

Curriculum Vitae

Roger W. Schvaneveldt

Professor, Cognitive Science and Engineering Program
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Education & Training

- 1992 - 1993 Flight instruction, Mr. Jerry Woods, Las Cruces, NM
Private Pilot License, 1993.
- 1963 - 1967 University of Wisconsin, Madison,
M.S., 1965 (psychology),
Ph.D., 1967 (psychology, mathematics minor)
- 1960 - 1963 University of Utah, Salt Lake City,
B.A., 1963 (psychology)
- 1959 - 1960 University of Oregon, Eugene
- 1958 - 1959 University of Utah, Salt Lake City

Positions Held

- 2010 – present Professor Emeritus
Arizona State University
- 2000 - 2010 Professor of Cognitive Science and Engineering
Arizona State University Polytechnic Campus, Mesa
- 2000 - 2006 Director of the Applied Psychology Unit
Arizona State University Polytechnic Campus, Mesa
- 2000 – present Professor Emeritus
New Mexico State University, Las Cruces
- 1992-1995 Head, Department of Psychology
New Mexico State University
- Autumn 1985 Visiting Scholar, Applied Psychology Unit
Cambridge, England
- 1985 - present President, Interlink
Las Cruces, NM
- 1983 - 1999 Interim and Associate Director, Computing Research Laboratory
New Mexico State University
- 1977 - 1999 Professor of Psychology
New Mexico State University
- Summer 1974 Visiting Research Scientist
Thomas J. Watson Research Center, IBM
- 1971 - 1977 Associate Professor
State University of New York at Stony Brook

- 1970 - 1971 Visiting Assistant Professor
University of Colorado, Boulder
- 1967 - 1970 Assistant Professor
State University of New York at Stony Brook
- 1964 - 1967 Teaching Assistant
University of Wisconsin, Madison
- 1963 - 1967 National Institutes of Health Predoctoral Fellow
University of Wisconsin, Madison
- 1962 - 1963 National Science Foundation Undergraduate Fellow
University of Utah, Salt Lake City

Honors

- Fellow, American Association for the Advancement of Science
- Fellow, American Psychological Association
- Fellow, Association for Psychological Science
- NSF Undergraduate Fellow, 1963
- B.A. cum laude, 1963
- NIH Predoctoral Fellow, 1963-1967
- Citation Classic recognition for work on semantic priming, 1984
- Outstanding Researcher Lecture, New Mexico State University, 1986
- Invited Address, American Psychological Association, 1989
- Invited Address, Rocky Mountain and Western Psychological Associations, 1993

Other Professional Activities

- 2007 Member of the Program Review Committee for the Department of Behavioral Sciences and Leadership at the United States Air Force Academy
- 2006 Member of the Advisory Board, Innovation Value Institute, National University of Ireland, Maynooth
- 2003 Member, Committee of Visitors, Behavioral and Cognitive Sciences Division, National Science Foundation
- 1999 Associate Editor, Handbook of Applied Cognition, F. Durso (Ed.)
- 1982 - 1985 Consulting Editor, Memory and Cognition
- 1981 Member of the program committee for the first conference on Human Factors in Computer Systems, Gaithersburg, Maryland.
- 1976 - 1979 Founding Member, National Science Foundation Panel on Memory and Cognitive Processes
- 1974 - 1979 Consulting Editor, Journal of Experimental Psychology: Human Perception and Performance

Ad Hoc Reviewing

American Journal of Psychology
Applied Cognitive Psychology
British Journal of Psychology
Canadian Journal of Psychology
Child Development
Cognitive Psychology
Cognitive Science
Cognitive Therapy and Research
Handbook of Human Computer Interaction
 Harper & Row
Human Computer Interaction
Human Factors
International Journal of Man-Machine Studies
 Israel Science Foundation
 John Wiley and Sons
Journal of Applied Behavior Analysis
Journal of Educational Psychology
Journal of Experimental Child Psychology
Journal of Experimental Psychology
Journal of Experimental Psychology: General

Journal of Experimental Psychology: Human Perception and Performance
Journal of Experimental Psychology: Learning,
Journal of Experimental Social Psychology
Journal of Personality and Social Psychology
Journal of Verbal Learning and Verbal Behavior
 Mayfield Publishing
Memory and Cognition
Memory and Language
 National Science Foundation
Neuropsychology
Psychological Review
Psychological Science
Psychonomic Science
 Random House
 Rockefeller Foundation
Science
The Spanish Journal of Psychology
 West Publishing

Memberships

American Association for the Advancement of Science (Fellow)
 American Psychological Association (Fellow)
 Association for the Advancement of Artificial Intelligence
 Association for Psychological Science (Fellow)
 Arizona Arts, Sciences and Technology Academy (Founding Fellow)
 Arizona Chapter of the Human Factors and Ergonomics Society
 Association for Computing Machinery
 Cognitive Science Society
 Human Factors and Ergonomics Society
 Psychonomic Society
 Rio Grande Chapter of the Human Factors and Ergonomics Society
 Rocky Mountain Psychological Association
 Society for Applied Research in Memory and Cognition
 Southwestern Psychological Association

Teaching Interests

Artificial Intelligence
 Aviation Psychology
 Cognitive Psychology/Cognitive Science
 Conceptual Behavior

Experimental Design/Statistics
 Human Memory
 Human-Computer Interaction
 Information Processing/Attention

Language and Communication
Philosophical Psychology

Philosophy of Science
Thinking and Reasoning

Current Research

Abductive Reasoning/Discovery
Applications of Complexity Theory
Aviation Psychology

Human-Computer Interaction
Implicit Learning
Network Scaling Methods

Consulting

Air Force Research Laboratory: Pathfinder Networks, Theory and Application
Fitch: Cockpit Interface Design; Network scaling methods; Approaches to cognition
Federal Aviation Administration: Information Priorities in Aviation
Intel: Information retrieval and knowledge management.
L-3 Communications: Knowledge acquisition in pilot training.
Mark Siegel: The use of Pathfinder network scaling tools in knowledge elicitation.
Monterey Technologies: The uses of Pathfinder network scaling as a knowledge elicitation tool.
Raytheon: Assessment of conceptual change in pilot training.
Sandia National Laboratories: Abductive reasoning, adaptation, and memory.
Texas Instruments: The uses of Pathfinder networks in knowledge representation.

Major Grants, Contracts, & Awards

Federal Aviation Administration: *Weather Information in Airline Systems Operations Centers*, March 2009 to September 2009. \$89,500 (PI, with Russell Branaghan, co-PI)
Federal Aviation Administration: *Weather Information in Flight: Priorities, Sources, and Delivery*, November 2007 to August 2008. \$99,500 (PI, with Russell Branaghan and John Lamonica, co-PIs)
National Science Foundation: MRI: Acquisition of an Advanced Driving Simulator for Safety Research and Education. Award 0722614, September 2007 to September 2008. \$170,750 (Co-PI with Rob Gray, PI, and Russell Branaghan, Co-PI)
Air Force Research Laboratory: *Design of a New Version of Pathfinder Network Scaling Software*, 14 February 2005 to 30 November 2005. \$34,771 (PI)
Cognitive Engineering Research Institute: *Acquisition and Retention of Team Coordination in Command-and-Control*. 11 March 2004 to 31 December 2006. \$81,500 (PI with N. Cooke, Co-PI)
National Science Foundation: *Developing the Statics Knowledge Inventory*. Award 0206990, 15 September 2002 to 31 August 2005. (Co-PI with S. Danielson, PI, and S. Mehta, Co-PI) \$247,384
Federal Aviation Administration: *Using Information Priorities in Evaluating Aviation Information Systems*, 1 June 2002 to 1 July 2003. \$35,000 (PI)
Air Force Research Laboratory: *Development of the Cognitive Engineering Laboratory for Collaborative Research*, 1 June 2002 to 30 November 2003. \$30,000 (PI)
Federal Aviation Administration: *Priorities of Weather Information in Various Phases of Flight*, 1 June 2001 to 31 December 2001. \$32,000 (PI)

