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Christopher A. Sanchez, Ph.D.

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Tempe, AZ 85287-3503

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14. ABSTRACT
The Annual Meeting of the Cognitive Science Society is the premier international event for cognitive science work, and it also has been the historical center for interdisciplinary research related to cognition, as well as work that is specifically based on computational cognitive modeling (Sehunn, Crowley,& Okada, 1998). The objective of this project was to support student attendance for the 30th Annual Cognitive Science Conference by reducing the registration fees for students so that it is very low. The conference was held on July 23-26, 2008 in Washington, D.C. The CSS received 295 student registrations (with 6 cancellations) for the 2008 conference. This represents an increase of nearly 12% in number of student registrations (259) over the 2007 conference. Further, nearly half of the member attendees were students. Thus, we feel that supporting the attendance of these students through reduced registration was a resounding success and highlights the need and importance of the current support.

15. SUBJECT TERMS
Cognitive Science Society

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
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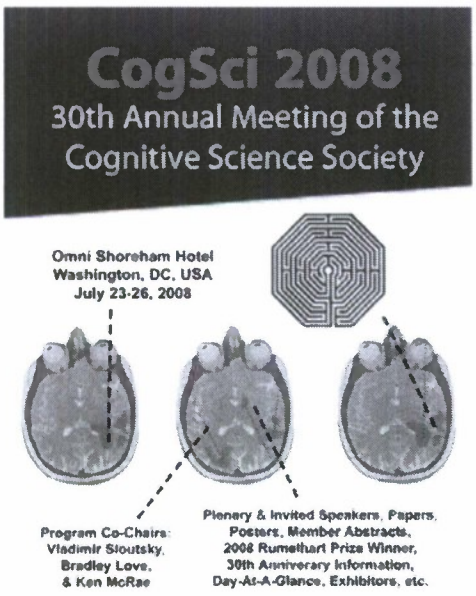
Introduction



CogSci 2008 is the 30th Annual Conference of the Cognitive Science Society. The 2008 Annual Conference has attracted more than 500 submissions from across the world, with the program featuring multiple symposia, talks, and posters representing many research themes and approaches within Cognitive Science. Each year, the Annual Conference of the Cognitive Science Society features a particular area of study. The theme of CogSci 2008 is ***The Development and Decline of Cognitive Function***. This theme highlights the rise of cognitive function in the course of normal development and its decline and involution as a result of brain damage or normal aging. We believe that understanding the development and decline of cognitive function is critical for understanding mature well-functioning cognition. This year's theme is reflected in the selection of the two plenary speakers, Linda Smith and David Plaut, whose research exemplifies the theme of the conference. The program will feature several additional important events. First, there will be a symposium honoring the 2008 Rumelhart Prize winner, Shimon Ullman, as well as Shimon's talk. There will also be an announcement of the 2009 Rumelhart Prize winner. In addition, in 2008 the Cognitive Science Society is marking its 30th Anniversary – that's right our society is about to enter middle age! The 30th Anniversary will be marked by an invited symposium organized by Larry Barsalou. It will consist of two parts, focusing on the trajectories of disciplines and perspectives within Cognitive Science over the past 30 years. The 30th Anniversary Symposium will bring together many of those who were there at the beginning of the Society and who are today leaders in the field of cognitive science.

The 30th Annual Conference will be held on July 23-26, 2008 in The Omni Shoreham Hotel in Washington, DC. Washington is the capital of the United States and the home of an extraordinary number of historical monuments, the Smithsonian Institute, and numerous museums for the arts and the natural sciences. The conference will be co-located with the Annual Meeting of the Society for Mathematical Psychology (http://www.cogs.indiana.edu/socmathpsych).

In total, 515 paper submissions were received, of which 383 were accepted as 6-page papers in the Proceedings. These include 166 (32.29%) papers scheduled for oral presentation, and 217 (42.21%) for poster presentation. There were also 6 symposia and 13 publication based talks accepted as oral presentations. In addition, 165 member abstracts were accepted for poster presentation. Finally, there will be 10 tutorials and 2 workshops offered on July 23, the day before the main conference.

Organizing the conference is a large undertaking, involving a tremendous amount of work for an extended period of time. It could not have been done without the help of many people. Primary thanks go to Kevin Gluck, the Cognitive Science Society Conference Officer. Kevin took on the responsibility of organizing the CogSci conference every year in order to have more continuity across

conferences and to improve long-range planning. Kevin does a large part of that organization and planning. Many thanks go to Mike Mozer, CogSci 2008 Event Chair – his insight and sage advice have been greatly appreciated. Simon Dennis has been instrumental in bringing advances in cognitive science to scheduling the conference. For the first time in the history of the Society the scientific program was created by an LSA-based algorithm rather than by human beings – go Deep Blue! Jennifer Wiley did a fabulous job communicating to federal funding agencies that the 30th Annual Conference of the Cognitive Science Society is a worthy endeavor, whereas Niels Taatgen selected recipients of the multiple awards given by the Society. Thanks are also due to the 9 members of the Organizing Committee, for managing various aspects of the conference; the 79 members of the Program Committee, for their critical work in the review process; and the 591 reviewers, for providing thorough and helpful reviews. See the listings of these committees on subsequent pages. In addition, we would like to thank James Stewart, for quickly diagnosing and fixing problems arising from the submission/reviewing software, Chris McNorgan for managing the conference website, and Deborah Gruber, the Society's Business Manager, for contributing to all aspects of the conference planning and preparation. Thanks are also due to all of the generous sponsors for their support of the conference, awards, workshops and tutorials, and for supporting student participation through reduced registration fees and travel support. We specifically acknowledge the Robert J. Glushko and Pamela Samuelson Foundation, the National Science Foundation, Air Force Research Laboratory, the Institute of Education Sciences of the US Department of Education, Air Force Office of Scientific Research, Cognitive Sciences Branch at the Army Research Laboratory - Human Research and Engineering Directorate, Office of Naval Research, Elsevier, the Cognitive Science Society, as well as to the University of Illinois at Chicago and Arizona State University Polytechnic for serving as the institutional sponsors for the federal grants supporting this conference. And above all, we would like to thank all the authors, the presenters, and the attendees of CogSci08 – without you there would have been no conference. Have a great 2008 conference and have fun in the Capital City!

CogSci 2008 Organizing Committee

CogSci 2008 Program Co-Chairs:
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Kevin Gluck

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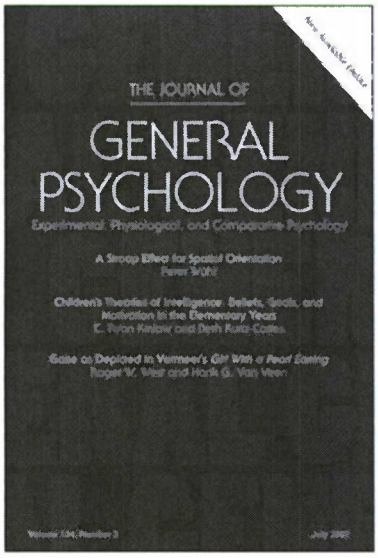
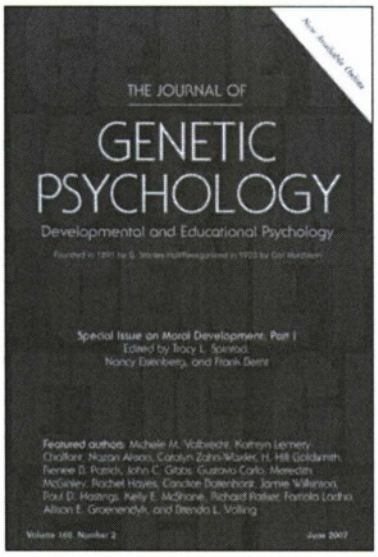
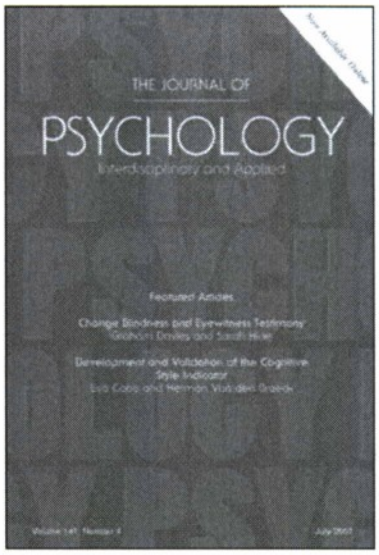
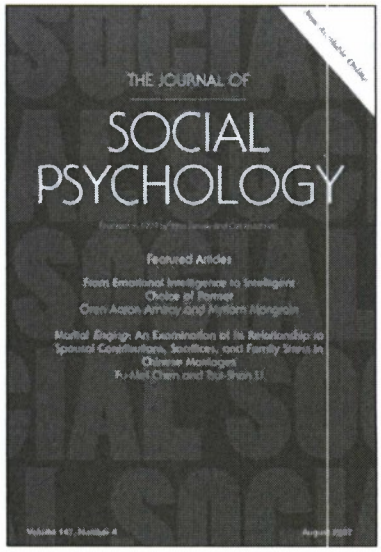
Special Subscription Rate for
The Annual Meeting of
The Cognitive Science Society









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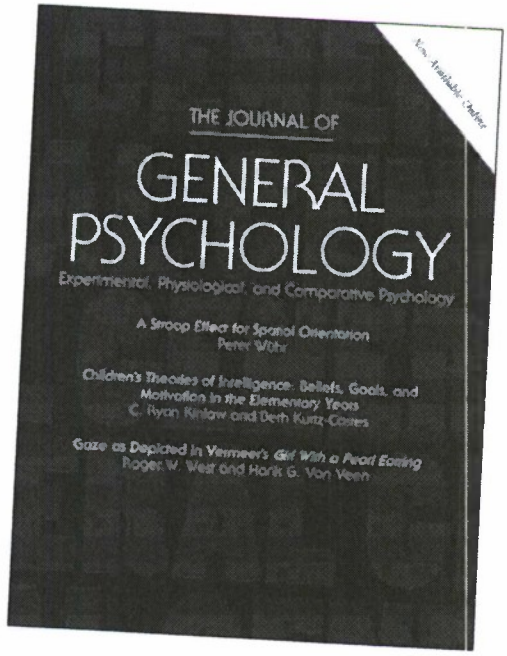

The Journal of General Psychology is devoted to experimental, physiological, and comparative psychology. Preference is given to manuscripts that establish functional relations, involve a series of integrated studies, or contribute to the development of new theoretical insights. Human and animal studies and mathematical and other theoretical investigations are appropriate. Technological reports of significance to these areas are welcome.

The Journal of General Psychology practices blind review. Therefore, the manuscript should be submitted with the author names and affiliations removed. Please include this information in the cover letter.

Submit all manuscripts and figures electronically to http://mc.manuscriptcentral.com/heldref/gen. The manuscript should be submitted as a double-spaced Word file with minimal formatting and in Times or Times New Roman. Please do not use word-processing styles, forced section breaks, or automatic footnotes.

Manuscripts must adhere to the conventions of style and format described in the Publication Manual of the American Psychological Association (5th ed., 2001). The checklist on pp. 379–382 of the manual is especially helpful in preparing manuscripts for submission.

**** Please be sure to visit the Heldref table at the exihibit Hall.***

2008 Paper Awards

Marr Prize

The Marr Prize, named in honor of the late David Marr, is awarded to the best student paper at the conference. All student first authors were eligible for the Marr Prize for the best student paper. The Marr Prize includes an honorarium of $1,000 and is co-sponsored by The Cognitive Science Society and Elsevier.

The winner of the 2008 Marr Prize for Best Student Paper is:

Michael Frank, Evelina Fedorenko, Edward Gibson *(see page 19 of the program)*

Language as a Cognitive Technology:
English-speakers match like Pirahã when you don't let them count.

Computational Modeling Prizes

Four prizes worth $1,000 each are awarded for the best full paper submissions to CogSci 2008 that involve computation cognitive modeling. The four prizes represent the best modeling work in the areas of perception/action, language, higher-level cognition, and applied cognition.

The winners of the 2008 Computational Modeling Prizes are:

Applied Cognition *(see page 14 of program)*

Gideon Borensztajn, Jelle Zuidema, and Rens Bod

Children's grammars grow more abstract with age – Evidence from an automatic procedure for identifying the productive units of language.

Perception/Action *(see page 19 of program)*

Joseph Toscano and Bob McMurray

Using the distributional statistics of speech sounds for weighting and integrating acoustic cues.

Language *(see page 23 of program)*

Afsaneh Fazly, Afra Alishahi, & Suzanne Stevenson

A Probabilistic Incremental Model of Word Learning in the Presence of Referential Uncertainty.

Higher-level cognition *(see page 17 of program)*

Pernille Hemmer and Mark Steyvers

A Bayesian Account of Reconstructive Memory.

Cognition and Student Learning (CaSL) Prize

The Cognition and Student Learning (CaSL) Prize is an honorarium of $1,000 that is awarded to the best paper on research conducted on a topic directly related to cognitive science, educational practice, and subject matter learning. This prize is sponsored by the Institute of Education Sciences.

The winner of the 2008 Cognition and Student Learning Prize is:

Ron Salden, Vincent Aleven, Alexander Renkl, and Rolf Schwonke *(see page 21 of program)*

Worked Examples and Tutored Problem Solving: Redundant or Synergistic Forms of Support?

Student Travel Awards

Travel awards have been provided to students whose papers were accepted as oral presentations and who indicated a need for travel funding. The $10,000 in student travel awards is generously sponsored by the Robert J. Glushko and Pamela Samuelson Foundation.

The 2008 Travel Awards went to:

Laura Staum Casasanto
Bella Veksler
Brooke Breaux
Phil Maguire
Michael Frank
Meredith Meyer
Eva Wiese
Noburo Saji

Joseph Austerweil
Heeseung Lee
Marc Ettlinger
Mitchell Herschback
Chris Sims
Ralf Mayrhofer
Joseph Toscano
Erica Yu

Daniel Heussen
Aaron Buss
Yarden Katz
Jeff Loucks
Dan Yurovsky
Sunny Khemlani
Nina Simms

Awards Committee

Paul Thagard, Boicho Kokinov, Wayne Gray, Rob Goldstone, Mitch Nathan, Jennifer Wiley, Dario Salvucci, Mike Shafto, Aude Oliva, Mike Byrne, David Noelle, Günter Knoblich, Petra Hendriks, Rick Lewis, Michael Thomas, Stellan Ohlsson, Ute Schmid, Alex Petrov, Hedderik van Rijn, Niels Taatgen.

