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Home:

2226 Sunrise Drive
Point Roberts, WA
98281

Born March 11, 1940 (Philadelphia, PA)

Married, three children, five grandchildren

Education

BA (1961) [University of Pennsylvania](#), Psychology

MA (1965) [Brown University](#), Psychology

Ph.D. (1967) [Brown University](#), Psychology

Experience

1966-1970 Assistant Professor, [University of British Columbia](#)

1970-1980 Associate Professor, [Brooklyn College of CUNY](#)

1980-1998 Professor, [Brooklyn College of CUNY](#)

1998-2006 Broeklundian Professor of Psychology, [Brooklyn College of CUNY](#)

2006- Broeklundian Professor of Psychology, Emeritus

2007- Visiting Professor, [University of British Columbia](#)

1977-1978 Fulbright Professor, [University of Innsbruck](#), Austria.

1995-1996 Visiting Professor, University of Wales, Bangor

1985-1988 Department Chair, [Brooklyn College of CUNY](#)

1994-1995 Executive Officer (Acting), Ph.D. Program in Psychology, CUNY

1998-2005 Ph.D. Program Head, Experimental Psychology

Awards and Fellowships

Sigma Xi

Senior Fulbright Fellow, [University of Innsbruck](#), Austria (1977-1978)

NEH Postdoctoral Fellow, NEH Institute for Philosophy and Psychology of Mind

Golden Key National Honor Society (Hon.)

Fellow of the American Psychological Society

Broeklundian Professorship

Fellow of American Association for the Advancement of Science

Fellow of the Psychonomic Society

Teaching (Undergraduate)

Introduction to Psychology, Experimental Psychology, Cognition, Psychology of Language, Psychology of Reading, History of Psychology, Critical Review of Parapsychology, various special programs and seminars (e.g., Codes and Coding, Philosophy of Science, Honor's Seminar in Great Psychological Ideas, Historical Themes in Psychology)

Teaching (Graduate)

Cognitive Psychology, History of Psychology, Psycholinguistics, various seminars (e.g., Semantic Memory, Unconscious Cognitive Processes, Issues in Development, Philosophy of Mind, Philosophy of Psychology, Models of Induction, Dysfunctions of Memory, Consciousness)

Publications--Books

Reber, A. S. & Scarborough, D. L. (Eds.) (1977). *Toward a psychology of reading*. Hillsdale, NJ: Erlbaum.

Reber, A. S. (1986, 1995, 2001, 2010). *Dictionary of psychology*. London, Penguin/Viking. Second edition, 1995, Third Edition, (A. S. Reber & E. S. Reber, 2001), Fourth Edition (A.S. Reber, R. Allen & E. S. Reber, 2009).

Reber, A. S. (1993). *Implicit learning and tacit knowledge: An essay on the cognitive unconscious*. NY: Oxford University Press.

Reber, A. S. (2012). *Xero to Sixty*, a Novel.

Reber, A. S. (2019). *The First Minds: Caterpillars, 'Karyotes, and Consciousness*. NY: Oxford University Press.

Publications--Papers and Book Chapters

Aronfreed, J. & Reber, A. S. (1965). Internalized suppression and the timing of social punishment. *Journal of Personality and Social Psychology*, **1**, 3-16.

Reber, A. S. & Nosanchuk, T. A. (1967). Long inter-trial intervals in probability learning. *Psychonomic Science*, **5**, 111-112.

Reber, A. S. (1967). Implicit learning of artificial grammars. *Journal of Verbal Learning and Verbal Behavior*, **6**, 855-863.

Reber, A. S. & Millward, R. B. (1968). Event observation in probability learning. *Journal of Experimental Psychology*, **77**, 317-327.

Millward, R. B. & Reber, A. S. (1968). Event recall in probability learning. *Journal of Verbal Learning and Verbal Behavior*, **7**, 980-989.

Morris, V. A., Rankine, F., & Reber, A. S. (1968). Sentence comprehension, grammatical transformation, and response availability. *Journal of Verbal Learning and Verbal Behavior*, **7**, 1113-1115.

