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Educational History:

1964 B.S. University of Wisconsin, Madison, Wisconsin (Psychology)
1966 M.A. University of Pennsylvania, Philadelphia, Pennsylvania (Experimental Psychology)
1969 Ph.D. University of Pennsylvania, Philadelphia, Pennsylvania (Experimental Psychology)

Academic Honors, Scholarships, and Fellowships:

University of Wisconsin: Sophomore, Major and Thesis Honors; Full Tuition Scholarship
University of Pennsylvania: National Institutes of Health Predoctoral Fellow, 1967-68
University of Michigan: National Institute of Mental Health Postdoctoral Fellow, 1969-70
University of North Carolina: Kenan Sabbatical Leave, 1977
James McKeen Cattell Sabbatical Fellowship, 1985-86
Fellow of the American Psychological Association, elected 1986
Charter Fellow of the American Psychological Society, elected 1988
Alexander von Humboldt Foundation in Germany: Senior Scientist Research Award, 1996
Fellow of the Society of Experimental Psychologists, elected 2000

Professional Experience:

1969 Instructor, College of General Studies, University of Pennsylvania
1969-70 Visiting Scientist, University of Michigan
1970-75 Assistant Professor, University of North Carolina at Chapel Hill
1975-81 Associate Professor, University of North Carolina at Chapel Hill
1981-2000 Professor of Psychology, University of North Carolina at Chapel Hill
1989-1999 Director, UNC-CH Cognitive Psychology Program,
1997-2000 Director, UNC-CH Cognitive Science Program
1985 Visiting Scholar, University of Chicago
1986 Visiting Professor, University of Haifa, Israel
1996 Visiting Scholar, Duke University Fuqua School of Business
1997 Visiting Professor, Universität Oldenburg, Germany
2000-2006 Research Professor of Psychology, University of North Carolina at Chapel Hill

2000-present Professor of Psychology, University of Maryland at College Park
2004-present Head, Cognitive Psychology Program, University of Maryland at College Park
2003-present Area Research Director, UMCP Center for Advanced Study of Language

Professional and Honorary Organizations:

- Association for Psychological Science
 - Fellow, elected 1988
- American Psychological Association
 - Charter Fellow, elected 1986
- Society of Experimental Psychologists
 - Fellow, elected 2000
- Psychonomic Society
- Society for Mathematical Psychology (charter member)
 - Executive Committee 1984-1987, 1990-1994, 1996-Present
 - New Investigator Award Committee 1988, 1998
 - Representative to the Federation of Behavioral, Psychological, and Cognitive Sciences, 1999-2002
- Federation of Behavioral, Psychological, and Cognitive Sciences
 - Vice-President 2003-2004
 - President-Elect 2005
 - President 2006-2007
- Foundation for the Advancement of the Behavioral and Brain Sciences
 - Founding President 2004
 - Member, Board of Directors 2005 -- 2008
- Judgment and Decision Making Society
 - Program Committee Chairman, 1987-1988
 - Executive Committee Member 1989-1991
 - President-Elect 1998-1999, President 1999-2000, Past-President 2000-2001

Grant Support:

- Co-Principal Investigator (with Amnon Rapoport) on NSF Grant SOC 74-15027, "Bargaining and Coalition Formation: Theory and Data," 9/1/74-2/28/77.
- Co-Principal Investigator (with Peter Ornstein) on a University Research Council Grant, "An Initial Study into the Psychology of Reading Braille," 11/14/73-11/14/76.
- Principal Investigator on a Spencer Foundation Grant, "Reading Rates and Comprehension Scores in Visual and Tactual Modalities," 8/1/76-7/31/78.

- Principal Investigator on NSF Grant BSN 76-20759, "Cognitive Processes in Judgment and Diagnosis," 1/1/77-6/30/80.
- Principal Investigator on ONR Contract N-00014-78-C-0170, "Cognitive Processes in Choice and Decision Behavior," 1/1/78-8/31/79.
- Principal Investigator on University Research Council Grant, Sequential Effects on Inference," 4/16/80-4/15/82.
- Principal Investigator on University Research Council Grant, "Information Processing in Probabilistic Inference and Classification," 11/13/80-11/12/83.
- Principal Investigator on U.S. Army Research Institute Contract MDA903-83-K-0347, "Meanings of Non-numerical Probability Terms," 8/16/83-8/15/86.
- Co-Investigator (with David Budescu) on Israeli Binational Science Foundation Grant 8203394, "Non-numerical Judgments of Subjective Probabilities," 9/1/84-8/31/87.
- Principal Investigator on NSF Grant BNS-8608692, "Judgment and choice on the basis of linguistic or vague information," 8/16/86-8/15/89.
- Principal Investigator on NSF Grant BNS-8908554, "Combining and using vague and precise information for decision making," 8/1/89-1/31/93.
- Principal Investigator on University Research Council Grant, "Children's memory: Encoding and retrieval of personal experiences," 7/1/92-6/30/93.
- Co-Investigator (with David Budescu) on University of Illinois Research Board Grant, "Probabilistic judgments with multidimensional correlated evidence," 1/1/93-5/31/94.
- Principal Investigator on NSF Grant SBR-9222159, "Models of uncertainty due to lack of knowledge," 4/1/93-9/30/96.
- Principal Investigator on NSF Grant SBR-9601281, "Collaborative research: understanding, improving and aggregating subjective judgments," 8/15/96-2/14/00.
- Principal Investigator on NSF Grant SBR-9975350, "Collaborative research: Basic and applied research leading to a linguistic probability translator." 9/15/99 – 8/31/03.
- Co-Director (with Carl Lejuez) on a grant from the UMCP Advisory Committee on the Scholarship of Teaching and Learning, "Collaborative Mentoring in the Integration of Basic Cognitive Science and the Assessment and Treatment of Addictive Behaviors." 4/13/02-6/30-03.
- Principal Investigator on NSF Grant SES0326715, "A Workshop on Information Aggregation in Decision Making." 4/15/03-3/31/04.
- Principal Investigator on AFOSR Grant F496200310141, "A Workshop on Information Aggregation in Decision Making." 3/01/03-12/31/03.
- Area Director and Investigator on DOD Contract funding the Center for Advanced Study of Language. 03/2004-present.