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We sincerely thank the sponsors of the 30th Annual Cognitive Science Society Conference for their support of the conference, awards, workshops, tutorials, and for supporting student participation through reduced registration fees and travel support.

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Program Notes

	On-Site Registration Hours *(Director's Room)*	Packet Pick Up Hours *(Sales Conference Room)*
Tuesday	5:00pm-7:00pm	5:00pm-7:00pm
Wednesday	7:00am-2:00pm, 5:00-7:00pm	7:00am-2:00pm, 5:00-7:00pm *(West Registration Desk)*
Thursday	7:00am-2:00pm, 3:00-4:30pm	7:00am-3:30pm
Friday	8:00am-9:30am, 11:00am - 2:30pm	8:00am-3:30pm
Saturday	8:00am-9:30am	8:00am-3:30pm

Executive Committee Meeting
Wednesday 9:30 – 2:00pm
Chairman's Boardroom

Governing Board Meetings
Wednesday 2:30 – 5:00pm
Thursday 12:15 – 1:45pm
Friday 12:15 – 1:45pm
Chairman's Boardroom

Fellows Committee Meeting
Thursday 7:00pm
Blue Room

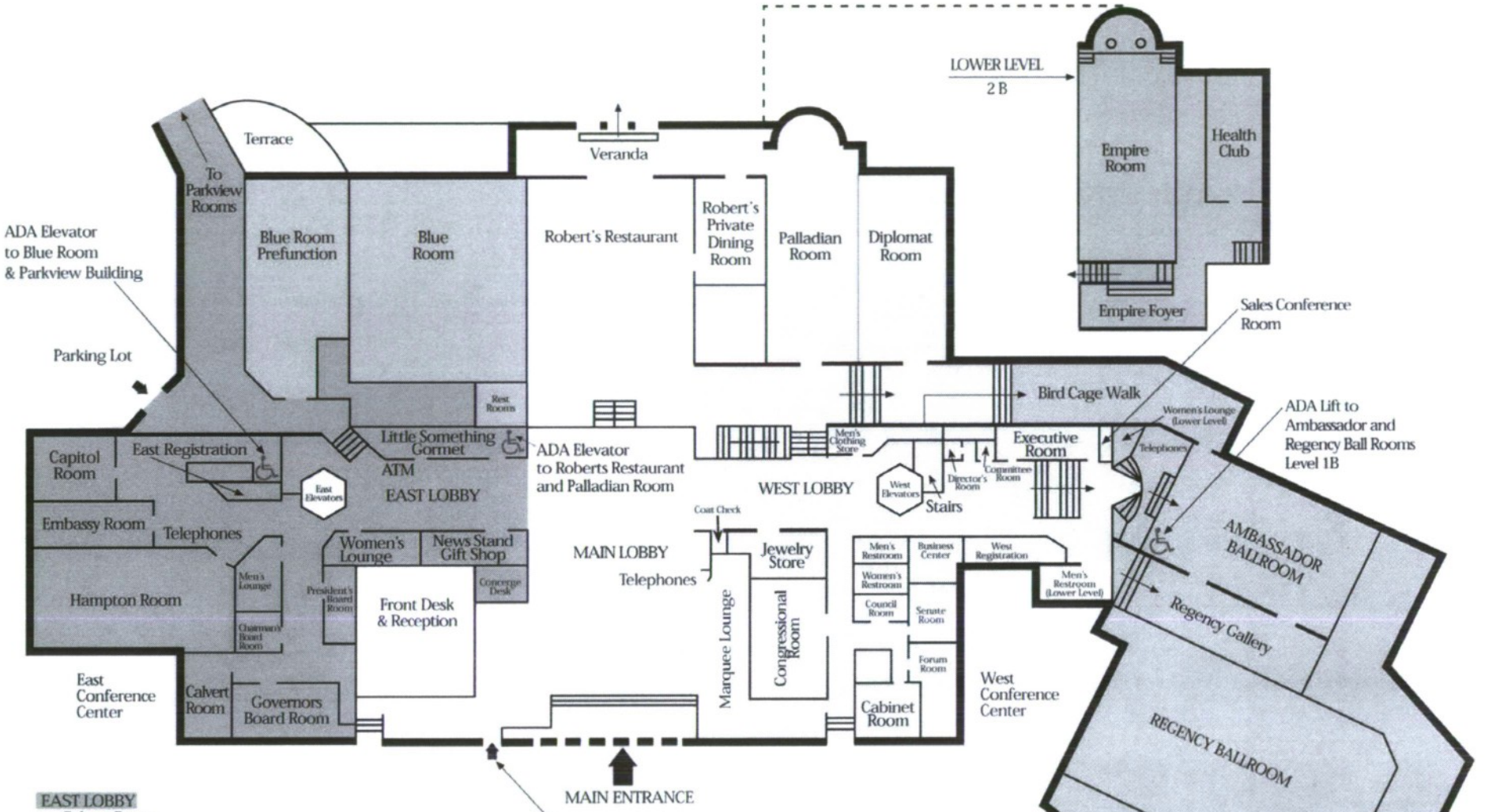
Cognitive Science Society Business Meeting
(All members are invited) Saturday 8:00 – 9:15am
Regency Ballroom

How to Cite Your Paper

APA formatted citation for a 6-Page Paper:
Smith, J., & Jones, M. (2008). This is the title of the paper. In B. C. Love, K. McRae, & V. M. Sloutsky (Eds.), *Proceedings of the 30th Annual Conference of the Cognitive Science Society* (pp. 64-70). Austin, TX: Cognitive Science Society.

APA formatted citation for a Published Abstract (note that this is not a refereed publication):
Smith, J., & Jones, M. (2008). This is the title of the abstract [Abstract]. In B. C. Love, K. McRae, & V. M. Sloutsky (Eds.), *Proceedings of the 30th Annual Conference of the Cognitive Science Society* (p. 201). Austin, TX: Cognitive Science Society.

APA formatted citation for a talk (or poster) presentation:
Smith, J., & Jones, M. (2008, July). This is the title of the talk or poster. Paper (or Poster) presented at the 29th Annual Conference of the Cognitive Science Society. Washington, DC.



EAST LOBBY
- Calvert Room
- Capitol Room
- Chairman's Boardroom
- Embassy Room
- Governor's Boardroom
- Hampton Room
- President's Boardroom
- East Registration

WEST LOBBY
- Cabinet Room
- Congressional A&B Room
- Council Room
- Executive Room
- Forum Room
- Sales Conference Room
- Senate Room
- West Registration

BALLROOMS (East Lobby)
- Blue Room
- Blue Pre-Function
- Hampton

BALLROOMS (West Lobby)
- Ambassador Ballroom
- Diplomat Room
- Empire Room
- Palladian Room
- Regency Room

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For Access to the Empire Ballroom and Health Club/Outdoor Pool
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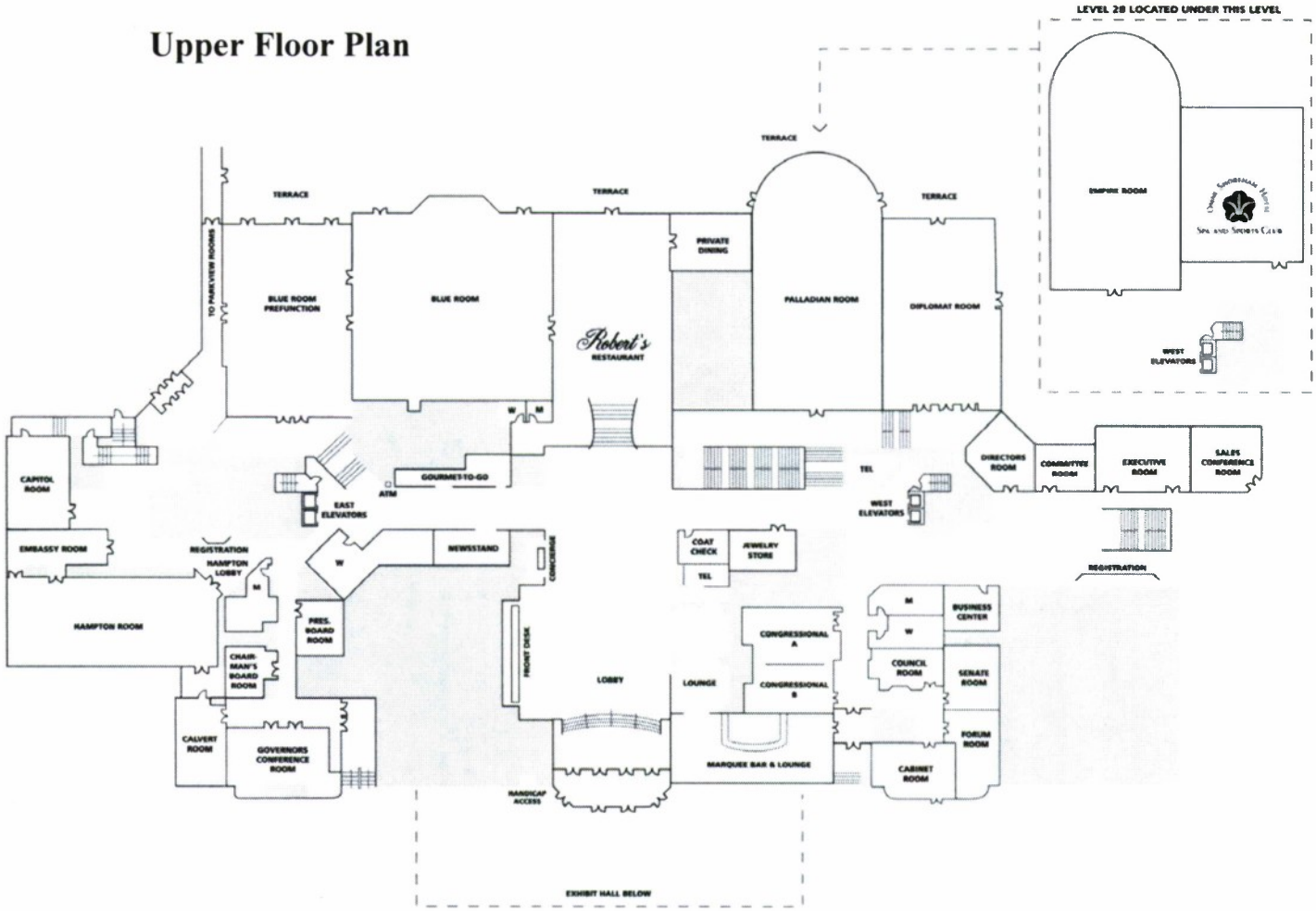
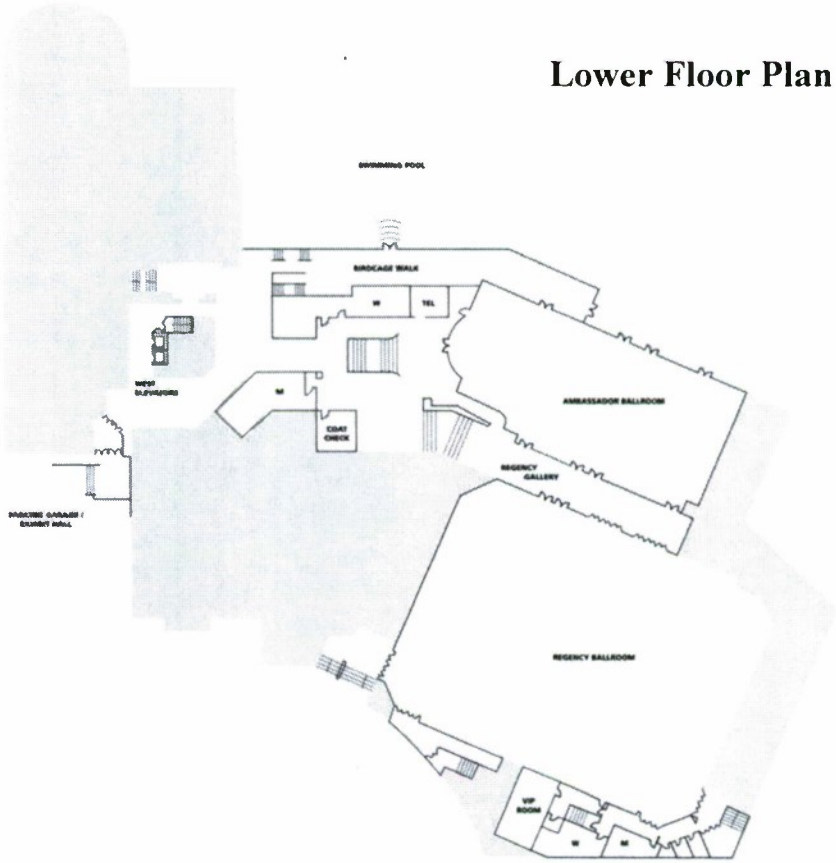
Upper Floor Plan



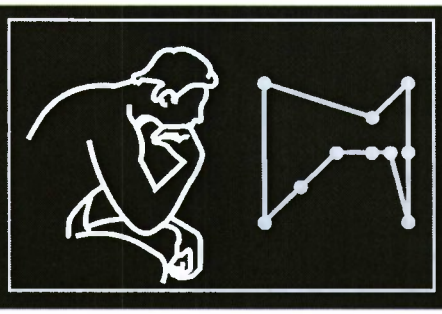
Lower Floor Plan



Conference At A Glance

<table>
<tr><th></th><th>Wednesday</th><th>Thursday</th><th>Friday</th><th>Saturday</th></tr>
<tr><td>8:00 – 8:15</td><td rowspan="12">Workshops & Tutorials
8:30am to 5pm