Federal Aviation Administration: *The Source, Priority, and Organization of Elements of Information Accessed by Pilots in Various Phases of Flight*, 12 June 1998 to 11 June 1999. \$110,000 (PI)

Air Force Armstrong Laboratory: *Empirical Investigations and Neural Net Models of Mental Workload*, 1 January 1996 to 31 December 1996. \$108,000 (PI)

Hewlett-Packard: *Knowledge elicitation and models of expert knowledge*. April 1995 (Award). (PI with J. McDonald, PI) \$40,000+ \$123,000 in equipment

Hewlett-Packard: *Usability Testing and User-Interface Design*. May 1994 (Award). (PI with J. McDonald, PI) \$70,000+ \$30,000 in equipment

Air Force Armstrong Laboratory: *Neural Net Models of Measurement Decision Logic*, 1 January 1992 to 30 June 1993. \$60,000 (PI)

IBM: *Document Indexing and Information Retrieval*. 1 July 1990 to 31 December 1993. (Co-PI with J. McDonald, PI) \$840,000 + \$400,000 in equipment

IBM: *Help Index for Knowledge Tool*. 1 March 1989 to 31 July 1989. (PI with J. McDonald & K. Paap, Co-PIs) \$83,000

Air Force Human Resources Laboratory: *TACIT: Tactical Air Combat Intelligent Training*, 1 October 1988 to 1 December 1991. (PI with T. Goldsmith, Co-PI) \$265,000

NASA-Ames Research Center: *A Formal Method for Knowledge Elicitation and Representation Applied to the Design of Human-Computer Interfaces*. 1 July 1987 to 30 April 1990. (Co-PI with K. Paap, J. McDonald, & D. Dearholt, Co-PIs) \$350,000

National Science Foundation: *Properties of Networks Derived from Proximities*. Award 8506706, 1 October 1986 to 30 September 1989. (Co-PI with D. Dearholt, Co-PI) \$194,546

Texas Instruments, Inc.: *Knowledge Acquisition: Methods and Tools*, 1 September 1985 to 31 December 1988. \$122,000 (PI)

Air Force Human Resources Laboratory: *Modeling Fighter Pilot Decision Making*, 1 June 1984 to 15 August 1986. (PI with T. Goldsmith, Co-PI) \$175,000

Computing Research Laboratory (NMSU): *The User Interface in Computer Systems*, 1 July 1983 to 30 June 1989. (PI with J. McDonald & N. Cooke, Co-PIs) \$250,000

Computing Research Laboratory (NMSU): *Link Weighted Networks / Cognitive Models*, 1 July 1983 to 30 June 1989. (PI with D. Dearholt, Co-PI) \$300,000

Air Force Human Resources Laboratory: *Structure and Process in Conceptual Memory*, 15 April 1981 to 30 September 1983. \$190,000, (PI)

Air Force Human Resources Laboratory: *Structures of Memory for Critical Flight Information*, 1 May 1980 to 31 July 1981. \$60,000, (PI)

National Science Foundation: *Undergraduate Psychology Laboratories*. Award 7913452, 1 October 1979 to 31 September 1980. \$15,274, (PI)

Software Systems Designed and Implemented

2020, LinkIt 1.0, A MATLAB APP for assessing knowledge with concept maps. Designed and implemented in MATLAB. (with Russell Branaghan)

2020, Pathfinder 9.0, A MATLAB APP for Pathfinder, Nearest Neighbor, and Threshold Network Analysis. Designed and implemented in MATLAB.

- 2015, Pathfinder 7.0, Software system for Pathfinder, Nearest Neighbor, and Threshold Network Analysis. Designed and implemented in MATLAB.
- 2014, JPathfinder, JRate, JTarget: Java software tools for collecting proximity data and for deriving and analyzing Pathfinder, Threshold, and Nearest Neighbor Networks. Free software available from <http://interlinkinc.net>
- 2009, Target, graphical user interface for collecting similarity judgments using drag and drop. Designed and implemented in MATLAB.
- 2009, Pathfinder 6.3, Software system for Pathfinder, Nearest Neighbor, and Threshold Network Analysis. Designed and implemented in MATLAB.
- 2005, Pathfinder 5.2, Software system for Pathfinder Network Analysis. Designed and implemented in MATLAB.
- 1992, InfoView, Software system for information retrieval using Pathfinder Networks for query visualization. Designed and implemented in C. (with James McDonald and P.K. Annaiyappa).
- 1989, KNOT 4.3, Software system for Pathfinder Network Analysis. Designed and implemented in Pascal. (with Kevin Sitze and James McDonald).
- 1983, The PSYCHLAB programming system: A tool for developing experimental control programs. Design and implemented in Pascal. (with Ken Maxwell)
- 1979, ANOVA: Analysis of Variance program. Designed and implemented in APL.

Published Work

- Amith, M., Cohen, T., Cunningham, R., Savas, L. S., Smith, N., Cuccaro, P., Gabay, E., Boom, J., Schvaneveldt, R., & Tao, T. (2020). Mining HPV Vaccine Knowledge Structures of Young Adults From Reddit Using Distributional Semantics and Pathfinder Networks. *Cancer Control*, 27, 1-16.
- Amith, M., Cunningham, R., Savas, L. S., Boom, J., Schvaneveldt, R., Tao, C., & Cohen, T. (2017). Using Pathfinder networks to discover alignment between expert and consumer conceptual knowledge from online vaccine content. *Journal of Biomedical Informatics*, 74, 33-45.
- Schvaneveldt, R. W., Cohen, T. A., & Whitfield, G. K. (2013). Paths to discovery. In J. Staszewski (Ed.), *Expertise and skill acquisition: The impact of William G. Chase*. (pp. 147-178). New York: Psychology Press.
- Cohen, T., Widdows, D., Schvaneveldt, R. W., & Rindfleisch, T. (2012) Discovery at a distance: Farther journeys in predication space. Proceedings of the First International Workshop on the Role of Semantic Web in Literature-based Discovery. SWLBD2012
- Cohen, T., Widdows, D., Schvaneveldt, R. W., Davies, P., & Rindfleisch, T. C. (2012). Discovering discovery patterns with predication-based semantic indexing. *Journal of Biomedical Informatics*, 45(6), 1049-1065.
- Schvaneveldt, R. W. (2012). Abductive Reasoning. In: Seel, N.M. (ed.) *Encyclopedia of the Sciences of Learning*. Springer, Boston, MA. https://doi.org/10.1007/978-1-4419-1428-6_889
- Cohen, T., Widdows, D., Schvaneveldt, R. W., & Rindfleisch, T. C. (2011). Finding Schizophrenia's Prozac: Emergent Relational Similarity in Predication Space. 5th International Symposium on Quantum Interactions. Aberdeen, Scotland.

