

# Olga Lositsky

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## Education

- 2011 – present Princeton University – Ph.D. in Neuroscience
- 2007 – 2010 McGill University – B.Sc. in Neuroscience, Minor in Philosophy
- 2008 – 2009 University of Freiburg – Academic Exchange: Ten Master’s level courses in German, Concentration in Neurobiology and Biophysics
- 2005 – 2007 Collège Stanislas in Montreal – General Baccalaureate Diploma in the Scientific Stream with highest honors

## Awards and Accomplishments

- 2012 Honorable Mention, National Science Foundation (NSF) Graduate Research Fellowship Program
- 2008 DAAD (Germany Academic Exchange Service) Undergraduate Scholarship
- 2008 PBCSE Government of Quebec Travel Award
- 2008 DAAD Research Internships in Science and Engineering Scholarship
- 2007 Canadian Millennium Excellence Award
- 2007 James McGill Scholarship
- 2007 Toyota Earth Day Scholarship
- 2007 Prize of the Lieutenant-Governor of Quebec

## Publications and Conference Papers

**Lositsky, O.**, Wilson, R.C., Shvartsman, M., Cohen, J.D. (2015, June). A drift diffusion model of proactive and reactive control in a context-dependent two-alternative forced choice task. In *Proceedings of the Reinforcement Learning and Decision Making Conference*, Edmonton, Alberta. **Significance:** Built the first computational model of proactive and reactive strategies in decision-making. Used model simulations to show when the two strategies are most distinguishable.

**Lositsky, O.**, Chen, J., Toker, D., Honey, C.J., Poppenk, J.L., Hasson, U., Norman, K.A. (submitted) Neural pattern change during encoding of a narrative predicts retrospective duration estimates. **Significance:** Showed that changes in entorhinal and orbitofrontal activity patterns predict duration estimates. Developed a novel technique for tracking changes in neural activity over long time scales.

**Lositsky, O.**, Wilson, R.C., Shvartsman, M., Cohen, J.D. (in preparation). Reward rate maximization in the AX-CPT predicts how contextual information affects the prior for a decision. **Significance:** Showed that our model correctly predicts effects of experimental manipulations on proactive strategy, where subjects incorporate contextual information in advance of the decision.

## Conference Presentations

**Lositsky, O.**, Toker, D., Chen, J., Honey, C.J., Poppenk, J.L., Hasson, U., Norman, K.A. (2013). Time perception and contextual drift with a naturalistic stimulus. *Society for Neuroscience Annual Meeting*, San Diego, CA. [**Poster**]

**Lositsky, O.**, Wilson, R.C., White, J.M., Cohen, J.D. (2013). Bayesian model of proactive and reactive control in the AX-CPT. *Computational Psychiatry Conference*, Miami, FL. [**Poster**]

**Lositsky, O.**, Toker, D., Chen, J., Honey, C.J., Poppenk, J.L., Hasson, U., Norman, K.A. (2013). Time perception and contextual drift with a naturalistic stimulus. *Manhattan Area Memory Meeting*, New York, NY [**Talk**] and *Context and Episodic Memory Symposium*, Philadelphia, PA. [**Poster**]

### Teaching and Mentoring Experience

- Summer 2013    Advised Lucy Lin for Princeton Neuroscience Summer Internship. Project title: “Number of event boundaries in a story predicts retrospective duration estimates.”
- Spring 2013    Assistant Instructor for *NEU 502 From Molecules to Systems to Behavior*
- Fall 2012      Assistant Instructor for *NEU 258 Fundamentals of Neuroscience*
- Spring 2011    Research Assistant for *ELE / NEU 480 Reading Minds Using Brain Scans*

### Pre-doctoral Research Experience

- Spring 2009    Advanced Molecular Imaging Research Group, Department of Radiology University Hospital Freiburg, P.I. Jürgen Hennig.
- Fall 2008      Neuropsychology Lab, University of Freiburg, P.I. Ulrike Halsband.
- Summer 2008    Zebrafish Neuroimaging Group, Institute of Developmental Genetics, Helmholtz Research Center in Munich, P.I. Reinhard Koester
- Summer 2007    Department of Biochemistry, McGill Cancer Research Centre, P.I. Michel Tremblay
- Summer 2006    Human Dopamine Neuroimaging Lab, McConnell Brain Imaging Center, Montreal Neurological Institute, P.I. Alain Dagher

### Community Service and Outreach

- 2013 – 2014    Social Hour Organizer, Princeton Neuroscience Institute, Princeton University
- 2013 – 2014    Parallel Distributed Processing Meeting Organizer, Princeton Neuroscience Institute
- 2012 – 2013    Neuroscience representative on Graduate Student Government, Princeton University
- 2008 – 2009    Communications Officer, Medical Students Society, McGill University
- April 2009     Student Representative, “Bologna from Outside” Conference in Siegburg, Germany: analyzed impact of Bologna educational reforms on student mobility.
- January 2009    Franco-German interpreter for AiD (“Fight Against Poverty in Dialogue”) Conference in Paris, France.
- 2007 – 2008    I\*Create Volunteer, Montreal General Hospital: offered arts and crafts activities to patients and families in chemotherapy waiting rooms.

### Language Skills

Fluency in English, French, German and Russian | Elementary proficiency in Hebrew and Spanish.