Coffee Breaks
10 – 10:30 am
3 – 3:30 pm
Lunch
Noon to 1:30</td><td>Opening Remarks</td><td></td><td rowspan="2">Business Meeting</td></tr>
<tr><td>8:15 – 9:15</td><td>Plenary Talk</td><td>Plenary Talk</td></tr>
<tr><td>9:15 – 9:30</td><td>Break</td><td>Break</td><td>Break</td></tr>
<tr><td>9:30 – 11:00</td><td>6-track session:
4 talks each</td><td>Rumelhart Symposium
&
2-track session:
4 talks each</td><td>6-track session:
4 talks each</td></tr>
<tr><td>11:00 – 11:15</td><td>Break</td><td>Break</td><td>Break</td></tr>
<tr><td>11:15 – 12:15</td><td>7-track session:
3 talks each</td><td>7-track session:
3 talks each</td><td>7-track session:
3 talks each</td></tr>
<tr><td>12:15 – 1:45</td><td>Lunch</td><td>Lunch</td><td>Lunch</td></tr>
<tr><td>1:45 – 3:15</td><td>6-track session:
4 talks each</td><td>6-track session:
4 talks each</td><td>6-track session:
4 talks each</td></tr>
<tr><td>3:15 – 3:30</td><td>Break</td><td>Break</td><td>Break</td></tr>
<tr><td>3:30 – 4:30</td><td>Rumelhart Leeture</td><td rowspan="2">30th Anniversary Symposium
&
2-track session:
4 talks each</td><td rowspan="2">30th Anniversary Symposium
&
2-track session:
4 talks each</td></tr>
<tr><td>4:30 – 5:00</td><td rowspan="2">Rumelhart Reception</td></tr>
<tr><td>5:00 – 5:30</td><td rowspan="2">Posters</td><td rowspan="2">Posters</td></tr>
<tr><td>5:30 – 7:00</td><td>Posters</td></tr>
</table>



Journal of Problem Solving

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JPS is a multidisciplinary journal that publishes empirical and theoretical papers on mental mechanisms involved in problem solving. The journal welcomes original and rigorous research in all areas of human problem solving, with special interest in solving difficult problems (e.g., problems in which human beings outperform artificial systems). Examples of topics include (but are not limited to) optimization and combinatorial problems, mathematics and physics problems, theorem proving, games and puzzles, knowledge discovery problems, insight problems and problems arising in applied settings.

Besides behavioral performance measures, such as solution time, proportion and magnitude of errors, also neuroimaging and other neuroscience data relevant to the study of human problem solving are appropriate for the journal. Computational models should, if possible, be expressed in the form of algorithms and tested in simulations. Simulation programs are expected to be available to the readers either as a pseudo-code in the published paper or (preferably) by making the source code and the executable version available for downloading. Authors of theoretical/computational studies are encouraged to focus on modeling those human problem-solving abilities that have not yet been replicated in artificial systems. However, theoretical papers on other topics relevant to the field of problem solving are welcomed as well. JPS also invites papers that present new research methodologies or discuss methodological issues pertinent to the study of human problem solving, as well as reviews summarizing new trends in studying problem solving. JPS will also publish commentaries on papers appearing in its pages. The commentaries will be reviewed like regular papers.

JPS encourages submissions from psychology, computer science, mathematics, operations research and neuroscience.

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Nicholas R. Burns, Michael D. Lee, and Douglas Vickers (2006) *Are Individual Differences in Performance on Perceptual and Cognitive Optimization Problems Determined by General Intelligence?*

Matthew Dry, Michael D. Lee, Douglas Vickers, and Peter Hughes (2006) *Human Performance on Visually Presented Traveling Salesperson Problems with Varying Numbers of Nodes*

James N. MacGregor, Edward P. Chronicle, and Thomas C. Ormerod (2006) *A Comparison of Heuristic and Human Performance on Open Versions of the Traveling Salesperson Problem*

Iris van Rooij, Alissa Schactman, Helena Kadlec, and Ulrike Stege (2006) *Perceptual or Analytical Processing? Evidence from Children's and Adult's Performance on the Euclidean Traveling Salesperson Problem*

Edward Chronicle, James MacGregor, and Thomas Ormerod (2006) *Optimizing and "Pessimizing": Human Performance with Instructional Variants of the Traveling Salesperson Problem*

Zygmunt Pizlo, Emil Stefanov, John Saalweachter, Zheng Li, Yll Haxhimusa, and Walter G. Kropatsch (2006) *Traveling Salesman Problem: A Foveating Pyramid Model*

Volume 1 Issue 2 (2007) Contents

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CogSci 2008 Main Program Information

Workshops & Tutorials • Wednesday, July 23, 2008

8:30–5:00 Meeting Room

Workshop: Psychocomputational Models of Human Language Acquisition (Psychocompla-2008)	*William Gregory Sakas, David Brizan*	***Diplomat Room***
Tutorial: Polyscheme and Cognitive Substrate Tutorial	*Nicholas Cassimatis, Perrin Bignoli, Unmesh Kurup*	***Council Room***
Tutorial: The Use of Event-Related Potentials to Study the Development and Decline of Cognitive Function	*Debra L. Mills, Steven J. Luck*	***Executive Room***
Tutorial: Bayesian Models of Inductive Learning	*Thomas L. Griffiths, Charles Kemp, Joshua B. Tenenbaum*	***Congressional A & B***
Tutorial: The Clarion Cognitive Architecture: A Tutorial	*Sébastien Hélie, Nick Wilson, Ron Sun*	***Cabinet Room***
Tutorial: Quantum Information Processing Theory	*Jerome R. Busemeyer*	***Senate Room***
Tutorial: Dynamic Field Theory: Conceptual Foundations and Applications in the Cognitive and Developmental Sciences	*John P. Spencer, Gregor Schöner*	***Calvert Room***

8:30–12:00

Workshop: Preparing Research Grant Proposals for the Institute of Education Sciences: Bringing Cognitive Science to Education Research	*Elizabeth R. Albro*	***Capitol Room***
Tutorial: Act-R Tutorial	*Niels A. Taatgen, Hedderik van Rijn*	***Forum Room***

10:30–5:00

Tutorial: Computational Modeling of Spoken Language Processing: A hands-on tutorial	*Ted J. Strauss, Daniel Mirman, James Magnuson*	***Governor's Room***

1:30–5:00

Tutorial: Embodied Cognition and Robotics Approaches to Human Cognition and Learning	*Chen Yu, Brian Scassellati*	***Capitol Room***
Tutorial: Eye Tracking Research in Infants and Adults	*Daniel C. Richardson, Scott P. Johnson*	***Forum Room***

NOTES:

Thursday, July 24, 2008

8:00–8:15

	Pdf No. on CD
Opening Remarks	

8:15–9:15 • Plenary Talk — ***Regency Ballroom***

Words, Actions, Objects, and Abstractions: Overlapping loops of cause and consequence in developmental process	*Linda B. Smith*	25

9:15–9:30 • Coffee Break

9:30–11:00 • 6 Track Session

Symposium — ***Regency Ballroom***

Discovering the Conceptual Primitives:	*Jerome Feldman, Lisa Aziz-Zadeh, Daniel Casasanto, Rebecca Saxe, Leonard Talmy*	27

Language Learning (Chair: Rochelle Newman) — ***Ambassador Ballroom***

Learning Novel Neighbors: Distributed Mappings Help Children and Connectionist Models	*Rochelle S. Newman, Larissa Samuelson, Prahlad Gupta*	29
Fast-Mapping and Reorganization: Development of Verb Meanings As a System	*Noburo Saji, Henrik Saalbach, Mutsumi Imai, Yupin Zhang, Hua Shu, Hiroyuki Okada*	35
Phonological Constraints on Children's Use of the Plural	*Marc Ettlinger, Jennifer A. Zapf*	41
Applied Modeling Prize: Children's Grammars Grow More Abstract With Age: Evidence from an Automatic Procedure for Identifying the Productive Units of Language	*Gideon Borensztajn, Willem Zuidema, Rens Bod*	47

Semantic/Concepts (Chair: Eef Ameel) — ***Empire Room***

Semantic Convergence in the Bilingual Lexicon	*Eef Ameel, Gert Storms, Barbara Malt, Fons Van Assche*	53
A Computational Model of Conceptual Combination	*Phil Maguire, Rebecca Maguire, Arthur W. S. Cater*	59
Phonaesthemes: A Corpus-Based Analysis	*Katya Otis, Eyal Sagi*	65
Modeling Semantic Cognition As Logical Dimensionality Reduction	*Yarden Katz, Noah Goodman, Kristian Kersting, Charles Kemp, Joshua B. Tenenbaum*	71

Reasoning and Decision Making (Chair: Erica Yu) — ***Diplomat Room***

Retrospective Evaluations of Gambling Wins: Evidence for a 'Peak-End' Rule	*Erica C. Yu, David A. Lagnado, Nick Chater*	77
Predicting Reasoning From Visual Memory	*Evan Heit, Brett K. Hayes*	83
Somatic Markers and Frequency Effects: Does emotion really play a role on decision making in the Iowa Gambling Task?	*Danilo Fum, Antonio Napoli, Andrea Stocco*	89
What You Do is What You Set: Semantic Representations of Tasks and the Capture of Awareness	*Anirudh Tiwathia, Kenneth Livingston*	95

Emotional and Cognitive Dynamics in Learning (Chair: Tyler Davis) ***Palladian Room***

How Goals Shape Category Acquisition: the Role of Contrasting Categories	*Tyler Davis, Bradley C. Love*	101
Modeling Idea Generation Sequences Using Hidden Markov Models	*Hao-Chuan Wang*	107
Reinforcement Learning Leads to Risk Averse Behavior	*Jerker C. Denrell*	113
Emotion-Driven Reinforcement Learning	*Robert P. Marinier, John E. Laird*	115

Action and Embodied Cognition (Chair: Jeff Loucks) ***Blue Room***

Sources of Information in Human Action	*Jeff Loucks, Dare Baldwin*	121
The Interactive Routine As Key Construct in Theories of Interactive Behavior	*Wayne D. Gray*	127
Defending Extended Cognition	*Anthony Chemero, Michael Silberstein*	129
Adaptation to Embodied Dynamics: Evidence From Bayes' Ball	*Chris R. Sims, Wayne D. Gray*	135

11:00–11:15 • Coffee Break

11:15–12:15 • 7 Track Session

Reasoning and Explanation (Chair: Greg Solomon) ***Regency Ballroom***

Inhibitory Mechanisms and Impairment in Domain-Specific Reasoning: Studies of Healthy Elderly Adults and Patients with Alzheimer's Disease	*Deborah Zaitchik, Gregg Solomon*	141
Ways of Explaining Properties	*Daniel Heussen, James A. Hampton*	143
Using Qualitative Reasoning for the Attribution of Moral Responsibility:	*Emmett Tomai, Ken Forbus*	149

Structure in Language and Developmental Trajectories (Chair: Thomas T. Hills) ***Ambassador Ballroom***

Is There Preferential Attachment in the Growth of Early Semantic Noun Networks?	*Thomas T. Hills, Mounir Maouene, Josita Maouene, Adam Sheya, Linda B. Smith*	155
Categorical Structure in Early Semantic Networks of Nouns	*Thomas T. Hills, Mounir Maouene, Josita Maouene, Adam Sheya, Linda B. Smith*	161
Factors Influencing the Interpretation of Noun-Noun Compounds	*Phil Maguire, Rebecca Maguire, Arthur W. S. Cater*	167

Causal Learning and Computations (Chair: Kelly Goedert) ***Empire Room***

Comparison Then Computation: a Model of Independent Causal Efficacy	*Kelly M. Goedert*	173
Causal Learning Through Repeated Decision Making	*York Hagmayer, Bjoern Meder*	179
Sequential Causal Learning in Humans and Rats	*Hongjing Lu, Randall R. Rojas, Tom Beckers, Alan Yuille*	185

Space in Language, Perception, and Cognition (Chair: Nina Sims) ***Diplomat Room***

Spatial Language and Landmark Use: Can 3-, 4-, and 5-Year-Olds Find the *Middle?*	*Nina Simms, Dedre Gentner*	191
Conceptualization in Language and Its Relation to Perception	*Timothy C. Clausner, Philip J. Kellman, Evan M. Palmer*	197
Spatial Description, Function and Context:	*Elena Andonova, Thora Tenbrink, Kenny R. Coventry*	199

Contextualized Cognition (Chair: Caitlin Fausey) ***Palladian Room***

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Relating Intonational Pragmatics to the Pitch Realizations of Highly Frequent Words in English Speech to Infants	*Carolyn M. Quam, Jiahong Yuan, Daniel Swingley*	217

Emergent Understanding (Chair: Paul Williams) ***Blue Room***

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Learning, Understanding, and Acceptance: the Case of Evolution	*Andrew Shtulman, Prassede Calabi*	235

Semantic Cognition (Chair: Wendy Ann Deslauriers) ***Executive Room***

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The Real Deal: What Judgments of *Really* Reveal about How People Think about Artifacts	*Barbara C. Malt, Michael R. Paquet*	247
The Color of Similarity	*Brooke O. Breaux, Michele I. Feist*	253

12:15–1:45 • Lunch (on your own)

Symposium ***Regency Ballroom***

Theories of Expertise and Measures of Competence: Cognitive and Interactional Perspectives	*Timothy Koschmann, Carl H. Frederiksen, Brian MacWhinney, Colleen Seifert, EdwardH. Shortliffe*	259

Computational Models of Language Processing (Chair: Theo Vosse) ***Ambassador Ballroom***

Parsing Verb-Final Clauses in German:Garden-Path and Erp Effects Modeled by a Parallel Dynamic Parser	*Theo G. Vosse, Gerard A. M. Kempen*	261
Context Repetition Benefits Are Dependent on Context Redundancy	*Gabriel Recchia, Brendan T. Johns, Michael Jones*	267
Settling Dynamics in Distributed Networks Explain Task Differences in Semantic Ambiguity Effects: Computational and Behavioral Evidence:	*Blair C. Armstrong, David C. Plaut*	273
Predicting Word-Naming and Lexical Decision Times From a Semantic Space Model	*Brendan T. Johns, Michael N. Jones*	279