Consultant Activities:

- Environmental Protection Agency:
 - Office of Air Quality Planning and Standards, 1979-1982;
 - Office of Planning, Policy, and Evaluation, 1987-1989;
 - Science Advisory Board's Environmental Health Committee, 1991-1995;

- Science Advisory Board's Advisory Council on Clean Air Compliance Analysis Special Council Panel for the Review of the Third 812 Analysis, 2003-2004.
- Argonne National Laboratory: Division of Environmental and Engineering Sciences, 1983-1992, 1993-1997.
- Research Triangle Institute: Center for Economic Research, 1983-1985, 1992-1995, 1996.
- Systems Applications Incorporated, 1985-1988.
- Energy and Resource Consultants, 1986-1987.
- Duke Cancer Prevention, Detection and Control Unit, 1998-2000.
- National Intelligence Council Associate, 2006-present

Editorial Activities:

- Journal of Experimental Psychology
 - Consulting Editor, 1973-1974.
- Journal of Experimental Psychology: Learning, Memory & Cognition
 - Consulting Editor, 1980- 1984.
 - Associate Editor, 2000-2004.
- Journal of Mathematical Psychology
 - Editor, 1990-1994
 - Member of Editorial Board, 1984-1989, 1995-present.
- Memory and Cognition
 - Member of Editorial Board, 1985-1989
- Organizational Behavior and Human Decision Processes
 - Member of Editorial Board, 1974-1987.
- Psychometrika
 - Associate Editor, 1984-1988
- Journal of Behavioral Decision Making
 - Guest Co-Editor of a special issue on Stochastic and Cognitive Models of Judgement, (Vol 10, #3, 1997).

Other Professional Activities:

- National Science Foundation
 - Review Panel member for the Methodology, Measurement & Statistics Program of the Division of Social, Behavioral, and Economics Research. 1995-1997.
 - Committee of Visitors for the Social, Behavioral, and Economic Sciences Directorate, March, 2000.
 - Committee of Visitors for the Behavioral and Cognitive Sciences Directorate, March, 2003.

- Co-Chair of the Organizing and Program Committee of the 29th Annual meeting of the Society for Mathematical Psychology, 1996.
- Department of Education Office of Educational Research and Improvement
 - Review Panel member for the Cognition and Student Learning grant program, 2002.
- Have also done ad hoc reviews for National Science Foundation, National Institute of Mental Health, *Science*, *Psychological Review*, *Journal of Applied Psychology*, *American Journal of Psychology*, and numerous other journals, as well as organized symposia at various professional meetings.

University Service Activities:

- University of Maryland
 - Neuroscience and Cognitive Science Executive Committee, 2000-2002.
 - College of Behavioral and Social Science
 - Strategic Planning Update Committee, 2000-2001.
 - Appointment, Promotion, and Tenure Committee, 2006-2007.
 - University Research Council, Fall 2004 - Fall, 2006.
- University of North Carolina at Chapel Hill
 - Steering Committee for University Self Study, Member, 1972-1973.
 - College of Arts and Sciences, Undergraduate Advisor, 1972 - 1975, 1982-1984.
 - Ad-hoc Committee on the Evaluation of Teaching and Courses, Member, 1975.
 - Provost's Committee to Study the Computing Resources and Services Devoted to Instruction and Research at Chapel Hill, Member, 1983.
 - Steering Committee to explore a University Curriculum in Information Studies, Member, 1986-1987.
 - Academic Affairs Institutional Review Board, Chair, 1987-1989; Member 1989-1992.
 - Cognitive Sciences Advisory Committee, Member, 1991.
 - University Reaccreditation Self Study Committee, Members of Task Force on Educational Support Services, 1993-1994.
 - Faculty Hearings Committee 1994-1995.
 - Hillel Faculty Advisory Board 1995-1996.
 - Ad hoc committee for the development of a Cognitive Science Program. Chair 1995-1997.

Department Service Activities:

- University of Maryland
 - Policy Review Committee 2001-present
 - Graduate Committee 2001-present
 - P & T Committee 2001-2002
 - Computational/Mathematical Psychology Search Committee (Chair) 2002

- Head, Cognitive Psychology Program 2005-present
- Chair Evaluation Committee 2005
- Chair Search Committee 2006.
- Hiring Committee 2006-2007.
- University of North Carolina at Chapel Hill
 - Committee on Undergraduate Studies, Member, 1972-1984.
 - Colloquium Committee, Member, 1973-1978; Chair, 1978-1981.
 - Committee to Respond to the Department's External Evaluation, Member, 1975.
 - Department Ethics Committee, Member, 1975-1979; Chair, 1979-1985.
 - Computer Usage Committee, Chair, 1980-1985.
 - Personnel Committee, 1981-present.
 - Departmental Self Study Committee; Chair, 1987.
 - Director, Cognitive Psychology Training Program, 1989-present.
 - Space and Resources Committee, 1991-present.
 - Planning Committee, 1992-1993.
 - Advisory Committee, 1994-present.
 - Computer Services Committee, Chair 1993-1996
 - Departmental Faculty Workload-Study Committee, Chair, 1998.

Civic Activities:

- Board of Directors of Chapel Hill Day Care Center, Member, 1975-1976.
- Community Resource Program of Chapel Hill-Carrboro PTA Council, Chairman, 1975-1978.
- Budget Education Committee for Chapel Hill-Carrboro Board of Education, Member, 1979-1980.
- Cub Scout Pack 867, Frank Porter Graham School, Cubmaster, 1980-1982.
- Executive Board, Judea Reform Congregation, Member, 1984-1985.
- Executive Board, Durham-Chapel Hill Jewish Federation, Member 1987-1996; Vice President, 1988-1992, Co-Chair of UJA/Federation Campaign 1997-1999.
- Chapel Hill-Carrboro School System Committee on Review Procedures for Internal Research, Member, 1989-1990

Publications and Presentations:

Book

Wallsten, T. S. (1980). (Ed.), *Cognitive processes in choice and decision behavior*. Hillsdale, NJ: Lawrence Erlbaum.

