (deceased).

Scott Gronlund, 1986; Professor of Psychology, University of Oklahoma

Kevin Murnane, 1990; Associate Professor, University of Maryland

Steve Clark, 1991; Professor of Psychology, University of California, Riverside

Mary Czerwinski, 1992; Former Research Area Manager of the Visualization and Interaction (VIBE) Research Group, Microsoft Corporation, now Research Manager of the Human Understanding and Empathy group.

Peter Koss-Nobel, 1996; Practitioner, and Computability Specialist, Microsoft Corporation

Rachel Shoup, 1996; Instructor, Psychology, West Valley Community College

David Diller, 1999; Senior Scientist at Raytheon BBN Technologies, Boston

Mark Steyvers, 2000; Full Professor, University of California, Irvine, 2009

David Huber, 2000; Full Professor, University of Massachusetts, Amherst 2013

Amy Criss, 2004; Full Professor and Department Chair, Syracuse University

Christoph Weidemann, 2006; Senior Lecturer at Swansea University Wales
Adam Sanborn, 2007; Full Professor, University of Warwick UK 2010
Angela Nelson, 2009; Tenured Teaching Professor and Research Associate, UC San Diego
George Kachergis, 2012; Research Scientist, Stanford University
(winner of Robert J. Glushko Dissertation Prize, Cognitive Science Society, 2013);
Jared Hotaling, 2013; Assistant Professor, University of Illinois Champaign-Urbana 2020
Greg Cox, 2015; Assistant Professor, SUNY Albany
Rui Cao, 2019; Postdoctoral Researcher, Boston University
Suyog Chandramouli, 2020: Postdoctoral Researcher, University of Helsinki
Kiran Kumar, 2020; Software Engineer for Viaduct Menlo Park, CA
Sam Harding, 2021, Postdoctoral Research Associate, University of South Carolina

Postdoctoral research advising (year; present position):

Gerry Gardner, 1972; Professor, University of Michigan, Dearborn
Simon Dennis, 1994; Titled Professor, University of Newcastle
Rene Zeelenberg, 1996; 2002-3; Associate Professor, Erasmus University Rotterdam
Diane Pecher, 1996; 2002; Associate Professor, Erasmus University Rotterdam.
Lael Schooler, 1997; Full Professor, Syracuse University
Denis Cousineau, 1998; Full Professor, University of Ottawa CN 2011
Asher Cohen, 1998; Professor, Hebrew University, Israel
Roderick W. Smith, 1998; Private Consulting (Linux)
Eric Jan Wagenmakers, 2000; Full Professor, University of Amsterdam
Kenneth J. Malmberg, 2000-3; Associate Professor, University of South Florida; 2000.
Andrew Cohen, 2002-3; Associate Professor, Univ. of Mass. Amherst 2010
Shane Mueller, 2003-6: Associate Professor Michigan Tech University 2011
Dan Little, 2009-10: Senior Lecturer (~Associate Professor), University of Melbourne, 2010
Woojae Kim, 2009-10: Assistant Professor, Howard University 2019
Stephen Denton, Senior Manager, Data Science and Model Innovation
Chris Donkin, 2010-11; Senior Lecturer (~Associate Professor), University of New South Wales 2011
Brendan Johns, 2012-13: Assistant Professor, McGill University
Yanjiang Wang, 2014-15: Professor, China University of Petroleum

Present Graduate Students:

Lea (Shuchan) Lai (second year, 2019-2020)
Zainab Mohammed (first year, 2021)
Yiyan Tan, (2021, fall)
Kira Breithaupt (2022, fall)

Other research advising (and Ph.D. Committee Member; selected):

George Potts, 1971; Professor and Chair, Psychology Department, University of Denver
D. Wesley Grantham, 1975; Professor and Director of Research, Dept of Hearing and Speech Sciences, Vanderbilt University
Steve Edgell, 1975; Professor of Psychological and Brain Sciences, University of Louisville (retired)