- Tossell, C. C., Schvaneveldt, R. W., & Branaghan, R. J. (2010). Targeting knowledge structures: A new method to elicit the relatedness of concepts. *Cognitive Technology*, 15(2), 12-19.
- Cohen, T., & Schvaneveldt, R. W. (2010). The trajectory of scientific discovery: Concept co-occurrence and converging semantic distance. *Studies in Health Information Technology and Informatics*, 160(Pt 1), 661-665.
- Cohen, T., Widdows, D., Schvaneveldt, R. W., & Rindfleisch, T. C. (2010). Logical leaps and quantum connectives: Forging paths through predication space. AAAI-Fall 2010 Symposium on Quantum Informatics for Cognitive, Social, and Semantic Processes November, p. 11-13.
- Cohen, T., Whitfield, G. K., Schvaneveldt, R. W., Mukund, K., & Rindfleisch, T. C. (2010). EpiphaNet: An interactive tool to support biomedical discoveries. *Journal of Biomedical Discovery and Collaboration*, 5, 21-49.
- Cohen, T., Schvaneveldt, R. W., & Widdows, D. (2010). Reflective random indexing and indirect inference: A scalable method for discovery of implicit connections. *Journal of Biomedical Informatics*, 43(2), 240-256.
- Schvaneveldt, R. W., & Cohen, T. A. (2010). Abductive reasoning and similarity: Some computational tools. In D. Ifenthaler, P. Pirnay-Dummer, & N. M. Seel (Eds.), *Computer-based diagnostics and systematic analysis of knowledge*. (pp. 189-211). New York: Springer.
- Cohen, T., Schvaneveldt, R. W., & Rindfleisch, T. C. (2009). Predication-based semantic indexing: Permutations as a means to encode predications in semantic space. *American Medical Informatics Association Symposium*, San Francisco, November, 2009.
- Tossell, C., Smith, A., & Schvaneveldt, R. (2009). Influence of Rating Method on Knowledge Structures. *Proceedings of the 53rd Annual Meeting of the Human Factors and Ergonomics Society*, San Antonio, TX, October, 2009.
- Gibb, R., Schvaneveldt, R., & Gray, R. (2008). Visual misperception in aviation: Glide path performance in a black hole environment. *Human Factors*, 50(4), 699-711.
- Schvaneveldt, R. W. (2004). Finding meaning in psychology. In A. F. Healy (Ed.), *Experimental cognitive psychology and its applications: Festschrift in honor of Lyle Bourne, Walter Kintsch, and Thomas Landauer*. Washington, DC: American Psychological Association.
- Schvaneveldt, R. W. (2002). Coding processes: Organization of memory. In D. Eckroth (Ed.), *Encyclopedia of Learning and Memory* (2nd edition). New York: MacMillan.
- Schvaneveldt, R. W., & Van Orden, G. C. (2002). Dynamics or representational epicycles? A review of Dietrich, E., & Markman, A. (Eds.), *Cognitive Dynamics: Conceptual and Representational Change in Humans and Machines*. *Contemporary Psychology: APA REVIEW OF BOOKS*, 47(4), 461-464.
- Schvaneveldt, R. W., Beringer, D. B., & Lamonica, J. (2001). Priority and organization of information accessed by pilots in various phases of flight. *International Journal of Aviation Psychology*, 11(3), 253-280.
- Thompson, L. A., Gomez, R. L., & Schvaneveldt, R. W. (2000). The salience of temporal cues in the developing structure of event knowledge. *American Journal of Psychology*, 113(4), 613-641.

- Gomez, R. L., Gerken, L., & Schvaneveldt, R. (2000). The basis of transfer in artificial grammar learning. *Memory & Cognition*, 28, 253-263.
- Durso, F. T., Nickerson, R. S., Schvaneveldt, R. W., Dumais, S. T., Lindsay, D. S., Chi, M. T. H. (Eds.) (1999). Handbook of applied cognition. Chichester: Wiley.
- Gillan, D. J., & Schvaneveldt, R. W. (1999). Applying cognitive psychology: Bridging the gulf between basic research and cognitive artifacts. In F. Durso, R. Nickerson, R. Schvaneveldt, S. Dumais, M. Chi, & S. Lindsay (Eds.), *The handbook of applied cognition*. (pp. 3-31) Chichester: Wiley.
- Schvaneveldt, R. W., Reid, G. B., Gomez, R. L., & Rice, S. (1998). Modeling mental workload. *Cognitive Technology*, 3, 19-31.
- Schvaneveldt, R. W., & Gomez, R. L. (1998). Attention and probabilistic sequence learning. *Psychological Research*, 61, 175-190.
- Gomez, R. L., Schvaneveldt, R. W., & Staudenmayer, H. (1996). Assessing beliefs about 'environmental illness/multiple chemical sensitivity'. *Journal of Health Psychology*, 1(1), 107-123.
- Cooke, N. J., Durso, F. T., & Schvaneveldt, R. W. (1994). Retention of skilled search after nine years. *Human Factors*, 36, 597-605.
- Gomez, R. L., & Schvaneveldt, R. W. (1994). What is learned from artificial grammars? Transfer tests of simple association. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 20, 396-410.
- Schvaneveldt, R. W. (1992). Coding processes: Organization of memory. In D. Eckroth (Ed.), *Encyclopedia of Learning and Memory*. New York: MacMillan.
- Schvaneveldt, R. W. (1991). The legacy of David A. Grant? review of J. Sidowski (Ed.), (1989). *Conditioning, cognition, and methodology: Contemporary issues in experimental psychology*. Lanham, MD: University Press of America. *Contemporary Psychology*, 36, 592-593.
- Goldsmith, T. E., McMahon, D. C., & Schvaneveldt, R. W. (1991). Modeling air combat decisions with computational and structural representations. In G. Apostolakis (Ed.), *Probabilistic safety assessment and management* (pp. 473-478). New York: Elsevier.
- Branaghan, R., McDonald, J., & Schvaneveldt, R. (1991). Identifying high-level UNIX tasks. *SIGCHI Bulletin*, 23, 73-74.
- Schvaneveldt, R. W. (Editor) (1990). *Pathfinder associative networks: Studies in knowledge organization*. Norwood, NJ: Ablex.
- Schvaneveldt, R. W. (1990). Proximities, networks, and schemata. In R. Schvaneveldt (Ed.), *Pathfinder associative networks: Studies in knowledge organization*. (pp. 135-148). Norwood, NJ: Ablex.
- McDonald, J. E., Plate, T. A., & Schvaneveldt, R. W. (1990). Using Pathfinder to extract semantic information from text. In R. Schvaneveldt (Ed.), *Pathfinder associative networks: Studies in knowledge organization*. (pp. 149-164). Norwood, NJ: Ablex.
- Dearholt, D. W., & Schvaneveldt, R. W. (1990). Properties of pathfinder networks. In R. Schvaneveldt (Ed.), *Pathfinder associative networks: Studies in knowledge organization*. (pp. 1-30). Norwood, NJ: Ablex.
- Schvaneveldt, R. W., Durso, F. T., & Dearholt, D. W. (1989). Network structures in proximity data. In G. Bower (Ed.), *The psychology of learning and motivation: Advances in research and theory*, Vol. 24 (pp. 249-284). New York: Academic Press.