Causal Reasoning and Categorization (Chair: Bob Rehder) ***Empire Room***

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Absence Makes the Thought Grow Stronger: Reducing Structural Overlap Can Increase Inductive Strength	*Hee Seung Lee, Keith Holyoak*	297
Structured Correlation From the Causal Background	*Ralf Mayrhofer, Noah D. Goodman, Michael R. Waldmann, Joshua B. Tenenbaum*	303

Internal and External Forces on Memory and Action (Chair: Daniel Richardson) ***Diplomat Room***

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Thinking in Pictures: a Fresh Look At Cognition in Autism	*Maithilee Kunda, Ashok K. Goel*	321
Higher-Level Cognition Modeling Prize: A Bayesian Account of Reconstructive Memory	*Pernille Hemmer, Mark Steyvers*	327

Cues for Learning and Action (Chair: Meredith Meyer) ***Palladian Room***

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Attentional Allocation During Feedback: Eyetracking Adventures on the Other Side of the Response	*Marcus R. Watson, Mark R. Blair*	345
Preventing Postcompletion Errors: How Much Cue is Enough?	*Michael D. Byrne*	351

Spatial Cognition (Chair: David Landy) ***Blue Room***

Why Spatial-Numeric Associations Aren't Evidence for a Mental Number Line	*David H. Landy, Erin L. Jones, John E. Hummel*	357
Effects of Orthographic and Semantic Distractors on Visual Search for Single Words	*Laure Léger, Jean-François Rouet, Christine Ros, Nicolas Vibert*	363
Crossed Hands Curve Saccades: Multisensory Dynamics in Saccade Trajectories	*Lauren L. Emberson, Rebecca J. Weiss, Adriano Barbosa, Eric Vatikiotis-Bateson, Michael J. Spivey*	369
The Dynamic Field Theory vs. the Category Adjustment Model: A Critical Test	*John P. Spencer, Wendy Troob, Vanessa R. Simmering*	375

3:15–3:30 • Coffee Break

3:30–4:30

Rumelhart Lecture ***Regency Ballroom***

Recognition, Categorization, and the Emergence of Meaning	*Shimon Ullman* ***2008 Rumelhart Prize Winner***	377

4:30–5:30 • Rumelhart Reception	***Diplomat Terrace/Empire Patio***	

5:30–7:00 • Poster Session 1	***Exhibit Hall***	See page 31 of program

NOTES:

Friday, July 25, 2008

8:15–9:15 • Plenary Talk — ***Regency Ballroom***

		Pdf No. on CD
Face and Word Processing: Two Sides of the Same Brain	*David C. Plaut*	379

9:15–9:30 • Coffee Break

9:30–11:00 • Rumelhart Symposium & 2 Track Session

Rumelhart Symposium (Chair: Michael Tarr) — ***Regency Ballroom***

Rumelhart Symposium: Integrating Human and Machine Vision: in Honor of Shimon Ullman	*Michael J. Tarr, Marlene Behrmann, Christof Koch, Nikos Logothetis, Rafi Malach*	381

The Nature of Learning and Representation (Chair: Bob Berwick) — ***Ambassador Ballroom***

'Poverty of the Stimulus' Revisited: Recent Challenges Reconsidered	*Robert C. Berwick, Noam Chomsky*	383
Modeling the Fan Effect Using Dynamically Structured Holographic Memory	*Matthew F. Rutledge-Taylor, Robert L. West*	385
Trade-Off Between Capacity and Generalization in a Model of Memory	*Guy Tannenbaum, Yehezkel Yeshurun, Shimon Edelman*	391
The Impact of Labels on Visual Categorisation: a Neural Network Model	*Valentina Gliozzi, Julien Mayor, Jon-Fan Hu, Kim Plunkett*	397

Concepts and Categories (Chair: Brian Murphy) — ***Empire Room***

Distinguishing Concept Categories From Single-Trial Electrophysiological Activity	*Brian Murphy, Michele Dalponte, Massimo Poesio, Lorenzo Bruzzone*	403
Categorizing Fragments of Exemplars: Experimental and Computational Results	*Harlan D. Harris*	409
Modeling Category Intuitiveness	*Emmanuel M. Pothos, Amotz Perlman, Darren J. Edwards, Todd M. Gureckis, Peter M. Hines, Nick Chater*	415
Illusory Correlation As the Outcome of Experience Sampling	*Jerker Denrell, Gaël Le Mens*	421

11:00–11:15 • Coffee Break

11:15–12:15 • 7 Track Session

Language and Cognition (Chair: Lera Boroditsky) — ***Regency Ballroom***

Do English and Mandarin Speakers Think Differently about Time?	*Lera Boroditsky*	427
Using the Distributional Statistics of Speech Sounds for Weighting and Integrating Acoustic Cues	*Joseph C. Toscano, Bob McMurray*	433
Language As a Cognitive Technology: English-Speakers Match Like Pirahã When You Don't Let Them Count	*Michael C. Frank, Evelina Fedorenko, Edward Gibson*	439

Visual Word Recognition at Multiple Grain Sizes (Chair: Jason Zevin) ***Ambassador Ballroom***

Division of Labor Between Semantics and Phonology in Normal and Disordered Reading Development Across Languages	*Jianfeng Yang, Bruce Mccandliss, Hua Shu, Jason D. Zevin*	445
Variable Vulnerability of Words to Visual Impairment: Exploring Grain-Size Effects in Reading	*Giovanni Pagliuca, Padraic Monaghan, Robert McIntosh*	451
Constraints for Computational Models of Reading: Evidence From Learning Lexical Stress	*Padraic Monaghan, Joanne Arciuli, Nada Seva*	457

Cognitive Development (Chair: Aaron Buss) ***Empire Room***

The Emergence of Rule Use: a Dynamic Neural Field Model of the Dccs	*Aaron T. Buss, John P. Spencer*	463
Automatic and Voluntary Shifts of Attention in the Dimensional Change Card Sorting Task	*Anna V. Fisher*	469
Analogy-Making in Children: the Importance of Processing Constraints	*Jean-Pierre Thibaut, Robert French, Milena Vezneva*	475

Evaluating Judgments and Meaning (Chair: Robert Lindsey) ***Diplomat Room***

BLOSSOM: Best Path Length on a Semantic Self-Organizing Map	*Robert V. Lindsey, Michael J. Stipicevic, Vladislav D. Veksler, Wayne D. Gray*	481
Experience With a Computer Word-Entry Method in Processing Chinese Characters by Fluent Typists	*Jenn-Yeu Chen, Chun-Yu Chuang*	487
More-Or-Less Elicitation (Mole): Testing a Heuristic Elicitation Method	*Matthew B. Welsh, Michael D. Lee, Steve H. Begg*	493

Overcoming Misconceptions During Learning (Chair: David Trumpower) ***Palladian Room***

Naïve Statistics: Intuitive Analysis of Variance	*David L. Trumpower, Olga Fellus*	499
An Empirical Study of Errors in Translating Natural Language into Logic	*Dave Barker-Plummer, Richard Cox, Robert Dale, John Etchemendy*	505
Learning Associations That Run Counter to Biases in Learning: Overcoming Overshadowing and Learned Inattention	*Andrew F. Heckler, Jennifer A. Kaminski, Vladimir M. Sloutsky*	511

Discussion ***Blue Room***

Human Dimension & Cognitive Performance	*Brigadier General Peter Palmer*	517

Higher-Order Cognition (Chair: Andres Guiral) ***Executive Room***

A Cognitive Model Testing Moral Seduction Theory: Unconscious Bias and the Role Played by Expertise *(Expertise and Moral Seduction)*	*Andrés Guiral, Waymond Rodgers, Emiliano Ruiz, José A. Gonzalo*	519
The "Hard" Problem and Neural Correlates of Consciousness	*Peter Slezak*	525
Processes and Constraints in Explanatory Scientific Discovery	*Pat Langley, Will Bridewell*	527

12:15–1:45 • Lunch (on your own)

Friday, July 25, 2008

1:45–3:15 • 6 Track Session

Symposium — ***Regency Ballroom***

Cognitive Science and Education Research: Engaging Issues of Social Context	*Gregg Solomon, Rochel Gelman, Doug Medin, Nancy Nersessian, Laura Schulz, Megan Bang, Christine Massey, Kimberly Brenneman, Wendy Newstetter*	529

Language and Concept (Chair: Thomas Shultz) — ***Ambassador Ballroom***

Acquisition of Concepts with Characteristics and Defining Features	*Thomas Shultz, Jean-Philippe Thivierge, Kristin Laurin*	531
Two Eras in Learning Theory: Implications for Cognitively Faithful Models of Language Acquisition and Change	*Partha Niyogi, Robert C. Berwick*	537
Treebank Parsing and Knowledge of Language: A Cognitive Perspective	*Sandiway Fong, Robert C. Berwick*	539
Advances in Modeling Human Category Learning with Diva	*Kenneth J. Kurtz*	545

Decision Making (Chair: Daniel Navarro) — ***Empire Room***

A Test of the Decision-Time Predictions of the 'Take the Best' Model	*Benjamin Schultz, Daniel J. Navarro*	547
A Bayesian Model of How People Search Online Consumer Reviews	*Stelios Lelis, Andrew Howes*	553
From Reduction Back to Higher Levels	*William Bechtel, Adele Abrahamsen*	559
Stopping Rules and Memory Search Termination Decisions	*J. Isaiah Harbison, Eddy J. Davelaar, Michael R. Dougherty*	565

Problem Solving (Chair: Julie Booth) — ***Diplomat Room***

Key Misconceptions in Algebraic Problem Solving	*Julie L. Booth, Kenneth R. Koedinger*	571
The Effects of Disease Category on Diagnostic Problem Solving in Mammography	*Roger Azevedo, Gwyneth Lewis, Roberta Klatzky, Emily Siler*	577
The Effects of Peer Information on Problem-Solving in a Networked Group	*Thomas N. Wisdom, Xianfeng Song, Robert L. Goldstone*	583
Cognition & Student Learning Prize: Worked Examples and Tutored Problem Solving: Redundant Or Synergistic Forms of Support?	*Ron J. C. M. Salden, Vincent A.W.M.M. Aleven, Alexander Renkl, Rolf Schwonke*	589

Language I (Chair: Nathaniel Smith) — ***Palladian Room***

Optimal Processing Times in Reading: A Formal Model and Empirical Investigation	*Nathaniel J. Smith, RogerLevy*	595
The Advantage of the Ungrammatical	*Laura Staum Casasanto, Ivan A. Sag*	601
Assessing the Structure of Verbal Protocols	*Stacey A. Todaro, Joseph P. Magliano, Keith K. Millis, Danielle S. McNamara, Christopher A. Kurby*	607
Are Three Words All We Need? Recognizing Genre At the Sub-Sentential Level	*Philip M. McCarthy, Stephen W. Briner, John C. Myers, Arthur C. Graesser, Danielle S. McNamara*	613

Processes of Attention and Control (Chair: Sunny Klemlani) ***Blue Room***

Syllogistic Reasoning With Generic Premises: the Generic Overgeneralization Effect	*Sangeet Khemlani, Sarah-Jane Leslie, Sam Glucksberg*	619
Opponent Process Control in Linked, Dynamical Agents	*Ronnie G. Ward, Robert G. Ward*	625
A Computational Model of the Visual Oddity Task	*Andrew Lovett, Kate Lockwood, Kenneth Forbus*	631
Counting Sheep is a Good Way to Get to Sleep, But the Occasional Aardvark Will Wake You Up: How a Salient Event Improves Performance	*Bella Z. Veksler, Wayne Z. Gray*	637

3:15–3:30 • Coffee Break

3:30–5:00 • 30th Anniversary Symposium (Part I) & 2 Track Session

30th Anniversary Symposium ***Regency Ballroom***

Cognitive Science: The Past 30 Years and the Next 30 Years	*John R. Anderson, James L. McClelland, Linda B. Smith, Edwin Hutchins, Lawrence W. Barsalou, Dedre Gentner, Kenneth D. Forbus, William Bechtel, Elissa L. Newport, Douglas L. Medin*	643

Semantic Interference (Chair: Leendert van Maanen) ***Ambassador Ballroom***

The Picture-Word Interference Effect is a Stroop Effect After All	*Leendert van Maanen, Hedderik van Rijn*	645
Priming and Lexical Interference in Infancy	*Suzy J. Styles, Natalia Arias-Trejo, Kim Plunkett*	651
On the Persistence of Structural Priming: Mechanisms of Decay and Influence of Word-Forms	*Gaurav Malhotra, Martin Pickering, Holly Branigan, James A. Bednar*	657
Effect of Global Context on Homophone Ambiguity Resolution	*Daniel Mirman, James S. Magnuson, Ted J. Strauss, James A. Dixon*	663

Children's Understanding of Conceptual Primitives (Chair: John Opfer) ***Empire Room***

Representational Change and Numerical Estimation: Effect of Progressive Alignment on the Breadth of Transfer	*Clarissa A. Thompson, John E. Opfer*	669
Timing of Adults Utterances and Interpretation of Word Meanings in a Discrepant Labeling Situation	*Tetsuya Yasuda, Harumi Kobayashi*	675
The Structural Alignment and Comparison of Events in Verb Acquisition	*Jane B. Childers*	681
Will It Float? How Invariance Affects Children's Understanding of Object Density	*Heidi Kloos*	687

5:00–7:00 • Poster Session II	***Exhibit Hall***	See page 37 of program

Saturday, July 26, 2008

8:00–9:15

	Pdf No. on CD
Cognitive Science Society Business Meeting	

9:15–9:30 • Coffee Break

9:30–11:00 • 6 Track Session

Symposium — ***Regency Ballroom***

Understanding Why: the Cognitive Science of Explanation	*Tania Lombrozo, Steven Sloman, Michael Strevens, J. D. Trout, Deena Weisberg*	693