- Reber, A. S. (1969). Response perseveration in binary-choice recognition. *Journal of Verbal Learning and Verbal Behavior*, **8**, 206-214.
- Reber, A. S. (1969). Transfer of syntactic structure in synthetic languages. *Journal of Experimental Psychology*, **81**, 115-119.
- Reber, A. S. & Anderson, J. R. (1970). Perception of clicks in linguistic and nonlinguistic messages. *Perception and Psychophysics*, **8**, 81-90.
- Reber, A. S. & Millward, R. B. (1971). Event tracking in probability learning. *American Journal of Psychology*, **84**, 85-99.
- Millward, R. B. & Reber, A. S. (1972). Probability learning: Contingent event sequences with lags. *American Journal of Psychology*, **85**, 81-98.
- Reber, A. S. (1973). Locating clicks in sentences: Left, center, and right. *Perception and Psychophysics*, **10**, 133-138.
- Reber, A. S. (1973). What clicks may tell us about speech perception. *Journal of Psycholinguistic Research*, **2**, 286-287.
- Reber, A. S. (1973). On psycho-linguistic paradigms. *Journal of Psycholinguistic Research*, **2**, 289-319.
- Reber, A. S. (1976). Implicit learning of synthetic languages: The role of instructional set. *Journal of Experimental Psychology: Human Learning and Memory*, **2**, 88-94.
- Reber, A. S. & Lewis, S. (1977). Toward a theory of implicit learning: The analysis of the form and structure of a body of tacit knowledge. *Cognition*, **5**, 333-361.
- Schneiderman, M. H., Reber, A. S., & Hainline, L. (1978). Anagram solutions as an index of the child's cognitive and linguistic knowledge. *Child Development*, **49**, 765-772.
- Reber, A. S. & Allen, R. (1978). Analogy and abstraction strategies in synthetic grammar learning: A functionalist interpretation. *Cognition*, **6**, 189-221.
- Kassin, S. M. & Reber, A. S. (1979). Locus of control and the learning of an artificial language. *Journal of Research in Personality*, **13**, 111-118.
- Allen, R. & Reber, A. S. (1980). Very long term memory for tacit knowledge. *Cognition*, **8**, 175-185.
- Reber, A. S., Kassin, S. M., Lewis, S., & Cantor, G. W. (1980). On the relationship between implicit and explicit modes in the learning of a complex rule structure. *Journal of Experimental Psychology: Human Learning and Memory*, **6**, 492-502.

- Reber, A. S. (1982-83). On the paranormal: In defense of skepticism. *Skeptical Inquirer*, **7**, 55-64.
- Reber, A. S., Allen, R. & Regan, S. (1985). Syntactical learning and judgment: Still unconscious and still abstract. *Journal of Experimental Psychology: General*, **114**, 17-24.
- Reber, A. S. (1987). The rise and (surprisingly rapid) fall of psycholinguistics. *Synthese*, **72**, 325-339.
- Abrams, M. & Reber, A. S. (1988). Implicit learning: Robustness in the face of psychiatric disorders. *Journal of Psycholinguistic Research*, **17**, 425-439.
- Reber, A. S. (1989). Implicit learning and tacit knowledge. *Journal of Experimental Psychology: General*, **118**, 219-235.
- Reber, A. S. (1989). More thoughts on the unconscious: A reply to Lewicki & Hill (1989) and Brody (1989). *Journal of Experimental Psychology: General*, **118**, 242-244.
- Reber, A. S. (1990). The primacy of the implicit: A comment on Perruchet and Pacteau. *Journal of Experimental Psychology: General*, **119**, 340-342.
- Reber, A. S., Walkenfeld, F. F., & Hernstadt, R. (1991). Implicit learning: Individual differences and IQ. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, **17**, 888-896.
- Kushner, M., Cleeremans, A., & Reber, A. S. (1991). Implicit detection of event inter dependencies and a PDP model of the process. *Proceedings of the Thirteenth Annual Meeting of the Cognitive Science Society*, pp. 215-220. Hillsdale, NJ: Erlbaum.
- Reber, A. S. (1992). An evolutionary context for the cognitive unconscious. *Philosophical Psychology*, **5**, 33-51.
- Reber, A. S. (1992). The cognitive unconscious: An evolutionary perspective. *Consciousness and Cognition*, **1**, 93-133.
- Reber, A. S. (1992). Evolution, consciousness, and all that: A reply to Baars and to Parker. *Consciousness and Cognition*, **1**, 143-147.
- Reber, A. S. (1993). Personal knowledge and the cognitive unconscious. *Polanyiana*, **3**, 97-115.
http://www.polanyi.bme.hu/folyoirat/1992-02/1992_4_7_Arthur_Reber_cognitive_unconscious.pdf
- Rathus, J., Reber, A. S., Manza, L., & Kushner, M. (1994). Implicit and explicit learning: Differential effects of affective states. *Perceptual and Motor Skills*, **79**, 163-184.

