

Curriculum Vita, July 2007

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CONTACT INFORMATION

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EDUCATION

University of Pennsylvania	Ph.D. 1973	Psychology
University of Pennsylvania	M.A. 1971	Psychology
University of Chicago	B.A. 1970	Psychology

ACADEMIC EMPLOYMENT

2003-now	Professor	Dept. of Psychology	Princeton Univ.
2000-2003	Professor	Dept. of Computer Science	Rice University
1997-2003	Professor	Dept. of Psychology	Rice University
1996-1997	Docente	Università San Raffaele	Milan, Italy
1995-1997	Director	Unità di Razionalità	Milan, Italy
1991-1994	Director	Institut d'Intelligence Artificielle	Martigny, Switz.
1978-1991	Professor	Dept. Brain & Cognitive Sciences	M.I.T.
1986-1991	Professor	Dept. Linguistics & Philosophy	M.I.T.
1977-1978	Assoc. Prof.	Dept. Psychology	U/Pennsylvania
1975-1977	Assist. Prof.	Dept. Psychology	U/Pennsylvania
1973-1975	Assist. Prof.	Dept. Psychology	Stanford Univ.

SYNERGISTIC ACTIVITIES

(a) Richard Grandy and Daniel Osherson. *Sentential Logic for Psychologists*. Online textbook: <http://www.princeton.edu/~osherson/primer.pdf>. Available via *Scholars without Borders*: <http://www.scholarswithoutborders.in>,

(b) *Inductive Logic Website* available at <http://www.princeton.edu/~osherson/IL/ILpage.htm>.

RECENT COLLABORATORS

Christiane Fellbaum (Linguistics, Princeton) Richard Grandy (Philosophy, Rice), Simon Grant (Economics, Rice), Peter Hartley (Economics, Rice), James Haxby (Psychology, Princeton), Nancy Isenberg (Muhlenberg Medical Center NJ), Sanjay Kulkarni (Electrical Engineering, Princeton), Daniel Levitin (Psychology, McGill), Elliott Lieb (Mathematics, Princeton), Christian List (Political Science, LSE), Douglas Medin (Psychology, Northwestern), Lawrence Parsons (Psychology, Sheffield), H. Vincent Poor (Electrical Engineering, Princeton), Robert Schapire (Computer Science, Princeton), Edward E. Smith (Psychology, Columbia), Katya Tentori (Psychology, Trento), Moshe Vardi (Computer Science, Rice), Tali Vishne (Nes Ziona Hospital, Israel Scott Weinstein (Philosophy, U/Penn), Timothy Williamson (Philosophy, Oxford).

PH.D. ADVISOR

Rochel Gelman (Psychology Department, Rutgers University)

RECENT POSTGRADUATE THESIS ADVISEES

Karin Dudziak (U/Arizona), Martin Monti (Princeton), Joel Predd (Rand Corporation), Matthew Weber (Princeton).

Bibliography

- [1] D. Osherson. *Logical Inference: Underlying Operations*. Erlbaum, Potomac MD, 1974.
- [2] D. Osherson. *Organization of Length and Class Concepts: Empirical Consequences of a Piagetian Formalism*. Erlbaum, Potomac MD, 1974.
- [3] D. Osherson. Logic and models of logical thinking. In R. J. Falmagne, editor, *Reasoning: Representation and Process*. Erlbaum, Hillsdale NJ, 1975.
- [4] D. Osherson. *Reasoning in Adolescence: Deductive Inference*. Erlbaum, Hillsdale NJ, 1975.
- [5] D. Osherson and E. Markman. Language and the ability to evaluate contradictions and tautologies. *Cognition*, 3(3):213–226, 1975.
- [6] D. Osherson. *Reasoning and Concepts*. Erlbaum, Hillsdale NJ, 1976.
- [7] D. Osherson and E. E. Smith. On the adequacy of prototype theory as a theory of concepts. *Cognition*, 9:35–58, 1981. Reprinted in E. Margolis and S. Laurence (eds.), *Concepts: Core Readings*, MIT Press, 1999.
- [8] D. Osherson and E. E. Smith. Gradedness and conceptual combination. *Cognition*, 12:299–318, 1982.
- [9] D. Osherson and S. Weinstein. Criteria of language learning. *Information and Control*, 52:123–138, 1982.
- [10] D. Osherson and S. Weinstein. A note on formal learning theory. *Cognition*, 11:77–88, 1982.
- [11] D. Osherson, M. Stob, and S. Weinstein. Learning theory and natural language. *Cognition*, 17(1):1–28, 1984. Reprinted in Robert Matthews (ed.), *Language Acquisition and Learnability*, Reidel, 1990.
- [12] E. E. Smith and D. Osherson. Conceptual combination with prototype concepts. *Cognitive Science*, pages 337–61, 1984. Reprinted in A. Collins. & E. Smith (eds.), *Readings in Cognitive Science: Perspectives from Psychology and Artificial Intelligence*, Morgan Kaufmann, 1988.
- [13] D. Osherson. Computer output. *Cognition*, 20:261–4, 1985.

