

RICHARD C. ATKINSON
President Emeritus
University of California

Biographical Data

Address: 5212 McGill Hall
University of California, San Diego
La Jolla, California 92093-0109

Tel: (858) 822-3979
Fax: (858) 822-3978
E-mail: RCA@ucsd.edu

Birthdate and place: March 19, 1929; Oak Park, IL.

Marital status: Married, Rita Loyd Atkinson, Ph.D.;
one child, Lynn L. Atkinson, M.D.; born 1957.

Selected speeches and commentaries
are available at www.rca.ucsd.edu

Appointments

- 1956-1957 Lecturer, Applied Mathematics and
Statistics Laboratories, Stanford University
- 1957-1961 Assistant Professor of Psychology, University of California, Los Angeles
- 1961-1965 Associate Professor of Psychology, Stanford University
- 1961-1975 Associate Director, Institute for Mathematical Studies in the Social Sciences, Stanford University
- 1963 Visiting Professor of Psychology, University of Michigan
- 1965-1980 Professor of Psychology (also Professor of Education and Affiliate Faculty Member, Institute
of Engineering-Economic Systems, School of Engineering), Stanford University
- 1968-1973 Chairman, Department of Psychology, Stanford University
- 1975-1976 Deputy Director, National Science Foundation (appointed by President Ford)
- 1976-1977 Acting Director, National Science Foundation
- 1977-1980 Director, National Science Foundation (appointed by President Carter)
- 1980-1995 Chancellor, University of California, San Diego
- 1995-2003 President and Regent, University of California

Degrees, Fellowships, and Honors

- Ph.B., University of Chicago, 1948
- Ph.D., Indiana University, 1955
- Doctor of Science (honorary), Bucknell University; Michigan State University; University of Pittsburgh;
Indiana University; Adelphi University; University of Louisville; Bowling Green University; Virginia
Commonwealth University; University of Illinois; University of North Carolina; Obirin University (Japan);
Trinity College
- Doctor of Laws (honorary), California Western School of Law
- National Academy of Sciences, Elected 1974
- American Academy of Arts and Sciences, Elected 1974
- National Academy of Education, Elected 1974
- Institute of Medicine, Elected 1978
- American Philosophical Society, Elected 1980
- Distinguished Research Award, Social Science Research Council, 1962
- Fellow, Center for Advanced Study in Behavioral Sciences, 1963
- Guggenheim Fellowship, 1967
- Society of Experimental Psychologists, Elected 1967
- Fellow, American Association for the Advancement of Science, Elected 1968
- Distinguished Visiting Scholar, Educational Testing Service, 1971
- Professional Achievement Award, University of Chicago Alumni Association, 1976
- Distinguished Scientific Contribution Award, American Psychological Association, 1977
- Society of the South Pole, 1978
- Science Medal, Polska Akademia Nauk, 1978
- E. L. Thorndike Award, American Psychological Association, 1980
- Mountain in Antarctica named Mt. Atkinson (78° 39' S.L. 85° 30' W.L.), 1980

Degrees, Fellowships, and Honors (Continued)

Advancement of the Hispanic Community Award, California State Assembly, 1987
Distinguished Contributions Award, The Society of Research Administrators, 1988
President, American Association for the Advancement of Science, 1989
William James Fellow, American Psychological Society, Elected 1989
Tree of Life Award, Jewish National Fund, 1993
Revelle Medal, University of California at San Diego, 1995
Distinguished Service Medal, Institute of the Americas, 1996
Human Unity Award, The National Conference, 1996
Traditions of Excellence Award, Oak Park-River Forest High School, 1998
National Leadership Award, U.S. Small Business Administration, 2000
Honored by the California Latino Legislative Caucus for preserving academic quality and excellence, 2002
Outstanding Lifetime Contributions to Psychology, American Psychological Association, 2002
Vannevar Bush Award, National Science Board, 2003
Alumni Medal, University of Chicago, 2003
Proclamation designating August 25, 2003 "Dr. Richard Atkinson Day" in California, 2003
UC Santa Cruz Foundation Medal, 2003

Other Activities

1954-1956 Military Service, U.S. Army
1958-1967 Consultant, Systems Development Corporation
1961-1963 Consultant, Bell Telephone Laboratories
1961-1966 Editorial Board, Journal of Verbal Learning and Verbal Behavior
1963-1969 Committee on Learning and the Educational Process, Social Science Research Council
(Chair, 1966-1968)
1963-1970 Editor, Journal of Mathematical Psychology
1964 Co-director, Summer Research Conference on Learning and the Educational Process,
sponsored by the U.S. Office of Education
1964-1969 Consultant, Radio Corporation of America
1965-1968 Task Force on Information Networks of EDUCOM (Interuniversity Communications Council)
1965-1973 Associate Editor, Perception and Psychophysics
1966 Director, Job Corps Reading Institute, sponsored by the Office of Economic Opportunity
1966-1968 Editorial Board, Psychological Review
1968-1970 Committee on Technological Augmentation of Cognition, Smithsonian Institution
1968-1971 Personality and Cognition Review Committee, National Institute of Mental Health
1968-1973 Mathematical Social Science Board, Center for Advanced Study in the Behavioral Sciences
(Chair, 1971-1973)
1968-1975 Editorial Board, Contemporary Psychology
1968-1975 Consultant, Office of Computing Activities, National Science Foundation
1970-1978 Board of Editors, Journal of Mathematical Psychology
1971-1976 Research Advisory Committee, Children's Television Workshop
1973-1974 Chairman, Psychonomic Society
1973-1976 Board of Directors, American Psychological Association
1974-1975 Chair, Personality and Cognition Review Committee, National Institute of Mental Health
1974-1975 President, Division of Experimental Psychology, American Psychological Association
1975-1976 Chairman, Psychology Section, American Association for the Advancement of Science
1976-1977 President, Western Psychological Association
1976-1981 Advisory Council, International Association for the Study of Attention and Performance
1977-1980 National Science Board, Washington, D.C.
1977-1980 U.S. Member of the U.S.-U.S.S.R. Joint Commission on Scientific and Technical Cooperation
1977-1980 Intergovernmental Science, Engineering and Technology Advisory Panel,
Office of Science and Technology Policy, Executive Office of the President
1977-1980 Federal Council on the Arts and the Humanities, Executive Office of the President