Book Chapters

Wallsten, T. S. (1974). The psychological concept of subjective probability: A measurement theoretical view. In C.A.S. Staël von Holstein (Ed.), *The concept of probability in psychological experiments*. Dordrecht, The Netherlands: Reidel, pp. 49-72.

- Wallsten, T. S. (1977). Measurement and interpretation of beliefs: A review. In H. Jungermann & G. deZeeuw (Eds.), *Decision Making and Change in Human Affairs*. Dordrecht, Holland: Reidel, pp. 369-393.
- Wallsten, T. S. (1977). Processing information for decisions. In N. J. Castellan, D. Pisoni, & G. Potts (Eds.), *Cognitive Theory, Vol. II*. Potomac, MD: Lawrence Erlbaum, pp. 87-116.
- Wallsten, T. S. (1980). Processes and models to describe choice and inference. In T. S. Wallsten (Ed.), *Cognitive processes in choice and decision behavior*. Hillsdale, NJ: Lawrence Erlbaum, pp. 215-238.
- Wallsten, T. S. (1983). The theoretical status of judgmental heuristics. In R. W. Scholz (Ed.), *Decision making under uncertainty*. Amsterdam: North Holland Publishing Company, pp. 21-38.
- Wallsten, T. S. (1985). Measurement theory. In S. Kotz & N. L. Johnson (Eds.), *Encyclopedia of Statistical Sciences*, Vol. 5. New York: Wiley, pp. 387-389.
- Budescu, D. V., & Wallsten, T. S. (1987). Subjective estimation of precise and vague uncertainties. In G. Wright & P. Ayton (Eds.), *Judgmental Forecasting*. Sussex, England: Wiley, pp. 63-81.
- Zwick, R., Budescu, D. V., & Wallsten, T. S. (1988). An empirical study of the integration of linguistic probabilities. In T. Zetenyi (Ed.), *Fuzzy Set Theory in Psychology*. Amsterdam: North Holland, pp. 91-125.
- Hayes, S. R., Rosenbaum, A. S., Wallsten, T. S., Whitfield, R. G., Winkler, R.L., & Richmond, H. (1989). A health risk assessment for use in setting the U.S. Primary ozone standard. In T. Schneider & S. K. Lee (Eds.), *Atmospheric ozone research and its policy implications*. Amsterdam: Elsevier Press.
- Wallsten, T. S. (1990). Measuring vague uncertainties and understanding their use in decision making. In G. M. von Furstenberg (Ed.), *Acting under uncertainty*. Norwell, MA: Kluwer, pp. 377-398.
- Wallsten, T. S. (1990). The costs and benefits of vague information. In R. Hogarth (Ed.), *Insights in decision making. A tribute to the late Hillel Einhorn*. Chicago: The University of Chicago Press, pp. 28-43.
- Wallsten, T. S., Richmond, H. M., Whitfield, R. G., Rosenbaum, A. S., Hayes, S. R. & Winkler, R. C. (1990). Chronic lung injury risk assessment for ozone. In *Proceedings of the 83rd Annual Meeting of the Air & Water Waste Management Association*. Pittsburgh: Air & Water Management Association.
- Wallsten, T. S. (1993). Time pressure and payoff effects on multidimensional probabilistic inference. In O. Svenson & J. Maule (Eds.), *Time pressure and stress in human judgment and decision making*. Cambridge: Cambridge University Press, pp. 167-179.
- Whitfield, R. G., Richmond, H. R., Hayes, S. R., Rosenbaum, A. S., Wallsten, T. S., Winkler, R. L., Absil, M. J. G., & Narducci, P. (1994). Health risk assessment of ozone. In D. J. McKee (Ed.), *Tropospheric Ozone*. Chelsea, MI: Lewis Publishers, pp. 129-173.
- Budescu, D. V. & Wallsten, T. S. (1995). Processing Linguistic Probabilities: General Principles and Empirical Evidence. In J. R. Busemeyer, R. Hastie and D. L. Medin (Eds.), *Decision making from the perspective of cognitive psychology*. San Diego, CA: Academic Press, pp. 275-318.

Journal Articles and Reviews

- Wallsten, T. S. (1968). Failure of predictions from subjectively expected utility theory in a Bayesian decision task. *Organizational Behavior and Human Performance*, **3**, 239-252.
- Wallsten, T. S., & Catlin, J. (1968). The observing response is not due to biased expectancies. *Psychonomic Science*, **13**, 77-78.