- [14] D. Osherson, E. E. Smith, and E. Shafir. Some origins of belief. *Cognition*, 24:197–224, 1986.
- [15] D. Osherson, M. Stob, and S. Weinstein. Aggregating inductive expertise. *Information and Control*, 70(1):69–95, 1986.
- [16] D. Osherson, M. Stob, and S. Weinstein. *Systems that Learn*. M.I.T. Press, Cambridge MA, 1986.
- [17] D. Osherson. New axioms for the contrast model of similarity. *Journal of Mathematical Psychology*, 31(1):93–103, 1987.
- [18] D. Osherson, M. Stob, and S. Weinstein. Social learning and collective choice. *Synthese*, 70:319–347, 1987.
- [19] D. Osherson, M. Stob, and S. Weinstein. Mechanical learners pay a price for bayesianism. *Journal of Symbolic Logic*, 53(4):1245–1251, 1988.
- [20] D. Osherson, M. Stob, and S. Weinstein. Synthesizing inductive expertise. *Information and Computation*, 77(2):138–161, 1988.
- [21] D. Osherson E. Shafir and E. E. Smith. An advantage model of choice. *Journal of Behavioral Decision Making*, 2:1–23, 1989.
- [22] D. Osherson, M. Stob, and S. Weinstein. Paradigms of truth-detection. *Journal of Philosophical Logic*, 18:1–42, 1989.
- [23] D. Osherson and S. Weinstein. On charitable translation. *Philosophical Studies*, 56:127–134, 1989.
- [24] H. Gaifman, D. Osherson, and S. Weinstein. A reason for theoretical terms. *Erkenntnis*, 32:149–159, 1990.
- [25] D. Osherson, E. E. Smith, O. Wilkie, and A. López. Category-based induction. *Psychological Review*, 97(2):185–200, 1990.
- [26] E. Shafir, E. Smith, and D. Osherson. Typicality and reasoning fallacies. *Memory and Cognition*, 18(3):229–239, 1990.
- [27] D. Osherson, Stern J, O. Wilkie, M. Stob, and E. E. Smith. Default probability. *Cognitive Science*, 15:251–70, 1991.
- [28] D. Osherson and S. Weinstein. A universal inductive inference machine. *Journal of Symbolic Logic*, 56(2):661–672, 1991.
- [29] D. Osherson and S. Weinstein. Relevant consequence and scientific discovery. *Journal of Philosophical Logic*, 22:437–448, 1993.
- [30] D. Osherson, E. Shafir, and E. E. Smith. Extracting the coherent core of human probability judgment. *Cognition*, 50:299 – 313, 1994.
- [31] D. Osherson, editor. *Invitation to Cognitive Science*. M.I.T. Press, Cambridge MA, second edition, 1995.