Other Activities (Continued)

- 1977-1980 National Museum Services Board, Institute of Museum Services, Department of Education
1978 William W. Cook Lectures on American Institutions, University of Michigan
1979-1980 U.S. Member of the U.S.-People's Republic of China Joint Commission on Scientific and Technological Cooperation
1981-1982 Assembly of Behavioral and Social Sciences, National Research Council
1981-1982 California Commission on Industrial Innovation, Executive Department, State of California (appointed by Governor Edmund G. Brown, Jr.)
1981-1984 President's Committee on the National Medal of Science (appointed by President Carter)
1981-1988 Board of Directors, Whittier Institute for Diabetes and Endocrinology
1981-present Advisory Committee, Center for Advanced Study in the Behavioral Sciences
1982-1985 Board of Councillors, National Academy of Sciences
1983-1984 Chair, Blue Ribbon Panel on the Information Policy, Implications of Archiving Satellite Data, National Commission on Libraries and Information Science
1983-1985 Vice President, National Academy of Education
1983-1995 Board of Directors, Economic Development Corporation, San Diego
1984-1985 Committee on Science, Engineering, and Public Policy, National Academy of Sciences
1984-1987 Commission on Education and Public Policy, National Academy of Education
1984-1992 Higher Education Policy Advisory Committee, Online Computer Library Center (OCLC)
1984-1995 Board of Governors, Institute of the Americas
1985-1987 Board of Governors, Center for Creative Leadership
1986-1992 Visiting Committee, Department of Psychology, Harvard University
1986-1993 External Advisory Committee, Beckman Institute for Advanced Science and Technology, University of Illinois
1987-1995 Board of Directors, Center on Budget and Policy Priorities, Washington, D.C.
1988-1990 Board of Trustees, American College Testing Program, Inc.
1988-1993 Board of Directors, Institute for Evaluating Health Risks
1988-1993 Commission on Science, Technology, and Government, Carnegie Corporation of New York
1988-1993 Editorial Board, Issues in Science and Technology
1988-1991 Board of Directors, American Association for the Advancement of Science, Washington, D.C.
1989-1990 President, American Association for the Advancement of Science, Washington, D.C.
1989-1993 Board of Directors, California Council on Science and Technology
1990-1993 Board of Advisors, United States Naval Postgraduate School, Monterey, California
1990-1992 Commission for Strengthening of America, The Center for Strategic and International Studies, Washington, D.C.
1990-1992 Chair, Committee on the Federal Role in Education Research, National Research Council/National Academy of Sciences, Washington, D.C.
1990-1996 Advisory Council, The Cecil and Ida Green Center for the Study of Science and Society, University of Texas at Dallas
1991-1995 Committee for the Study of Research-Doctorate Programs, National Research Council
1991-1992 Chair, Association of American Universities, Washington, D.C.
1992-1993 Past Chair, Association of American Universities, Washington, D.C.
1993-2001 Board on Testing and Assessment, National Research Council/National Academy of Sciences, Washington, D.C. (Chair, 1993-1995)
1995-2000 Trustee, Tanner Lectures on Human Values
1995- Executive Committee, Council on Competitiveness, Washington, D.C.
1997- 2003 Board of Trustees, Center for Advanced Study in the Behavioral Sciences, Stanford, California
1998- 2002 Board of Directors, California Chamber of Commerce
2001- Board of Directors, Koret Foundation

Biographies of R. C. Atkinson

Distinguished Scientific Contribution Award for 1977: Richard C. Atkinson. American Psychologist, 1978, 33, 49-55.
Richard C. Atkinson: President-Elect of AAAS. Science, 1988, 241, 519-520 (by William J. McGill).

COLLECTED PAPERS

Human Memory and the Learning Process: Selected Papers of Richard C. Atkinson, edited by Y. Zabrodin and B. F. Lomov. Moscow: Progress Publishing House, 1980 (published in Russian).
On Human Memory: Evolution, Progress, and Reflections on the 30th Anniversary of the Atkinson-Shiffrin Model. (Mahwah, New Jersey: Lawrence Erlbaum Associates, 1999 (ed., Chizuko Izawa; foreword by Richard C. Atkinson)).