- Cooke, N. M., & Schvaneveldt, R. W. (1988). Effects of computer programming experience on network representations of abstract programming concepts. *International Journal of Man-Machine Studies*, 29, 407-427.
- McDonald, J. E., & Schvaneveldt, R. W. (1988). The application of user knowledge to interface design. In R. Guindon (Ed.), *Cognitive science and its applications for human-computer interaction* (pp. 289-338). Hillsdale, NJ: Erlbaum.
- Schvaneveldt, R. W., Dearholt, D. W., & Durso, F. T. (1988). Graph theoretic foundations of Pathfinder networks. *Computers and Mathematics with Applications*, 15, 337-345.
- Durso, F. T., Cooke, N. M., Breen, T. J., & Schvaneveldt, R. W. (1987). Consistent mapping is not necessary for high-speed search. *Journal of Experimental Psychology: Learning, Memory & Cognition*, 13, 223-229.
- Onorato, L. & Schvaneveldt, R. (1987). Programmer/nonprogrammer differences in specifying procedures to people and computers. *Journal of Systems and Software*, 7, 357-369.
- Paap, K. R., McDonald, J. E., Schvaneveldt, R. W., & Noel, R. W. (1987) Frequency and pronounceability in visually presented naming and lexical-decision tasks. In M. Coltheart (Ed.), *Attention and performance XII* (pp. 221-243). Hillsdale, NJ: Erlbaum.
- Breen, T. J., & Schvaneveldt, R. W. (1986). The classification of empirically derived prototypes as a function of category experience, *Memory & Cognition*, 14, 313-320.
- Cooke, N. M., Durso, F. T., & Schvaneveldt, R. W. (1986). Recall and measures of memory organization. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 12, 538-549.
- McDonald, J. E., Dearholt, D. W., Paap, K. R., & Schvaneveldt, R. W. (1986). A formal interface design methodology based on user knowledge. *CHI '86* (pp. 285-290).
- Onorato, L. A., & Schvaneveldt, R. W. (1986). Programmer-nonprogrammer differences in specifying procedures to people and computers. In E. Soloway & S. Iyengar (Eds.), *Empirical studies of programmers* (pp. 128-137). Norwood, New Jersey: Ablex.
- Schvaneveldt, R. W. (1986). (Ed.) Panel discussion on artificial intelligence. In E. Hollnagel, G. Mancini, & D. Woods (Eds.), *Intelligent decision support in process environments*, (pp. 451-460). Berlin: Springer-Verlag.
- Schvaneveldt, R. W., & Goldsmith, T. E. (1986). A model of air combat decisions. In E. Hollnagel, G. Mancini, & D. Woods (Eds.), *Intelligent decision support in process environments* (pp. 395-405). Berlin: Springer-Verlag.
- Goldsmith, T. E., & Schvaneveldt, R. W. (1985). Air combat expert simulation. *Army Research and Development*, 26, 7-8.
- Schvaneveldt, R. W., Durso, F. T., Goldsmith, T. E., Breen, T. J., Cooke, N. M., Tucker, R. G., & DeMaio, J. C. (1985). Measuring the structure of expertise. *International Journal of Man-Machine Studies*, 23, 699-728.
- Goldsmith, T. E., & Schvaneveldt, R. W. (1984). Facilitating multiple-cue judgment with integral information displays. In J. Thomas & M. Schneider (Eds.), *Human factors in computer systems* (pp. 243-270). Norwood, NJ: Ablex.
- Meyer, D. E., & Schvaneveldt, R. W. (1984). Discussion of Meyer & Schvaneveldt (1971), A "Citation Classic." *Current Contents: Social & Behavioral Sciences*, 16, p. 20.

- Schvaneveldt, R. W., Cooke, N., Durso, F., Onorato, L., & Bailey, G. (1984). A taxonomy of human-computer interactions: Toward a modular user interface. In G. Salvendy (Ed.), *Human-computer interaction* (pp. 121-124). Amsterdam: Elsevier.
- Schvaneveldt, R. W. (1984). Contributions to: E. Donchin (Ed.), *Cognitive psychophysiology: Event-related potentials and the study of cognition*, Volume I of the Carmel Conferences. Hillsdale, NJ: Erlbaum.
- Schvaneveldt, R. W., Goldsmith, T., & Durso, F. T. (1983). Structures of memory for critical flight information. In *Proceedings of the 8th Symposium on Psychology in the Department of Defense*, 561-564.
- Maxwell, K. J., & Schvaneveldt, R. W. (1983). The PSYCHLAB programming system: A tool for developing experimental control programs. *Behavior Research Methods and Instrumentation*, 15, 49-56.
- Goldsmith, T. E., & Schvaneveldt, R. W. (1982). The role of integral displays in decision making. *Proceedings of Human Factors in Computer Systems*, 197-201.
- Paap, K. R., Newsome, S. L., McDonald, J. E., & Schvaneveldt, R. W. (1982). An activation-verification model for letter and word recognition: The word superiority effect. *Psychological Review*, 89, 573-594.
- Schvaneveldt, R. W., Durso, F. T., & Mukherji, B. R. (1982). Semantic distance effects in categorization tasks. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 8, 1-15.
- Schvaneveldt, R. W., & McDonald, J. E. (1981). Semantic context and the encoding of words: Evidence for two modes of stimulus analysis. *Journal of Experimental Psychology: Human Perception and Performance*, 7, 673-687.
- Aronoff, M., & Schvaneveldt, R. (1978). Testing morphological productivity. *Annals of the New York Academy of Sciences*, 318, 106-114.
- Schvaneveldt, R. W., Ackerman, B. P., & Semlear, T. (1977). The effect of semantic context on children's word recognition. *Child Development*, 48, 612-616.
- Tweedy, J. R., Lapinski, R. H., & Schvaneveldt, R. W. (1977). Semantic context effects on word recognition: Influence of varying the proportion of items presented in an appropriate context. *Memory & Cognition*, 5, 84-89.
- Meyer, D. E., & Schvaneveldt, R. W. (1976). Meaning, memory structure, and mental processes. In C. Cofer (Ed.), *The structure of human memory* (pp. 54-89). San Francisco: W. H. Freeman.
- Meyer, D. E., & Schvaneveldt, R. W. (1976). Meaning, memory structure, and mental processes. *Science*, 192, 27-33.
- Schvaneveldt, R. W., Meyer, D. E., & Becker, C. A. (1976). Lexical ambiguity, semantic context, and visual word recognition. *Journal of Experimental Psychology: Human Perception and Performance*, 2, 243-256.
- Meyer, D. E., Schvaneveldt, R. W., & Ruddy, M. G. (1975). Loci of contextual effects on visual word recognition. In P. Rabbitt & S. Dornic (Eds.), *Attention and performance V* (pp. 98-118). London: Academic Press.
- Meyer, D. E., Schvaneveldt, R. W., & Ruddy, M. G. (1974). Functions of graphemic and phonemic codes in visual word-recognition. *Memory & Cognition*, 2, 309-321.

- Schvaneveldt, R. W., & Meyer, D. E. (1973). Retrieval and comparison processes in semantic memory. In S. Kornblum (Ed.), *Attention and performance IV* (pp. 395-409). New York: Academic Press.
- Meyer, D. E., & Schvaneveldt, R. W. (1971). Facilitation in recognizing pairs of words: Evidence of a dependence between retrieval operations. *Journal of Experimental Psychology*, *90*, 227-234.
- Staudenmayer, H., & Schvaneveldt, R. W. (1971). Instructions and stimulus properties in processing relevant-redundant information. *Journal of Experimental Psychology*, *89*, 175-180.
- Pecan, E., & Schvaneveldt, R. W. (1970). Probability learning as a function of age, sex, and type of constraint. *Developmental Psychology*, *2*, 384-388.
- Schvaneveldt, R. W., & Staudenmayer, H. (1970). Mental arithmetic and the uncertainty effect in choice reaction time. *Journal of Experimental Psychology*, *85*, 111-117.
- Schvaneveldt, R. W. (1969). Effects of complexity in simultaneous reaction-time tasks. *Journal of Experimental Psychology*, *81*, 289-296.
- Schvaneveldt, R. W., & Chase, W. G. (1969). Sequential effects in choice reaction time. *Journal of Experimental Psychology*, *80*, 1-8.
- Schvaneveldt, R. W., & Kroll, N. E. A. (1968). Cue associations in concept shifts. *Journal of Verbal Learning and Verbal Behavior*, *7*, 474-478.
- Schvaneveldt, R. W. (1966). Concept identification as a function of probability of positive instances and number of relevant dimensions. *Journal of Experimental Psychology*, *72*, 649-654.

