# PROFESSIONAL BIOGRAPHY

## Identification Data

Joan H. Cantor

Birthdate: 5/8/31

Appointed to present rank of Professor Emeritus in May, 1991.

First appointed to University of Iowa as Research Assoc. on September, 1960.

### Education

Syracuse University	1947-1951	Psychology	B.A.	1951
University of Iowa	1951-1954	Exp. Psych.	M.A.	1953
		Exp. Psych.	Ph.D.	1954

## Academic and Professional Experience

1954-57	Research Assoc. (Nominal Appt.), Psychology, Geo. Peabody Coll.
1957-60	Asst. Prof. (1/2 time), Psychology, Geo. Peabody Coll.
1960-61	Research Assoc. (1/3 time), Psychology, University of Iowa
1961-62	Research Assoc. (1/2 time), ICBD, University of Iowa
1962-64	Vis. Asst. Prof. (1/2 time), ICBD, University of Iowa
1964-66	Asst. Prof. (1/2 time), ICBD, University of Iowa
1966-67	Asst. Prof. (3/4 time), ICBD, University of Iowa
1967-71	Assoc. Prof. (3/4 time), ICBD, University of Iowa
1971- 73	Assoc. Prof. (full time), ICBD, University of Iowa
1973-79	Assoc. Prof., Psychology, University of Iowa
1979-91	Professor, Psychology, University of Iowa
1991-	Professor Emeritus, Psychology, University of Iowa

## **Professional Organizations**

Psychonomic Society American Psychological Society Midwestern Psychological Association Society for Research in Child Development

## Teaching and Student Supervision

## Courses Taught

31:043 Evaluating Psychological Research: Fall, 1982 (37) (with H. Bechto1dt); Spring, 1983 (27); Fall,

1983 (34); Fall, 1984 (36), Spring, 1985 (33); Fall, 1986 (45) Spring, 1987 (55); Fall, 1987 (55); Fall, 1988 (64); Spring, 1989 (65); Spring, 1990 (26); Fall, 1990 (44); Spring, 1991 (42)

- 31:080 (5:91) Introduction to Child Psychology: Fall, 1972 (101); Spring, 1973 (71)
- 31:081 (5:92) Laboratory in Child Psychology: Fall, 1972 (34); Spring, 1973 (29)
- 31:095 Honors Seminar in Psychology: Spring, 1986 (22) Spring, 1981 (14);

31:102 Psychology as a Science: Fall, 1980 (16) (last 6 weeks)

31:110 Learning and Motivation in Children: Fall, 1973; Spring, 1974 (46); Summer, 1974 (13);
Fall, 1974 (60); Spring, 1975 (64); Fall, 1975 (63); Spring, 1976 (61); Fall, 1976 (60); Spring, 1977 (58); Fall, 1977 (44); Spring, 1978 (44); Spring, 1979 (52); Fall, 1979 (41); Summer, 1980 (16); Fall, 1980 (40); Spring, 1981 (50); Summer, 1981 (22); Fall, 1981 (63); Spring, 1982 (56); Summer, 1982 (21); Spring, 1983 (76); Summer, 1983 (23); Fall, 1983 (84), Summer, 1984 (23); Fall, 1984 (107), Spring, 1985 (105), Summer, 1985 (38), Fall, 1985 (75); Spring, 1986 (115); Summer, 1986 (30); Fall, 1986 (87); Summer, 1987 (38); Fall, 1987 (150);
Spring, 1989 (124); Spring, 1990 (115); Fall, 1990 (126); Spring, 1991, (131)

31:121 Experimental Psychology II: Fall, 1973 (18); Fall, 1974 (15); Fall, 1975 (15); Fall, 1976 (18); Fall, 1977 (15); Spring, 1980 (15);

31:142 Introduction to Statistics in Psychology: Fall, 1981 (17); Spring, 1988 (59)

31:143 Introduction to Statistical Methods: Spring, 1978 (13); Fall, 1979 (11);

31:214 Learning in Children: Spring, 1974 (6); Spring, 1975 (4); Spring, 1976 (2); Spring, 1977 (1); Spring, 1979 (7); Spring, 1982 (3)

- 31:290 Instruction in Psychology: Summer, 1988 (10); Summer, 1989 (5)
- 31:329 (5:259) Seminar: Discrimination Learning (1/2 with C. Spiker): Summer, 1973 (4)

#### Honors' Theses Supervised

Friedman, Joan E. Transfer of stimulus pretraining to a motor paired associate task: A test of the rehearsal hypothesis, 1967.