BOOKS

Markov Learning Models for Multiperson Interactions. Stanford, California: Stanford University Press, 1960 (with P. Suppes).
An Introduction to Mathematical Learning Theory. New York: John Wiley & Sons, 1965 (with G. H. Bower and E. J. Crothers). Translated into Russian, 1969.
Introduction to Psychology (4th ed.). New York: Harcourt Brace Jovanovich, Inc., 1967 (with E. R. Hilgard). Translations: Hebrew edition, 1967; Norwegian edition, 1967; Portuguese edition, 1969.
Introduction to Psychology (5th ed.). New York: Harcourt Brace Jovanovich, Inc., 1971 (with E. R. Hilgard and R. L. Atkinson). Translations: Italian edition, 1971; Spanish edition, 1971.
Introduction to Psychology (6th ed.). New York: Harcourt Brace Jovanovich, Inc., 1975 (with E. R. Hilgard and R. L. Atkinson).
Introduction to Psychology (7th ed.). New York: Harcourt Brace Jovanovich, Inc., 1979 (with E. R. Hilgard and R. L. Atkinson). Translations: French edition, 1980; Spanish edition, 1980; Chinese edition, 1982.
Introduction to Psychology (8th ed.). New York: Harcourt Brace Jovanovich, Inc., 1983 (with R. L. Atkinson and E. R. Hilgard).
Introduction to Psychology (9th ed.). New York: Harcourt Brace Jovanovich, Inc., 1987 (with R. L. Atkinson, E. E. Smith, and E. R. Hilgard). Translations: Russian edition, 1993; Chinese edition, 1993; Spanish edition, 1994; Hungarian edition, 1994.
Introduction to Psychology (10th ed.). New York: Harcourt Brace Jovanovich, Inc., 1990 (with R. L. Atkinson, E. E. Smith, and D. J. Bem).
Introduction to Psychology (11th ed.). New York: Harcourt Brace Jovanovich, Inc., 1993 (with R. L. Atkinson, E. E. Smith, and D. J. Bem).
Introduction to Psychology (12th ed.). New York: Harcourt Brace & Company, 1996 (with R. L. Atkinson, E. E. Smith, D. J. Bem, and S. Nolen-Hoeksema).
Introduction to Psychology (13th ed.). New York: Harcourt College Publishers, 2000 (with R. L. Atkinson, E. E. Smith, D. J. Bem, and S. Nolen-Hoeksema).
Atkinson and Hilgard's Introduction to Psychology (14th ed.). Wadsworth Publishing, 2003 (E.E. Smith, S. Nolen-Hoeksema, B. Frederickson, and G. Loftus).

EDITED VOLUMES

Studies in Mathematical Psychology. Stanford, California: Stanford University Press, 1964.
Computer-Assisted Instruction. New York: Academic Press, 1969 (with H. A. Wilson).

Contemporary Psychology. San Francisco: W. H. Freeman & Company, 1971.

Contemporary Developments in Mathematical Psychology: Volume I, Learning, Memory, and Thinking; Volume II, Measurement, Psychophysics, and Neural Information Processing. San Francisco: W. H. Freeman & Company, 1974 (with D. H. Krantz, R. D. Luce, and P. Suppes).

Psychology in Progress. San Francisco: W. H. Freeman & Company, 1975.

Mind and Behavior. San Francisco: W. H. Freeman & Company, 1980.

Stevens' Handbook of Experimental Psychology (2nd ed.): Volume 1, Perception and Motivation; Volume 2, The Origins and Development of High Ability. Chichester, England: John Wiley & Sons, 1993.

Learning and Cognition. New York: John Wiley & Sons, 1988 (with R. J. Herrnstein, G. Lindzey, R. D. Luce).

Research and Educational Reform. Washington, D.C.: National Academy Press, 1992 (with G. B. Jackson).

The Origins and Development of High Ability. Chichester, England: John Wiley & Sons, 1993.

ARTICLES

1. Experiential factors in visual form perception. Journal of Experimental Psychology, 1952, 43, 173-178 (with R. B. Ammons).
2. An analysis of the effect of nonreinforced trials in terms of statistical learning theory. Journal of Experimental Psychology, 1956, 52, 28-32. (Republished in Stimulus Sampling Theory, edited by E. D. Neimark and W. K. Estes, San Francisco: Holden-Day, Inc., 1967.)
3. Films and group discussions as a means of training leaders (Tech. Rep. 27). Washington, D.C.: George Washington University, Human Resources Research Organization, 1956 (with C. J. Lange and C. H. Rittenhouse).
4. A stochastic model for rote serial learning. Psychometrika, 1957, 22, 87-95.
5. Probabilistic discrimination learning. Journal of Experimental Psychology, 1957, 54, 233-239 (with W. K. Estes, C. J. Burke, and J. P. Frankman).
6. A Markov model for discrimination learning. Psychometrika, 1958, 23, 309-322. (Republished in Stimulus Sampling Theory, edited by E. D. Neimark and W. K. Estes, San Francisco: Holden-Day, Inc., 1967.)
7. An analysis of two-person game situations in terms of statistical learning theory. Journal of Experimental Psychology, 1958, 55, 369-378 (with P. Suppes).
8. Discrimination learning in a verbal conditioning situation. Journal of Experimental Psychology, 1958, 56, 21-26 (with J. Popper). (Republished in Stimulus Sampling Theory, edited by E. D. Neimark and W. K. Estes, San Francisco: Holden-Day, Inc., 1967.)
9. Applications of a Markov model to two-person non-cooperative games. In Studies in Mathematical Learning Theory, edited by R. R. Bush and W. K. Estes, Stanford, California: Stanford University Press, 1959.
10. Discrimination learning with probabilistic reinforcement schedules. Journal of Experimental Psychology, 1959, 57, 349-350 (with W. Bogartz and R. Turner). (Republished in Stimulus Sampling Theory, edited by E. D. Neimark and W. K. Estes, San Francisco: Holden-Day, Inc., 1967.)
11. A theory of stimulus discrimination learning. In Mathematical Methods in the Social Sciences, edited by K. J. Arrow, S. Karling, and P. Suppes, Stanford, California: Stanford University Press, 1960.
12. The use of models in experimental psychology. Synthese, 1960, 12, 162-171. (Republished in The Concept and the Role of the Model in Mathematics and Natural and Social Sciences, edited by H. Freudenthal, Dordrecht, Holland: D. Reidel Publishing Co., 1961.)
13. Decision making by children as a function of amount of reinforcement. Psychological Reports, 1960, 6, 299-306 (with G. Sommer and M. B. Sterman).
14. A generalization of stimulus sampling theory. Psychometrika, 1961, 26, 281-290.
15. The observing response in discrimination learning. Journal of Experimental Psychology, 1961, 62, 253-262. (Republished in Stimulus Sampling Theory, edited by E. D. Neimark and W. K. Estes, San Francisco: Holden-Day, Inc., 1967.)
16. Optimal allocation of items in a simple, two-concept automated teaching model. In Programmed Learning and Computer-Based Instruction, edited by J. E. Coulson, New York: John Wiley & Sons, 1962 (with R. E. Dear).