- [32] D. Osherson, E. E. Smith, E. Shafir, A. Gualtierotti, and K. Biolsi. A Source of Bayesian Priors. *Cognitive Science*, 19(3):377 – 405, 1995.
- [33] D. Osherson and S. Weinstein. On the study of first language acquisition. *Journal of Mathematical Psychology*, 39(2):129–145, 1995.
- [34] Daniel Osherson. Probability judgment. In Edward E. Smith and Daniel Osherson, editors, *Invitation to Cognitive Science: Thinking (Second Edition)*. M.I.T. Press, Cambridge MA, 1995.
- [35] D. Osherson, E. Shafir, D. Krantz, and E. E. Smith. Probability bootstrapping: Improving prediction by fitting extensional models to knowledgeable but incoherent probability judgments. *Organizational Behavior and Human Decision Processes*, 69(1):1–8, 1997.
- [36] D. Osherson and E. E. Smith. On typicality and vagueness. *Cognition*, 64:189–206, 1997.
- [37] E. Martin and D. Osherson. Belief revision in the service of scientific discovery. *Mathematical Social Sciences*, 36(1):57–68, 1998.
- [38] E. Martin and D. Osherson. *Elements of scientific inquiry*. MIT Press, Cambridge MA, 1998.
- [39] D. Osherson, D. Perani, S. Cappa, T. Schnur, F. Grassi, and F. Fazio. Distinct brain loci in deductive versus probabilistic reasoning. *Neuropsychologia*, 36(4):369 – 376, 1998.
- [40] N. Bonini, D. Osherson, R. Viale, and T. Williamson. On the psychology of vague predicates. *Mind and Language*, 14(4):377–393, December 1999.
- [41] Sanjay Jain, Daniel Osherson, James Royer, and Arun Sharma. *Systems that Learn*. M.I.T. Press, Cambridge MA, 2nd edition, 1999.
- [42] Laura Macchi, Daniel Osherson, and David H. Krantz. Superadditive probability judgment. *Psychological Review*, 1999.
- [43] F. Montagna and D. Osherson. Learning to coordinate: A recursion theoretic perspective. *Synthese*, 118(3):363–382, 1999.
- [44] E. E. Smith, D. Osherson, L. Rips, , and M. Keane. Combining prototypes: A selective modification model. *Cognitive Science*, 12:485–527, 1999. Reprinted in E. Margolis and S. Laurence (eds.), *Concepts: Core Readings*, MIT Press, 1999.
- [45] R. Viale and D. Osherson. The Diversity Principle and the Little Scientist Hypothesis. *Foundations of Science*, 5:239–253, 2000.
- [46] L. C. Idson, D. H. Krantz, D. Osherson, and N. Bonini. The relation between probability and evidence judgment: An extension of support theory. *Journal of Risk and Uncertainty*, 2001.
- [47] E. Martin and D. Osherson. Induction by enumeration. *Information and Computation*, 171:50–68, 2001.
- [48] D. Osherson, D. Lane, P. Hartley, and R. Batsell. Coherent probability from incoherent judgment. *Journal of Experimental Psychology: Applied*, 70(1):3 – 12, 2001.

- [49] L. Parsons and D. Osherson. New evidence for distinct right and left brain systems for deductive vs. probabilistic reasoning. *Cerebral Cortex*, 11(10):954–965, 2001.
- [50] Katya Tentori, D. Osherson, L. Hasher, and C. May. Wisdom and aging: Irrational preferences in college students but not older adults. *Cognition*, 81(3):B87–B96, 2001.
- [51] R. Batsell, L. Brenner, D. Osherson, S. Tsavachidis, and M. Y. Vardi. Eliminating incoherence from subjective estimates of chance. In *Proceedings of the 8th International Conference on the Principles of Knowledge Representation and Reasoning (KR 2002)*, pages 353 – 364. 2002.
- [52] R. Batsell, L. Brenner, D. Osherson, M. Vardi, and S. Tsvachidis. Eliminating incoherence from subjective estimates of chance. *Proceedings of the Ninth International Workshop on Knowledge Representation*, 2002.
- [53] Y. Lo, A. Sides, J. Rozelle, and D. Osherson. Evidential diversity and premise probability in young children’s inductive judgment. *Cognitive Science*, 26:181–206, 2002.
- [54] E. Martin and D. Osherson. Scientific discovery from the perspective of hypothesis acceptance. *Philosophy of Science*, 69, 2002.
- [55] Daniel Osherson. No method of ampliative inference respects conditionalization, 2002. Available via <http://www.princeton.edu/~osherson>.
- [56] A. Sides, D. Osherson, N. Bonini, and R. Viale. On the reality of the conjunction fallacy. *Memory & Cognition*, 30(2):191–198, 2002.
- [57] S. Blok, D. L. Medin, and D. Osherson. Probability from similarity. *AAAI Conference on Commonsense reasoning*, 2003.
- [58] N. Bonini, K. Tentori, and D. Osherson. A Different Conjunction Fallacy. *Mind and Language*, 19(2):199–206, 2004.
- [59] N. Bonini, K. Tentori, and D. Osherson. A new conjunction fallacy. *Mind & Language*, 2004.
- [60] D. Osherson and E. Martin. A psychologist looks hopefully to logic. In Rene Cori, Alexander Razborov, Stevo Todorcevic, and Carol Wood, editors, *Logic Colloquium 00*, Lecture Notes in Logic. Springer, Association for Symbolic Logic, 2004.
- [61] L. Parsons, M. Monti, M. Martinez, and D. Osherson. Brain basis of deduction: Effects of argument validity and content. *Society for Neuroscience Abstracts*, 372(4), 2004.
- [62] K. Tentori, N. Bonini, and D. Osherson. The conjunction fallacy: A misunderstanding about conjunction? *Cognitive Science*, 28(3):467–477, 2004.
- [63] Martin Monti, Simon Grant, and Daniel Osherson. A note on concave utility functions. *Mind and Society*, 4(1):85–96, 2005.
- [64] Daniel Osherson. Note on an observation by Neil Tennant, 2005. Available via <http://www.princeton.edu/~osherson>.