- Reber, A. S. & Winter, B. (1994). What manner of mind is this? *Behavioral and Brain Sciences*, **17**, 418-419.
- Winter, B. & Reber, A. S. (1994). Implicit learning and natural language acquisition. In N. C. Ellis (Ed.), *Implicit and explicit learning of languages*. London: Academic Press.
- Reber, A. S. (1997). How to differentiate implicit from explicit learning. In J. Cohen & J. Schooler (Eds.), *Scientific approaches to consciousness*. Hillsdale, NJ: Erlbaum.
- Reber, A. S. (1997). Implicit ruminations. *Psychonomic Bulletin and Review*, **4**, 49-55
- Manza, L. & Reber, A. S. (1997). Representing artificial grammars: Transfer across stimulus forms and modalities. In D. C. Berry (Ed.) *How implicit is implicit learning?*. London: Oxford University Press.
- Reber, A. S. (1997). Caterpillars and consciousness. *Philosophical Psychology*, **10**, 437-450.
- Manza, L., Zizak, D. & Reber, A. S. (1998). Artificial grammar learning and the mere exposure effect. In M. Stadler & P. Frensch (Eds.), *Handbook of implicit learning*. New York: Sage Publications.
- Hsiao, A. & Reber, A. S. (1998). The role of attention in implicit sequence learning. In M. Stadler & P. Frensch (Eds.), *Handbook of implicit learning*. New York: Sage Publications.
- Allen, R. & Reber, A. S. (1998) On the smart unconscious. In W. Bechtel & G. Graham (Eds.), *A companion to cognitive science*. Oxford: Blackwell.
- Reber A. S., Allen, R., & Reber, P. J. (1999). Implicit and explicit learning. In R. Sternberg (Ed.), *The nature of cognition*. Cambridge, MA: MIT Press.
- Reber, A. S. & Allen, R. (2000) Individual differences in implicit learning. In R. G. Kunzendorf & B. Wallace (Eds.), *Individual differences in conscious experience*. Philadelphia: John Benjamins.
- Rah, S. K-Y., Reber, A. S., & Hsiao, A. (2000). Another wrinkle on the dual-task SRT experiment: It's probably not dual-task. *Psychonomic Bulletin & Review*, **7**, 309-313.
- Winter, W., Broman, M., Rose, A., & Reber, A. S. (2001). Assessment of cognitive procedural learning in amnesia: Why the Tower of Hanoi has fallen down. *Brain and Cognition*, **45**, 79-96.
- Hsiao, A. & Reber, A. S. (2001). The dual task SRT procedure: Fine tuning the timing. *Psychonomic Bulletin & Review*, **8**, 336-342.
- Reber, A. S. (2002). Tacit knowledge. In N. J. Smelser & P. B. Baltes (Eds.), *The International Encyclopedia of the Social and Behavioral Sciences*. Oxford: Elsevier.

Reber, A. S. (2002). Implicit learning. In *Encyclopedia of Cognitive Science*. London: Macmillan Reference Ltd.

Litman, L. & Reber, A. S. (2002). On the temporal course of consolidation of implicitly acquired knowledge. *Evolution and Cognition*, **8**, 145-155.