- Wallsten, T. S. (1971). Subjectively expected utility theory and subjects' probability estimates: Use of measurement-free techniques. *Journal of Experimental Psychology*, **88**, 31-40.
- Rapoport, A., & Wallsten, T. S. (1972). Individual decision behavior. *Annual Review of Psychology*, **23**, 131-176.
- Wallsten, T. S. (1972). 8TRAN Language and the PDP-8 facility at the L. L. Thurstone Psychometric Laboratory. *Behavior Research Methods and Instrumentation*, **4**, 107-108.
- Wallsten, T. S. (1972). A conjoint-measurement framework for the study of probabilistic information processing. *Psychological Review*, **79**, 245-260.
- Holt, J. O., & Wallsten, T. S. (1975). A user's manual for CONJOINT; A computer program for evaluating certain conjoint-measurement axioms. *Catalog of Selected Documents in Psychology*, Fall, **5**, 317, Ms. No. 1079. Also as L. L. Thurstone Psychometric Laboratory Research Memorandum No. 42, Chapel Hill, NC, 1974.
- Kahan, J. P., Coston, A. W., Helwig, R. A., Rapoport, A., & Wallsten, T. S. (1976). A PDP-11/45 program for playing n-person characteristic function games. *Behavior Research Methods and Instrumentation*, **8**, 165-169.
- Wallsten, T. S. (1976). A note on Shanteau's "Averaging versus Multiplying Combination Rules of Inference Judgment." *Acta Psychologica*, **40**, 325-330.
- Wallsten, T. S. (1976). Using conjoint-measurement models to investigate a theory about probabilistic information processing. *Journal of Mathematical Psychology*, **14**, 144-185.
- Wallsten, T. S., & Delaney, H. (1977). Probabilistic information processing: Effects of a biased payoff matrix on choices and bids. *Organizational Behavior and Human Performance*, **20**, 203-237.
- Wallsten, T. S., & Sapp, M. M. (1977). Strong ordinal properties of an additive model for the sequential processing of probabilistic information. *Acta Psychologica*, **41**, 225-253.
- Kahan, J. P., Rapoport, A., & Wallsten, T. S. (1978). Sources of power in four-person apex games. *Contributions to Experimental Economics*, **8**, 75-106.
- Budescu, D. V., & Wallsten, T. S. (1979). A note on monotonic transformation in the context of functional measurement and analysis of variance. *Bulletin of the Psychonomic Society*, **14**, 307-310.
- Wallsten, T. S. (1979). Using algebraic models to study human decision behavior. Published in Russian in the *Proceedings of the US/USSR Symposium on Mathematical Models in Psychology*. (also as L. L. Thurstone Psychometric Laboratory Memorandum No. 47, Chapel Hill, NC.)
- Wallsten, T. S. (1981). Review of Samuel Shye (Ed.), Theory construction and data analysis in the behavioral sciences. *Journal of the American Statistical Association*, **76**, 500.
- Wallsten, T. S., & Budescu, D. V. (1981). Additivity and non-additivity in judging MMPI profiles. *Journal of Experimental Psychology: Human Perception and Performance*, **7**, 1096-1107.
- Wallsten, T. S., & Lambert, R. M. (1981). Visual braille and print reading as a function of display field size. *Bulletin of the Psychonomic Society*, **17**, 15-18.
- Wallsten, T. S. (1981). Physician and medical student bias in evaluating diagnostic information. *Medical Decision Making*, **1**, 145-164.
- Wallsten, T. S. (1982). A glossary of concepts. (Review of *Concepts and judgment in decision research: Definitions, sources, interrelations, comments*, by B. F. Anderson, D. H. Deane, K. R. Hammond, G. H. McClelland, & J. C. Shanteau.) *Contemporary Psychology*, **27**, 993.

- Wallsten, T. S., & Barton, C. (1982). Processing probabilistic multidimensional information for decisions. *Journal of Experimental Psychology: Learning, Memory & Cognition*, **8**, 361-384.
- Wallsten, T. S., & Budescu, D. V. (1983). Encoding subjective probabilities: A psychological and psychometric review. *Management Science*, **29**, 151-173.
- Wallsten, T. S., Forsyth, B. H., & Budescu, D. V. (1983). Stability and coherence of health experts' upper and lower subjective probabilities about dose-response curves. *Organizational Behavior and Human Performance*, **31**, 277-302.
- Budescu, D. V., & Wallsten, T. S. (1985). Consistency in interpretation of probabilistic phrases. *Organizational Behavior and Human Decision Processes*, **36**, 391-405.
- Eckerman, D. A., Carroll, J. B., Foree, D., Gullion, C. M., Lansman, M., Long, E. R., Waller, M. B., & Wallsten, T. S. (1985). An approach to brief field testing for neurotoxicity. *Neurobehavioral Toxicology and Teratology*, **7**, 387-393.
- Wallsten, T. S., Budescu, D. V., Rapoport, A., Zwick, R., & Forsyth, B. H. (1986). Measuring the vague meanings of probability terms. *Journal of Experimental Psychology: General*, **115**, 348-365.
- Wallsten, T. S., Fillenbaum, S., Cox, J. A. (1986). Base rate effects on the interpretations of probability and frequency expressions. *Journal of Memory and Language*, **25**, 571-587.
- Rapoport, A., Wallsten, T. S., & Cox, J. A. (1987). Direct and indirect scaling of membership functions of probability phrases. *Mathematical Modelling*, **9**, 397-417.
- Wallsten, T. S. (1987). How precise are probability phrases? *Social Science*, **72**, 212-215.
- Budescu, D. V., Weinberg, S., & Wallsten, T. S. (1988). Decisions based on numerically and verbally expressed uncertainties. *Journal of Experimental Psychology: Human Perception and Performance*, **14**, 281-294.
- Carey, T. S., Hadler, N. M., Gillings, D., Stinnett, S., & Wallsten, T. S. (1988). Medical disability assessment of the back pain patient for the social security administration. The weighting of presenting clinical features. *Journal of Clinical Epidemiology*, **41**, 691-697.
- Wallsten, T. S., Budescu, D. V., & Erev, I. (1988). Understanding and using linguistic uncertainties. *Acta Psychologica*, **68**, 39-52.
- Jaffe-Katz, A., Budescu, D. V., & Wallsten, T. S. (1989). Timed magnitude comparisons of numerical and nonnumerical expressions of uncertainty. *Memory and Cognition*, **17**, 249-264.
- Whitfield, R. G., & Wallsten, T. S. (1989). A risk assessment for selected lead-induced health effects: An example of a general methodology. *Risk Analysis*, **9**, 197-207.
- Zwick, R., & Wallsten, T. S. (1989). Combining stochastic and linguistic inexactness: Theory and experimental evaluation of four fuzzy probability models. *International Journal of Man Machine Studies*, **30**, 69-111. [Reprinted in B. R. Gaines & J. H. Boose (Eds.), *Machine Learning and Uncertain Reasoning: Knowledge-Based Systems, Volume 3*. New York: Academic Press, pp. 337-380.
- Budescu, D. V., & Wallsten, T. S. (1990). Dyadic decisions with verbal and numerical probabilities. *Organizational Behavior and Human Decision Processes*, **46**, 240-263.
- Budescu, D. V., Zwick, R., Wallsten, T. S., & Erev, I. (1990). Integration of linguistic probabilities. *International Journal of Man Machine Systems*, **33**, 657-676.
- Rapoport, A., Wallsten, T., Erev, I., & Cohen, B. L. (1990). Revision of opinion with verbally and numerically expressed uncertainties. *Acta Psychologica*, **74**, 61-79.

