

CURRICULUM VITAE

Lisa M. Saksida

MAILING ADDRESS

Laboratory of Neuropsychology
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EDUCATION

Carnegie Mellon University, Pittsburgh, PA, USA

Ph.D. in Robotics/Neural Basis of Cognition, August, 1999
Advisor: James L. McClelland

University of Edinburgh, Edinburgh, Scotland

Master of Science in Artificial Intelligence (Intelligent Robotics), August 1994

University of British Columbia, Vancouver, BC, Canada

Master of Arts in Biopsychology, July 1993

University of Western Ontario, London, ON, Canada

Honours Bachelor of Science in Psychology, May 1991

SCHOLARSHIPS AND AWARDS

1999. Fogarty International Fellowship, National Institutes of Health

1998-99. Sir James Loughheed Award of Distinction (\$15,000 scholarship from the Alberta government).

1993-95. Natural Sciences and Engineering Council of Canada (NSERC) PGS-B Award (Declined).

1993. NATO Advanced Study Institute Scholarship (The Biology and Technology of Intelligent Autonomous Agents, 1-12 March, 1993, Trento, Italy).

1991. Natural Sciences and Engineering Research Council of Canada (NSERC) Undergraduate Research Award

1990-93. Dean's Honour List

1987-91. Dow Chemical Full Tuition Scholarship

1987-88. University of Western Ontario Admission Scholarship

1987. Ontario Scholar Award

RESEARCH POSITIONS

1999

Postdoctoral Fellow at the National Institutes of Health

1991-93

Research Assistant for Dr. D. M. Wilkie, Department of Psychology, University of British Columbia

1991

Research Assistant for Dr. M. Kavaliers, Department of Oral Biology, University of Western Ontario

1990-91

Research Assistant for Dr. K. N. Speechley, Child Health Research Institute, Children's Hospital of Western Ontario

Research Assistant for Dr. K. P. Ossenkopp, Department of Psychology, University of Western Ontario

TEACHING EXPERIENCE

1996

Teaching Assistant for Computer Science 15-880, *Computational Models of Neural Systems*, Carnegie Mellon University

1991-93

Teaching Assistant for Psychology 317, *Research Methodology*, University of British Columbia

Teaching Assistant for Psychology 318, *Statistics*, University of British Columbia

Teaching Assistant for Psychology 466, *Animal Learning and Cognition*, University of British Columbia

ADDITIONAL EXPERIENCE

Programming Languages: C/C++, Prolog, Lisp, Matlab, SAS

Ad hoc reviewer for *Connection Science*

PUBLICATIONS

Bussey, T.J. and **Saksida, L.M.** (1999). Mechanisms of Visual Object Identification: A Neural Network Model of Effects of Lesions in Perirhinal Cortex. Manuscript submitted for publication.

- Saksida, L.M.** (1999). Effects of similarity and experience on discrimination learning: A nonassociative connectionist model of perceptual learning. *Journal of Experimental Psychology: Animal Behavior Processes*, 25, 308-323.
- Saksida, L.M.**, Raymond, S.M. and Touretzky, D.S. (1997) Shaping robot behavior using principles from instrumental conditioning. *Robotics and Autonomous Systems*, 649,1-19.
- Touretzky, D.S. ,and **Saksida, L.M.** (1997) Operant conditioning in Skinnerbots. *Adaptive Behavior*, 5(3/4), 219-248.
- Saksida, L.M.** and Touretzky, D.S. (1997). Application of a model of instrumental conditioning to mobile robot control. In: Paul S. Schenker and Gerard T. McKee (Eds.) *Sensor Fusion and Decentralized Control in Autonomous Robotic Systems*. SPIE Vol. 3209. pp. 55-66.
- Touretzky, D.S. and **Saksida, L.M.** (1996). Skinnerbots. In: P. Maes, M.J. Mataric, J.-A. Meyer, J. Pollack, and S.W. Wilson (Eds.) *From Animals to Animats 4*. The MIT Press. pp. 285-294.
- Saksida, L.M.** and Wilkie, D.M. (1994). Time-of-Day discrimination by pigeons, *Columba Livia*. *Animal Learning and Behavior*, 22, 143-154.
- Galea, L.A.M., **Saksida, L.M.**, Kavaliers, M. and Ossenkopp, K.P. (1994). Naloxone facilitates spatial acquisition in a water maze in female, but not in male, non-breeding adult voles. *Pharmacology, Biochemistry, and Behavior*, 47, 265-271.
- Wilkie, D.M., **Saksida, L.M.** and Samson. P. (1994). Properties of time-place learning by pigeons, *Columba livia*. *Behavioral Processes*, 31, 39-56.
- Wilkie, D.M. and **Saksida, L.M.** (1994). The spatial distribution of pigeons' target detection. *Behavioural Brain Research*, 60, 137-140.
- Wilkie, D.M., Mak, T. and **Saksida, L.M.**, (1994). Pigeons' landmark use as revealed in a feature-positive discrimination, digitized landscape, touchscreen paradigm. *Behavioral Processes*, 32, 87-100.
- Saksida, L.M.**, Galea, L.A.M., and Kavaliers, M. (1993). Antinociceptive effects of the enkephalinase inhibitor, SCH 34826, in the snail (*Cepaea nemoralis*). *Peptides*, 14, 763-765.
- Saksida, L.M.**, Galea, L.A.M., Kavaliers, M. and Ossenkopp, K.P. (1993). Predator-induced opioid and non-opioid mediated analgesia in young meadow voles: Sex differences and developmental changes. *Brain Research*, 617, 214-219.
- Prato, F.S., Kavaliers, M., Wills, J.M., Galea, L.A.M., **Saksida, L.M.**, Ossenkopp, K.P. (1993). Magnetic Resonance Imaging at 1.5T attenuates opioid analgesia: Evidence from morphine and an enkephalinase inhibitor-induced analgesia in snails. In: M. Blank (Ed.), *Proceedings of the First World Congress for Electricity and Magnetism in Biology*
- CONFERENCE PRESENTATIONS**
- Saksida, L.M.** and Bussey, T.J. (1999). A neural network model of effects of lesions in perirhinal cortex. To be presented at the Society for Cognitive Neuroscience Annual Meeting, April 11-14, Washington, DC.