Litman, L. & Reber, A. S. (2002). Rules, abstractions and evolution. *Behavioral and Brain Sciences*, **25**,345-346.

Don, A. J., Schellenberg, E. G., Reber, A. S., DiGirolamo, D. M., & Wang, P. P. (2003). Implicit learning in individuals with Williams Syndrome. *Developmental Neuropsychology*, **23**, 201-225.

Reber, A. S. (2003). Some, perhaps surprising, consequences of the “cognitive revolution.” *Cognition and Evolution*, **9**, 102-115.

Zizak, D. M. & Reber, A. S. (2004). The structural mere exposure effect: The dual role of familiarity. *Consciousness and Cognition*, **13**,336-362.

Kercel, S. W., Manges, W. W. & Reber, A. S. (2004). Wiring a human-in-the-loop. In *Proceedings of Human-Machine Interface Technologies*, Columbus, OH, September, 2004.

Litman, L & Reber, A. S. (2005). Implicit and explicit thought. In K. J. Holyoak & R. G. Morrison (Eds.), *Cambridge handbook of thinking and reasoning*. New York: Cambridge University Press.

Kercel, S. W., Manges, W. W. & Reber, A. S. (2005). Some radical entailments of Paul Bach-y-Rita’s discoveries. *Journal of Integrative Neuroscience*, **4**, 551-565.

Weiss, S. M., Reber, A. S., & Owen, D. R. (2007). The locus of focus: The effect of switching from a preferred to a non-preferred focus of attention. *Journal of Sports Sciences*, **26**, 1049-1057.

Reber, A. S. (2008). Learning. In D. L. Schacter, D. Gilbert & D. Wegner, *Introductory Psychology*. NY: Bedford, Freeman & Worth.

Reber, A. S. (2010). Musing on Brooksonian representationalism: A eulogy. *Canadian Journal of Experimental Psychology*, **64**, 382-385.

Reber, A. S. (2011). An epitaph for grammar. In C. Sanz & R. P. Loew (Eds.), *Implicit and explicit language learning*. Washington, DC: Georgetown University Press (pp. 23-34).

Weiss, S. M. & Reber, A. S. (2012). Curing the dreaded “Steve Blass” disease. *Journal of Sports Psychology in Action*, **3**, 171-181.

Reber, A. S. (2012). The EVF Model of Gambling: A novel framework for understanding gambling and, by extension, poker. *Gaming Research and Review Journal*, **16**, 63-80.

- Collins, H & Reber, A. S. (2013). Ships that pass in the night: Tacit knowledge in psychology and sociology. *Philosophia Scientiae*, **17**, 3-22.
- Reber, A. S. (2015). Preface to *Implicit and Explicit Learning of Languages*. P. Rebuschat (Ed.). London: Benjamins Press.
- Reber, A. S. (2016). Caterpillars, consciousness and the origins of mind. *Animal Sentience*, **11**(1).
- Reber, A. S. (2016). Resolving the Hard Problem and calling for a small miracle: Response to Commentary on [Reber](#) on Caterpillars and the Origins of Consciousness. *Animal Sentience*, **11**(9).
- Reber, A. S. (2017). To identify all the relevant factors is to explain feeling. *Animal Sentience* **11**(14).
- Reber, A. S. (2017). What if all animals are sentient. *Animal Sentience*, **16**(6).
- Reber, A. S. (2018). Sentient plants? Nervous Minds? *Animal Sentience*, **11**(17).
- Baluška, F. & Reber, A. S. (2019). Sentience and consciousness in single cells: How the first minds emerged in unicellular species. *BioEssays*, Mar;41(3):e1800229. doi: 10.1002/bies.201800229. Epub 2019 Feb 4. PMID: 30714631.
- Reber, A. S. & Alcock, J. (2019). Searching for the impossible: Parapsychology's elusive quest. *American Psychologist*, **75**, 391-399.
- Reber, A. S. & Alcock, J. (2019). Why parapsychological claims cannot be true. *Skeptical Inquirer*, **43**, 8-10.
- Reber, A. S. (2020). Homeostasis gets its due: An essay on Damasio's "The Strange Order of Things." *American Journal of Psychology*, **133**, 263-267.
- Baluška, F. & Reber, A. S. (2020). The Biomolecular Basis for Plant and Animal Sentience: Senomic and Ephaptic Principles of Cellular Consciousness. *Journal of Consciousness Studies*, **28**, 34-59.
- Reber, A. S. & Baluška, F. (2020). Cognition in some surprising places. *Biochemical and Biophysical Research Communications*, **564**, 150-157 <https://doi.org/10.1016/j.bbrc.2020.08.115>
- Baluška, F. Miller, W. B. & Reber, A. S. (2021). Biomolecular basis of cellular consciousness via subcellular nano-Brains. *International Journal of Molecular Sciences* **2021**, *22*, 2545. <https://doi.org/10.3390/ijms22052545>.