- Wallsten, T. S. (1990). Editorial. *Journal of Mathematical Psychology*, **34**, 1.
- Wallsten, T. S., & Budescu, D. V. (1990). Comment on Mosteller and Youtz' "Quantifying probabilistic expressions." *Statistical Science*, **5**, 23-26.
- Erev, I., Wallsten, T. S., & Neal, M. (1991). Vagueness, ambiguity, and the cost of mutual understanding. *Psychological Science*, **2**, 321-324.
- Fillenbaum, S., Wallsten, T. S., Cohen, B., & Cox, J. A. (1991). Some effects of available vocabulary and communication task on the understanding and use of vague probability expressions. *American Journal of Psychology*, **104**, 35-60.
- Cohen, B. L., & Wallsten, T. S. (1991). The effect of outcome desirability on the interpretation of probability phrases. *Journal of Behavioral Decision Making*, **5**, 53-72.
- González-Vallejo, C. C., & Wallsten, T. S., (1992). Effects of probability mode on preference reversal. *Journal of Experimental Psychology: Learning, Memory & Cognition*, **18**, 855-864.
- Erev, I., Bornstein, G. & Wallsten, T. S. (1993). The negative effect of probability assessments on decision quality. *Organizational Behavior and Human Performance*, **55**, 78-94.
- Wallsten, T. S., Budescu, D. V., & Zwick, R. (1993). Comparing the calibration and coherence numerical and verbal probability judgments. *Management Science*, **39**, 176-190.
- Wallsten, T. S., Budescu, D. V., Zwick, R., & Kemp, S. M. (1993). Preferences and reasons for communicating probabilistic information in numerical or verbal terms. *Bulletin of the Psychonomic Society*, **31**, 135-138.
- Erev, I. & Wallsten, T. S. (1993). The effect of explicit probabilities on decision weights and the reflection effect. *Journal of Behavioral Decision Making*, **6**, 221-241.
- Erev, I., Wallsten, T. S., & Budescu, D. V. (1994). Simultaneous over- and underconfidence: The role of error in judgment processes. *Psychological Review*, **101**, 519-527.
- González-Vallejo, C. C., Erev, I., & Wallsten, T. S. (1994). Do decision quality and preference order depend on whether probabilities are verbal or nonverbal? *American Journal of Psychology*, **107**, 157-172.
- Wallsten, T. S. & González-Vallejo, C. C. (1994). Statement verification: A stochastic model of judgment and response. *Psychological Review*, **101**, 490-504.
- Friedman, C.P., McNutt, R.A., de Blied, R., Evans, A.T., Wallsten, T.S., Martz, J.M. (1994). Visual information and the diagnosis of chest pain. *Academic Medicine*, **69**: S28-S30.
- Winkler, R. L., Wallsten, T. S., Whitfield, R. G., Richmond, H. M., Hayes, S. R. & Rosenbaum, A. S. (1995). An assessment of the risk of chronic lung injury attributable to long-term ozone exposure. *Operations Research*, **43**, 19-28.
- Wallsten, T. S., Budescu D. V. (1995). A Review of Human Linguistic Probability Processing: General Principles and Empirical Evidence. *The Knowledge Engineering Review*, **10**, 43-62.
- Budescu, D.V. and Wallsten, T.S. (1995). Review of "Communicating Quantities: A Psychological Perspective" by Linda M. Moxey and Anthony J. Sanford. *Chance*, **8**, 38-40.
- Wallsten, T.S. (1995). Keep UNC system on cutting edge. *The Charlotte Observer*. Friday, May 12,.
- Martin, S.A., Wallsten, T.S. and Beaulieu, N.D. (1995). Assessing the risk of microbial pathogens: Application of a judgment-encoding methodology. *Journal of Food Protection*, **58**, 289-295.

- Ariely, D., Wallsten, T. S. (1995). Seeking Subjective Dominance in Multidimensional Space: An explanation of the asymmetric dominance effect. *Organizational Behavior and Human Decision Processes*, **63**, 223-232.
- Wallsten, T.S. (1996). An analysis of judgment research analyses. *Organizational Behavior and Human Decision Processes*, **65**, 220-226.
- Bender, R. H., Wallsten, T. S. & Ornstein, P. A. (1996). Age differences in encoding and retrieving details of a Pediatric Examination. *Psychonomic Bulletin and Review*, **3**, 188-198.
- Wallsten, T. S., Budescu, D. V. & Tsao, C. J. (1997). Combining linguistic probabilities. *Psychologische Beiträge*, **39**, 27-55.
- Budescu, D.V., Erev, I., & Wallsten, T.S. (1997). On the importance of random error in the study of probability judgment: Part I: New theoretical developments. *Journal of Behavioral Decision Making*, **10**, 157-171.
- Budescu, D.V., Wallsten, T.S., & Au, W-T. (1997). On the importance of random error in the study of probability judgment: Part II: Applying the stochastic judgment model to detect systematic trends. *Journal of Behavioral Decision Making*, **10**, 173-188.
- Wallsten, T.S., Budescu, D.V., Erev, I. & Diederich, A. (1997). Evaluating and combining subjective probability estimates. *Journal of Behavioral Decision Making*, **10**, 243-268.
- Budescu, D. V., Erev, I., Wallsten, T.S. (1997). Introduction to this special issue on stochastic and cognitive models of confidence. *Journal of Behavioral Decision Making*, **10**, 153-155.
- Wallsten, T.S., Bender, R.H., & Li, Y.(1999) Dissociating judgment from response processes in statement verification: The effects of experience on each component. *Journal of Experimental Psychology: Learning, Memory, Cognition*, **25**, 96-115.
- Ariely, D., Au, W-T, Bender, R. H., Budescu, D. U., Dietz, C. B., Gu, H., Wallsten, T.S., and Zauberman, G. (2000). The effects of averaging probability estimates between and within judges. *Journal of Experimental Psychology: Applied*, **6**, 130-147.
- Wallsten, T. S., Erev, I. & Budescu, D. V. (2000). The Importance of Theory: Response to Brenner (2000). *Psychological Review*, **107**, 947-949.
- Wallsten, T.S.,& Diederich, A (2001). Understanding Pooled Subjective Probability Estimates. *Mathematical Social Science*, **41**, 1-18.
- Johnson, T. R., Budescu, D. V., and Wallsten, T. S. (2001). Averaging probability judgments: Monte Carlo analyses of asymptotic diagnostic value. *Journal of Behavioral Decision Making*, **14**, 123-140.
- Gu, H. & Wallsten, T. S. (2001). On setting criteria for calibrated subjective probability estimates. *Journal of Mathematical Psychology*, **45**, 551-563.
- Wallsten, T. S. & Gu, H. (2003). Distinguishing choice and subjective probability estimation processes: Implications for theories of judgment and for cross-cultural comparisons. *Organizational Behavior and Human Decision Processes*, **90**, 111-123.
- Budescu, D. V., Karelitz, T. M., & Wallsten T. S. (2003). Predicting the Directionality of Probability Words from their Membership Functions. *Journal of Behavioral Decision Making*, **16**, 159-180.
- Bearden, J. N. & Wallsten, T. S. (2004). Minerva-DM and Subadditive Frequency Judgments. *Journal of Behavioral Decision Making*, **17**, 349-363.
- Dhami, M. K. & Wallsten, T. S. (2005). Translating across Subjective Probability Lexicons. *Memory and Cognition*, **33**, 1057-1068.