James Picek, 1975; (no information)
Richard Griggs, 1976; Professor of Psychology, University of Florida
Barb Mynatt, 1977; Professor of Psychology, Bowling Green University
Darrell Butler, 1981; Professor of Psychological Science, Ball State University
Jan Weisenberger, 1981; Senior Associate Vice President for Research Ohio State
Robert H. Gilkey, 1981; Chair, and Associate Professor of Psychology, Wright State
Thomas Hanna, 1982; Researcher, Naval Research Station, Groton CT
Ed Hirt, 1987; Associate professor of Psychology, Indiana University
Paul Luce, 1987, Professor of Psychology, SUNY Buffalo
Paul Evans, 1987, (no information)
Louisa Slowiaczek, 1987, Professor of Psychology, Bowdoin College
Maria Sera, 1987, Professor of Psychology, ICD, University of Minnesota
Bruce Berg, 1987, Associate Professor, University of California, Irvine
Beverly Roskos-Ewoldson, 1989, Associate Professor of Psychology, Univ. Alabama
Hyun-Jung Shin, 1990, Professor of Psychology, Seoul University
Steve McKinley, 1991, Associate Instructor of Mathematics, Indiana University
Steve Goldinger, 1992; Professor of Psychology, Arizona State University
Robin Thomas, 1995, Professor of Psychology, Miami University
Tom Palmeri, 1995; Professor of Psychology, Vanderbilt University
Diane Pecher, 1997; Associate Professor, Erasmus University Rotterdam
Sonya Sheffert, 1997, Assistant Professor, Alma College, Alaska (deceased)
Rene Zeelenberg, 1998, Associate Professor, Erasmus University Rotterdam
Krystal Klein, 2009: Postdoctoral researcher in Biomedical Engineering at Oregon Health and Science University

Other Advising (selected):

Richard Schweikert, 1972, Chair, Master's Thesis; Professor of Psychological Sciences, Purdue University
William B. Whitten, II; 1970s: Undergraduate RA; AT&T Research
Marvin Krank, 1970s; Chair, Undergraduate Honors Thesis; Professor of Psychology, and Dean, Okanagan University
James Cook, 1980; Chair, Undergraduate Honors Thesis; Professor of Psychology, UNCC Charlotte
Mark Roth, 1990; Chair, Master's Thesis (private research firms, start ups, Oracle)
David Caulton, 1990s; Undergraduate RA; Researcher, Microsoft Research
Heidi Ziemer, 1990s: Graduate RA; Adjunct Assist, Professor of Psychology, Rice
Nancy Lightfoot, 1993; Graduate RA
Larissa K. Samuelson, 1993; Undergraduate Honors Thesis Advisor; Full Professor of Psychology, University of East Anglia, UK.
Kim Marinelli, 1990s: Undergraduate RA; Researcher, Microsoft Corporation
Kirsten Ruys, 1999; Chair, Master's Thesis; Assistant Professor, Utrecht Univ., Netherlands
Keith Lyle, 1999; Undergraduate RA; Assistant professor, Univ. Louisville
Joseph Stephens, 2000; Undergraduate RA; Assistant Professor, North Carolina A&T
Ziqi Zhao, 2020. Undergraduate honors. Graduate student, Brown University.

Publications (listed chronologically):

