

ACL-05

**Psychocomputational
Models of
Human Language
Acquisition**

Proceedings of the Workshop

29-30 June 2005
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Introduction

This meeting of the Psychocomputational Models of Human Language Acquisition (PsychoCompLA 2005) workshop is a follow-up meeting of the first PsychoCompLA workshop held in 2004 in Geneva, Switzerland where it was part of the 20th International Conference on Computational Linguistics (COLING 2004). This year, the workshop was part of the 43rd Annual Meeting of the Association for Computational Linguistics (ACL 2005) held in Ann Arbor, Michigan and shared a joint session with the Ninth Conference on Computational Natural Language Learning (CoNLL-2005).

This workshop brings together scientists whose (at least one) line of investigation is to computationally model the process by which humans acquire various aspects of natural language. Progress in this agenda not only directly informs developmental psycholinguistic and linguistic research but will also have the long term benefit of informing applied computational linguistics in areas that involve the automated acquisition of knowledge from a human or human-computer linguistic environment.

The scientific program consisted of two invited talks, one by Brian MacWhinney and another by Mark Steedman, and 10 paper presentations.

We were especially pleased with the high quality of the submissions and would like to thank the authors for submitting their papers, as well as Mirella Lapata (ACL Workshop Committee Chair), Jason Eisner, Philipp Koehn (Publications Chairs) and Dragomir Radev (Local Arrangements Chair) who were extremely helpful (and patient) on more than one occasion.

Alexander Clark
James Cussens
William Gregory Sakas
Aris Xanthos

London, York, New York, and Lausanne, 2005

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Patrick Sturt, University of Glasgow, UK
Charles Yang, Yale University, USA

Invited Speakers:

Brian MacWhinney, Carnegie Mellon University, USA
Mark Steedman, University of Edinburgh, UK

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Conference Program

Wednesday, June 29, 2005

- 9:10–9:30 Opening Remarks
- 9:00–9:30 *The Input for Syntactic Acquisition: Solutions from Language Change Modeling*
Lisa Pearl
- 9:30–10:00 *Simulating Language Change in the Presence of Non-Idealized Syntax*
W. Garrett Mitchener
- 10:30–11:00 Break
- 11:00–11:30 *Using Morphology and Syntax Together in Unsupervised Learning*
Yu Hu, Irina Matveeva, John Goldsmith and Colin Sprague
- 11:30–12:00 *Refining the SED Heuristic for Morpheme Discovery: Another Look at Swahili*
Yu Hu, Irina Matveeva, John Goldsmith and Colin Sprague
- 12:00–12:30 *A Connectionist Model of Language-Scene Interaction*
Marshall R. Mayberry, Matthew W. Crocker and Pia Knoeferle
- 12:30–2:00 Lunch
- 2:00–2:30 *A Second Language Acquisition Model Using Example Generalization and Concept Categories*
Ari Rappoport and Vera Sheinman
- 2:30–3:30 Invited Talk
- Item Based Constructions and the Logical Problem*
Brian MacWhinney
- 3:30–4:00 Break
- 4:00–4:30 *Statistics vs. UG in Language Acquisition: Does a Bigram Analysis Predict Auxiliary Inversion?*
Xuân-Nga Cao Kam, Iglia Stoynezhka, Lidiya Tornyova, William Gregory Sakas and Janet Dean Fodor

Wednesday, June 29, 2005 (continued)

- 4:30–5:00 *Climbing the Path to Grammar: A Maximum Entropy Model of Subject/Object Learning*
Felice Dell’Orletta, Alessandro Lenci, Simonetta Montemagni and Vito Pirrelli
- 5:00–5:30 *The Acquisition and Use of Argument Structure Constructions: A Bayesian Model*
Afra Alishahi and Suzanne Stevenson

Thursday, June 30, 2005

Joint Session with CoNLL

- 9:00–9:50 Invited talk: Mark Steedman
- 9:50–10:15 *Steps Toward Deep Lexical Acquisition*
Sourabh Niyogi
- 10:15–10:40 *Intentional Context in Situated Natural Language Learning*
Michael Fleischman and Deb Roy

Remaining CoNLL sessions

- 11:10–12:25 Morphology
- 2:10–2:50 Learning methods and architectures
- 2:50–3:30 Shared Task: Semantic Role Labeling
- 4:00–6:00 Shared Task: Semantic Role Labeling (con’t)