Lindsley, Diane Tucker. Effects of variation of irrelevant dimensions during pre training and of overt verbalization on discrimination learning in preschool children, 1973.

Bemman, Susan E. Effects of dimensional memory aids and introtacts on discrimination learning in kindergarten and second grade children, 1977.

## M.A. Theses Supervised

Pederson, Linda L. Role of distinctive stimulus names in children's motor paired-associate learning, 1966.

Bannon, Sue A. The effects on children's learning of adding dimensions between and within settings to the simultaneous discrimination problem, 1968.

Green, Judith A. Effects of stimulus dimension training on children's simultaneous discrimination learning, 1968.

Bigelow, Ann E. Effects of verbal training on transfer problems of discrimination learning, 1970.

Hardesty, Carol S. The effects of verbal pre training on two discrimination tasks varying in difficulty, 1970.

Miller, Asenath A. Children's simultaneous discrimination learning as a function of pretraining condition (co-director with C. Spiker), 1971.

Lundback, Eva. The effects of dimensional naming upon children's performance in a modified optional shift problem, 1971.

McGeehan, Deborah L. Age differences in stimulus naming effects in children's motor paired-associate learning, 1973.

Su, Alice W. W. Effects of stimulus similarity and name similarity on children's verbal motor paired-associate learning, 1975.

Hu, May Su. The effects of dimensional arrangement on the transfer of verbal pre training, 1975.

Wolf, Sue. The effects of instructions on the learning of a complex simultaneous discrimination problem by kindergarten children, 1976.

Lenel, Julia C. Rhyme recognition and phonemic perception in young children, 1978.

Mims, R. Michael. Symmetrical and asymmetrical transitive inferences: A developmental study, 1979.

Klouda, Gayle V. The effects of type of pretraining and locus of the introtact probe on the hypothesistesting strategies of young children (Co-director with C. C. Spiker), 1984.

Ph.D. Dissertations Supervised

Su, Alice W. W. The effects of rehearsal on children's verbal-motor paired-associate learning, 1976.

### **B.S.** Committee Service

R. Sullivan (Hinrichs, 1977); L. Novick (Hinrichs, 1980);M. Anderson (Quinn, 1987); C. Bennett (Rosner, 1987); L. Sebille (Wasserman, 1988)

### M.A. Committee Service

R. Boat (Clifton, 1966); C. Tragakis (Spiker, 1968); T. DeCasper (Croll, 1970); T. Carr (Parton, 1971); M. Priefert (Parton, 1972);
D. Hayes (Predoctoral Project, Rosner, 1973); M. Grunke (Hinrichs, 1974)

### Ph.D. Committee Service

C. Tragakis (Spiker, 1969); J. Williams (Levin, 1970); A. Miller (Spiker, 1971); H. Gu1dmann (Spiker, 1972); D. Hayes (Rosner, 1975); M. Hu (Hinrichs, 1978); M. Pratt (Weerts, 1979); R. M. Mims (Hinrichs & Shak1ee, 1980); J. Lenel (Berbaum, 1980); S. Philhower (Bozeman, 1985); S. E1ek (Wasserman, in progress); B. Kacer (Rocklin and Weinholtz, 1989)

## Service

### Departmental Administration

Institute of Child Behavior and Development Coordinator of Inservice Training and Research Assistantships, 1967-73 Member of Committee for Student Academic Review, 1967-73 Member of Committee for Student Financial Support, 1967-73 Member of Committee for Educational Policy, 1968-73 Responsible for preparation of IDBD Schedule of Courses and Catalogue Copy, 1966-73

Department of Psychology Member of Committee for Colloquium Speakers, 1973-74 General Advisor for Liberal Arts, 1973-81 Advisor for Psychology Majors, 1982-91 Member of Committee on Undergraduate Studies, 1974-79; 1980-82 Coordinator of Research Projects in the Public Schools, 1974-91 Member of Ethics Committee, 1979-80, 1983-84 Coordinator of Undergraduate Studies, Spring, 1981 Coordinator of Graduate Studies, 1982-83, 1987-88 Member of Ad Hoc Recruiting Committee, 1984-85 Coordinator of Child & Developmental Training Area, 1985-89 Member of Committee on Graduate Studies, 1982-83; 1985-89 Member and Acting Chair, DEO Search Committee, 1985-86 Chair, Search Committee for Program Assistant, 1986 Member, Search Committee for Administrative Assistant, 1988-89 Chair, Planning Committee for Conference on Future Directions in