- [65] Daniel Osherson. Order dependence and Jeffrey conditionalization, 2005. Available via <http://www.princeton.edu/~osherson>.
- [66] L. Parsons, M. Monti, M. Martinez, and D. Osherson. Core and support neural mechanisms for deductive inference. *Society for Neuroscience Abstracts*, 877(25), 2005.
- [67] L. Parsons, M. Monti, M. Martinez, and D. Osherson. Neural correlates of deductive inference: A language independent distributed network. *Cognitive Neuroscience Society Abstracts*, E180, 2005.
- [68] Jordan Boyd-Graber, Christiane Fellbaum, Daniel Osherson, and Robert Schapire. Adding dense, weighted connections to WordNet. In *Proceedings of the Third Global WordNet Meeting*. Korean Advanced Institute of Science, Jeju, Korea, 2006.
- [69] E. H. Lieb, D. Osherson, and S. Weinstein. Elementary proof of a theorem of Jean Ville, July 2006. [Http:arxiv.org/PS_cache/cs/pdf/0607/0607054v1.pdf](http://arxiv.org/PS_cache/cs/pdf/0607/0607054v1.pdf).
- [70] Daniel Osherson and Moshe Vardi. Aggregating disparate estimates of chance. *Games and Economic Behavior*, pages 148–173, July 2006.
- [71] J. B. Predd, S. R. Kulkarni, H. V. Poor, and D. Osherson. Scalable algorithms for aggregating disparate forecasts of probability. In *Ninth International Conference on Information Fusion*. Florence, Italy, July 2006.
- [72] K. Tentori, V. Crupi, N. Bonini, and D. Osherson. Comparison of confirmation measures. *Cognition*, 2006.
- [73] Sergey Blok, Douglas Medin, and Daniel Osherson. From similarity to chance. In Evan Heit and Aidan Feeney, editors, *Inductive Reasoning*. Cambridge University Press, 2007.
- [74] Sergey Blok, Douglas Medin, and Daniel Osherson. Induction as conditional probability judgment. *Memory & Cognition*, 2007.
- [75] M. K. Miller, D. Osherson, and C. List. Methods for distance-based judgment aggregation. In Clemens Puppe, editor, *Workshop on Judgment Aggregation*. Karlsruhe Institute of Technology, September 2007.
- [76] M. Monti, D. Osherson, and L. Parsons. The effects of content on deduction: a multi-voxel pattern analysis of neural similarity. *Annual Meeting of the Organization for Human Brain Mapping*, June 2007.
- [77] L. Parsons, M. Monti, and D. Osherson. The effects of content on deduction: a multi-voxel pattern analysis of neural similarity. *CNS Annual meeting in New York*, 2007.
- [78] Tali Vishne, Daniel Levitin, and Daniel Osherson. Music perception among schizophrenia patients, 2007. Presented at the International Congress on Schizophrenia Research, Colorado.
- [79] Tali Vishne, Daniel Osherson, and Daniel Levitin. Music perception among schizophrenia patients. *Society of Biological Psychiatry*, May 2007. Poster Session Presentation.

- [80] D. Osherson and S. Weinstein. Formal learning theory in context. *Handbook of the History of Logic*, 2008.
- [81] Martin M. Monti, Daniel N. Osherson, Michael J. Martinez, and Lawrence M. Parsons. Functional neuroanatomy of deductive inference: A language-independent distributed network. *NeuroImage*, in press.
- [82] K. Tentori, V. Crupi, and D. Osherson. Confirmation may depend on more than probability. *Psychonomics Bulletin and Review*, (in press).
- [83] Daniel Osherson and S. Weinstein. Recognizing strong random reals. *Journal of Philosophical Logic*, under review.
- [84] Joel B. Predd, Sanjeev R. Kulkarni, Daniel N. Osherson, and H. Vincent Poor. Aggregating forecasts of chance from incoherent and abstaining experts. *Decision Sciences*, under review.
- [85] Matthew Weber, Daniel Osherson, James Haxby, and Lawrence Parsons. Predicting judged similarity of mammals from their neural representations. *Journal of Cognitive Neuroscience*, under review.