Wallsten, T. S., Pleskac, T. J., & Lejuez, C. W. (2005). Modeling behavior in a clinically diagnostic sequential risk-taking task. *Psychological Review*, 112, 862-880.

Blumenthal, P., Britt, T. W., Cohen, J. A., McCubbin, J., Maxfield, N., Michael, E. B., Moore, P., Obler, L. K., Scheck, P., Signorelli, T., M., Wallsten, T. S. (2006). Stress effects on bilingual language professionals' performance. *International Journal of Bilingualism*, 10, 477-495.

Pilcher, J. J., McClelland, L. E., Moore, D. D., Haarmann, H., Baron, J., Wallsten, T. S., McCubbin, J. A.. (in press). Language Performance under Sustained Work and Sleep Deprivation Conditions. *Aviation, Space, and Environmental Medicine*.

Refereed Proceedings

Kareltiz, T. M., Dhimi, M. K., Budescu, D. V., and Wallsten, T. S. (2002). Toward a universal translator of verbal probabilities. *Proceedings of the Fifteenth International Florida Artificial Intelligence Research Society Conference*, S. Haller and G. Simmons (Eds.) Menlo Park, CA: AAAI Press, pp. 498-502.

Papers Submitted and under Revision

Bearden, J. N., Wallsten, T. S., and Fox, C. R. (2006). A stochastic model of subadditivity. *Journal of Mathematical Psychology*. Revise and resubmit.

Technical Reports, Memoranda, and Unpublished Papers

Wallsten, T. S. (1970). Subjects' probability estimates and subjectively expected utility theory: Their relationship and some limitations. Chapel Hill, NC: L. L. Thurstone Psychometric Laboratory Report No. 85.

Wallsten, T. S. (1971). Probabilistic information processing, Bayes' rule and conjoint-measurement. Chapel Hill, NC: L. L. Thurstone Psychometric Laboratory Report No. 98.

Wallsten, T. S. (1973). The psychological concept of subjective probability: A measurement-theoretic view. Chapel Hill, NC: L. L. Thurstone Psychometric Laboratory Report No. 115.

Wallsten, T. S., & Sapp, M. M. (1973). Strong ordinal properties of an additive model for the sequential processing of probabilistic information. Chapel Hill, NC: L. L. Thurstone Psychometric Laboratory Report No. 126.

Holt, J. O., & Wallsten, T. S. (1974). A user's manual for CONJOINT: A computer program for evaluating certain conjoint-measurement axioms. Chapel Hill, NC: L. L. Thurstone Psychometric Laboratory Research Memorandum No. 42.

Wallsten, T. S. (1974). Using a conjoint-measurement model to develop theory about probabilistic information processing. Chapel Hill, NC: L. L. Thurstone Psychometric Laboratory Report No. 127.

Blau, R. A., Shachtman, R. H., & Wallsten, T. S. (1975). Measure representations for events in a partial order: An axiomatization. Chapel Hill, NC: L. L. Thurstone Psychometric Laboratory Report No. 136.

Wallsten, T. S. (1975). Processing information for decisions. Chapel Hill, NC: L. L. Thurstone Psychometric Laboratory Research Memorandum No. 45.

Wallsten, T. S. (1976). Measurement and interpretation of beliefs. Chapel Hill, NC: L. L. Thurstone Psychometric Laboratory Report No. 148.