17. Sequential phenomena in psychophysical judgments: A theoretical analysis. Institute of Radio Engineers Transactions on Information Theory, September, 1962, Vol. IT-8, 155-162 (with E. C. Carterette and R. A. Kinchla). (Republished in Stimulus Sampling Theory, edited by E. D. Neimark and W. K. Estes, San Francisco: Holden-Day, Inc., 1967.)
18. Choice behavior and monetary payoff. In Mathematical Methods in Small Group Processes, edited by J. Criswell, H. Solomon, and P. Suppes, Stanford, California: Stanford University Press, 1962.
19. Stimulus sampling theory. In Handbook of Mathematical Psychology (Vol. 2), edited by R. D. Luce, R. R. Bush, and E. Galanter, New York: John Wiley & Sons, 1963 (with W. K. Estes).
20. A variable sensitivity theory of signal detection. Psychological Review, 1963, 70, 91-106.
21. Mathematical models in research on perception and learning. In Theories in Contemporary Psychology, edited by M. H. Marx, New York: MacMillan Company, 1963.
22. Mathematical models in research with children. In Basic Cognitive Processes in Children, edited by J. C. Wright and J. Kagen, Monographs of the Society for Research in Child Development, 1963, 28, (2, Serial No. 86). (Republished in Cognitive Development in Children, edited by R. Brown, Chicago: University of Chicago Press, 1970.)
23. A comparison of paired-associate learning models having different acquisition and retention axioms. Journal of Mathematical Psychology, 1964, 1, 285-315 (with E. J. Crothers).
24. A test of three models for stimulus compounding with children. Journal of Experimental Psychology, 1964, 67, 52-58 (with R. C. Calfee, G. R. Sommer, and W. E. Jeffrey).
25. Choice behavior and reward structure. Journal of Mathematical Psychology, 1964, 1, 170-203 (with J. L. Myers). (Republished in Stimulus Sampling Theory, edited by E. D. Neimark and W. K. Estes, San Francisco: Holden-Day, Inc., 1967.)
26. The effects of forced-choice trials upon free-choice behavior. Psychonomic Science, 1964, 1, 55-56 (with R. C. Calfee).
27. The effect of information feedback upon psychophysical judgments. Psychonomic Science, 1964, 1, 83-84 (with E. C. Carterette and R. A. Kinchla).
28. The effect of false-information feedback upon psychophysical judgments. Psychonomic Science, 1964, 1, 317-318 (with R. A. Kinchla).
29. An automated system for discrete-trial research with animals. Psychological Reports, 1964, 14, 424-246 (with R. C. Calfee).
30. Short-term memory with young children. Psychonomic Science, 1964, 1, 255-256 (with D. N. Hansen and H. A. Bernbach).
31. A learning model for forced-choice detection experiments. British Journal of Mathematical and Statistical Psychology, 1965, 18, 184-206 (with R. A. Kinchla).
32. Paired-associate models and the effects of list length. Journal of Mathematical Psychology, 1965, 2, 254-265 (with R. C. Calfee).
33. Mathematical learning theory. In Scientific Psychology, edited by B. B. Wolman, New York: Basic Books, Inc., 1965 (with R. C. Calfee).
34. Intermodality judgments of signal duration. Psychonomic Science, 1965, 2, 271-272 (with T. A. Tanner, Jr. and R. M. Patton).
35. Mathematical models for verbal learning. In Cybernetics of the Nervous System: Progress in Brain Research (Vol. 17), edited by Norbert Wiener and J. P. Schade, Amsterdam, The Netherlands: Elsevier Publishing Company, 1965 (with R. C. Calfee and T. Shelton, Jr.).
36. Mathematical models for memory and learning (Tech. Rep. 79). Stanford, California: Stanford University, Institute for Mathematical Studies in the Social Sciences, 1965. (Published in Readiness to Remember: Proceedings of the Third Conference on Learning, Remembering and Forgetting, edited by D. P. Kimble, New York: Gordon and Breach, Science Publishers, Inc., 1969.)
37. Some two-process models for memory. In Proceedings of the XVIII International Congress of Psychology, Moscow, Russia, 1966.
38. Models for optimizing the learning process. Psychological Bulletin, 1966, 66, 309-320 (with G. J. Groen).
39. Two-choice behavior under limiting cases of contingent reinforcement schedules. Journal of Comparative and Physiological Psychology, 1966, 62, 193-200 (with R. C. Calfee).
40. Influence of correlated visual cues on auditory signal detection. Perception and Psychophysics, 1966, 1, 67-73 (with R. A. Kinchla, J. T. Townsend, J. I. Yellott, Jr.).
41. Short-term recall of paired-associates as a function of the number of interpolated pairs. Psychonomic Science, 1966, 4, 73-74 (with J. W. Brelsford, Jr., L. Keller, and R. M. Shiffrin).