Symposium — ***Ambassador Ballroom***

Enhancing Learning Using Adaptive Computerized Tutoring in K-12 Settings	*Carol O'Donnell, Robin Harwood, Barry Gholson, Art Graesser, Scotty D. Craig, Wayne Ward, Ronald Cole, Gautam Biswas, Daniel Schwartz, Kefyn M. Catley, Stephanie Siler*	695

Computational Approaches to Language Learning (Chair: Julian Mayor) — ***Empire Room***

Learning to Associate Object Categories and Label Categories: A Self-Organising Model	*Julien Mayor, Kim Plunkett*	697
Language Modeling Prize: A Probabilistic Incremental Model of Word Learning in the Presence of Referential Uncertainty	*Afsaneh Fazly, Afra Alishahi, Suzanne Stevenson*	703
A Connectionist Simulation of Structural Rule Learning in Language Acquisition	*Aarre Laakso, Paco Calvo*	709
Mutual Exclusivity in Cross-Situational Statistical Learning	*Daniel Yurovsky, Chen Yu*	715

Language II (Chair: Meredith Brown) — ***Diplomat Room***

Syntax and Discourse Constraints Interact At the Level of Structural Representation: Evidence From On-Line Sentence Comprehension	*Meredith Brown, Virginia Savova, Edward Gibson*	721
Language Abstraction: Consolidation of Language Structure During Sleep	*Michelle C. St. Clair, Padraic Monaghan*	727
Generalization and Systematicity in Echo State Networks	*Stefan L. Frank, Michal Čerňanský*	733
Mechanisms of Verb Inflection — Regular Vs. Irregular Or Easy Vs. Hard?	*Gert Westermann, Vanja Kovic, Nicolas Ruh*	739

Models of Conceptual Structure (Chair: Lei Shi) — ***Palladian Room***

Performing Bayesian Inference With Exemplar Models	*Lei Shi, Naomi H. Feldman, Thomas Griffiths*	745
Learning a Hierarchical Organization of Categories	*Steven Verheyen, Eef Ameel, Timothy T. Rogers, Gert Storms*	751
Modeling Typicality: Extending the Prototype View	*Wouter Voorspoels, Wolf Vanpaemel, Gert Storms*	757
Principles of Generalization for Learning Sequential Structure in Language	*Michael C. Frank, Denise Ichinco, Joshua B. Tenenbaum*	763

Problem Solving (Chair: Ming Ming Chiu) ***Blue Room***

Statistical Discourse Analysis of Group Problem Solving: Evaluations, Wrong Ideas, Rudeness, Justifications, and Micro-creativity	*Ming Ming Chiu*	769
Upsides and Downsides of Gesturing in Problem Solving:	*Patrick J. Cushen, Jennifer Wiley*	775
Compound Analogical Design, or How to Make a Surfboard Disappear	*Michael E. Helms, Swaroop E. Vattam, Ashok K. Goel*	781
Social Science: Complex Cognition in Early Aids Research	*Katherine D. Lippa, Valerie L. Shalin*	787

11:00–11:15 • Coffee Break

11:15–12:15 • 7 Track Session

Language Comprehension & Processing (Chair: Alexia Toskos Dils) ***Regency Ballroom***

Motion Language Shapes People?S Interpretation of Unrelated Ambiguous Figures	*Alexia Toskos Dils, Lera Boroditsky*	793
Does Social Information Influence Sentence Processing?	*Laura Staum Casasanto*	799
The Role of Cognitive Functions in Communication: the Case of Traumatic Brain Injury	*Romina Angeleri, Francesca M. Bosco, Katiuscia Sacco, Marina Zettin, Livia Colle, Bruno G. Bara*	805

Practice, Practice, Practice (Chair: Aryn Pyke) ***Ambassador Ballroom***

Why Do the Math? the Impact of Calculator Use on Participants' Actual and Perceived Retention of Arithmetic Facts	*Aryn Pyke, Jo-Anne LeFevre, Ruby Isaacs*	811
To Understand Your Understanding, You Must Understand What Understanding Means	*Jennifer Wiley, Thomas D. Griffin, Keith W. Thiede*	817
The Role of Deliberate Practice in Expertise: Necessary But Not Sufficient	*Fernand Gobet*	823

Reasoning (Chair: Thomas Shultz) ***Empire Room***

A Computational Developmental Model of the Implicit False Belief Task	*Vincent G. Berthiaume, Kristine H. Onishi, Thomas R. Shultz*	825
The Strategy Behind Belief Revision: a Matter of Judging Probability Or the Use of Mental Models?	*Ann G. Wolf, Markus Knauff*	831
Training a Bayesian: Three-And-A-Half-Year-Olds' Reasoning about Ambiguous Evidence	*Elizabeth Baraff Bonawitz, Adina Fischer, Laura Schulz*	837

Mental & Spatial Representations (Chair: Thomas Hills) ***Diplomat Room***

Evidence for Generalized Cognitive Search Processes At Multiple Levels in a Hierarchical Problem Solving Task	*Thomas T. Hills, Robert L. Goldstone, Peter M. Todd*	843
The Role of Internal Information in the Spatial Learning Task Through Path Integration:	*Kayoko Ohtsu*	845
Situated and Prospective Path Planning: Route Choice in an Urban Environment	*Jan M. Wiener, Thora Tenbrink, Jakob Henschel, Christoph Hölscher*	851

Higher-Order Cognition (Chair: Janet Hui-Wen Hsiao) ***Palladian Room***

Hemispheric Asymmetry in Visual Perception Arises From Differential Encoding Beyond the Sensory Level	*Janet Hui-Wen Hsiao, Reza Shahbazi, Garrison Cottrell*	857
Can Relationality Be Distinguished From Abstractness in Noun Mutability?	*Dedre Gentner, Jennifer Asmuth*	863
Tracks in the Mind: Differential Entrenchment of Common and Rare Liturgical and Everyday Multiword Phrases in Religious and Secular Hebrew Speakers	*Jonathan Berant, Catherine Caldwell-Harris, Shimon Edelman*	869

The Nature of Human Capacity Limitations (Chair: Brad Love) ***Blue Room***

Predicting Information Needs: Adaptive Display in Dynamic Environments	*Bradley C. Love, Matt Jones, Marc T. Tomlinson, Michael Howe*	875
Decoupling of Intuitions and Performance in the Use of Complex Visual Displays	*Mary Hegarty, Harvey S. Smallman, Andrew T. Stull*	881
Efficient Coding in Visual Short-Term Memory: Evidence for an Information-Limited Capacity	*Timothy F. Brady, Talia Konkle, George A. Alvarez*	887

Culture, Cognition, and Mathematics (Chair: Lindsey Richland) ***Executive Room***

Gesturing to Promote Higher-Order Thinking: Cross-Cultural Differences	*Lindsey E. Richland*	893
Cultural Mixture Modeling: Identifying Cultural Consensus (And Disagreement) Using Finite Mixture Modeling	*Shane T. Mueller, Elizabeth S. Veinott*	899
Extending the Limits of Counting in Oceania: Adapting Tools for Numerical Cognition to Cultural Needs	*Andrea Bender, Sieghard Beller*	905

12:15–1:45 • Lunch (on your own)

NOTES:

Symposium — ***Regency Ballroom***

Rules and Exemplars in Language Acquisition	*Rens Bod, Gideon Borensztajn, Daniel Freudenthal, Julian Pine, Fernand Gobet, Carla L. Hudson Kam, Alexander Clark, Willam G. Sakas*	911

Symposium — ***Ambassador Ballroom***

Integrating Cognitive Architectures With External Environments: Approaches and Contributions to Validation	*Glenn Gunzelmann, Art Pope, Robert Wray, Bradley Best, J. Trafton*	913

Analogy and Reasoning (Chair: Iris van Rooij) — ***Executive Room***

Identifying Sources of Intractability in Cognitive Models: An Illustration Using Analogical Structure Mapping	*Iris van Rooij, Patricia Evans, Moritz Müller, Jason Gedge, Todd Wareham*	915
Similarity Between Propositional Elements Does Not Always Determine Judgments of Analogical Relatedness	*Ricardo A. Minervino, Nicolás Oberholzer, Máximo Trench*	921
Mapping and Inference in Analogical Problem Solving — As Much As Needed Or As Much As Possible?	*Eva Wiese, Uwe Konerding, Ute Schmid*	927
Human Logic in Spatial Reasoning	*Marco Ragni*	933

Using Multiple Information Sources in Language Planning and Understanding (Chair: Austin F. Frank) — ***Diplomat Room***

Speaking Rationally: Uniform Information Density as an Optimal Strategy for Language Production	*Austin F. Frank, T. F. Jaeger*	939
What Tunes Accessibility of Referring Expressions in Task-Related Dialogue?	*Ellen Gurman Bard, Robin L. Hill, Mary Ellen Foster*	945
Anticipatory Eye Movements Mediated by Word Order Constraints	*Paul E. Engelhardt, Ming Xiang, Fernanda Ferreira*	951
Speakers Communicate Their Perceptual-Motor Experience to Listeners Nonverbally:	*Susan Wagner Cook, Michael K. Tanenhaus*	957

The Use (and Lack Thereof) of Visual and Verbal Information (Chair: Gary Lupyan) — ***Palladian Room***

Now You See It, Now You Don't: Verbal But Not Visual Cues Facilitate Visual Object Detection	*Gary Lupyan, Michael J. Spivey*	963
Musical Change Deafness: The Inability to Detect Change in a Non-speech Auditory Domain	*Kat R. Agres, Carol L. Krumhansl*	969
Picture Perception and the Two Visual Subsystems	*Bence Nanay*	975
Action Anticipation and Interference: A Test of Prospective Gaze	*Erin Cannon, Amanda L. Woodward*	981

Action & Explanations (Chair: Lisa M. Oakes) — *Blue Room*

How Outcomes of Actions Influence Infants' Representation of Those Actions	*Lisa M. Oakes, Sammy Perone, Kelly L. Madole*	987
Thinking by Doing and Doing by Thinking: A Taxonomy of Actions	*Hansjörg Neth, Thomas Müller*	993
The Pragmatics of Explanation	*Seth Chin-Parker, Alexandra Bradner*	999
Who Framed Roger Rabbit: the Effect of Legal Role and Frame on the Outcome of Civil Disputes	*Victoria Gilliland, John C. Dunn, Daniel J. Navarro*	1005

3:15–3:30 • Coffee Break

3:30–5:00 • 30th Anniversary Symposium (Part II) & 2 Track Session

30th Anniversary Symposium — *Regency Ballroom*

Cognitive Science: The Past 30 Years and the Next 30 Years	*John R. Anderson, James L. McClelland, Linda B. Smith, Edwin Hutchins, Lawrence W. Barsalou, Dedre Gentner, Kenneth D. Forbus, William Bechtel, Elissa L. Newport, Douglas L. Medin*	643

Approaches to Language Learning (Chair: Luca Onnis) — *Blue Room*

Variation Sets Facilitate Artificial Language Learning	*Luca Onnis, Heidi Waterfall, Shimon Edelman*	1011
Grounding Word Learning in Multimodal Sensorimotor Interaction	*Chen Yu, Linda B. Smith, Alfredo F. Pereira*	1017
What You Learn is What You See: Using Eye Movements to Study Infant Cross-Situational Word Learning	*Chen Yu, Linda B. Smith*	1023
How Features Create Knowledge of Kinds	*Shohei Hidaka, Linda B. Smith*	1029

Modeling Cognition (Chair: Fermín Moscoso Del Prado Martín) — *Empire Room*

A Fully Analytical Model of the Visual Lexical Decision Task	*Fermín Moscoso Del Prado Martín*	1035
A Rational Analysis of Confirmation With Deterministic Hypotheses	*Joseph L. Austerweil, Thomas L. Griffiths*	1041
Fluency and Psychological Distance	*Daniel M. Oppenheimer, Anuj K. Shah, Adam L. Alter*	1047
Optimal Predictions in Everyday Cognition: The Wisdom of Individuals or Crowds?	*Michael C. Mozer, Harold Pashler, Hadjar Homaei*	1051

5:00–7:00 • Poster Session III	***Exhibit Hall***	See page 45 of program

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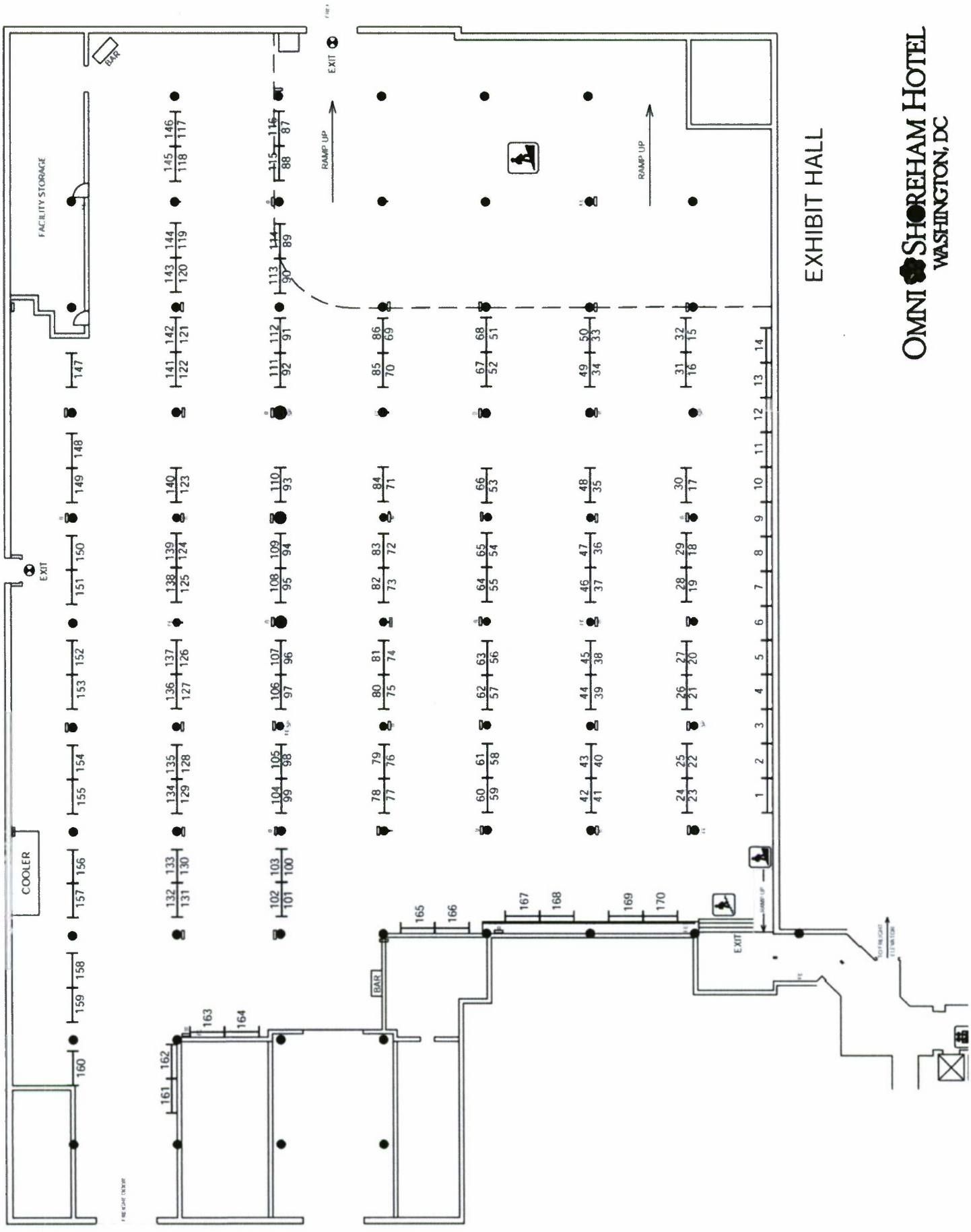

