

Cyrus Shaoul

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Education

University of Alberta, Edmonton, AB. Ph.D. candidate in Psychology, expected completion in June 2011. Doctoral Thesis Title: *The Mental Representation of N-grams*

University of Alberta, Edmonton, AB. M.Sc. in Psychology, completed in June 2008. Masters Thesis Title: *Optimizing HAL parameter space for predicting lexical access and semantic decision latency.*

Massachusetts Institute of Technology, Cambridge, MA. B.S. in Brain and Cognitive Science, graduated in 1993.

Research

University of Alberta
Research Assistant
Edmonton, AB
Sept 2004–Present
Worked with Professor Chris Westbury on investigating the HAL model of lexical semantic memory. Implemented a program called HiDEx (High Dimensional Explorer) to test hypotheses about HAL parameters and semantic processing. Now investigating n-gram effects in reading. Designed and implemented psycholinguistic experiments. Analyzed and performed statistical analyses on data collected.

Teaching Experience

- TA, Advanced Topics in Development: Children and the Web (4th year undergraduate class), 2009
- TA, Advanced Methods: Monte Carlo Methods in Statistics (4th year undergraduate class), 2008, 2010, 2011
- TA, Learning & Behaviour, University of Alberta, 2007
- Lab TA, Design & Analysis of Experiments in Psychology (4th year undergraduate class), University of Alberta, 2005
- TA, Memory and Cognition (4th year undergraduate class), University of Alberta, 2005, 2007

Employment

Kerstin's Chocolates
Technical Support (part-time)
Support IT operations at small chocolate manufacturer.
Edmonton, AB
2004–present

Digital Garage Inc.
CTO
Tokyo, Japan
1993–2001

Manager of technology for Internet search and other web applications.

Book Chapters

Shaoul, C. & Westbury, C. (2011) HiDEx: The High Dimensional Explorer in *Applied Natural Language Processing and Content Analysis: Identification, Investigation, and Resolution* (McCarthy, P. and Boonthum, C. Eds.) IGI Global, Hershey, PA, USA

Published Papers

Gries, Stefan Th., John Newman & Cyrus Shaoul (in press) N-grams and the clustering of registers. *Empirical Language Research*.

Cyrus Shaoul & Chris Westbury (2011) Formulaic sequences: Do they exist and do they matter? Methodological and Analytic Frontiers in Lexical Research (Part II). Special Issue of The Mental Lexicon 6:1, Westbury, Chris (ed.)

Shaoul, C. & Westbury, C. (2010) Exploring lexical co-occurrence space using HiDEx. *Behavior Research Methods*, 42:2, 393-413, doi:10.3758/BRM.42.2.393

Westbury, C., Hollis, G., & Shaoul, C. (2007) LINGUA: Language Independent of Neighborhood Generator of the University of Alberta. *Journal of the Mental Lexicon*, 2:2, 273-286

Shaoul, C. & Westbury, C. (2006) Word frequency effects in high-dimensional co-occurrence models: A new approach. *Behavior Research Methods*. 38:2, 190-195

Refereed Contributions

Shaoul, C. , Westbury, C. & Baayen, H. (2010) Whole Phrase Frequency Predicts Behavior In a Cloze Task. Presentation, 7th International Conference on the Mental Lexicon, Windsor, Ontario, July 3rd, 2010

Shaoul, C. , Westbury, C. & Baayen, H. (2009) Agreeing with Google: We are Sensitive to the Relative Orthographic Frequency of Phrases. Poster, 50th Annual meeting of the Psychonomic Society, November 22, 2009, Boston, MA USA

Shaoul, C. & Westbury, C. (2009) Measuring contextual similarity using HiDEx. *In Proceedings of Society for Computers in Psychology SCiP 2009* (Boston, November, 2009).

Shaoul, C. , Westbury, C. & Baayen, H. (2009) *Agreeing with Google: We are Sensitive to the Relative Corpus Frequency of Phrases*. Presentation, 10th Annual meeting of the American Association for Corpus Linguistics , Edmonton, Alberta, October 9th, 2009

Gries, Stefan Th., John Newman, Cyrus Shaoul & Philip Dilts. (2009) N-grams and the clustering of genres. Corpus, collocation, register variation workshop at the 31st Annual Meeting of the *Deutsche Gesellschaft fr Sprachwissenschaft*, March 6th 2009

Shaoul, C. & Westbury, C. (2008) Performance of HAL-like word space models on semantic categorization tasks. Proceedings of the Workshop on Lexical Semantics, ESSLLI 2008. 42-46
<http://wordspace.collocations.de/doku.php/esslli:proceedings>

Shaoul, C. & Westbury, C. (2007) Walking in space: Optimizing parameter settings in co-occurrence models of meaning. Society for Computers in Psychology Symposium on Co-occurrence and Lexical Organization, Long Beach, CA Nov 15th, 2007.