42. The effect of signal intensity on comparative judgments of auditory durations. Psychonomic Science, 1966, 4, 353-354 (with T. A. Tanner, Jr. and R. M. Patton).
43. Computer-assisted instruction in initial reading. Reading Research Quarterly, 1966, 2, 5-25 (with D. N. Hansen).
44. Effects of list length on short-term memory. Journal of Verbal Learning and Verbal Behavior, 1967, 6, 303-311 (with J. L. Phillips and R. M. Shiffrin).
45. Multi-process models for memory with applications to a continuous presentation task. Journal of Mathematical Psychology, 1967, 4, 277-300 (with J. W. Brelsford, Jr. and R. M. Shiffrin).
46. Learning aspects of computer-assisted instruction. In Computers and Education, edited by R. W. Gerard, New York: McGraw-Hill Book Company, 1967.
47. Mathematical models for verbal learning. In Brain Function and Learning: UCLA Forum in Medical Sciences (Vol. 4), edited by D. B. Lindsley and A. S. Lumsdaine, Los Angeles, California: University of California Press, 1967.
48. An optimal strategy for the presentation of paired-associate items. Behavioral Science, 1967, 12, 1-13 (with R. E. Dear, H. F. Silverman, and D. P. Estavan).
49. Reading instruction under computer control. American School Board Journal, 1967, 155, 16-27.
50. The effects of reinforcement interval on the acquisition of paired-associate responses. Journal of Experimental Psychology, 1967, 73, 268-277 (with L. Keller, W. J. Thomson, and J. R. Tweedy).
51. Signal recognition as influenced by presentation schedules. Perception and Psychophysics, 1967, 2, 349-358 (with T. A. Tanner, Jr. and R. W. Haller).
52. Instruction in initial reading under computer control. Journal of Educational Data Processing, 1967, 4, 175-192.
53. Computer-based instruction in initial reading: A progress report on the Stanford Project (Tech. Rep. 119). Stanford, California: Stanford University, Institute for Mathematical Studies in the Social Sciences, 1967 (with H. A. Wilson).
54. Human memory: A proposed system and its control processes. In The Psychology of Learning and Motivation: Advances in Research and Theory (Vol. 2), edited by K. W. Spence and J. T. Spence, New York: Academic Press, 1968 (with R. M. Shiffrin). (Republished with commentary in Human Memory: Basic Processes, edited by G. H. Bower, New York: Academic Press, 1977.)
55. Computerized instruction and the learning process. American Psychologist, 1968, 23, 225-239. (Republished in The Bobbs-Merrill Reprint Series in Psychology, New York: Bobbs-Merrill Co., 1969; Research in Psychology Readings for the Introductory Course, edited by B. L. Kintz and J. L. Bruning, Glenview, Ill.: Scott, Foresman and Co., 1970; Current Research in Psychology, edited by H. C. Lindgren, D. Byrne, and F. Lindgren, New York: John Wiley and Co., 1971; Classroom Management: The Successful Use of Behavior Modification, edited by K. D. O'Leary and S. G. O'Leary, Elmsford, New York: Pergamon Press, 1971; Readings in Learning and Human Abilities (2nd ed.), edited by R. E. Ripple, New York: Harper and Row Publishers, 1971; Guiding Learning: Readings in Educational Psychology, edited by M. D. Glock, New York: John Wiley and Co., 1971.)
56. Multiple reinforcement effects in short-term memory. The British Journal of Mathematical and Statistical Psychology, 1968, 21, 1-19 (with J. W. Brelsford, Jr. and R. M. Shiffrin).
57. Computer-assisted instruction. Science, 1968, 162, 73-77 (with H. A. Wilson). (Republished in Selected Readings in Psychology, edited by D. E. Gibbons and J. Connelly, St. Louis: C. V. Mosby Co., 1969; Contemporary Issues in Educational Psychology, edited by H. F. Clarizio and C. N. Mehrens, Boston: Allyn and Bacon, Inc., 1969; Individualization of Instruction: A Teaching Strategy, edited by V. M. Howes, New York: Macmillan Co., 1970.)
58. Recall of paired-associates as a function of overt and covert rehearsal procedures. Journal of Verbal Learning and Verbal Behavior, 1968, 7, 730-736 (with J. W. Brelsford, Jr.).
59. Computer-based instruction in initial reading. Proceedings of the 1967 Invitational Conference on Testing Problems, Princeton, New Jersey: Educational Testing Service, 1968.
60. Massed versus distributed practice in computerized spelling drills. Journal of Educational Psychology, 1968, 59, 290-296 (with E. Fishman and L. Keller).
61. A reply to Professor Spache's article "A reaction to computer-assisted instruction in initial reading." Reading Research Quarterly, 1968, 3, 418-420.
62. The computer as a tutor. Psychology Today, January 1968. (Republished in Readings in Psychology Today, Del Mar, California: CRM Books, 1969 (1st ed.), 1972 (2nd ed.), 1974 (3rd ed.); Readings in Developmental Psychology Today, Del Mar, California: CRM Books, 1970; Readings in Educational Psychology Today, Del Mar, California: CRM Books, 1970.)