Baluška, F. & Reber, A. S. (2021) CBC-Clock Theory of Life - Integration of Cellular Circadian Clocks and Cellular Sentience is Essential for Cognitive Basis of Life. *BioEssays*, **23**, DOI: 10.1002/bies.202100121

Reber, A. S. (forthcoming). Implicit learning: Background, history, and theory. In A. S. Reber & R. Allen (Eds.), *The Cognitive Unconscious: The First Half-Century*. Oxford University Press.

Baluška, F. & Reber, A. S. (forthcoming). Cellular and Organismal Agency – Not Based on Genes: A Comment on Baverstock. *Progress in Biophysics and Molecular Biology*.

Reber, A. S. & Baluška, F. (forthcoming). Where minds began: A friendly amendment to Joseph LeDoux's *The Deep History of Ourselves*. *Journal of the Philosophy of Emotion*.

Papers and chapters in preparation

Weiss, S. M., Reber, A. S., & Owen, D. R. The influence of switching focus of attention strategies on performance outcome and reinvestment using the Movement Specific Reinvestment Scale.

Weiss, S. M., Reber, A. S., & Masters, R. The Reinvestment Scale: Can participants shift on the RS?

Baluška, F. & Reber, A. S. Science astray: Why is consciousness still not understood. *EMBO Science and Society*.

Baluška, F. & Reber, A. S. Evolutionary Perspectives on Cellular and Organismal Cognition. *Biological Journal of the Linnean Society*.

Books in preparation

Reber, A. S. & Allen, R. *Dictionary of Psychology, 5th Ed.* Penguin Books, Ltd.

Reber, A. S. & Allen, R. (Eds.). *The Cognitive Unconscious: The First Half-Century*. NY: Oxford University Press.

Reber, A. S. *Going Rogue: Essays on Topics off the Beaten Path*.

Book reviews and other

Allen, R. & Reber, A. S. (1999). The view from down under: Review of *Implicit and explicit mental processes*. Kirsner, et al. (Eds.). Mahwah, NJ: Erlbaum. In *Contemporary Psychology*, 44, 44-45.

Reber, A. S. (2002). Preface for A. Cleeremans & R. French (Eds.), *Representations in implicit knowledge*. London: Routledge.

Reber, A. S. (2019). Foreword for A. Cleeremans, V. Allakhverdov, & M. Kuvaldina (Eds). *Implicit Learning: Fifty Years On*. Routledge.

Reber, A. S. (2019). An admiring look at Ginsburg and Jablonka on "The Sensitive Soul." *American Journal of Psychology*,

Reber, A. E. (forthcoming). Pushing the envelope: A review of Damasio's "The Strange Order of Things: Life, Feeling, and the Making of Culture." *American Journal of Psychology*,

Reber, A. S. (2021). Calling her bluff: A review of Maria Konnikova's *The Biggest Bluff: How I Learned to Pay Attention, Master Myself, and Win*. *American Journal of Psychology*.

Reber, A. S. (2021). Review of M. Konnikova *The Biggest Bluff: How I Learned to Pay Attention, Master Myself, and Win*, Penguin Press, 2020, 352 pp. *Skeptical Inquirer*.

Reber, A. S. (2021). Randi Remembrance. *Skeptical Inquirer*, June.