Technical Reports and Memoranda

- Schvaneveldt, R. W., & Branaghan, R. J. (2011). Pathfinder quick guide. Report produced for the Air Force Research Laboratory.
- Branaghan, R. J., Schvaneveldt, R. W., & Beringer, D. B. (2009). *Airline Systems Operations Centers: Baseline Assessment of the Use of Weather Information*. Final Project Report (DTFAAC-09-P-03642).
- Schvaneveldt, R., Branaghan, R., Lamonica, J., & Beringer, D. (2008). *Weather information priorities in various phases of flight with special attention to weather information in NextGen*. Interim Project Report. Federal Aviation Administration.
- Schvaneveldt, R. W. & Bernard, M. L. (2008). *Abductive Reasoning*. SAND 2008-0381, Sandia National Laboratories, Albuquerque, NM.
- Schvaneveldt, R. W. & Bernard, M. L. (2008). *Extracting Semantics from Text*. SAND 2008-1036, Sandia National Laboratories, Albuquerque, NM .
- Schvaneveldt, R. W. & Bernard, M. L. (2008). *Modern Theory of Human Cognition*. SAND 2008-1037, Sandia National Laboratories, Albuquerque, NM .
- Schvaneveldt, R. W. & Bernard, M. L. (2008). *Semantic Priming in Human Cognition*. SAND 2008-0452, Sandia National Laboratories, Albuquerque, NM .
- Schvaneveldt, R. W., & Shope, S. (2005). *Pathfinder Redux*. Air Force Research Laboratory.
- Schvaneveldt, R. W., Beringer, D. B., & Leard, T. M. (2003). *Evaluating aviation information systems: The role of information priorities*. Final Report, Federal Aviation Administration.

- Wenzel, B. M., Gettman, D. J., & Schvaneveldt, R. W. (2002). Adapting a measurement method to assess team cognition. *Air Force Research Laboratory*, Technical Report No. AFRL-HE-AZ-TR-2002-0068.
- Schvaneveldt, R., Beringer, D., Lamonica, J., Tucker, R., & Nance, C. (2000). *Priorities, organization, and sources of information accessed by pilots in various phases of flight*. Final Report DOT/FAA/AM-00/26, Federal Aviation Administration.
- Schvaneveldt, R., Gomez, R., Rice, S., & Reid, G. (1997). *Empirical investigations and neural network modeling of mental workload*. Final Technical Report on Contract F41624-96-1-003, Armstrong Laboratory, United States Air Force.
- Benson, A., Schvaneveldt, R., & Waag, W. (1994). *Neural Network Models of Measurement Decision Logic*. Aircrew Training Division, Armstrong Laboratory, Williams AFB, AZ.
- McDonald, J. E., & Schvaneveldt, R. W. (1993). *Information retrieval using associative networks: A natural-intelligence approach*. Memorandum in Computer and Cognitive Science, MCCS-93-265, Computing Research Laboratory, New Mexico State University.
- Schvaneveldt, R., Benson, A., Goldsmith, T., & Waag, W. (1992). *Neural Network Models of Air Combat Maneuvering*. AL-TR-1991 (DF10), Aircrew Training Division, Armstrong Laboratory, Williams AFB, AZ.
- Goldsmith, T., McMahon, D., & Schvaneveldt, R. (1990). *Tactical Air Combat Intelligent Trainer (TACIT)*. Interim Report on Contract F33615-88-C-0010. Air Force Human Resources Laboratory, Brooks AFB, Texas.
- Goldsmith, T., McMahon, D., & Schvaneveldt, R. (1990). *Tactical Air Combat Intelligent Trainer (TACIT)*. Memorandum in Computer and Cognitive Science, MCCS-90-198, Computing Research Laboratory, New Mexico State University.
- Schvaneveldt, R. W. (1989). *Proximities, Networks, and Schemata*. Memorandum in Computer and Cognitive Science, MCCS-89-149, Computing Research Laboratory, New Mexico State University.
- Schvaneveldt, R. W., Durso, F. T., & Dearholt, D. W. (1987). *Pathfinder: Networks from Proximity Data*. Memorandum in Computer and Cognitive Science, MCCS-87-90, Computing Research Laboratory, New Mexico State University.
- Goldsmith, T. E., & Schvaneveldt, R. W. (1987). *Representing and Training Expertise in Air Combat Maneuvering* Technical Report No. AFHRL-TP-86-60, Air Force Human Resources Laboratory, Operations Training Division, Williams AFB, AZ.
- Goldsmith, T. E., Schvaneveldt, R. W., & Brunderman, J. (1985). *Simulating air combat expertise*. Technical Paper No. AFHRL-TP-85-37. Air Force Human Resources Laboratory, Brooks AFB, Texas.
- Goldsmith, T. E., & Schvaneveldt, R. W. (1985). *ACES: Air combat expert simulation*. Memorandum in Computer and Cognitive Science, MCCS-85-34, Computing Research Laboratory, New Mexico State University.
- Schvaneveldt, R. W., Durso, F. T., & Dearholt, D. W. (1985). *Pathfinder: Scaling with Network Structures*. Memorandum in Computer and Cognitive Science, MCCS-85-9, Computing Research Laboratory, New Mexico State University.

- Schvaneveldt, R. W., McDonald, J. E., & Cooke, N. M. (1985). *The User Interface in Computer Systems: A Research Program*. Memorandum in Computer and Cognitive Science, MCCS-85-10, Computing Research Laboratory, New Mexico State University.
- Cooke, N. M., Durso, F. T., & Schvaneveldt, R. W. (1985). *Measures of Memory Organization and Recall*. Memorandum in Computer and Cognitive Science, MCCS-85-11, Computing Research Laboratory, New Mexico State University.
- Dearholt, D. W., Schvaneveldt, R. W., & Durso, F. T. (1985). *Properties of Networks Based on Proximities*. Memorandum in Computer and Cognitive Science, MCCS-85-14, Computing Research Laboratory, New Mexico State University.
- Onorato, L., & Schvaneveldt, R. W. (1985). *Procedural Specification Patterns across the Programming Experience*. Memorandum in Computer and Cognitive Science, MCCS-85-31, Computing Research Laboratory, New Mexico State University.
- Schvaneveldt, R. W., Anderson, M., Breen, T. J., Cooke, N. M., Goldsmith, T. E., Durso, F. T., DeMaio, J. C., & Tucker, R. G. (1985). *Measuring the Structure of Expertise*. Memorandum in Computer and Cognitive Science, MCCS-85-32, Computing Research Laboratory, New Mexico State University.
- Breen, T. J., & Schvaneveldt, R. W. (1985). *The Classification of Empirically Derived Prototypes as a Function of Category Experience*. Memorandum in Computer and Cognitive Science, MCCS-85-33, Computing Research Laboratory, New Mexico State University.
- Schvaneveldt, R. W., Durso, F. T., Goldsmith, T. E., Breen, T. J., Cooke, N. M., Tucker, R. G., & DeMaio, J. C. (1984). *Cognitive Organization as a Function of Flying Experience*. AFHRL-TP-83-64, Flying Training Division, Air Force Human Resources Laboratory.
- Schvaneveldt, R. W., Anderson, M., Breen, T. J., Cooke, N. M., Goldsmith, T. E., Durso, F. T., DeMaio, J. C., & Tucker, R. G. (1983). *Conceptual Structures in Fighter Pilots*. AFHRL-TP-83-2, Flying Training Division, Air Force Human Resources Laboratory.
- Schvaneveldt, R. W., Goldsmith, T. E., Durso, F. T., Maxwell, K., Acosta, H. M., & Tucker, R. G. (1982). *Structures of Memory for Critical Flight Information*. AFHRL-TP-81-46, Flying Training Division, Air Force Human Resources Laboratory.