CogSci 2008 Poster Session I

Attention and Implicit Learning	**Thursday, July 24, 2008 • 5:30-7:00 PM**	*Exhibit Hall*	Pg No. on CD
1	Eye-Tracking Analysis of Cue Competition Effects Reveals Learned Inattention	*Kelly M. Goedert, Brianna M. Eiter*	1057
2	Assessing the Role of Estimation Strategy and Representation Format in Statistical Learning	*Mirta Galesic, Aron K. Barbey, Frank Krueger, Jordan Grafman, Gerd Gigerenzer*	1058
3	What to Infer From an Inference: Prior Knowledge and Task Demands Influence Contingency Learning	*Daniel A. Sternberg, James L. McClelland*	1059
4	An Iterated Learning Model of the Emergence of Vowel Harmony	*Frédéric Mailhot*	1060
5	Implicit Learning and Syntactic Persistence: Surprisal and Cumulativity	*T. Florian Jaeger, Neal Snider*	1061
6	Revealing Individual Differences in the Iowa Gambling Task	*Lee I. Newman, Thad A. Polk, Stephanie D. Preston*	1067
7	Iterated Learning As a Model for the Spatial Distribution of Linguistic Hypotheses	*Michael L. Kalish*	1073
8	Cognitive Models of Strategy Shifts in Interactive Behavior	*Christian P. Janssen, Wayne D. Gray, Michael J. Schoelles*	1074
9	Blocking Effects on Dimensions: How Attentional Focus on Values Can Spill Over to the Dimension Level	*Jennifer Kaminski, Andrew Heckler, Vladimir Sloutsky*	1075
10	Evaluating Systematicity in Neural Networks Through Transformation Combination	*Esteban Buz, Robert Frank*	1081
11	Reinforcement Learning in Dynamic Environments:	*Todd M. Gureckis, Bradley C. Love*	1087
12	Modeling the Acquisition of Statistical Regularities in Tone Sequences	*Amaury Hazan, Piotr Holonowicz, Ines Salselas, Perfecto Herrera, Hendrik Purwins, Alicja Knast, Simmon Durant*	1088
13	Understanding Addictive Behavior on the Iowa Gambling Task Using Reinforcement Learning Framework	*Amir K Dezfuli, Mohammad Mahdi Keramati, Hamed Ekhtiari, Hooman Safaei, Caro Lucas*	1094
14	Issues in Acquiring Interactive Routines	*Bella Z. Veksler, Michael J. Schoelles, Wayne D. Gray*	1100
15	Regulatory Fit Effects in a Dynamic Decision-Making Task	*A. Ross Otto, Arthur B. Markman, Bradley C. Love*	1101
16	Modelling Attentional Networks: the Modulation Effects and Simulation of Alzheimer's Disease	*Fehmida Hussain, Sharon Wood*	1102
17	Multimodal Distance Perception is a Function of Multimodally Specified Effort	*Eliah White, Matthew Streit, Kevin Shockley, Michael A. Riley*	1103
18	Slow Saccade Lines in Eye-Track As Units of Semantic Cognition	*Yukio Ohsawa, Yusuke Maeda*	1104

Causal Cognition	**Thursday, July 24, 2008 • 5:30-7:00 PM**	*Exhibit Hall*	Pg No. on CD
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20	Assessing Psychological Theories of Causal Meaning and Inference	*Sergio E. Chaigneau, Aron K. Barbey*	1111
21	The Relationship Between Causal and Counterfactual Reasoning	*William Jimenez-Leal, Nick Chater*	1117

22	Learning Causal Models Via Progressive Alignment & Qualitative Modeling: a Simulation	*Scott E. Friedman, Kenneth D. Forbus*	1123
23	Shared Features in Causal Induction	*Adam Darlow*	1129
24	Causal Priming: How a Language Production Mechanism Guides Representation	*Caitlin M. Fausey, Neal Snider, Lera Boroditsky*	1130
25	Are Self-Explanations Always Beneficial?	*Jared B. Katz, Deanna Kuhn*	1136
26	People Distinguish Causes That Occur to One Or Multiple Entities	*Benjamin Rottman, Woo-Kyoung Ahn*	1137
27	Structural Determinants of Interventions on Causal Systems	*Brian J. Edwards, Russell C. Burnett, Frank C. Keil*	1138
28	?This Stat Seems Bogus!? Perspectives on Causality in Determining Veracity	*Edward Munnich, Michael Ranney, Myles Crain, Luke Rinne, Luke Miratrix, Andrew Galpern*	1144
29	Drawing Inferences From Causal Analogies	*Julie Colhoun, Dedre Gentner*	1145
30	Removing the Time Crutch: Can Preschoolers Still Make Causal Judgments?	*Heidi Kloos, Vladimir Sloutsky*	1146
31	Thinking Counterfactually - How Controllability Affects the 'Undoing' of Causes and Enablers	*Suzanne M. Egan, Caren Frosch, Emily Hancock*	1152
32	Why Are People Bad At Detecting Randomness? Because It is Hard	*Joseph Jay Williams, Thomas L. Griffiths*	1158
33	Do Causal Beliefs Influence the Hot-Hand and the Gambler's Fallacy?	*Giorgio Gronchi, Steven A. Sloman*	1164
34	Causal Explanations and Backward Counterfactuals	*Morteza Dehghani, Rumen Iliev, Stefan Kaufmann*	1169

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37	Flexible Attentional Learning in Infancy:	*Vladimir M. Sloutsky, Christopher W. Robinson*	1182
38	Rule Emergence From an Unsupervised, Dual-Network Connectionist Model of Category Learning:	*Rosemary A. Cowell, Robert M. French*	1188
39	Multi-Sensory Statistical Learning: Evidence for Modality-General Mechanisms:	*Aaron D. Mitchel, Daniel J. Weiss*	1189
40	Effects of Category Learning on Similarity of Line Stimuli Representing Social Groups:	*Janet Andrews, Kenneth Livingston, Daniel Bliss, Tatiana Vlahovic*	1190
41	A Grammar-Based Approach to Visual Category Learning	*Virginia Savova, Joshua Tenenbaum*	1191
42	Is Cognitive Activity of Speech Based on Statistical Independence?:	*Ling Feng, Lars Kai Hansen*	1197
43	Mode Shifts During Category Learning:	*Kimery R. Levering, Kenneth J. Kurtz*	1203
44	Modeling Unsupervised Perceptual Category Learning:	*Brenden M. Lake, Gautam K. Vallabha, James L. McClelland*	1204
45	Learned Attention to Analogical Matches As an Alternative to Re-Representation:	*Marc T. Tomlinson, Bradley C. Love*	1205

46	Cooperative Categorization: Coordination of Reference and Categories in Learning a Joint Prediction Task	*John Voiklis, James E. Corter*	1206
47	Learning Within-Category Attribute Correlations in a One-Attribute Visual Search Classification Paradigm	*Gyslain Giguère, Guy L. Lacroix, Glen Howell, Serge Larochelle*	1207
48	Regulatory Fit Effects in a Nonlinearly Separable Category Learning Task	*Ruby Nadler, John Paul Minda, Pei-Shiuan Lily Lin*	1213
49	To Find Fault is Easy? the Role of Comparison in Learning a Geological Structure	*Benjamin Jee, David H. Uttal, Dedre Gentner*	1219
50	Intuitive Conceptions of Innateness in Cognitive Science Undergraduates	*Otto Lappi*	1220
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Concepts and Categories	**Thursday, July 24, 2008 • 5:30-7:00 PM**	***Exhibit Hall***	**Pg No. on CD**
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54	Polarized Correlation-Based Beliefs: a Computational Genesis:	*Richard B. Anderson, Michael E. Doherty*	1231
55	Group Solution Assembly in Response to a Simulated Emergency:	*David Mendonca, Yao Hu*	1232
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60	Mixed Effects of Distractor Tasks on Incubation	*Sebastien Helie, Ron Sun, Liling Xiong*	1251
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66	Cognitive Representations, Acculturation, and Adolescent Risky Decision-Making	*Wanda D. Casillas, Valerie F. Reyna, Britain Mills, Steven Estrada*	1272

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69	Biddies, Crones and Codgers: Adults' Connotative Understanding of Gender-Specific Vocabulary	*Wendelyn Shore, Marianne G. Taylor*	1280
70	Dynamic Lexical Processing Evident in Wiimote Trajectories	*Nicholas Duran, Rick Dale*	1281
71	Defining the Dimensions of the Human Semantic Space	*Vladislav D. Veksler, Ryan Z. Govostes, Wayne D. Gray*	1282
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73	Incremental Syntactic Planning Across Clauses	*Carlos Gómez Gallo, T. Florian Jaeger, Ron Smyth*	1294
74	Permutations As a Means to Encode Order in Word Space	*Magnus Sahlgren, Anders Holst, Pentti Kanerva*	1300
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90	Parent-Child Interactions and Note-Keeping During Science Play	*Elizabeth L. Echeveste, Lara M. Triona*	1355
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104	They Were Trained, But They Did Not All Learn: Individual Differences in Uptake of Learning Strategy Training	*Jarrod Moss, Christian D. Schunn, Kurt Vanlehn, Walter Schneider, Danielle S. Mcnamara, Kevin Jarbo*	1389
105	Perception for Action: Dramatic Changes Between 18 and 24 Months	*Sandra Y. Street, Linda B. Smith*	1390
106	Analysis of Infant Vocalizations Using a Self-Organizing Map	*Anne Sanda Warlaumont, D. Kimbrough Oller, Eugene H. Buder, Robert Kozma, Rick Dale*	1391
Modeling and Cognitive Architecture	**Thursday, July 24, 2008 • 5:30-7:00 PM**	***Exhibit Hall***	**Pg No. on CD**
107	Controlling Biases in Demanding Tasks	*Annerieke Heuvelink, Jan Treur*	1392
108	From Modeler-Free Individual Data Fitting to 3-D Parametric Prediction Landscapes: a Research Expedition	*Sue Kase, Frank Ritter, Michael Schoelles*	1398
109	Hierarchical Bayesian Modeling of Individual Differences in Texture Discrimination	*Tim Rubin, Michael D. Lee, Charles F. Chubb*	1404
110	Moraldm: a Computational Model of Moral Decision-Making	*Morteza Dehghani, Emmett Tomai, Ken Forbus, Rumen Iliev, Matthew Klenk*	1410
111	Bellwethers and the Emergence of Trends in Online Communities	*Yasuaki Sakamoto, Elliot Sadlon, Jeffrey Nickerson*	1416
112	Mindmodeling@Home	*Kevin Gluck, Jack Harris*	1422
113	Bayesian Columnar Networks for Grounded Cognitive Systems:	*Florian Röhrbein, Julian Eggert, Edgar Körner*	1423
114	A Bayesian Approach to Diffusion Process Models of Decision-Making	*Joachim Vandekerckhove, Francis Tuerlinckx, Michael D. Lee*	1429

115	A Formal Analysis of Cultural Evolution by Replacement	*Jing Xu, Florencia Reali, Thomas L. Griffiths*	1435
116	More than 8,192 Ways to Skin a Cat: Modeling Behavior in Multidimensional Strategy Spaces	*Mason R. Smith, Richard L. Lewis, Andrew Howes, Alina Chu, Collin Green*	1441
117	Theory-Based Social Goal Inference	*Chris L. Baker, Noah D. Goodman, Joshua B. Tenenbaum*	1447
118	The Model Brain: Brain Information Hydrodynamics (Bih)	*Muneo Kitajima, Makoto Toyota, Hideaki Shimada*	1453
119	Dynamical Models and Mechanistic Explanations	*Carlos A. Zednik*	1454
120	Response Time Distributions in Partially-Coherent Quantum Walk Models for Simple Decision Tasks	*Ian Fuss, Daniel Navarro*	1460
121	Evoc: a Computer Model of the Evolution of Culture	*Liane Gabora*	1466
122	A Functional, Evolutionary, and Developmental Model of Neocortex	*Derek James, Anthony Maida*	1472
123	How Many Exemplars Do We Need? Explorations With the 'Rex Leopold Ii' Model	*Maarten De Schryver, Katleen Vandist, Yves Rosseel*	1473
124	Preference Aggregation Based Cognitive Modeling: An Alternative Explanation of the Wason Selection Task	*Kenryo Indo*	1474
125	Dynamic Field Theory of Sequential Action: a Model and Its Implementation on an Embodied Agent	*Yulia Sandamirskaya, Gregor Schöner*	1475
126	A Biologically-Plausible Cognitive Model (BPCM) of Positive and Negative Congruency Effects in Masked Priming	*Ahmad Sohrabi, Robert West*	
127	Using Intrinsic Plasticity and Softmax in Echo State Networks	*Umang Mittal, Garrison Cottrell*	
128	Grounding Classical Cognitive Science	*Bernadette Guimberteau*	1476
129	The Possibility of a Cognitive Architecture	*Andrew Brook*	
130	Cognitive Architcture and the Brain	*Vincent Bergeron*	
131	The Conscious Structure of the Brain	*Phil Maguire, Kyle O'Connor*	1477
132	Investigating Functional Cooperation in the Human Cortex With Graph-Theoretic Methods	*Michael Anderson, Joan Brumbaugh, Aysu Suben*	1478