Invited addresses

On the significance of the "click migration effect." A debate with T. G. Bever, New York Psycholinguistics Circle, New York University, 1973.

Implicit knowledge and its role in a theory of epistemology. Presented at the University of Ghent, Belgium, The Free University of Brussels, Belgium, and the [University of Innsbruck](#), Austria, 1977-1978.

The impact of nativistic theorizing on the study of language acquisition. Presented at the Orton Society, New York, 1979.

Implicit learning: Applications of the theory. Presented at the International Society of the Study of Behavioural Development, Lund, Sweden, 1979.

Is human decision making really irrational? A debate with Issac Levi. Sponsored by the Department of Philosophy, Brooklyn College, 1981.

A skeptic's view of the hypothesized "language organ." Presented to the New York Neuropsychology Group, 1981.

On Dr. Chomsky and his "language organ:" A skeptic's view of the new nativism. Presented to the Committee for the History and Philosophy of Science, New York, 1983.

The rise and fall of psycholinguistics. Presented at the Conference on Integrating Scientific Disciplines. Atlanta, GA, 1984.

On making the unconscious conscious. Invited symposium contribution, Eastern Psychological Association, Baltimore, MD, 1984.

Learning style and cognitive theory. Invited presentation, Conference on Contemporary Issues in College Teaching. CUNY, New York, 1988.

New directions in implicit learning. Invited symposium, Eastern Psychological Association Meetings, Philadelphia, PA, 1990. Presenters: Fried, F. F., Kushner, H. M., Manza, L., Rathus, J., & Reber, A. S.

Personal knowledge and the cognitive unconscious. Invited address, Centennial Celebration of the Birth of Michael Polanyi. Kent State University, 1991.

An evolutionary perspective on the cognitive unconscious. Invited address, New York Academy of Sciences, February 10, 1992.

How to differentiate implicit and explicit cognitive processes. Invited address, Carnegie Conference on Cognition, Pittsburgh, PA, May 1993.

Implicit learning as a candidate theory of natural language acquisition. Invited address, International Conference on Language and Consciousness, Varna, Bulgaria, September, 1995.

How are preferences formed? Possibly unconsciously. Keynote address, Unilever's (Sponsor) Exploratory Consumer Science Review, Chester, UK, October, 1995.

Caterpillars, consciousness, and all that. Invited Address, British Psychological Society Meetings, Southampton, UK, April, 1996.

Implicit functions and the flexibility problem. Invited presentation, American Psychological Society, Washington, DC, June, 1997.

Implicit preference formation: The roles of familiarity. Invited address, Society for Philosophy and Psychology, New York, NY, June, 1997.

The structural mere exposure effect: Or how to come to like almost anything (familiar). Invited address, Humboldt University, Berlin, Germany, July, 1999.

Some speculations on the origins of consciousness. New York Academy of Sciences. NY, December, 1999.

On ethical issues, public morality and institutional gaming. 11th International Conference on Gambling and Risk Taking, Las Vegas, NV, June, 2000.

Darwin's game and consciousness. Keynote Address, Inaugural Meeting of the New England Institute for Cognitive Science and Evolutionary Psychology, Portland, Maine, November 2, 2001.

Unconscious mechanisms in creativity. Invited presentation to the Austrian Group, Department of Economics, New York University, April, 2003.

The representational form of implicitly established memories. Presented at *A Festschrift* for Lee R. Brooks, McMaster University, Hamilton, Ontario CA. June, 2003.

Artificial Grammar Workshop; Biocomputation of Language Group. Harvard University, Cambridge, MA, October, 2006.

An Epitaph for Grammar. Keynote Address, Georgetown University Round Table, Washington, DC, March, 2009.

Intact Implicit Learning in ASD. CSail, Hood River, OR, August 2011

The EVF model of gambling. Annual Research Conference, Brooklyn College, CUNY, May, 2012.

A personal overview. Discussion of "Fifty years of Implicit Research: A Symposium in Honor of Arthur S. Reber." Meetings of the Psychonomic Society, November, 2017, Vancouver, BC.

Sentient Cells. Western Washington Fulbright Association meeting. February 21, 2018. Seattle, WA.