Child Psychology held in October, 1986 Chair, Centennial Planning Committee, 1987-88 Member, Shop and Equipment Committee, 1990-91

### University Service

Member of Executive Committee, UI Chapter, American Association of
University Professors, 1976-78
Member of Review Panel for Program Committee, Society for Research in
Child Development, 1976
Member of Faculty Senate Committee on Committees, 1979-82
Member of ROTC Advisory Committee, 1979-84
Member of Graduate Council, 1980-83
Member, Starch Search Committee, Department of Communications Studies, 1984-85
Member of Faculty Senate, 1983-86
Member of University Academic Computer Services Committee, 1983-86
(Chair, 1984-86)
Member of Search Committee for Director of the Office of Information Technology, 1985-87
Member of Liberal Arts Faculty Assembly, 1985-90
Member of Ad Hoc Promotion Committee for Judith Allen (Dance), 1986
Member of Planning Committee for Symposium honoring Vice President
D. C. Spriestersbach, 1986-87
Member of Liberal Arts Executive Committee, 1988-91.
Member of Academic Affairs Ad Hoc Committee to Investigate Plagiarism Charge

#### Professional Service

## Guest Editor

American Psychologist, 1988 Journal of Experimental Child Psychology, 1967-75; 1978-84; 1988 Psychonomic Science, 1971 Journal of Experimental Psychology, 1968 Advances in Child Development and Behavior, 1966 Memory and Cognition, 1975 Journal of Pediatric Psychology, 1978 Child Development, 1978-80 Developmental Review, 1986

**Reviewer for Research Grant Applications** 

National Science Foundation, 1973; 1980 Regional Office of Child Development, Dept. of Health, Education, and Welfare, 1972 Office of Education, 1961-63

External Reviewer

Outside member of review committee for the Department of Psychology, University of Nebraska at Omaha, February, 1988.

Research

**Publications** 

Cantor, J. H. Amount of pretraining as a factor in stimulus predifferentiation and performance set. <u>Journal of Experimental Psychology</u>, 1955, 501 180-184.

Cantor, G. N., Cantor, J. H., & Ditrichs, R. Observing behavior in preschool children as a function of stimulus complexity. <u>Child Development</u>, 1963, 34, 683-689.

Cantor, G. N., & Cantor, J. H. Effects of conditioned-stimulus familiarization on instrumental learning in children. Journal of <u>Experimental Child Psychology</u>, 1964, 1, 71-78.

Cantor, J. H., & Cantor, G. N. Observing behavior in children as a function of stimulus novelty. <u>Child</u> <u>Development</u>, 1964, 35, 119-128.

Cantor, J. H., & Cantor, G. N. Children's observing behavior as related to amount and recency of stimulus familiarization. Journal of <u>Experimental Child Psychology</u>, 1964, 1, 241-247.

Cantor, J. H. Transfer of stimulus pre training to motor paired associate and discrimination learning tasks. In L. P. Lipsitt and C. C. Spiker (Eds.), <u>Advances in child development and behavior</u> (Vol. 2). New York: Academic Press, 1965, pp. 19-58.

Cantor, G. N., & Cantor, J. H. Discriminative reaction time performance in preschool children as related to stimulus familiarization. Journal of Experimental Child Psychology, 1965, 2, 1-9.

Cantor, G. N., & Cantor, J. H. Discriminative reaction time in children as related to amount of stimulus familiarization. Journal of Experimental Child Psychology, 1966, 4, 150-157.

Cantor, J. H., & Cantor, G. N. Functions relating children's observing behavior to amount and recency of stimulus familiarization. Journal of Experimental Psychology, 1966, 72, 859-863.

Cantor, J. H. Facilitating and interfering effects of stimulus naming on children's motor paired-associate learning. Journal of Experimental Child Psychology, 1970, 10, 374-389.

Cantor, J. H. Stimulus-naming effects at different stages of motor paired-associate learning. <u>Memory</u> and <u>Cognition</u>, 1973, 1, 47-52.

Spiker, C. C., & Cantor, J. H. Applications of Hull-Spence theory to the transfer of discrimination learning in children. In H. W. Reese (Ed.), <u>Advances in child development and behavior</u> (Vol. 8). New York: Academic Press, 1973, pp. 223-288.