NOTES:

CogSci 2008 Poster Session II

Funding Opportunities	**Friday, July 25, 2008 • 5:00-7:00 PM**	*Exhibit Hall*	Pg No. on CD
1	Funding Opportunities for Cognitive Scientists Through the Institute of Education Sciences	*Carol L. O'Donnell, Emily Doolittle*	1479
2	Funding Opportunities through the Cognitive Sciences Branch of the Army Research Laboratory (ARL)	*Dan Cassenti*	
3	Funding Opportunities in Cognitive Science from the Office of Naval Research (ONR)	*Paul Bello, Ray Perez*	
4	Cognitive Science Funding Opportunities from the National Science Foundation (NSF)	*Ping Li, Betty Tuller*	
Attention and Memory	**Friday, July 25, 2008 • 5:00-7:00 PM**	*Exhibit Hall*	Pg No. on CD
4	Increased Availability of Arithmetic Facts Following Working Memory Processing	*Christopher A. Was, Judith Bilman Paternite, Ryan S. Wooley*	1480
6	Mutual Influences of Interlimb Coordination Dynamics and Semantic Retrieval Dynamics Parameters During Dual Task Performance	*Adam Kiefer, Bonny Christopher, Kevin Shockley, Michael A. Riley*	1486
7	Memory in a Messy Domain: Expertise and Memory for Mental Health Disorder Categories	*Jessecae K. Marsh*	1492
8	Does Memory Mediate Susceptibility to Cognitive Biases? Implications of the Decision-By-Sampling Theory	*Belinda Bruza, Matthew Welsh, Daniel Navarro*	1498
9	Remembering Beliefs	*Susannah Kate Devitt*	1504
10	Verbal Overshadowing As Perceptual Interference	*Ava Santos, Lawrence Barsalou*	1510
11	Effects of Divided Attention in the Word Fragment Completion Task With Unique Or Multiple Solutions:	*Pietro Spataro, Clelia Rossi-Arnaud, Paola Pazzano*	1511
12	Bottom-Up Model of Strategy Selection	*Tomasz M. Smoled, Szymon R. Wichary*	1517
13	Evaluating Mechanisms of Fatigue Using a Digit Symbol Substitution Task	*Larry Moore, Glenn Gunzelmann, Kevin Gluck*	1522
14	How Memory Guides Strategy Selection	*Julian N. Marewski, Lael J. Schooler*	1523
15	Memory for Musical Tone Intervals and Tonality	*Charles Barousse*	1524
16	The Role of Attention in Nonspecific Preparation	*Rianne M. Van Lambalgen, Sander A. Los*	1525
17	Bipartite Structure of Working Memory	*Adam Chuderski, Zbigniew Stettner, Jaroslaw Orzechowski*	1531
18	Developing a Magic Number Four, Plus Or Minus Two: the Dynamic Field Theory Reveals Why Visual Working Memory Capacity Estimates Differ Across Tasks and Development	*Vanessa R. Simmering, John P. Spencer*	1537
19	A Model of Time-Estimation Considering Working Memory Demands	*Nele Pape, Leon Urbas*	1543
21	Empirical Tests of a Dynamical Field Model of Infant Attention	*Joshua Goldberg, Donna Fisher-Thompson, Gregor Schöner*	
20	Autobiographical Memory and Motor Action	*Katinka Dijkstra, Daniel Casasanto*	1549
22	A Memory Model for Cognitive Agents	*Guilherme Bittencourt*	1550

Developmental Perspectives on Learning, Culture, & Cognition	**Friday, July 25 • 5:00-7:00 PM** *Exhibit Hall*		Pg No. on CD
23	Evaluation of the Efficacy of the Delacato's Neuropsychological Method in the Treatment of 7-12 Years Old Boys With Adhd	*Farzad Momeni, Farzaneh Mehrabi Mansour*	1551
24	Stretching to Learn: Ambiguous Evidence and Variability in Preschoolers' Exploratory Play	*Hyowon Gweon, Laura E. Schulz*	1552
25	Children's Attention to Property Likelihood as a Guide to Property Projection	*Chris A. Lawson, Anna V. Fisher*	1557
26	Trait or Situation? Cultural Differences in Judgment of Emotion	*Megumi Kuwabara, Ji Y. Son, Linda B. Smith*	1562
27	Preschoolers Use Sampling Information to Infer the Preferences of Others	*Tamar Kushnir, Fei Xu, Henry M. Wellman*	1563
28	Using Perceptually Rich Objects to Help Children Represent Number: Established Knowledge Counts	*Lori A. Petersen, Nicole M. Mcneil*	1567
29	Context and Induction: The Impact of Background Context on Children's Category Learning	*Haley A. Vlach, Catherine M. Sandhofer*	1573
30	Children's Counterfactual Reasoning Strategy in Belief Contravening Problems	*Nicole Van Hoeck, Kristien Dieussaert, Russell Revlin*	1574
31	A Broken Fork in the Hand is Worth Two in the Grammar: A Spatio-Temporal Bias in Children?'s Interpretation of Quantifiers and Plural Nouns	*Vicente Melgoza, Amanda Pogue, David Barner*	1580
32	Bridging the Gap: Children?S Developing Inferences about Objects? Labels and Insides From Causality-At-A-Distance	*David W. Buchanan, David M. Sobel*	1586
33	Do Preschoolers Track a Character?S Mental Perspective While Listening to a Story?	*Agnieszka M. Fecica, Daniela K. O'Neill*	1592
34	Development of Synonym-Based Induction	*Bryan Matlen, Anna Fisher*	1593
35	Causal Supports for Early Word Learning	*Amy E. Booth*	1594
36	Can Analogy Help Children Make Transitive Inference?	*Milena Mutafchieva, Boicho Kokinov*	1595
37	Easy or Not Easy: Young Children?S False Belief Understanding in Communicative Situations	*Kensuke Sato*	1601

Learning	**Friday, July 25 • 5:00-7:00 PM** *Exhibit Hall*		Pg No. on CD
38	Theory Acquisition and the Language of Thought	*Charles Kemp, Noah D. Goodman, Joshua B. Tenenbaum*	1606
39	Temporal Continuity in Cross-Situational Statistical Learning	*George Kachergis, Chen Yu*	1612
40	Cognitively Based Assessment Of, for and As Learning: A 21st Century Approach for Assessing Reading Competency	*Tenaha O'Reilly, Kathleen M. Sheehan*	1613
41	An Embodied Approach to Achieving Mastery and Learning While You Work	*Brian Krisler, Richard Alterman*	1619
42	A Bayesian Model of the Acquisition of Compositional Semantics	*Steven T. Piantadosi, Noah D. Goodman, Benjamin A. Ellis, Joshua B. Tenenbaum*	1620
43	Analysing Problem Structuring in a Collaborative Explanation Dialogue to Capture Conceptual Change	*Michael Tscholl, John Dowell*	1626
44	Teaching Games: Statistical Sampling Assumptions for Learning in Pedagogical Situations	*Patrick Shafto, Noah Goodman*	1632

45	The Importance of Ordinary Experience: Providing Girls With Time for Regular Practice of Mathematical Cognition	*Robin C. Flanagan, Theresa Canada*	1638
46	Connectionist Model of Artificial Grammar Learning: Simulations Based on Higham (1997) Indexes of Knowledge Representation	*Michal Wierzchon, Jakub Barbasz*	1639
47	The Stability and Strength of Knowledge Representation Acquired During Artificial Grammar Learning	*Michal Wierzchon, Dariusz Asanowicz*	1645
48	Guided Learning by Reading (Lbr) As a Cognitive Growth Model	*Alexei V. Samsonovich*	1646
49	An Alternative View of the Relation Between Finger Gnosis and Math Ability: Redeployment of Finger Representations for the Representation of Number	*Marcie Penner-Wilger, Michael L. Anderson*	1647
50	Learning Composable Signals for a Cognitive Substrate	*Jacob Beal*	1653
51	Learning Abstract Principles Through Principle-Case Comparison	*Julie Colhoun, Dedre Gentner, Jeffrey Loewenstein*	1659
52	A Model-Based Approach to Second-Language Learning of Grammatical Constructions	*Gwen Alexandra Frishkoff, Lori Levin, Phillip Pavlik Jr., Kaori Idemaru, Cornelia De Jong*	1665
53	Sub-Functions of Human Learning Process During a Sequential Task	*Sergey Tarasenko, Toshio Inui, Abdikeev Niyaz*	1671
54	Learning the Form of Causal Relationships using Hierarchical Bayesian Models	*Christopher Lucas, Thomas Griffiths*	
55	Coding by Demand: Identifying the Dimensions of Student Dialogue That Underlie Theories of Learning	*Gwendolyn Campbell, Natalie Steinhauser, Myroslava Dzikovska, Johanna Moore, Charles Callaway*	1672

Expertise and Explanation	**Friday, July 25 • 5:00-7:00 PM**	***Exhibit Hall***	**Pg No. on CD**
56	Effects of Scaffolding Problem Formulation Phase During Multifaceted Physics Problem-Solving	*Serkan Toy, Dale Niederhauser, John Jackman, Craig Ogilvie, Sarah Ryan, Aliye Karabulut*	1673
57	Conceptual Coherence in Philosophy Education: Visualizing Initial Conceptions of Philosophy Students with Self-Organizing Maps	*Anna-Mari Rusanen, Otto Lappi, Timo Honkela, Mikael Nederström*	1674
58	The Content of Self-Explanations While Studying Incomplete Worked-Out Examples	*Robert G.M. Hausmann, Brett Van De Sande, Kurt Vanlehn*	1680
59	Knowledge Integration in Creative Problem Solving:	*Sebastien Helie, Ron Sun*	1681
60	Physicians' Use of Deep Features: Expertise Differences in Patient Categorization	*Sarah L. Devantier, John Paul Minda, Wael Hadarra, Mark Goldszmidt*	1687
61	How Expert Tutors Revise Tutoring Policies and Strategies When Students Make Mistakes	*Evelyn Lulis, Shlomo Argamon, Martha Evens*	1693
62	Development of Conceptual Understanding and Problem Solving Expertise in Chemistry	*Jodi L. Davenport, David Yaron, Kenneth Koedinger, David Klahr*	1699
63	Conditions for Selection and Conceptualization in Diagrams and Sentences	*Rossano Barone, Peter Cheng*	1705
64	Does the Use of Diagrams As Communication Tools Result in Their Internalization As Personal Tools for Problem Solving?	*Yuri Uesaka, Emmanuel Manalo*	1711
65	Productive Failure in Mathematical Problem Solving	*Manu Kapur, Leigh Dickson, Pui Yhing Toh*	1717

66	A Functional Taxonomy of Discourse Moves for Conversation Management During Cognitive Clinical Interviews about Scientific Phenomena	*Victor R. Lee, Rosemary S. Russ, Bruce Sherin*	1723
67	Comparing Similar Or Dissimilar Examples for Analogical Transfer	*Young Hoan Cho*	1729
68	"Is the Missing 1 Dollar in the Cheater's Hand?" The Cheater Detection Module As a Constraint within Insight Problem Solving	*Keiga Abe, Masanori Nakagawa*	1730
69	Diagram Interaction During Intelligent Tutoring in Geometry: Support for Knowledge Retention and Deep Understanding	*Kirsten R. Butcher, Vincent Aleven*	1736
70	Examining First Grade Students' Reading Skill Growth Through a Culturally-Responsive Vocabulary Intervention	*Phyllis Swann Underwood, Carol McDonald Connor*	1742
71	The Effects of Skill Diversity in Peer Feedback: It's What You Don't Know	*Melissa M. Nelson, Brandi N. Melot, Christopher A. Stevens, Christian D. Schunn*	1743
72	What Does it Take to Learn from Natural Tutorial Instruction? Some Implications for the Design of Electronic Students	*Yolanda Gil*	
73	Toward a Process Model of Explanation	*John E. Hummel, David H. Landy, Derek Devnich*	1744
74	Transitions, Analogical Processes, and Expertise in Contemporary Art: a Detailed Case Study	*Jude Leclerc, Takeshi Okada, Sawako Yokochi, Frederic Gosselin*	1745

Judgement and Reasoning	**Friday, July 25 • 5:00-7:00 PM**	***Exhibit Hall***	**Pg No. on CD**
75	Extending and Testing the Bayesian Theory of Generalization	*Daniel J. Navarro, Michael D. Lee, Matthew J. Dry, Benjamin Schultz*	1746
76	Laws and Makeups in Context-Dependent Reduction Relations	*Jan Treur*	1752
77	Approaches on Neurocomputational Self-Organizing Behavioral Modeling	*Spyridon Revithis*	1758
78	Building Production Systems With Realistic Spiking Neurons	*Terrence C. Stewart, Chris Eliasmith*	1759
79	Computational Analysis on Graphic Generation: Effects of Surface and Structure Similarity	*Junya Morita*	1765
80	The Fragmented Folk: More Evidence of Stable Individual Differences in Moral Judgments and Folk Intuitions:	*Adam Feltz, Edward T. Cokely*	1771
81	Inhibition Needs No Negativity: Negative Links in the Construction-Integration Model:	*Michael P. Rowe, Danielle S. Mcnamara*	1777
82	When Do We Stop Calling Them Mirror Neurons?	*Sebo Uithol, Pim Haselager, Harold Bekkering*	1783
83	Mental Space Mapping Applied to Argument	*Marcello Guarini*	1789
84	The Bayesian Logic of Conjunction Fallacies: Probability Rating Tasks and Pattern-Sensitivity	*Momme Von Sydow*	1795
85	A Parallel Distributed Processing Model of Accessibility of Attachment Knowledge	*Roxanne Thrush, David Plaut*	1801
86	Sadder But Wiser Induction? Situation-Personality Interaction Revealed by an Inductive Reasoning Model	*Kayo Sakamoto, Masanori Nakagawa*	1807
87	A Systematic Comparison of Semantic Models on Human Similarity Rating Data: the Effectiveness of Subspacing	*Ben P. Stone, Simon J. Dennis, Peter J. Kwantes*	1813