Non-refereed Contributions

Shaoul, C. & Westbury, C. (2010) *Whole phrase frequency predicts behavior in a cloze task*. Presentation, 24th Royce Conference, University of Alberta, March 19th, 2010

Shaoul, C. Westbury, C. & Baayen, H. (2010) *Agreeing with Google: We are Sensitive to the Relative Corpus Frequency of Phrases*. Poster, 28th Annual Banff Annual Seminar In Cognitive Science, Banff, Alberta, May 2nd, 2009

Shaoul, C. Westbury, C. & Baayen, H. (2009) *Agreeing with Google: We are Sensitive to the Relative Corpus Frequency of Phrases*. Presentation, 23rd Royce Conference, University of Alberta, March 20th, 2009

Shaoul, C. & Westbury, C. (2010) *HiDEx Beta version 0.03* Open-source version of the HiDEx tool.
<http://www.psych.ualberta.ca/~westburylab/downloads/HiDEx.download.html>

Shaoul, C. & Westbury, C. (2008) *A anonymized multi-billion word USENET corpus (2005-2008)*
<http://www.psych.ualberta.ca/~westburylab/downloads/usenet.download.html>

Shaoul, C. & Westbury, C. (2008) Performance of HAL-like word space models on semantic categorization tasks. European Summer School in Logic, Language and Information, Workshop on Lexical semantics: bridging the gap between semantic theory and computational simulations.

Westbury, C. & Shaoul, C. (2007) *Orthographic Neighborhoods for over 111,000 English words*. Edmonton, AB: University of Alberta.
<http://www.psych.ualberta.ca/~westburylab/downloads/ON.download.html>

Shaoul, C. & Westbury, C. (2007) Optimizing HAL parameter space for predicting lexical access. Poster at the Royce Conference, March 2007, Poster at the Symposium on Language and Memory at Manitoba, Winnipeg, April 2007.

Shaoul, C. & Westbury, C. (2006) An investigation into the effect of changing the parameters of the HAL model. Poster at the Mental Lexicon Conference, Montreal, Oct, 2006.

Shaoul, C. & Westbury, C. (2006) Global Co-occurrence Density Predicts Both Lexical and Semantic Decision RTs. CSBBCS conference presentation, Saskatoon, June , 2006.

Shaoul, C. & Westbury, C. (2006) An investigation into the effect of changing the parameters of the HAL model. 2006 Mental Lexicon Conference Poster.

Westbury, C. Hollis, G. & Shaoul, C. (2006) *LINGUA: The Language Independent of Neighborhood Generator of the University of Alberta*.
<http://www.psych.ualberta.ca/~westburylab/publications.html>

Shaoul, C. & Westbury, C. (2006) *USENET Orthographic Frequencies for the 40,481 words in the English Lexicon Project. (2005-2006)* and *USENET Orthographic Frequencies for 1,618,598 types. (2005-2006)*.

<http://www.psych.ualberta.ca/~westburylab/publications.html>

Shaoul, C. & Westbury, C. (2006) *Global Co-occurrence Density Predicts Both Lexical and Semantic Decision RTs*. Presentation given at the 2006 CSBBCS conference.

Shaoul, C. & Westbury, C. (2006) *Global Co-occurrence Density Predicts Both Lexical and Semantic Decision RTs*. Poster, 20th Royce Conference, University of Alberta, 17th of March, 2006.

Shaoul, C. & Westbury, C. (2005) Towards a more psychologically relevant high dimensional model of lexical semantics. *In Proceedings of Society for Computers in Psychology SCiP 2005* (Toronto, November, 2005).

Shaoul, C. & Westbury, C. (2005) Influence of Orthographic Frequency of Words on the HAL Model of Semantic Space. 2005 Royce Conference Poster.

Awards

- J Gordin Kaplan Graduate Student Award (Travel Grant), 2007
- Walter H Johns Graduate Fellowship (3 year, \$4,949 per year), 2007-2010
- NSERC PGS-D Scholarship (3 year, \$21,000 per year), 2007-2010
- Castellan Award, November, 2005 (Awarded to the outstanding student paper presented at a SCiP conference)
- Alberta Advanced Education Achievement Scholarship, awarded in December 2005 by the Alberta Heritage Scholarship Fund.

Service

- Served as a reviewer for Psychonomic Society journal *Behavior Research Methods*
- Served as a reviewer for the Cognitive Science Society's CogSci 2008 conference.
- Past Psychology department representative to the GSA (Graduate Student Association) Council
- Past Graduate student member of the FGSR (Faculty of Graduate Studies and Research) academic appeals committee.
- Past Graduate Student Association representative on the FGSR Council
- Past Chairman of the Psychoquium Committee
(see: <http://www.psych.ualberta.ca/~psychoqu>)
- Worked with the Outreach office of the Faculty of Graduate Studies and Research on Community Outreach projects: * Supporting the Belgravia School Science Fair (1st-6th graders) (2004) * Read-In at the Oliver School (Kindergarten and 9th graders) (2005) * Guest Lecturer at the Ottwell School (7th graders) (2006) * Debate judge at the Kenilworth School (9th graders) (2006) * Read-In at Allendale and Belgravia Schools (2nd, 7th, 8th and 9th graders) (2006) * Read-In at Grandin Schools (4th and 5th graders) (2007) * Mentoring a student from

WP Wagner High School through the F.I.R.S.T. (Focus in Research, Science and Technology) Honours Program (2007) ★ Judge at the Alberta Lego Robot Competition (2008)

- Webmaster of the Westbury Lab Web Site

Skills

- Languages: English (native), fluent French and Japanese, some experience with Spanish
- Computer Skills: Python, C, C++, Perl, Java, Unix, Linux, MacOS X, L^AT_EX, OpenMP
- Scientific Software: R, SPSS, SYSTAT, Gnuplot, CLUTO, Excel