The Co-evolution of sentience and life. Summer Institute on the "Other Minds" problem. University of Montreal, June - July, 2018. Montreal, Canada.

The First Minds. Elder College, Deep Cove, British Columbia, Canada. March, 2021.

On-going research (now that my lab is closed, mostly carried out with former students and colleagues)

Implicit learning and unconscious cognitive processes: Experimental work continues with colleagues though my lab is closed. Theoretical work goes on, specifically looking at the acquisition of knowledge about complex, rule-governed systems. The work is viewed as

contributing to the understanding of the problems of tacit knowledge and its acquisition. Recent focus is on these processes in special populations including infants and young children, alcoholics, depressives, and the highly anxious, and on an examination of the relationship between implicit learning and various other factors such as affect, attention, intelligence, problem solving ability, methods of instruction, temporal factors in the presentation of stimuli and the like. The work is couched within a model built on considerations of evolutionary biology.

Preference formation: Current interest is on the relationship between the so-called “mere exposure effect” where individuals develop preferences for previously presented stimuli and implicit learning. The focus is on the role of familiarity in what we have dubbed the “structural mere exposure effect” which is the process whereby individuals develop preferences for novel stimuli provided that they conform to the structural patterns of previously encountered displays. The work is seen as providing an empirical foundation for understand relatively mundane issues such as preference formation as well as more global issues generally regarded as lying outside the domain of experimental psychology such aesthetics and just what it means for something to be viewed as beautiful.

Implicit components of complex motor skills: This work is an ongoing collaboration with Steve Weiss of Cumberland University and examines the complex relationships between attentional focus, internal v. external orientation, individual preference for the locus of focus and “reinvestment” or the tendency to turn inward under pressure.

Explorations of the biomechanical factors responsible for the primitive forms of sentience observed in prokaryote species. My contribution is based on in-principle arguments. The actual cell biology research is being carried out by František Baluška and collaborators at Bonn University.

Professional organizations

American Psychological Society (Fellow), Eastern Psychological Association, American Association for the Advancement of Science (Fellow), New York Academy of Sciences, Psycholinguistic Circle of New York, Society for Philosophy and Psychology, Psychonomic Society (Fellow), Philosophy of Science Association, Fulbright Fellows Alumni Association, New York Area Skeptics.

Grants

Unconscious acquisition systems. National Research Council of Canada, 1966-1970. Four years of support averaging \$12,000/year.

Implicit learning of synthetic languages. National Institutes of Health, 1971-1972, \$4994.

Implicit learning and unconscious systems. National Institutes of Health, 1976. Approved but not funded (\$91,000 requested).

Implicit learning and unconscious systems. National Institutes of Health, 1977. Approved but not funded (\$84,000 requested).

Fulbright-Hays Senior Lectureship. Funded for one year at the [University of Innsbruck](#), Austria, 1977-1978.

Children's Anagram Solutions. BHE-PSC (CUNY), 1979-1980, \$8,945.

Accessibility of curriculum content in the education of science students. National Science Foundation, Science Education. Co-PI with George Fried, Biology, 1979-1980, \$50,000.

Implicit learning in children and the psychiatrically impaired. BHE-PSC (CUNY), 1986-1987, \$5,160.

Implicit learning in special populations. BHE-PSC (CUNY), 1988-1989, \$4,485.

Implicit learning in special populations. National Institutes of Mental Health, 1988-1991. Not funded (\$484,000 requested).

Implicit learning in children and adults. BHE-PSC (CUNY), 1989-1990, \$6,704.

Implicit learning in children and adults. National Institutes of Mental Health. (\$480,987 requested). Approved but not funded in lieu of NSF award.

Implicit learning in special populations. National Science Foundation, 1989-1992, BNS 89-07946, \$242,500.

Implicit learning in special populations. National Science Foundation, REU Supplement to BNS 89-07946, \$4000

Implicit learning and transfer. BHE-PSC (CUNY), 1991-1992, \$7,425.

Implicit learning: Evolutionary and connectionist considerations. NSF, 1992 (\$371,114 requested). Approved but not funded.