88	Specific Impairments in Cognitive Development: A Dynamical Systems Approach	*Frank D. Baughman, Michael S.C. Thomas*	1819
89	Finding Feature Representations of Stimuli: Combining Feature Generation and Similarity Judgment Tasks	*Matthew D. Zeigenfuse, Michael D. Lee*	1825
90	Modeling Two Kinds of Reasoning	*Evan Heit, Caren M. Rotello*	1831
91	Logical Thinking, Deontic Reasoning, and the Fairness Principle: Exploring the Relationship Between Selection Tasks and the Ultimatum Game	*Kuninori Nakamura*	1837
92	Probability Estimates in Diagnostic Reasoning: Variations of Causal Links and Modeling Uncertainty	*Franziska Bocklisch, Georg Jahn, Katja Mehlhorn, Josef F. Krems*	
93	Truth-Based Or Possibility-Based Compatibility Judgments and Handley Et Al.?S (2006) Litmus Test of the Suppositional Conditional	*Walter Schroyens*	1838
94	Memory Judgments of Relative Order in Short Lists: Multiple Strategies Are Available, Depending on Wording of Instructions:	*Michelle Chan, Jeremy B. Caplan*	1839

Language and Concepts	**Friday, July 25 • 5:00-7:00 PM**	***Exhibit Hall***	**Pg No. on CD**
95	Similarity Between Vowels Influences Response Execution in Word Identification:	*Jason D. Zevin, Thomas A. Farmer, Bruce D. McCandliss*	1840
96	Presentation Modality in Age of Acquisition Rating Reflects Mode of Acquired Knowledge: Evidence From Category-Specific Effects:	*Armina Janyan, Elena Andonova*	1841
97	The Duck/Rabbit Illusion: Re-examination of Information Encapsulation	*Aysu Suben, Michael Anderson, Tony Chemero*	1847
98	Top-Down and Bottom-Up Processes in Web Search Navigation:	*Shu-Chieh Wu, Craig S. Miller*	1848
99	Examining the Hidden Factors That Underpin Semantic Representation: What Functional Brain Imaging Reveals about the Neuroarchitecture of Object Knowledge:	*Kai-Min Kevin Chang, Tom Mitchell, Marcel Adam Just*	1854
100	Different Mechanisms Control the Allocation of Perceptual Processing Resources and Decisional Resources in Perceptual Categorization:	*Duncan Guest*	1855
101	Classifying Objects Based on Their Visual Similarity to Target Categories:	*Wei Zhang, Dimitris Samaras, Gregory J. Zelinsky*	1856
102	Category Labels Highlight Feature Interrelatedness in Similarity Judgment:	*Na-Yung Yu, Takashi Yamauchi, Jay Schumacher*	1862
103	Autonomous Perceptual Feature Extraction in a Topology-Constrained Architecture:	*Sylvain Chartier, Gyslain Giguère*	1868
104	The Ideal Representation of Role-Governed Categories:	*Micah Goldwater, Hunt Stilwell, Arthur Markman*	1874
105	Is Prototypical Typical?:	*Wolf Vanpaemel, Eef Ameel, Gert Storms*	1875
106	The Effect of the Internal Structure of Categories on Perception:	*Todd M. Gureckis, Rob L. Goldstone*	1876
107	Does Functional Knowledge Have a Privileged Status in the Speeded Computation of Word Meaning?:	*Ada Le, Renante Rondina II, George S. Cree*	1882

108	Representational Formalism in Which Syntax and Semantics Are Congruent: Towards the Resolution of Searle?'s Chinese Room Challenge	*Lev Goldfarb*	1888
109	Vacillation and Hesitation in Category Rating:Evidence From Pc Cursor Trajectories:	*Kenpei Shiina*	1894
110	Viewing Anthropomorphic Animals Increases Anthropocentrism	*Patricia Herrmann, Douglas Medin, Sandra Waxman*	
Words and Word Learning	**Friday, July 25 • 5:00-7:00 PM**	***Exhibit Hall***	**Pg No. on CD**
111	Vocabulary Development in English and Chinese: a Comparative Study With Self-Organizing Neural Networks:	*Xiaowei Zhao, Ping Li*	1900
112	Lsa As a Measure of Coherence in Second Language Natural Discourse:	*Scott Crossley, Thomas Salsbury, Philip McCarthy, Danielle Mcnamara*	1906
113	Sound Symbolism in Word Learning:	*Lynne C. Nygaard, Allison E. Cook, Laura L. Namy*	1912
115	A Stochastic Model for the Vocabulary Explosion	*Colleen C. Mitchell, Bob McMurray*	1918
116	Learning Words From Context	*Vladimir Sloutsky, Xin Yao*	1924
116	Identifying Cognitive and Linguistic Strategies in Successful Nonfiction Writing	*Gregory Aist*	1929
117	Prior Knowledge Bootstraps Cross-Situational Learning	*Krystal A. Klein, Chen Yu, Richard M. Shiffrin*	1930
118	Words Or Word Boundaries? Examining Performance on Statistical Word Segmentation Tasks:	*Jeremy J. Glick, James L. McClelland*	1936
119	Structuring the Vowel Space: an Investigation of Turkish and Inuktitut:	*Brian Dillon, William Idsardi, Colin Phillips*	1937
120	Cross-Situational Statistical Learning From Noisy Input:	*Brian Riordan, Chen Yu*	1938
121	Sound Versus Meaning: What Matters Most in Early Word Learning?	*Sarah Devi Sahni, Timothy T. Rogers*	1939
122	The Automaticity of Statistical Word Learning	*George Kachergis, Chen Yu, Richard M. Shiffrin*	1940
123	Inferring a Probabilistic Model of Semantic Memory From Word Association Norms:	*Mark Andrews, David Vinson, Gabriella Vigliocco*	1941
124	On the Utility of Conjoint and Compositional Frames and Utterance	*Daniel Freudenthal, Julian Pine, Fernand Gobet*	1947
125	Gradations in Phonological Learning	*Stephanie Packard, Prahlad Gupta*	1953
126	Acquisition and Representation of Grammatical Categories: Grammatical Gender in a Connectionist Network	*Jelena Mirkovic, Mark Seidenberg, Maryellen Macdonald*	1954
127	If You Haven't Got a Head, Get a Label	*Vanja Kovic, Kim Plunkett, Gert Westermann*	1960
128	Word Sense and Sensibility: Mental Representations of Polysemy	*Susan Brown*	1961
129	ERPs and Evolved Gamma-band Oscillations in a Single-Word Translation: Concreteness Effect in Cognates and Non-Cognates	*Armina Janyan, Ivo Popivanov, Elena Andonova*	
130	Statistical Co-Learning of Visual and Linguistic Regularities to Improve Word-Learning	*Brian Riordan, Chen Yu*	1962
131	Mutual Exclusivity in Adjective Learning: the Case of Bilingual Children and Monolingual Children	*Hanako Yoshida, Megumi Kuwabara, Maria Guerrero*	1963

Modeling and Experimental Approaches to Cognitivie Processing	**Friday, July 25 • 5:00-7:00 PM** *Exhibit Hall*		Pg No. on CD
132	The Amorphous Fixation Measure Revisited: With Applications to Autism	*Frederick Shic, Katarzyna Chawarska, Brian Scassellati*	1964
133	The Phylogenetic Roots of Cognitive Dissonance	*Jennifer Vonk, Samantha West, Stephanie E. Jett*	1970
134	Predicting Cognitive Driver Distraction With Threaded Cognition Theory	*Dario D. Salvucci, Joanna Beltowska*	1971
135	A Graphical Chunk Production Model: Evaluation Using Graphical Protocol Analysis With Artificial Sentences	*Peter C-H. Cheng, Hector Rojas-Anaya*	1972
136	When Do Standard Approaches for Measuring Vocabulary Difficulty, Syntactic Complexity and Referential Cohesion Yield Biased Estimates of Text Difficulty?	*Kathleen M. Sheehan, Irene Kostin, Yoko Futagi*	1978
137	The Interaction Between Information and Intonation Structure: Prosodic Marking of Theme and Rheme	*Max Louwerse, Patrick Jeuniaux, Bin Zhang, Jie Wu, Ehsan Hoque*	1984
138	Perception of Direction and Its Influence on Geometric Discoveries	*Francisco Lara-Dammer, Douglas R. Hofstadter*	1990
139	Storage and Recall in Simple Recurrent Neural Networks	*Christo N. Kirov*	1995
140	One of These Greebles is Not Like the Others: Semi-Supervised Models for Similarity Structures	*Rachel Stephens, Daniel Navarro*	1996
141	How Perception and Mapping Interact During the Analogy-Making Process and the Process of Reinterpretation	*Boicho Kokinov, Svetlin Kosev*	2002
142	A Fast Computational Model of Analogical Retrieval (And Mapping)	*Dervla O'Keeffe, Fintan Costello*	2003
143	Timecourse of Recovery From Interruptions: Searching for Common Trends Across Multiple Environments	*David Cades, Raj Ratwani, J. Gregory Trafton, Deborah Boehm-Davis*	2009
144	Toward a Model of Differential Influence in Discussions: Negotiating Quality, Authority, and Access Within a Heated Student Argument	*Randi A. Engle, Jennifer Langer-Osuna, Maxine Mckinney De Royston*	2010
145	An Integrated Model of Action Video Game Play	*Marc Destefano, Wayne D. Gray*	2016
146	Individual Differences in Sustained Vigilant Attention: Insights From Computational Cognitive Modeling	*Glenn Gunzelmann, L. Richard Moore, Kevin A. Gluck, Hans P. A. Van Dongen, David F. Dinges*	2017
147	Spatial Modeling Using a Bimodal Cognitive Architecture	*Unmesh Kurup, B Chandrasekaran*	2023
148	A Computational Model of Repetition Blindness Using a Liquid State Machine	*Patrick Michael Hynes, Ronan Reilly*	2024
149	A Single Layer Network Model of Center Embedding and Hierarchical Phrase Structure in Sentence Processing	*Simon Dennis, Dennis Mehay*	
150	Computational Perception of Sizes	*Julia Taylor, Lawrence Mazlack*	2025
151	The Speed/Accuracy Tradeoff in Estimating Means: the Role of Data Characteristics	*Bradley Morris, Amy Masnick, Christa Natschke, Adrianne Spenner, Stephanie Hammond, Deardra Kearney*	2026
152	An Analysis of the Human Processing of Verbal Humour through Eye-Tracking Experiments	*Rada Mihalcea, Stephen Pulman, Vanja Kovic, Kim Plunkett*	
153	Discrete Measurement of Sensory Information Using Bayesian Networks	*Chris Thornton*	2027

Spatial Cognition	**Friday, July 25 • 5:00-7:00 PM**	*Exhibit Hall*	Pg No. on CD
154	Effects of Social Information on Distance Estimation	*Justin L. Matthews, Teenie Matlock*	2028
155	Encoding Spatial Layout in the Dark: Robustness of Visual Spatial Learning	*Naohide Yamamoto, John W. Philbeck*	2029
156	The Impact of Attentional Shifts on Spatial Memory in Early Childhood	*Anne R. Schutte, Brian Keiser, Chelsie Kobza-Guerrero, Margaret Ortmann*	2030
157	The Integration of Spatial Information Across Different Perspectives	*Jan M. Wiener, Tobias Meilinger, Alain Berthoz*	2031
158	Segmention of Inside-Outside Relations and Complex Contours in the Parietal Lobes	*Nabeela Akhtar, M Jane J. Riddoch, Glyn W W. Humphreys*	2037
159	The Role of Animacy in Imagined Spatial Transformations	*Alfred B. Yu, Jeffrey M. Zacks*	2038
160	Spatial Location Uncertainty As Modifier of Attentional Asymmetries	*Dariusz Asanowicz, Piotr Wolski*	2039
161	Pointing Out the Role of Gesture in Spatial Development	*Megan Sauter, David Uttal, Susan Goldin-Meadow, Susan Levine*	2040
162	How Visual Information Affects a Spatial Task	*Peter Khooshabeh, Mary Hegarty*	2041
163	Spatial Skills As Predictors of Geometry Achievement	*Yvonne S. Kao, John R. Anderson*	2047
164	You Drive All the Way to ...?!! Effects of Previous Environment and Travel Patterns on Spatial Scaling	*Penney Nichols-Whitehead, Stephanie Smith, Paige Werner, Tara Amarose, Hilary Swaney, Tiffany Rowe*	2048
165	The Relationship Between the Perception of Symmetry and Spatial Memory	*Margaret R. Ortmann, Anne R. Schutte*	2049
166	Mental Rotations and Spatial Cognition: Comparisons Between Vision and Touch	*André F. Caissie, Lucette Toussaint, Yannick Blandin*	2050
167	Spatial Reasoning in Cognitive Architectures	*Michael Matessa*	2051
168	Around the World in 80 Steps or How to Represent Space From Within	*Brian Milligan, Jun Luo*	2052
169	Spatial Cognition in Different Spaces	*Harry Haroutioun Haladjian, Carlos Montemayor*	2058
170	Regularities of Shapes in Visuospatial Imagination: Evidence from Drawings	*Jim Davies*	

NOTES:

CogSci 2008 Poster Session III

Higher-Order Cognition: Problem Solving, Reasoning, and Decision Making

Saturday, July 26, 2008 • 5:30-7:00 PM ***Exhibit Hall***

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