- Watson, W. W., Howard, A. J., Miller, N. E., & Shiffrin, R. M. (1963). Isotopic thermal diffusion factors for helium and neon at low temperatures. *Zeitschrift fur Nat^rforschung, 18a*, 242-245.
- Shiffrin, R. M., & Logan, F. A. (1965). Performance speed as a function of practice speed. *Journal of Verbal Learning and Verbal Behavior, 4*, 335-338.
- Atkinson, R. C., & Shiffrin, R. M. (1965). Mathematical models for memory and learning. Technical Report 79, Institute for Mathematical Studies in the Social Sciences, Stanford University. In P. Kimble (Ed.), *Proceedings of the Third Conference on Learning, Remembering, and Forgetting*. New York: The New York Academy of Sciences.
- Brelsford, J. W., Keller, L., Shiffrin, R. M., & Atkinson, R. C. (1966). Short-term recall of paired-associates as a function of the number of interpolated pairs. *Psychonomic Science, 4*, 73-74.
- Atkinson, R. C., & Shiffrin, R. M. (1966). Some two-process models for memory (Technical Report 107). Stanford, CA: Stanford University, Institute for Mathematical Studies in the Social Sciences.
- Phillips, J. L., Shiffrin, R. M., & Atkinson, R. C. (1967). The effects of list length on short-term memory. *Journal of Verbal Learning and Verbal Behavior, 6*, 303-311.
- Atkinson, R. C., Brelsford, J. W., Jr., & Shiffrin, R. M. (1967). Multiprocess models for memory with applications to a continuous presentation task. *Journal of Mathematical Psychology, 4*, 277-300.
- Brelsford, J. W., Shiffrin, R. M., & Atkinson, R. C. (1968). Multiple reinforcement effects in short-term memory. *British Journal of Mathematical and Statistical Psychology, 21*, 1-19.
- Atkinson, R. C., & Shiffrin, R. M. (1968). Human memory: A proposed system and its control processes. In K.W.Spence and J. T. Spence (Eds.), *The Psychology of Learning and Motivation: Advances in Research and Theory* (Vol. 2, pp. 89-195). New York: Academic Press.
- Shiffrin, R. M., & Atkinson, R. C. (1968). Some speculations on storage and retrieval processes in long-term memory (Technical Report 127). Stanford, CA: Stanford University, Institute for Mathematical Studies in the Social Studies.
- Shiffrin, R. M. (1968). Search and retrieval processes in long-term memory (Technical Report 137). Stanford, CA: Stanford University, Institute for Mathematical Studies in the Social Sciences.
- Shiffrin, R. M., & Atkinson, R. C. (1969). Storage and retrieval processes in long-term memory. *Psychological Review, 76*, 179-193.
- Shiffrin, R. M. (1970). Memory search. In D. A. Norman (Ed.), *Models of Memory* (pp. 375-447). New York: Academic Press.
- Shiffrin, R. M. (1970). Forgetting, trace erosion or retrieval failure? *Science, 168*, 1601-1603.
- Potts, G. R., & Shiffrin, R. M. (1970). Repetitions, blank trials, and the von Restorff effect in free recall memory. *Journal of Experimental Psychology, 86*, 128-130.
- Atkinson, R. C., & Shiffrin, R. M. (1971). The control of short-term memory. *Scientific American, 224*, 82-90.

- Shaffer, W. O., & Shiffrin, R. M. (1972). Rehearsal and storage of visual information. *Journal of Experimental Psychology*, *92*, 292-296.
- Shiffrin, R. M., & Gardner, G. T. (1972). Visual processing capacity and attentional control. *Journal of Experimental Psychology*, *93*, 72-82.
- Shiffrin, R. M., & Geisler, W. (1973). Visual recognition in a theory of information processing. In R. Solso (Ed.), *The Loyola Symposium: Contemporary Viewpoints in Cognitive Psychology* (pp. 53-101). Washington: Winston.
- Shiffrin, R. M., Craig, J. C., & Cohen, U. (1973). On the degree of attention and capacity limitations in tactile processing. *Perception & Psychophysics*, *13*, 328-336.
- Shiffrin, R. M., Gardner, G. T., & Allmeyer, D. H. (1973). On the degree of attention and capacity limitations in visual processing. *Perception & Psychophysics*, *14*, 231-236.
- Shiffrin, R. M. (1973). Information persistence in short-term memory. *Journal of Experimental Psychology*, *100*, 39-49.
- Shiffrin, R. M. (1973). Information processing [Review of *Coding Processes in Human Memory*]. *Science*, *180*, 400.
- Shiffrin, R. M. (1973). Visual free recall. *Science*, *80*, 980-982.
- Shiffrin, R. M., & Schneider, W. (1974). An expectancy model for memory search. *Memory & Cognition*, *2*, 616-628.
- Shiffrin, R. M., & Grantham, D. W. (1974). Can attention be allocated to sensory modalities? *Perception & Psychophysics*, *15*, 460-474.
- Shiffrin, R. M., Pisoni, D. B., & Casteneda-Mendez, K. (1974). Can attention be divided between the ears? *Cognitive Psychology*, *6*, 190-215.
- Picek, J. S., Sherman, S. J., & Shiffrin, R. M. (1975). Cognitive organization and storage of social structures. *Journal of Personality and Social Psychology*, *31*, 758-768.
- Shiffrin, R. M. (1975). The locus and role of attention. In P. M. A. Rabbit & S. Dornic (Eds.), *Attention & Performance V* (pp. 168-193). New York: Academic Press.
- Shiffrin, R. M. (1975). Short-term store: The basis for a memory system. In F. Restle, R. M. Shiffrin, N. J. Castellan, H. R. Lindman, & D. B. Pisoni (Eds.), *Cognitive Theory* (Vol. 1, pp. 193-218). Hillsdale, NJ: Erlbaum.
- Restle, F., Shiffrin, R. M., Castellan, N. J., Lindman, H. R., & Pisoni, D. B. (Eds.) (1975). *Cognitive Theory, Vol. 1*. Hillsdale, NJ: Erlbaum.
- Shiffrin, R. M., McKay, D., & Shaffer, W. O. (1976). Attending to forty-nine spatial positions at once. *Journal of Experimental Psychology: Human Perception and Performance*, *2*, 14-22.
- Shiffrin, R. M. (1976). Capacity limitations in information processing, attention and memory. In W. K. Estes (Ed.), *Handbook of Learning and Cognitive Processes: Vol. 4. Attention and Memory* (pp. 177-236). Hillsdale, NJ: Erlbaum.