- Delaney, H. D., & Wallsten, T. S. (1977). Probabilistic information processing: Effects of a biased payoff matrix on choices and bids. Chapel Hill, NC: L. L. Thurstone Psychometric Laboratory Report No. 153.
- Budescu, D. V., & Wallsten, T. S. (1978). A note on monotonic transformations in the context of functional measurement and analysis of variance. Chapel Hill, NC: L. L. Thurstone Psychometric Laboratory Report No. 156.
- Wallsten, T. S. (1978). Bias in evaluating diagnostic information. Chapel Hill, NC: L. L. Thurstone Psychometric Laboratory Report No. 157.
- Wallsten, T. S. (Ed.) (1979). Cognitive processes in choice and decision behavior. Chapel Hill, NC: L. L. Thurstone Psychometric Laboratory Research Memorandum No. 48A.
- Wallsten, T. S. (1979). Processes and models to describe choice and inference. Chapel Hill, NC: L. L. Thurstone Psychometric Laboratory Report No. 158.
- Wallsten, T. S., & Budescu, D. V. (1979). Using additive models to represent strategies for judging MMPI profiles. Chapel Hill, NC: L. L. Thurstone Psychometric Laboratory Report No. 161.
- Budescu, D. V., & Wallsten, T. S. (1981). Intra- and intersubject consistency in comparing probability phrases. L. L. Thurstone Psychometric Laboratory Research Memorandum No. 49. Chapel Hill, NC.
- Wallsten, T. S., & Budescu, D. V. (1983). Consistency in interpretation of probabilistic phrases. Chapel Hill, NC: L. L. Thurstone Psychometric Laboratory Report No. 171.
- Wallsten, T. S. (1984). Meanings of non-numerical probability phrases: Annual report for the period 16 August 1983 through 15 August 1984. L. L. Thurstone Psychometric Laboratory Research Memorandum No. 60, Chapel Hill, NC.
- Whitfield, R. G., & Wallsten, T. S. (1984). Estimating the risks of lead-induced hemoglobin decrements under conditions of uncertainty: A methodology, pilot judgments, and example calculations. Argonne National Laboratory Report ANL/EESTM-276. Argonne, IL.
- Rapoport, A., Wallsten, T. S., Cox, J. A. (1985). Direct and indirect scaling of membership functions of probability phrases. Chapel Hill, NC: L. L. Thurstone Psychometric Laboratory Report No. 174.
- Wallsten, T. S. (1985). Meanings of nonnumerical probability phrases: Annual report for the period 16 August 1984 through 15 August 1985. Unpublished.
- Wallsten, T. S., Budescu, D. V., Rapoport, A., Zwick, R., & Forsyth, B. (1985). Measuring the vague meanings of probability terms. Chapel Hill, NC: L. L. Thurstone Psychometric Laboratory Report No. 173.
- Wallsten, T. S., Fillenbaum, S., Cox, J. A. (1985). Base rate effects on the interpretations of probability and frequency expressions. Chapel Hill, NC: L. L. Thurstone Psychometric Laboratory Report No. 175.
- Wallsten, T. S., & Forsyth, B. H. (1985). On the usefulness, representation, and validation of non-additive probability judgments for risk assessment. Unpublished.
- Hayes, S. R., Sarin, R. K., Wallsten, T. S., Whitfield, R. G., & Winkler, R. L. (1986). Development of health risk estimates for alternative ozone NAAQS: Encoding protocols and pilot testing results. San Rafael, CA: Systems Applications, Inc. SYSAPP-86/057.
- Hayes, S. R., Wallsten, T. S., & Winkler, R. L. (1986). Design document for a study to develop health risk estimates for alternative ozone NAAQS. San Rafael, CA: Systems Applications, Inc. SYSAPP-86/044.

- Wallsten, T. S. (1986). Meanings of nonnumerical probability phrases: Final report for the period 16 August 1983 through 15 August 1986. L. L. Thurstone Psychometric Laboratory Research Memorandum No. 67, Chapel Hill, NC.
- Wallsten, T. S., & Whitfield, R. G. (1986). Assessing the risks to young children of three effects associated with elevated blood-lead levels. Argonne National Laboratory Report ANL/AA-32. Argonne, IL.
- Budescu, D. V., Weinberg, S., & Wallsten, T. S. (1987). Decisions based on numerically and verbally expressed uncertainties. IPDM Report No. 39 Revised. Haifa, Israel: University of Haifa.
- Hayes, S. R., Moezzi, M., Wallsten, T. S., & Winkler, R. L. (1987). An analysis of symptom and lung function data from several human controlled ozone exposure studies. San Rafael, CA: Systems Applications, Inc. SYSAPP-87/10
- Jaffe-Katz, A., Budescu, D. V., & Wallsten, T. S. (1987). Magnitude comparisons of numerical and nonnumerical expressions of uncertainty. IPDM Report No. 45. Haifa, Israel: University of Haifa.
- Hayes, S. R., Rosenbaum, A. S., Wallsten, T. S., Whitfield, R. G., & Winkler, R. L. (1987). Assessment of lung function and symptom health risks associated with attainment of alternative ozone NAAQS. San Rafael, CA: Systems Applications Inc., SYSAPP-87/171.
- Petersen, D. C., Jr., Sueker, J. K., & Wallsten, T. S. (1987). Risks of forest tree response due to ambient ozone. A final report. Boulder, CO: Energy and Resource Consultants.
- Budescu, D. V., & Wallsten, T. S. (1988). Dyadic decisions with numerical and verbal probabilities. IPDM Report No. 59. Haifa, Israel: University of Haifa.
- Hayes, S. R., Rosenbaum, A. S., Wallsten, T. S., Whitfield, R. G., & Winkler, R. L. (1989). Acute ozone exposure-response relationships for use in health risk assessment. In the proceedings of the Annual Meeting of the Society for Risk Analysis. San Francisco: California.
- Wallsten, T. S. (1991). A Stochastic Model of Judgement in Statement Verification Tasks. Working paper.
- Whitfield, R. G., Wallsten, T. S., Winkler, R. L., Richmond, H. M., Hayes, S. R., & Rosenbaum, A. S. (1991). Assessing the Risk of Chronic Lung Injury Attributable to Long-Term Ozone Exposure. Argonne National Laboratory Report ANL/EAIS-2. Argonne, IL.
- Martin, S. A., Dean, N., Mauskopf, J. A., Iannachione, V. G., & Wallsten, T. S. (1993). A sampling aid for implementing risk-based import inspection: Final Report. Research Triangle Institute, Project No. 35U-5159-01, Research Triangle Park, North Carolina.
- Wallsten, T. S. (1993). Combining and using vague and precise information for decision making: Final report for NSF Grant BNS-8908554. L. L. Thurstone Psychometric Laboratory Research Memorandum No. 93-4, Chapel Hill, NC.
- Shapiro, A. J. & Wallsten, T. S. (1994). Base rate effects on interpreting verbally and numerically communicated probabilities. Unpublished paper.
- Ariely, D., Zauberman, G.S. & Wallsten, T.S. (1995). Statistical and Psychological considerations in calibration research: Overconfidence, The hard-easy effect, and the influence of response scale on judgment. Paper presented at Subjective Probability, Utility and Decision Making Meeting (SPUDM-15), Jerusalem, Israel.

Selected Invited Presentations:

It is normal to be ordinal. Midwestern Psychological Association Meeting, Symposium on Approaches to Inference: Techniques for Understanding Decision Making, Chicago, Illinois, 1974.

Processing information for decisions. Indiana Cognitive/Mathematical Psychology Conference, Bloomington, Indiana, 1975.

The measurement and interpretation of beliefs: A review. European Research Conference on Subjective Probability, Utility, and Decision Making, Darmstadt, West Germany, 1975.

Cognitive limitations in medical diagnosis. Sigma Xi Lecture at University of Illinois Medical Center, Chicago, Illinois, 1978.