Kobayashi, E. L., & Cantor, J. H. The effects of dimensional naming upon children's performance in a modified optional shift problem. <u>Memory and Cognition</u>, 1974, 2, 401-405.

Lindsley, D. T., & Cantor, J. H. Effects of verbal pre training and overt verbalization on discrimination learning in preschool children. <u>Bulletin of the Psychonomic Society</u>, 1975, 5, 66-68.

Cantor, J. H., & Spiker, C. C. The effects of labeling dimensional values on setting differences in shift performance of kindergarten children. <u>Memory and Cognition</u>, 1976, 4, 446-452.

Cantor, J. H. Behavioristic perspectives on a dialectical model of discriminative learning and transfer. In N. Datan & H. W. Reese (Eds.), <u>Life-span developmental psychology: Dialectical perspectives on experimental research</u>. New York: Academic Press, 1977, pp. 253-260.

Cantor, J. H., & Spiker, C. C. Dimensional fixation with introtacts in kindergarten children. <u>Bulletin of the Psychonomic Society</u>, 1977, 10, 169-171.

McGeehan, D. L., & Cantor, J. H. Age differences in mediation in children's motor paired-associate learning. <u>Developmental Psychology</u>, 1977, 13, 121-128.

Spiker, C. C., & Cantor, J. H. Intradimensional and extradimensional shifts in the rat with assessment of differential instrumental generalization. <u>Bulletin of the Psychonomic Society</u>, 1977, 10, 223-225.

Spiker, C. C., & Cantor, J. H. Introtacts as predictors of discrimination performance in kindergarten children. Journal of Experimental Child Psychology, 1977, 23, 520-538.

Cantor, J. H., & Spiker, C. C. The effect of change in stimuli on the transfer of dimensional pretraining in the discrimination learning of kindergarten children. <u>Child Development</u>, 1978, 49, 824-828.

Cantor, J. H., & Spiker, C. C. The problem-solving strategies of kindergarten and first-grade children during discrimination learning. Journal of Experimental Child Psychology, 1978, 26, 341-358.

Cantor, J. H., & Su, W. W. Variables affecting mediation in children's verbal-motor paired-associate learning. <u>Bulletin of the Psychonomic Society</u>, 1978, 12, 461-464.

Cantor, J. H., & Spiker, C. C. The effects of introtacts on hypothesis testing in kindergarten and first-grade children. <u>Child Development</u>, 1979, 50, 1110-1120.

Spiker, C. C., & Cantor, J. H. Factors affecting hypothesis testing in kindergarten children. Journal of Experimental Child Psychology, 1979, 28, 230-248.

Spiker, C. C., & Cantor, J. H. The Kendler levels-of-functioning theory: Comments and an alternative schema. In H. W. Reese & L. P. Lipsitt (Eds.), <u>Advances in child development and behavior</u> (Vol. 13). New York: Academic Press, 1979, pp. 119-135.

Cantor, J. H., & Spiker, C. C. Factors affecting children's recognition memory for multidimensional stimuli. <u>Bulletin of the Psychonomic Society</u>, 1980, 16, 345-348. Spiker, C. C., & Cantor, J. H. The effects of stimulus type, training, and chronological age on children's identification and recoding of multidimensional stimuli. Journal of Experimental Child Psychology,

1980, 30, 144-158.

Lene1, J. C., & Cantor, J. H. Rhyme recognition and phonemic perception in young children. Journal of

Psycholinguistic Research, 1981, 10, 57-67.

Cantor, J. H., & Spiker, C. C. The effect of the temporal locus of the introtact probe on the hypothesistesting strategies of kindergarten children. Journal of Experimental Child Psychology, 1982, 34, 510-525.

Spiker, C. C., & Cantor, J. H. Cognitive strategies in the discrimination learning of young children. In D. K. Routh (Ed.), <u>Learning. speech. and the complex effects of punishment.</u> New York: Plenum, 1982, pp. 21-69.

Spiker, C. C., & Cantor, J. H. Components in the hypothesis-testing strategies of young children. In T. Tighe & B. E. Shepp (Eds.), <u>Perception. cognition. and development: Interactional analyses.</u> Hillsdale, N.J.: Erlbaum, 1983.

Mims, M., Cantor, J. H., & Riley, C.A. The development of representation skills in transitive reasoning based on relations of equality and inequality. <u>Child Development</u>, 1983, 54, 1457-1469.