63. The role of the computer in teaching initial reading. Childhood Education, 1968, 44, 464-470. (Republished in The Readings Book Program, New York: MSS Educational Publishing Co., Inc., 1970.)
64. Learning to read under computer control. Programmed Learning and Educational Technology: British Journal of the Association for Programmed Learning, 1968, 5, 25-37.
65. Priming and the retrieval of names from long-term memory. Psychonomic Science, 1968, 11, 219-220 (with R. H. Hopkins).
66. First-letter clues in the retrieval of proper names from long-term memory. Psychological Reports, 1968, 23, 851-866 (with R. H. Hopkins).
67. Degree of priming in the retrieval of author's names from long-term memory. Psychonomic Science, 1968, 12, 399-400 (with R. Hopkins).
68. Models for memory. In Sciences du comportement: La recherche en enseignement programme, edited by F. Bresson and M. de Montmollin, Paris: Dunod, 1969.
69. Information delay in human learning. Journal of Verbal Learning and Verbal Behavior, 1969, 8, 507-511.
70. Istruzione con calcolatori elettronici. Sapere, 1969, 712, 42-45.
71. Processing time as influenced by the number of elements in a visual display. Perception and Psychophysics, 1969, 6, 321-326 (with J. E. Holmgren and J. F. Juola).
72. Computer-assisted learning. Proceedings of the National Academy of Sciences, 1969, 63, 588-594.
73. Recognition versus recall: Storage or retrieval differences? Quarterly Journal of Experimental Psychology, 1969, 21, 214-224 (with R. D. Freund and J. W. Brelsford, Jr.).
74. Storage and retrieval processes in long-term memory. Psychological Review, 1969, 76, 179-193 (with R. Shiffrin).
75. Innovation without analysis: Discussion of Dr. Rothkopf's paper. In Approaches to Thought, edited by J. F. Voss, Columbus, Ohio: Merrill Publishing Co., 1969.
76. Repetition versus imagery instructions in the short- and long-term retention of paired-associates. Psychonomic Sciences, 1969, 15, 183-184 (with J. A. Schnorr).
77. Applications of multiprocess models for memory to continuous recognition tasks. Journal of Mathematical Psychology, 1969, 6, 576-594 (with R. D. Freund and G. R. Loftus).
78. Signal recognition as influenced by information feedback. Journal of Mathematical Psychology, 1970, 7, 259-274 (with T. A. Tanner, Jr. and J. A. Rauk).
79. Rehearsal processes in free recall: A procedure for direct observation. Journal of Verbal Learning and Verbal Behavior, 1970, 9, 99-105 (with D. Rundas).
80. Immediate free recall and three-week delayed recognition. Journal of Verbal Learning and Verbal Behavior, 1970, 9, 684-688 (with D. Rundas and G. R. Loftus).
81. Models for human memory. In Applications of Research on Human Decision Making, edited by R. M. Patton and T. A. Tanner, Jr., Washington, D.C.: National Aeronautics and Space Administration (NASA SP-209), 1970.
82. Study position and item differences in the short- and long-term retention of paired-associates learned by imagery. Journal of Verbal Learning and Verbal Behavior, 1970, 9, 614-622 (with J. A. Schnorr).
83. Recognition memory as influenced by differential attention to semantic and acoustic properties of words. Psychonomic Science, 1970, 19, 79-81 (with G. Cermak, J. A. Schnorr, and H. Buschke).
84. Memory scans based on alternative test stimulus representations. Perception and Psychophysics, 1970, 8, 113-117 (with R. L. Klatzky).
85. Effects of overt rehearsal procedures on free recall. Psychonomic Science, 1970, 19, 249-250 (with I. Fischler and D. Rundas).
86. Human memory and the concept of reinforcement. In The Nature of Reinforcement, edited by R. Glazer, New York: Academic Press, 1971 (with T. D. Wickens).
87. Memory scanning for words versus categories. Journal of Verbal Learning and Verbal Behavior, 1971, 10, 522-527 (with J. F. Juola).
88. Specialization of the cerebral hemispheres in scanning for information in short-term memory. Perception and Psychophysics, 1971, 10, 335-338 (with R. L. Klatzky).
89. The control of short-term memory. Scientific American, 1971, 224, 82-90 (with R. M. Shiffrin).
90. Test stimulus representation and experimental context effects in memory scanning. Journal of Experimental Psychology, 1971, 87, 281-288 (with R. L. Klatzky and J. F. Juola).
91. Instruction in initial reading under computer control: The Stanford Project. In Computer in Education, edited by A. Romano and S. Rossi, Bari, Italy: Andriatica Editrice, 1971 (with J. D. Fletcher, H. C. Chetin, and C. M. Stauffer).