Using algebraic models to study human decision behavior. US/USSR Symposium on Mathematical Models in Psychology, Tbilisi, USSR, 1979.

On the apparent similarity between inference and categorization. Fifteenth Annual Mathematical Psychology Meeting, Princeton, New Jersey, 1982.

The theoretical status of judgmental heuristics. Symposium on individual Decision Making Under Uncertainty, Center of Interdisciplinary Research, University of Bielefeld, Bielefeld, Federal Republic of Germany, 1982.

The Communication of Probability Forecasts. Workshop in Probabilistic Weather Forecasts. Government Camp, Oregon, 1983.

Understanding and Using Linguistic Probabilities. ORSA/TIMS Meeting. Miami, FL, 1986.

Estimating Probabilities of Population Response Rates from Data and Judgments. Symposium on Risk Assessment Techniques in Behavioral Toxicology at the Annual Meeting of the American Psychological Association, New York, NY, 1987.

The Costs and Benefits of Vague Information. Insights in Decision Making: Theory and Applications, A Tribute to the late Hillel J. Einhorn. The University of Chicago, Graduate School of Business, Chicago, IL, 1988.

Problems with lotterus numericus as a model decision situation. Nags Head International Conference on Judgment and Decision Making, Nags Head, NC, June, 1990.

Paradoxical data and a model for their resolution in statement verification tasks. Purdue University, Indiana, November 1990. The Technion, Haifa, Israel, December 1990.

Quantifying scientists' judgments in environmental risk assessment. Bielefeld University, Bielefeld, Germany, December, 1990.

Modes of consent. Human Protection Workshop, Chapel Hill, March, 1991.

A perspective on judgment research. Fourth Annual American Psychological Society Convention, San Diego, CA, June 1992.

Random error in probability judgments: Implications for combining expert assessments. Harvard University Center for Risk Assessment, October 1993.

Judgment and response processes in statement verification. Columbia University Department of Psychology, October 1993.

Models of judgment: A little bit of error goes a long way, but where does it come from? University of Chicago Center for Decision Research, November 1993.

Combining Linguistic Probabilities. Symposium on Qualitative Aspects of Decision Making. Universität Regensburg, Regensburg, Germany, July 1994.

Bridging some gaps in research on linguistic probabilities. STAR Workshop on Risk Communication. Imperial Cancer Research Fund. London, England, June, 1995.

New results on the stochastic judgment model of statement verification. Seminar on Risk, Uncertainty and Choice. City University, London, England, June, 1995.

New results on statement verification: Verifying the stochastic judgment model assumptions while failing to replicate a result. Public colloquium. Universität Oldenburg, Oldenburg, Germany, December 1995.

A Cognitive foundation for combining subjective probability estimates: Implications for environmental risk assessment. Public colloquium. Universität Oldenburg, Oldenburg, Germany, December 1995.

Accuracy of Probability Judgments: The Real Scoop and What To Do about It. Public colloquium. Ohio State University, February, 1996.

Accuracy of Probability Judgements: The Real Scoop and What To Do about It. Parts 1 and 2., Public Colloquium. Duke Fuqua School of Business, September 18 and 25, 1996.

Combining Probability Judgements. Invited colloquium. University of Illinois Department of Psychology, October 1996.

Effects of Trial-by-Trial Variance on Judgement: Model and Data. Invited colloquium, Institut für Kognitionsforschung, Universität Oldenburg, Oldenburg, Germany, January 1997.

Evaluating and Combining subjective probabilities. Invited colloquium.

Uppsala Universitet, Department of Psychology, Uppsala, Sweden, April 1997.

Max Planck Institute for Psychological Research, Munich Germany, April 1997.

Universität Braunschweig Department of Psychology, Braunschweig, Germany, June 1997.

University of Groningen, Department of Social and Organizational Psychology. Groningen, The Netherlands, June 1997.

Averaging Probability Estimates: Tests of the applicability of two theorems to real data. Invited presentation at INFORMS-98, Tel Aviv University, Tel Aviv, Israel. June, 1998.

Separating Judgement from Response Processes. Keynote addresses at a Workshop on Judgment and Decision Making. Department of Psychology, Tel Aviv University, Tel Aviv, Israel, July 2, 1998.

Averaging Probability Judgements: Tests of two theorems against real data. Invited presentation.

University of North Carolina School of Business. Chapel Hill, North Carolina. March, 1999.

Harvard Center for Risk Analysis, Cambridge, Massachusetts. April, 1999.

Insights from a Stochastic Model of Judgement and Response. Invited colloquium, Ohio University, Athens, Ohio. April, 1999.

A critical look at research on probability judgment: Are we asking the right questions? Invited Presidential Address. Annual Meeting of the Society for Judgment and Decision Making. New Orleans, LA. November, 2000.

Judgment, Choice, and Communication under Aleatory and Epistemic Uncertainty. Invited Colloquium, Neuroscience and Cognitive Science Program, University of Maryland, September, 2002.

Ask not whether a Model is Right or Wrong, Ask whether It Is Useful. Invited presentation in a symposium entitled "What does it mean to model cognition?" 45th Annual meeting of the Psychonomic Society. Minneapolis MN. Nov 18-21, 2004.

Probabilistic Language – Challenges and Opportunities. Invited workshop, Analytic Tradecraft and Training Conference. Aspen Wye River Conference Center. Queenstown, MD. September 20, 2005.

Challenges in Communicating Probabilistic Information to Policy Makers. Invited presentation.

Environmental Protection Agency, “Workshop on Probabilistic Integrated Assessment Modeling,” Washington, DC. May, 2006.

Department of Energy, Office of Planning, Budget, and Analysis, Washington, DC. October, 2006.

Issues in Forming, Revising, and Communicating Uncertain Judgments. Invited presentation at a conference entitled “Improving Intelligence: What Works? How Can We Tell? Lessons from Outside the Intelligence Community.” Sponsored by The Office of the Director of National Intelligence, Office of Analytic Integrity & Standards. Heritage Conference Center, Chantilly, VA. January, 2007.

Other Presentations:

Numerous presentations at professional meetings such as of the Psychonomic Society, Society for Mathematical Psychology, European Association for Decision Making (meeting known as SPUDM) and various invited colloquia.