Selected Presentations

- Cohen, T., Widdows, D., De Vine, L., & Schvaneveldt, R. W., Rindfleisch, T. (2012) Many paths lead to discovery: analogical retrieval of cancer therapies. Quantum Interaction 2012, 27 - 29 June 2012, Paris School of Economics, Paris.
- Cohen, T., Widdows, D., Schvaneveldt, R. W., & Rindfleisch, T. C. (2010). Logical leaps and quantum connectives: Forging paths through predication space. *Proceedings of the Fourth Quantum Interaction Symposium*, Washington, D.C.
- Cohen, T., & Schvaneveldt, R. W. (2010). The trajectory of scientific discovery: Concept co-occurrence and converging semantic distance. *13th International Congress on Medical Informatics*. Cape Town, South Africa, September 12-15, 2010.

- Schvaneveldt, R. W., & Cohen, T. (2009). *Paths to Discovery*. Paper presented at the 36th Carnegie Symposium on Cognition, Expertise and Skill Acquisition: The Impact of William G. Chase. Pittsburgh, PA, June 2-3, 2009.
- Cohen, T., Schvaneveldt, R. W., & Rindfleisch, T. C. (2009). *Permutations as a Means to Encode Predications in Semantic Space*. Paper presented at AMIA 2009.
- Tossell, C., Smith, A., & Schvaneveldt, R. (2009). *Influence of Rating Method on Knowledge Structures*. Poster presented at the 53rd Annual Meeting of the Human Factors and Ergonomics Society, San Antonio, TX, October, 2009.
- Tossell, C., Smith, A., & Schvaneveldt, R. (2009). *An Assessment of Rating Methods on the Representation of Structural Knowledge*. Poster presented at HCI International 2009, San Diego, CA, July, 2009.
- Branaghan, R., Schvaneveldt, R., Beringer, D., & Lamonica, J. (2008). *Weather in the Cockpit*. Paper presented at the meeting, Human Factors in NextGen, Arlington, TX, June, 2008.
- Rowe, L., Schvaneveldt, R., & Bennett, W. (2007). *Measuring Pilot Knowledge Acquisition in Training: The Pathfinder Network-Scaling Technique*. Paper presented at the 2007 Interservice/Industry Training, Simulation and Education Conference, Orlando, November.
- Schvaneveldt, R. (2003). *Finding meaning in psychology*. Paper presented at the Workshop, Cognitive Systems: Human Cognitive Models in System Design, Santa Fe, New Mexico, July.
- Schvaneveldt, R. (2003). *Finding meaning in psychology*. Paper presented at the Triple Festschrift in honor of Lyle E. Bourne, Jr., Walter Kintsch, and Thomas Landauer, University of Colorado, Boulder, May.
- Beringer, D., & Schvaneveldt, R. (2002). *Priorities of weather information in various phases of flight*. Proceeding of the Meetings of the Human Factors and Ergonomics Society, Baltimore, October.
- Castillo, A. R., Bennett, W. Jr., Wenzel, B., Park, M., Schvaneveldt, R., Robbins, R., Wooster, J., & Kotte, S. (2002). *An innovative approach for assessing knowledge in air-to-air distributed mission training*. Paper presented at the 2002 Interservice/Industry Training, Simulation and Education Conference, Orlando, November.
- Schvaneveldt, R., Tucker, R., Castillo, A., & Bennett, W., Jr. (2001). *Knowledge acquisition in distributed mission training*. Paper presented at the 2001 Interservice/Industry Training, Simulation and Education Conference, Orlando, November.
- Schvaneveldt, R., Beringer, D., & Lamonica, J. (2001). *Pilot priorities and pilot experience*. Paper presented at the 8th International Symposium on Aviation Psychology, Columbus, Ohio, March.
- Schvaneveldt, R., Bennett, W., Tucker, R. & Woehr D. (2000). *Challenges in the development and evaluation of high fidelity virtual environments for air force combat operations training*. In J. Rentsch (Chair), "Paris in the Morning, Cairo in the Afternoon: What does Team Research Tell us About Aviation?" Symposium at the meetings of the American Psychological Society, Miami, May.

- Schvaneveldt, R., Beringer, D., & Lamonica, J. (2000). *Information priorities of pilots: Pilot experience and phases of flight*. In F. Durso (Chair), "Does Cognitive Psychology have the Right Stuff? Applications of the Discipline to Aviation." Symposium at the meetings of the Society for Applied Research in Memory and Cognition, Miami, May.
- Schvaneveldt, R., Tucker, R., & Jensen, R. (1999). *Training evaluation and training development: Pathfinder studies*. Paper presented at the 1999 Interservice/Industry Training, Simulation and Education Conference, Orlando, December.
- Gomez, R. L., & Schvaneveldt, R. (1999). *Abstraction of distributionally defined categories and grammatical rules*. Poster presented at the 40th annual meetings of the Psychonomic Society, Los Angeles, November.
- Gomez, R. L., Gerken, L., & Schvaneveldt, R. (1997). *The basis of transfer in artificial grammar learning*. Poster presented at the 38th annual meetings of the Psychonomic Society, Philadelphia, November.
- Schvaneveldt, R. (1997). *Consciousness and mental representation*. In Y. Wilks & S. Nirenberg (Chairs), "Workshop on Ontological and Linguistic Categories." International Center for Semiotic and Cognitive Studies, Republic of San Marino, June.
- Schvaneveldt, R. W., & Gomez, R. L. (1996). *Attention and modes of learning: Evidence from probabilistic sequences*. Paper presented at the 37th annual meetings of the Psychonomic Society, Chicago, November.
- Schvaneveldt, R. W., & Gomez, R. L. (1996). *Attention and modes of learning: Evidence from probabilistic sequences*. Poster presented at the Western Attention Conference, Claremont, CA, June.
- Gomez, R. L., & Schvaneveldt, R. W. (1994). *How implicit is implicit learning?* Paper presented at the 35th annual meetings of the Psychonomic Society, St. Louis, November.
- Gomez, R. L., Schvaneveldt, R. W., & Staudenmayer, H. (1994). *Assessing beliefs about "Multiple Chemical Sensitivity"*. Paper presented at the annual meetings of the Rocky Mountain Psychological Association, Las Vegas, April.
- Cooke, N. J., Durso, F. T., & Schvaneveldt, R. W. (1993). *Retention of skilled search after nearly a decade*. Paper presented at the 34th Annual Psychonomic Society Meetings, Washington, DC, November.
- Staudenmayer, H., Gomez, R., & Schvaneveldt, R. (1993). *Multiple chemical sensitivity and beliefs*. Poster presented at the Annual Aspen Allergy Conference, Aspen, CO, July.
- Schvaneveldt, R. W., & Gomez, R. L. (1993). *Assessing similarity of associative knowledge*. Invited address presented at the joint annual meetings of the Rocky Mountain Psychological Association and the Western Psychological Association, Phoenix, April.
- Gomez, R. L., Thompson, L. A., & Schvaneveldt, R. W. (1993). *How children organize their knowledge of everyday events: Exploring the generality of event representations*. Poster presented at the meetings of the Society for Research in Child Development, New Orleans, March.