- Shiffrin, R. M., & Schneider, W. (1977). Toward a unitary model for selective attention, memory scanning, and visual search. In S. Dornic (Ed.), *Attention and Performance VI*, 413-439. Hillsdale, NJ: Erlbaum.
- Schneider, W., & Shiffrin, R. M. (1977). Automatic and controlled information processing in vision. In LaBerge, D. & Samuels, S. J. (Eds.), *Basic Processes in Reading: Perception and Comprehension*, 127-154. Hillsdale, NJ: Erlbaum.
- Schneider, W., & Shiffrin, R. M. (1977). Controlled and automatic human information processing: I. Detection, search, and attention. *Psychological Review*, *84*, 1-66.
- Shiffrin, R. M., & Schneider, W. (1977). Controlled and automatic human information processing: II. Perceptual learning, automatic attending, and a general theory. *Psychological Review*, *84*, 127-190.
- Shiffrin, R. M. (1977). Attentional control. *Perception & Psychophysics*, *21*, 93-96.
- Shiffrin, R. M. (1977). Commentary on "Human Memory: A Proposed System and Its Control Processes." In Bower, G. H. (Ed.), *Human Memory: Basic Processes*, 1-8. New York: Academic Press.
- Shiffrin, R. M., & Cook, J. R. (1978). Short-term forgetting of item and order information. *Journal of Verbal Learning and Verbal Behavior*, *17*, 189-218.
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Kumar, K. N., Patidar A. & Shiffrin, R. M. (in preparation). Analyzing Cursor Movements with an HMM to Assess Individual Differences in Cognition Reliably and Quickly.

Chandramouli, S., & Shiffrin, R. M. (in preparation). A Bayesian analysis using Gaussian Process Regression to incorporate bias in statistical decisions.

Shiffrin, R. M., Morey, R., Szollosi, A., & Donkin, C. (in preparation). In defense of Harking.

Cao, R., Nosofsky, R. N., Busey, T., & Shiffrin, R. M. (in progress). Measuring the Capacity of Short-term Visual Memory using Probe Recognition and EEG.

Barwich, A., Giorgiadis, I. E., & Shiffrin, R. M. (in progress). Short-term capacity and odor memory. (with Cowan?)

Note: Other projects in various stages:

Cursor method study with Kiran Kumar, Ashish Patidar. Liye Zou

Context study with Yiyan Tan

Context study with Lea Lai

Game theory (with Ghislain Fourny)

Eight 'perspectives' to be submitted to PNAS – I am chief organizer (co-organizers David Kellen, Jennifer Trueblood, Joachim Vandekerckhove).

Story and memory chaining (with Yiyan Tan, Fritz Breithaupt, Jeroen Raaijmakers)

Causes of STM forgetting (with Gaen Plancher).

Bayesian model comparison with error (with Suyog Chandramouli).

Cued recall study of inhibition (with Maxcey, Nosofsky, McCloud)