Spiker, C. C., & Cantor, J. H. (1983) The dimensional analysis by children of multidimensional stimuli. <u>Bulletin of the Psychonomic Society</u>, 21 (6), 449-452.

Cantor, J. H., & Spiker, C. C. (1984) Evidence for long-term planning in children's hypothesis testing. Bulletin of the Psxchonomic Society, 22 (6), 493-496.

Spiker, C. C., Cantor, J. H., & Klouda, G. V. (1985) The effect of pretraining and feedback on the reasoning of young children. Journal of Experimental Child Psychology, 39, 381-395.

Lipsitt, L. P., & Cantor, J. H. (Eds.) (1986) <u>Essays and experiments in honor of Charles C. Spiker.</u> Hillsdale, NJ: Lawrence Erlbaum Associates.

Cantor, J. H. (1986) Three decades of research on children's learning: Contributions by Charles C. Spiker. In L. P. Lipsitt & J. H. Cantor (Eds.) <u>Essays and Experiments in Honor of Charles C. Spiker.</u> (pp. 67-96). Hi11sdale, NJ: Lawrence Er1baum Associates.

Cantor, J. H., & Spiker, C. C. (1989) Children's learning revisited: The contemporary scope of the Modified Spence discrimination theory. In H. W. Reese (Ed.), <u>Advances in child development</u> and behavior. (Vol. 21, pp. 121-151). New York: Academic Press.

Cantor, J. H., Spiker, C. C., & Lipsitt, L. P. (Eds.) (1991) <u>Child Behavior and Development: Training</u> for Diversity. New York: Ablex Publishing Co.

Spiker, C. C., & Cantor, J. H. (1991) Methodological training: A Guarantee for the future. In Cantor, J. H., Spiker, C. C., & Lipsitt, L. P. (Eds.) <u>Child Behavior and Development: Training for Diversity</u>. New York: Ablex Publishing *Co*.

Cantor, J. H. (Ed.) (1991) <u>Psychology at Iowa: Centennial Essays</u>. Hillsdale, NJ: Lawrence Erlbaum Associates.

Cantor, J. H. (1994) Obituary: Charles C. Spiker (1925-1993). American Psychologist, 49, 812.

# Papers Presented, Invited Addresses, Symposia, and Conferences

Cantor, J. H., Lewis, D., & McAllister, D. E. Analysis of performance on a multipoint two-hand coordinator. Paper presented at the meeting of the American Psychological Association, San Francisco, 1955.

McAllister, D. E., & Cantor, J. H. The effects of verbal pretraining on the performance of discriminative motor tasks. In D. Lewis (Chair), <u>The acquisition and transfer of skills</u>. Symposium presented at the meeting of the Midwestern Psychological Association, Chicago, 1957.

Cantor, J. H. Habit acquisition and reversal in a T-maze as a function of drive strength. Paper presented at the meeting of the Midwestern Psychological Association, Chicago, 1961.

Cantor, J. H. The role of verbal cues in children's motor pairedassociate learning. In P. A. Katz (Chair), <u>Developmental aspects of mediation</u>. Symposium presented at the meeting of the Society for Research in Child Development, Santa Monica, 1969.

Cantor, J. H. Behavioristic perspectives on a dialectical model of discriminative learning and transfer. Paper presented as discussant at the Life-Span Developmental Psychology Conference, West Virginia University, 1976.

Invited participant in Conference on Women in Science at the University of Maine, 1978.

Spiker, C. C., & Cantor, J. H. Components in the hypothesis-testing strategies of young children. Paper presented in substitution for C. C. Spiker at the Conference on Perception, Cognition, and Development at Dartmouth College, 1981.

Cantor, J. H. Children's hypotheses are not null. Colloquium Address, Department of Psychology, University of Iowa, 1985.

Cantor, J. H. Whatever happened to children's learning? Invited Address, Midwestern Psychological Association, April, 1988.

Cantor, J. H. Panel Member on Symposium: "Regarding 100 Years of Iowa Psychology: Selective Recollections" Midwestern Psychological Association, April, 1988.

# Research Support

NSF G-2676 Variables influencing stimulus predifferentiation, 1955.

NICHD HD-00892 Children's responses to novel and complex stimuli, 1962-65 (with G. Cantor).

NICHD HD-01376 Verbal mediation in children's learning, 1965-69.

NSF BMS-75-04334 Attentional factors in children's selective learning,

1975-77 (with C. Spiker).