92. Recognition time for information stored in long-term memory. Perception and Psychophysics, 1971, 10, 8-14 (with J.F. Juola, I. Fischler, and C. T. Wood).
93. Computer-assisted instruction in programming: AID (Tech. Rep. 164). Stanford, California: Stanford University, Institute for Mathematical Studies in the Social Sciences, 1971 (with J. Friend).
94. Ingredients for a theory of instruction. American Psychologist, 1972, 27, 921-931. (Republished in Changing Education: Alternatives from Educational Research, edited by M. C. Witrock, Inglewood Cliffs, New Jersey: Prentice Hall, Inc., 1973.)
95. Optimizing the learning of a second-language vocabulary. Journal of Experimental Psychology, 1972, 96, 124-129.
96. An approach to the psychology of instruction. Psychological Bulletin, 1972, 78, 49-61 (with J. A. Paulson).
97. Effects of memory load on reaction time. Journal of Experimental Psychology, 1972, 96, 232-234 (with C. F. Darley and R. L. Klatzky).
98. Teaching children to read with a computer. The Reading Teacher, 1972, 25, 319-327 (with J. D. Fletcher).
99. Evaluation of the Stanford CAI program in initial reading. Journal of Educational Psychology, 1972, 63, 597-602 (with J. D. Fletcher).
100. Incidental learning of words used in a memory scanning task. Psychonomic Science, 1972, 27, 317-320 (with D. J. MacKenzie).
101. Entwurf einer theorie des lehrens. In Fortschritte und Ergebnisse der Bildungstechnologie, edited by H. B. Rollett and K. Weltner, Munchen, Germany: Ehrenwirth Verlag, 1973.
102. Factors influencing speed and accuracy of word recognition. In Attention and Performance IV, edited by S. Kornblum, New York: Academic Press, 1973 (with J. F. Juola).
103. Marihuana and retrieval from short-term memory. Psychopharmacologia, 1973, 29, 231-238 (with C. F. Darley, J. R. Tinklenberg, and L. E. Hollister).
104. Scanning for information in long- and short-term memory. Journal of Experimental Psychology, 1973, 98, 95-101 (with K. T. Wescourt).
105. Optimal allocation of instructional effort to interrelated learning strands. Journal of Mathematical Psychology, 1973, 10, 1-25 (with V. G. Chant).
106. Influence of marihuana on storage and retrieval processes in memory. Memory and Cognition, 1973, 1, 196-200 (with C. F. Darley, J. R. Tinklenberg, W. T. Roth, and L. E. Hollister).
107. Computer-assisted instruction in initial reading: Individualized instruction based on optimization procedures. Educational Technology, September, 1973, 27-37 (with J. D. Fletcher, E. J. Lindsay, J. O. Campbell, and A. Barr).
108. Comparison of student performance and attitude under three lesson-selection strategies in computer-assisted instruction (Tech. Rep. 222), Stanford, California: Stanford University, Institute for Mathematical Studies in the Social Sciences, 1973 (with M. H. Beard, P. V. Lorton, and B. W. Searle).
109. Effects of short-term memory contents on short- and long-term memory searches. Memory and Cognition, 1973, 1, 443-448 (with R. C. Mohs and K. T. Wescourt).
110. Search and decision processes in recognition memory. In Contemporary Developments in Mathematical Psychology: Volume I, Learning, memory, and thinking, edited by D. H. Krantz, R. C. Atkinson, R. D. Luce, and P. Suppes, San Francisco: W. H. Freeman and Company, 1974 (with J. F. Juola).
111. Search processes in recognition memory. In Theories in Cognitive Psychology, edited by R. L. Solso, Hillsdale, New Jersey: Erlbaum Associates, 1974 (with D. J. Herrmann and K. T. Wescourt).
112. Recognition time for words in short-term, long-term or both memory stores. Journal of Experimental Psychology, 1974, 102, 830-835 (with R. C. Mohs).
113. The nature of storage deficits and state-dependent retrieval under marihuana. Psychopharmacologia, 1974, 37, 139-149 (with C. F. Darley, J. R. Tinklenberg, and W. T. Roth).
114. A theoretical comparison of list scanning models. Journal of Mathematical Psychology, 1974, 11, 79-106 (with S. K. Shevell).
115. Response latency in visual search with redundancy in the visual display. Perception and Psychophysics, 1974, 16, 123-128 (with J. E. Holmgren and J. F. Juola).
116. Tachostoscopic recognition of syllabicated words. The Quarterly Journal of Experimental Psychology, 1974, 26, 158-166 (with L. Manelis).
117. Teaching children to read using a computer. American Psychologist, 1974, 29, 169-178. (Republished in Learning and Instruction, edited by M. C. Wittrock, Berkeley, California: McCutchan Publishing Corp., 1977.)
118. The serial position function for lists learned by a narrative-story mnemonic. Bulletin of the Psychonomic Society, 1974, 2, 377-378 (with D. J. Herrmann and F. V. Geisler).