- Schvaneveldt, R. W., & Gomez, R. L. (1993). *A statistical basis for comparing networks*. Paper presented at the Second Workshop on Proximity Graphs, Starkville, MS, February.
- Schvaneveldt, R. W., Euston, D. R., Sward, D. S., & Van Heuvelen, A. (1992). *Physics expertise and the perception of physics problems*. Paper presented at the 33rd Annual Psychonomic Society Meetings, St. Louis, November.
- Schvaneveldt, R., Euston, D., & Sward, D. (1992). *Knowledge and proximity judgments: Selecting the stimulus set*. In F. Durso, Chair, "Empirical Epistemology." Symposium at the 38th Annual Convention of the Southwestern Psychological Association, Austin, TX, April.
- Gomez, R. L., & Schvaneveldt R. W. (1992). *What is learned from artificial grammars? A transfer test*. Paper presented the 38th Annual Convention of the Southwestern Psychological Association, Austin, TX, April.
- Sward, D. S., & Schvaneveldt R. W. (1992). *Effects of expectancies for fragment completion and recognition memory tests*. Paper presented at the 38th Annual Convention of the Southwestern Psychological Association, Austin, TX, April.
- Schvaneveldt, R. W., & McDonald, J. E. (1992). *An information retrieval system based on text proximities*. Paper presented at the Third Annual Winter Text Conference, Jackson, Wyoming, January.
- Schvaneveldt R. W. (1991). *Using decision models in performance evaluation*. Paper presented in a Panel Session, "Assessing Aircrew Performance in Complex Tactical Environments." 35th Annual Meeting of the Human Factors Society, San Francisco, September.
- Annaiyappa, P. K., Dearholt, D. W., Johansen, L. S., McDonald, J. E., Paap, K. R., & Schvaneveldt, R. W. (1991). *Information retrieval comparing key word search to spreading activation: Application to the Aviation Safety Reporting System*. Interactive poster presented at CHI '91, New Orleans, April/May.
- Gomez, R. L., & Schvaneveldt, R. W. (1991). *What is learned from artificial grammars? A transfer test*. Paper presented at the annual meetings of the Rocky Mountain Psychological Association, Denver, April.
- Branaghan, R., McDonald, J., & Schvaneveldt, R. (1991). *Identifying tasks from protocol data*. Paper presented at CHI '91, New Orleans, May.
- Goldsmith, T. E., McMahon, D. C., & Schvaneveldt, R. W. (1991). *Modeling air combat decisions with computational and structural representations*. Paper presented at the International Conference on Probabilistic Safety Assessment and Management (PSAM). Beverly Hills, CA, February.
- Schvaneveldt, R. W., & McDonald, J. E. (1990). *Extracting semantic constraints from co-occurrence of lexical units*. Paper presented at the Southwest Cognition Conference. San Antonio, TX, May.
- Schvaneveldt, R. W., & McDonald, J. E. (1990). *Extracting semantic constraints from co-occurrence of lexical units*. Colloquium presented in the Arizona State University Colloquium Series, "Approaches to the Lexicon." Tempe, AZ, March.
- Schvaneveldt, R. W. (1989). *Assessing and using associative knowledge*. Invited address presented at the 97th Annual American Psychological Association Convention, New Orleans, August.

- Schvaneveldt, R. W. (1989). *Pathfinder: Networks from proximity data*. Paper presented at the 14th Annual Interdisciplinary Conference, Jackson Hole, Wyoming, January.
- Schvaneveldt, R. W. (1988). *Knowledge networks*. Paper presented at the Centennial Symposium of the Department of Psychology, University of Wisconsin, September.
- Schvaneveldt, R. W. (1988). *Proximities, networks, and schemata*. Paper presented at the Workshop on High-Level Connectionism, Las Cruces, NM, April.
- Goldsmith, T., & Schvaneveldt, R. (1988). *Modeling expertise in air combat maneuvering*. Paper presented at the 11th Biennial Psychology in the Department of Defense Symposium, U. S. Air Force Academy, Colorado Springs, April.
- Knoebel, A., Dearholt, D., & Schvaneveldt, R. (1988). *Empty nexus graphs*. Paper presented at the American Mathematical Society meetings, Las Cruces, NM, April.
- Graves, S., Schvaneveldt, R., & Paap, K. (1988). *Proofreading backwards: Is it really better?* Poster presentation at the annual meetings of the Rocky Mountain Psychological Association, Snowbird, Utah, April.
- Branaghan, R., & Schvaneveldt, R. (1988). *Prediction of paired-associate learning using multidimensional scaling and the pathfinder algorithm*. Paper presented at the annual meetings of the Rocky Mountain Psychological Association, Snowbird, Utah, April.
- Schvaneveldt, R. W. (1987). *Proximities, networks, and schemata*. Paper presented at the 28th Annual Psychonomic Society Meetings, Seattle, November.
- Schvaneveldt, R. W. (1987). *Proximities and schemata*. In L. Bourne, Jr. (Chair): "Recent Advances in Experimental Cognitive Psychology." Symposium at the meetings of the Rocky Mountain Psychological Association Meetings, Albuquerque, April.
- Cooke, N. M. & Schvaneveldt, R. W. (1987). *The application of empirically derived semantic networks to knowledge engineering*. In F. Durso (chair), *Knowledge structures: What are they good for?* Paper presented at the meetings of the Southwestern Psychological Association, New Orleans, April.
- Anderson, M. P., McDonald, J. E., and Schvaneveldt, R. W. (1987). *Empirical user modeling: Command usage and task analyses for deriving models of users*. Paper presented at the 31st Annual Meeting of the Human Factors Society, New York, October.
- Schvaneveldt, R. W., Dearholt, D. W., & Durso, F. T. (1986). *Proximity data and networks: Foundations of the pathfinder algorithm*. Paper presented at the Second New Mexico Symposium on Applications of Graph Theory in Computer Science. Computing Research Laboratory, New Mexico State University, November.
- McDonald, J., Dearholt, D., Paap, K., & Schvaneveldt, R. (1986). *A formal interface design methodology based on user knowledge*. CHI '86, Boston, May.
- Cooke, N. M., & Schvaneveldt, R. W. (1986). *The evolution of cognitive networks with computer programming experience*. Paper presented at the workshop on Empirical Studies of Programmers, Washington, D. C., June.
- Schvaneveldt, R. W., Dearholt, D. W., & Durso, F. T. (1986). *Networks from proximity data*. In F. Harary & K. Phillips (Chairmen), "Graph Theory and Computer Science." Symposium at the Computing Research Laboratory, New Mexico State University, April

- Durso, F. T., Cooke, N. M., Breen, T. J., & Schvaneveldt, R. W. (1985). *Practice effects without consistent mapping*. Paper presented at the meetings of the Southwestern Psychological Association, Austin, April.
- Schvaneveldt, R. W. (1985). *Empirically derived networks*. In F. Durso (Chair), "Human Expertise: Papers in Honor of William Chase." Symposium at the meetings of the Southwestern Psychological Association, Austin, April.
- Schvaneveldt, R. W., & Goldsmith, T. E. (1985). *A model of air combat decisions*. Paper presented at the NATO Advanced Studies Institute on Intelligent Decision Aids in Process Environments, San Miniato, Italy, September.
- Schvaneveldt, R. W. (1984). *Cognitive science: The study of intelligence*. Paper presented at the 24th annual meeting of the Association of Mechanical Engineers, Albuquerque.
- Schvaneveldt, R. W., Cooke, N., Durso, F., Onorato, L., & Bailey, G. (1984). *A taxonomy of human-computer interactions: Toward a Modular User Interface*. Paper presented at the First USA-Japan Conference on Human-Computer Interaction, Honolulu, August.
- Durso, F. T., Schvaneveldt, R. W., & Goldsmith, T. E. (1983). *Empirical networks of natural categories*. Paper presented at the meetings of the Southwestern Psychological Association, San Antonio, April.
- Goldsmith, T. E., & Schvaneveldt, R. W. (1982). *The role of integral information displays in decision making*. Paper presented at the conference: Human Factors in Computer Systems, Gaithersburg, Maryland.
- Schvaneveldt, R. W., Goldsmith, T. E., & Durso, F. T. (1982). *Structures of memory for critical flight information*. Paper presented at the Eighth Symposium on Psychology in the DoD, Colorado Springs.
- Schvaneveldt, R. W. (1982). *Structures of memory for critical flight information*. Paper presented at the Review of Air Force Sponsored Basic Research, Air Force Office of Scientific Research, Sarasota, Florida.
- Schvaneveldt, R. W., & McDonald, J. E. (1981). *The verification model of word recognition*. In C. Cofer (Chair) "Some New Perspectives on Word Recognition." Symposium presented at the meetings of the Southwestern Psychological Association, Houston.
- Schvaneveldt, R. W., & Durso, F. T. (1981). *Generalized semantic networks*. Paper presented at the Psychonomic Society meetings, Philadelphia.
- McDonald, J. E., & Schvaneveldt, R. W. (1980). *Nonsemantic priming in word recognition*. Paper presented at the Rocky Mountain Psychological Association meetings, Tucson.
- Thompson, J. S., Stephan, W. G., & Schvaneveldt, R. W. (1980). *The organization of social stereotypes in semantic memory*. Paper presented at the Rocky Mountain Psychological Association meetings, Tucson.
- Schvaneveldt, R. W., Durso, F. T., & Mukherji, B. R. (1979). *Does semantic similarity inhibit negative decisions?* Paper presented at the Psychonomic Society meetings, Phoenix.