Implicit cognitive processes in an amnesic patient. BHE-PSC (CUNY), 1992-93 (\$11,978 requested). Not funded.

Implicit learning: Attention, representation, and connectionism. NSF, 1993 (\$376,855 requested). Approved but not funded.

The role of working memory in the acquisition of language structure. 1995 ESRC (UK)—Co-PI with Dr. Nick Ellis. Funded £63,216 (approximately \$100,000).

Familiarity and the structural mere exposure effect. BHE-PSC (CUNY), 1998-99, \$3,960.

Familiarity and the structural mere exposure effect. 1998, NSF (\$415,338 requested). Not funded.

The temporal course of consolidation of implicit knowledge. BHE-PSC (CUNY), 2000-2002, \$3,000.

The SRT task under attentional load: Invoking the psychological refractory period. NSF, 2001-2004. Funded as Grant #0113025, \$286,888 total costs.

The Human in the Loop. The lab is part of a three-unit consortium ([Brooklyn College of CUNY](#), University of Wisconsin, University of New England). NSF. Requested budget, \$3,200,000 for a four-year period. Our laboratory will be central staging point for the empirical work. Not funded.

Other Activities

Grant reviewer: National Science Foundation, National Institutes of Mental Health, NSERC of Canada, Israel National Research Institute, ESRC of the United Kingdom, NRC of Australia. Science Foundation of Israel.

Journal Editorial Board Member: Journal of Psycholinguistic Research, Cognition and Consciousness, Philosophical Psychology. Member of editorial board for Kluwer Academic Publishers, series of books on Implicit Cognitive Processes and Consciousness.

Ad hoc reviewer for: Journal of Experimental Psychology: Learning, Memory, and Cognition, Journal of Experimental Psychology: General, Psychological Review, Psychological Bulletin, Perception and Psychophysics, Cognitive Psychology, Developmental Psychology, Philosophical Psychology, Psychological Research (formerly Psychologische Forschung), Behavioral and Brain Science, Quarterly Journal of Experimental Psychology, American Psychologist, Social and Personality Bulletin.

Director of Graduate Student Research: A total of 14 Masters Degrees and 19 Doctoral Dissertations have been completed under my direction.

College and University Service (Brooklyn College and the Graduate Center of CUNY)

Psychology Department

1970-2005 Member Doctoral Faculty

1973-1979 Committee on Academic Review
1973-1974 Long Range Goals and Planning
1996-1997 Long Range Goals and Planning
1975-1976 Graduate Executive Committee
1985-2005 Graduate Executive Committee
1976-1983 Curriculum Committee
1976-1983 Curriculum Committee Chair
1980-1984 Deputy Chair, Undergraduate Studies
1981-1985 Deputy Chair, Graduate Studies
1988-1991 Deputy Chair, Graduate Studies
1985-1988 Department Chair
2000-2005 PSC Representative

College-wide

1973-1974 Long Range Goals and Planning
1973-1975 Faculty Council
1985-1988 Faculty Council
1979-1980 Curriculum Planning Committee
1981-1985 Graduate Deputies Council
1988-1991 Graduate Deputies Council
1985-1988 Council on Administrative Plans
1970-2005 Promotions and Tenure
1988-1990 Master Planning and Budget
1988-2005 Executive Committee Ford Colloquium
1992-1994 Graduate Admissions and Standards
1992 & 1998 Search Committee, Director of Admissions (Chair)
1998 Honorary Degrees (Chair)
1997-2004 Faculty Achievement Awards Committee
1999-2001 Stern Professor of Humor Selection Committee

CUNY-wide

1973-1974 Internal Review Panel
1973-1978 Committee for Transnational Research
1976-1997 University Executive Committee
1980-1983 Committee on the Psy.D. Degree
1983-2005 Developmental Doctoral Faculty
1988-1990 Cognitive Sciences Ph.D. Panel
1993-1994 Deputy Executive Officer, Psychology
1994-1995 Executive Officer, Psychology (Acting)
1998-2005 PhD Sub-Program Head, Exp. Psych.