119. Accuracy and speed strategies in scanning active memory. Memory and Cognition, 1974, 2, 629-636 (with W. P. Banks).
120. Some remarks on a theory of memory. In Attention and Performance V, edited by P. M. A. Rabbit and S. Dornic, London: Academic Press, 1975 (with K. T. Wescourt).
121. Mnemotechnics in second-language learning. American Psychologist, 1975, 30, 821-828.
122. A mnemonic method for learning a second-language vocabulary. Journal of Educational Psychology, 1975, 67, 1-16 (with M. R. Raugh).
123. A rationale and description of a CAI program to teach the basic programming language. Instructional Science, 1975, 4, 1-31 (with A. Barr and M. Beard).
124. An application of the mnemonic keyword method to the acquisition of a Russian vocabulary. Journal of Experimental Psychology: Human Learning and Memory, 1975, 104, 126-133 (with M. R. Raugh).
125. Search of list structures stored in long-term memory. Journal of Verbal Learning and Verbal Behavior, 1975, 14, 82-88 (with I. B. Appelman).
126. Search processes for associative structures in long-term memory. Journal of Experimental Psychology: General, 1975, 104, 103-121 (with R. C. Mohs and K. T. Wescourt).
127. Memory scanning for words in visual images. Memory and Cognition, 1975, 3, 541-544 (with L. D. Rothstein).
128. Adaptive instructional systems: Some attempts to optimize the learning process. In Cognition and Instruction, edited by D. Klahr, Hillsdale, New Jersey: Erlbaum Associates, 1976.
129. Fact retrieval processes in human memory. In Handbook of Learning and Cognitive Processes (Vol. 4), edited by W. K. Estes, Hillsdale, New Jersey: Erlbaum Associates, 1976 (with K. T. Wescourt).
130. Verification of algebra step problems: A chronometric study of human problem solving. Journal of Mathematical Psychology, 1976, 13, 214-240 (with P. G. Matthews).
131. Individual differences and interrelationships among a select set of cognitive skills. Memory and Cognition, 1976, 4, 661-672 (with A. Chiang).
132. The computer as a tutorial laboratory: The Stanford BIP Project. International Journal of Man-Machine Studies, 1976, 8, 567-596 (with A. Barr and M. H. Beard).
133. Sequential search processes in long-term memory. Memory and Cognition, 1976, 4, 401-408 (with C. L. Krumhansl and R. C. Mohs).
134. Cost and performance of computer-assisted instruction for education of disadvantaged children. In Education as an Industry, edited by J. Froomkin, D. Jamison, and R. Radner, Cambridge, Massachusetts: Ballinger Publishing Company, 1976 (with D. Jamison, J. D. Fletcher, and P. Suppes).
135. Reflections on psychology's past and concerns about its future. American Psychologist, 1977, 32, 205-210.
136. The threat to scientific research. Chronicle of Higher Education, 1977, 14 (No. 5), 40-41.
137. Teaching a large Russian language vocabulary by the mnemonic keyword method. Instructional Science, 1977, 6, 199-221 (with M. R. Raugh and R. D. Schubach).
138. Scientific research and graduate education. Science, Technology, and the Humanities, 1978, 1, 98-102.
139. Where will computer-assisted instruction be in 1990? Educational Technology, 1978, 18, 60-63.
140. Application of learning models and optimization theory to problems of instruction. In Handbook of Learning and Cognitive Processes (Vol. 5), edited by W. K. Estes, Hillsdale, New Jersey: Erlbaum Associates, 1978 (with V. G. Chant).
141. Rights and responsibilities in scientific research. The Bulletin of the Atomic Scientists, 1978, 34, 10-14.
142. Federal support in the social sciences. Science, 1980, 207, 829.
143. Statement of the Director of the National Science Foundation. In The Five-Year Outlook on Science and Technology. Washington, D. C.: National Science Foundation, 1980.
144. Tax incentives and research. Science, 1980, 208, 449.
145. Environmental regulation. Science, 1980, 209, 966.
146. Federal support for science. Chronicle of Higher Education, 1981, 22 (No. 2), 64. (Republished in Points of View on American Higher Education, edited by S. H. Barnes, Lewiston, New York: Edwin Mellen Press, 1990).
147. The peer review question. Science, 1981, 214, 1292.
148. The social sciences and federal support. In The Social Sciences: Their Nature and Use, edited by W. H. Kruskal, Chicago, Illinois: University of Chicago Press, 1982.
149. Problems of science policy: A record of discussion. Minerva: A Review of Science, Learning, and Policy, 1982, 20, 504-544.

150. Psychology and the golden fleece. ERIC Microfiche Collection, ED. 242-624 (Abstract published in Resources in Education, August, 1984).
151. Education for an age of science. Science, 1984, 223, 1355.
152. Peer review and the public interest. Issues in Science and Technology, 1985, 1 (No. 4), 101-114 (with W. A. Blanpied).
153. Science advice at the cabinet level. In Science and Technology Advice to the President, Congress, and Judiciary, edited by W. T. Golden, New York: Pergamon Press, 1988.
154. Bold steps are needed to educate the next generation of scientists. Chronicle of Higher Education, 1988, 34 (No. 25), B1.
155. Presidential elections and the NSF Directorship. Science, 1988, 242, 9.
156. Shortage of doctorates will be national crisis. Geotimes, 1989, 34 (No. 7), 13-14.
157. State of the national research system: Issues for the new administration. Journal of the Society of Research Administrators, 1989, 21, 5-12.
158. Shortage of scientists. Science, 1989, 245, 584.
159. Science, Technology, and Government: A Crisis of Purpose? Proceedings of a Symposium held at University of California, San Diego, edited by R. C. Atkinson and W. A. Blanpied. La Jolla, California: UCSD Publications, 1989.
160. A question of information policy. Science, 1989, 246, 733.
161. Supply and demand for scientists and engineers: A national crisis in the making. Science, 1990, 248, 425-432.
162. Wiring the campuses. Science, 1990, 248, 529 (with D. W. Anderson).
163. Ph.D. supply. Issues in Science and Technology, 1991, 7 (No. 4), 27-28.
164. Psychology. In Academic Press Dictionary of Science and Technology, edited by C. Morris, Orlando, Florida: Academic Press, 1992.
165. Equilibrium in the research university. Change, 1992, 24 (No. 3) 20-31 (with D. Tuzin).
166. The Department of Education's support of educational research. In National Issues in Education, edited by J. F. Jennings, Washington, D. C.; The Institute for Educational Leadership, 1993.
167. Science advice at the cabinet level. In Science and Technology Advice to the President, Congress, and Judiciary (2nd ed.) edited by W. T. Golden, Washington, D.C.: AAAS Press, 1993.
168. The future of the research university. In Reinventing the Research University, edited by C. K. N. Patel, Los Angeles: UCLA Publication Services, 1995.
169. The golden fleece, science education, and U.S. science policy. Proceedings of the American Philosophical Society, 1999, 143 (No. 3), 407-417.
170. Opportunities for Chinese and American universities in the knowledge-based economy. In Proceedings of the First Sino-U.S. Science Policy Seminar, edited by Mu Rongping and W.A. Blanpied, Science Press: National Natural Science Foundation of China, 2000.
171. Achievement versus aptitude in college admissions. In Issues in Science and Technology, Winter 2001-2002, XVIII, (No. 2), 31-36.
172. Public Sector Collaboration for Agricultural IP Management. In Science, 2003, 301, 174-175 (R.C Atkinson and others).

October 2003