- McDonald, J. E., & Schvaneveldt, R. W. (1978). *Strategy in a lexical-decision task*. Paper presented at the meetings of the Rocky Mountain Psychological Association, Denver.
- Schvaneveldt, R. W. (1978). *The psychological significance of morphological structure in words*. In W. Battig & H. Ellis (Chairmen), "Workshop on Human Learning, Memory, and Cognition." Meetings of the Rocky Mountain Psychological Association, Denver.
- Schvaneveldt, R. W., & McDonald, J. E. (1978). *The influence of semantic context on detecting missing features*. Paper presented at the Psychonomic Society meetings, San Antonio.
- Mukherji, B. R., Johnson, M. K., & Schvaneveldt, R. W. (1977). *Memory for comparative sentences*. Paper presented at the Psychonomic Society meetings, Washington, D. C.
- Durso, F., Freitag, K., & Schvaneveldt, R. (1977). *Semantic facilitation for repeated pictures and words*. Paper presented at the Psychonomic Society meetings, Washington, D. C.
- Aronoff, M., & Schvaneveldt, R. (1977). *Testing morphological productivity*. Invited address at the New York Academy of Sciences, New York.
- Tweedy, J., & Schvaneveldt, R. (1974). *Context validity and the effects of context on word recognition*. Presented at the Mathematical Psychology Society meetings, Ann Arbor.
- Schvaneveldt, R. W., Meyer, D. E., & Becker, C. A. (1974). *Contextual constraints on ambiguous word recognition*. Paper presented at the Psychonomic Society meetings, Boston.
- Becker, C. A., Schvaneveldt, R. W., & Gomez, L. (1973). *Semantic, orthographic, and phonetic factors in word recognition*. Paper presented at the Psychonomic Society meetings, St. Louis.
- Meyer, D. E., Schvaneveldt, R. W., & Ruddy, M. G. (1972). *Activation of lexical memory*. Paper presented at the Psychonomic Society meetings, St. Louis.
- Schvaneveldt, R. W. (1970). *Processing levels in word perception*. Invited address at the Institute for the Study of Intellectual Behavior, University of Colorado, Boulder.
- Schvaneveldt, R. W. (1968). *Simultaneous task performance and information processing models*. In R. Gottsdanker (Chair), "Inhibition-Facilitation Aspects of Information Processing." Symposium at the meetings of the American Psychological Association, San Francisco.

Invited Colloquium Presentations

- 2010 Department of Psychology, Texas Tech University, Lubbock
- 2009 Department of Psychology, Arizona State University, Tempe
- 2008 Department of Biomedical Informatics, Arizona State University, Phoenix
Department of Psychology, University of Cincinnati
- 2007 Sandia National Laboratories, Albuquerque, NM

- 2006 Department of Psychology, University of New Mexico, Albuquerque
Department of Computer Science, National University of Ireland, Maynooth
- 2005 Department of Computer Science, Arizona State University, Tempe
- 2003 Air Force Research Laboratory, Mesa, AZ
Department of Computer Science, University of Maryland, Baltimore County
- 2000 Department of Psychology, Johns Hopkins University, Baltimore
Department of Psychology, Arizona State University, Tempe
- 1998 Intel Corporation, Chandler, Arizona
Fitch, Inc., Columbus, Ohio
- 1997 Department of Psychology, University of New Mexico, Albuquerque
Department of Psychology, Ohio University, Athens
Cognitive Science Institute, University of Arizona, Tucson
- 1996 College of Nursing, University of Utah, Salt Lake City
Department of Psychology, Arizona State University, Tempe
- 1995 Department of Psychology, University of Colorado, Boulder
- 1994 Department of Psychology, University of Granada, Granada, Spain
- 1991 Department of Psychology, University of Oregon, Eugene
- 1990 Linguistics Colloquium Series, Arizona State University, Tempe
- 1989 Air Force Human Resources Laboratory, Williams AFB, Arizona
Rio Grande Chapter, Human Factors Society
- 1988 NASA-Ames Research Center, Moffett Field, California
Air Force Human Resources Laboratory, Williams AFB, Arizona
Texas Instruments, Inc., Dallas, Texas
- 1987 University of Oklahoma, Norman
Texas Instruments, Inc., Dallas, Texas
- 1986 National Physical Laboratory, Teddington, England
Texas Instruments, Inc., Dallas, Texas
Microelectronics and Computer Corporation, Austin, Texas
Sandia National Laboratories, Albuquerque, New Mexico
Los Alamos National Laboratories, Los Alamos, New Mexico
- 1985 University of Parma, Parma, Italy
University of Strathclyde, Glasgow, Scotland
Durham University, Durham, England
York University, York, England
Nottingham University, Nottingham, England
MRC Applied Psychology Unit, Cambridge, England
Birkbeck College, University of London, London, England
Institute for Perception TNO, Soesterberg, The Netherlands
University of Leiden, Leiden, The Netherlands
University of Nijmegen, Nijmegen, The Netherlands
Max Planck Institute for Psycholinguistics, Nijmegen, The Netherlands
Institute for Perception Research, Eindhoven, The Netherlands
Technical University, Aachen, West Germany
- 1984 Bell Communications Research, Murray Hill, NJ
University of Colorado, Boulder

- 1983 Los Alamos Scientific Laboratory, Los Alamos, New Mexico
- 1982 Denver University, Denver, Colorado
 University of Colorado, Boulder
 IBM Corporation, Boulder, Colorado
 Computer Science Department, New Mexico State University
 Biology Department, New Mexico State University
 University of Oregon, Eugene
- 1981 IBM, Watson Research Center, Yorktown Heights, New York
 Burke Rehabilitation Center, White Plains, New York
 University of New Mexico, Albuquerque
- 1979 University of Texas, El Paso
 University of New Mexico, Albuquerque
- 1978 Arizona State University, Tempe
 University of California, Davis
- 1977 University of Kansas, Lawrence
 New Mexico State University, Las Cruces
 Columbia University, New York City
 Dartmouth College, Hanover, New Hampshire
 University of Colorado, Boulder
- 1976 Vanderbilt University, Nashville, Tennessee
- 1975 McMaster University, Hamilton, Ontario, Canada
 New York University, New York City