Saksida, L.M. and Bussey, T.J. (1998). Toward a neural network model of visual object identification in primate inferotemporal cortex. Poster presentation at the Society for Neuroscience 27th Annual Meeting, Los Angeles, California.

Saksida, L.M. (1998). A connectionist model of the effects of experience on discrimination learning. Slide presentation at the Second Annual Associative Learning Symposium, Gregynog, Wales.

Saksida, L.M., Redish, A.D., Reiber Milberg, C., Gaulin, S.J., and Touretzky, D.S. (1996) Landmark-based navigation in gerbils supports vector voting. Poster presentation at the Society for Neuroscience 25th annual meeting, San Diego, California.

Saksida, L.M. Wilkie, D.M. (1993) Evidence for a circadian mechanism underlying 24 hour time-place learning in pigeons. Poster presentation at the Canadian Society for Brain, Behaviour, and Cognitive Science Annual Meeting, Toronto, Ontario.

Wilkie, D.M. and **Saksida, L.M.** (1993) What do pigeons see when they look at a computer monitor? Presentation at the Canadian Society for Brain, Behaviour, and Cognitive Science Annual Meeting, Toronto, Ontario.

Saksida, L.M. and Wilkie, D.M. (1992) "Time of Day" discrimination by pigeons, *Columba livia*. Slide presentation at the Canadian Society for Brain, Behaviour, and Cognitive Science Annual Meeting, Quebec City, Quebec.

Saksida, L.M., Galea, L.A.M., Kavaliers, M., Ossenkopp, K.P., and Shivers, R.M. (1992) Sex differences and developmental changes in predator induced analgesia in meadow voles. Poster presentation at the Society for Neuroscience 21st Annual Meeting, Anaheim, California.

Wilkie, D.M., **Saksida, L.M.**, and Samson, P. (1992) Time-place discrimination by pigeons, *Columba livia*. Slide presentation at the Canadian Society for Brain, Behaviour, and Cognitive Science Annual Meeting, Quebec City, Quebec.

Galea, L.A.M., **Saksida, L.M.**, Kavaliers, M., and Ossenkopp, K.P. (1991) Naloxone enhances acquisition of a spatial task in non-breeding meadow voles in a sexually dimorphic manner. Poster presentation at the Society for Neuroscience 20th Annual Meeting, New Orleans.

OTHER PUBLICATIONS

Saksida, L.M. (1999). A competitive connectionist model of the effect of experience on perceptual representations. Ph.D. Dissertation, Carnegie Mellon University.

Wilkie, D.M. and **Saksida, L.M.** (1994). A mathematical theory of reinforcement: An unexpected place to find support for analogical memory coding. Invited commentary in *Behavioral and Brain Sciences*, 17, 155-56.

Saksida, L.M. (1994). Instrumental conditioning of a mobile robot: The use of the Halperin neuro-connector model for robot control. MSc thesis, University of Edinburgh.

Saksida, L.M. (1993). Being in the right place at the right time: Time of day discrimination by pigeons, *Columba Livia*. MA thesis, University of British Columbia.