

David Reitter

Applied Cognitive Science Lab
& Center for Language Science
College of Information Sciences and Technology

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Education

PhD (Cognitive Science), School of Informatics, University of Edinburgh, UK 2008
MSc (Computer Science), University College Dublin, Ireland 2005
Diplom (Computational Linguistics), University of Potsdam, Germany 2003

Employment

Assistant Professor, College of Information Sciences and Technology, Penn State 2012-
Co-Director, Applied Cognitive Science Lab.
Affiliated Faculty: Center for Language Science, Penn State
Postdoctoral Researcher and Special Faculty, Carnegie Mellon University 2008-2012
Research Fellow, MIT Media Lab Europe, Dublin, Ireland 2002-2004
Computational Linguist, Agentscape AG, Berlin, Germany 2000-2001
Radio journalist (freelance, desk editor) for RadioEINS, Berlin, and ARD, Germany 1999-2002

Grants, Contracts and Fellowships

NSF program office has indicated their intention to propose for an award

PI. CompCog: Inference of the syntactic and semantic relationships between words from an untagged corpus using a distributional model of semantics derived from human memory theory
National Science Foundation (Perception, Action, & Cognition, co-funded: Robust Intelligence).
US\$ 499k. 2017

In progress / completed

Sum: US\$ 684,000 to D.R.; US\$ 1,339,000 total.

Co-PI (with G. Palmer and V. D’Orazio, UT Dallas). 2015
Updating the militarized dispute data through crowdsourcing: MID5, 2011-2017.
National Science Foundation (Political Science). US\$ 345k, total: US\$ 1 Million.

PI. Modeling syntactic priming in language production according to corpus data. 2015
National Science Foundation (Linguistics). US\$ 75k.

PI. Alignment in web-forum discourse: computational models of adaptation and language change. 2015
CISE Research Initiation Initiative grant (CRII)
National Science Foundation (Computer Science/Robust Intelligence). US\$ 174k.

PI. Evaluating the impact of explanation-based transparency approaches on human trust in autonomous unmanned systems. 2014
Air Force Research Laboratory (Prime: SRA; Sub: Lockheed Martin Corp.). US\$90k.

Other External Support / Internal Seed Grants and Contracts

PI (with F. E. Ritter). ICCM 2016: International Conference on Cognitive Modeling. Conference Support. National Science Foundation (SBE PAC, CISE IIS). US\$ 15,480	2016
Co-PI (with M. Putnam and M. Carlson). Competition, conflict, and optimization: Toward a dynamic model of multilingualism. SSRI Faculty Fellows Program. US\$ 22,500	2016
Co-PI (with J. Yen and S. Haynes). Teaching innovation for developing an undergraduate course on human robot interaction using a humanoid robot. College of IST. US\$ 10,000.	2015
Consultant . Voice-enabled agent for realistic integrated combat operations training. Small Business Innovation Grant to ORION Int'l; Air Force Office of Scientific Research.	2014
Co-PI (with J. Grossklags). Once bitten, twice shy: controlled experiments and cognitive modeling of online marketing scams. Seed grant funded by the College of IST. US\$ 8,500.	2013
PI (with Co-PIs J.Yen and P. Mitra). Interactive linguistic alignment in large social networks of health online forums. Seed grant funded by the College of IST. US\$ 8,000.	2013
Co-I (with G. Palmer et al.). Using crowdsourcing to measure complex social concepts. Seed grant funded by the Social Science Research Institute. US\$ 20,000.	2013
Co-I (with C. Lebiere). Learning and modeling for human performance and readiness. Air Force Research Lab, Human Effectiveness Dir. (Prime: Ball Aerospace) \$500k. Terminated early due to sponsor budget cuts.	2011
Postdoctoral Fellowship , German Academic Exchange Service. Awarded, but passed up ~\$100k.	2008

Awards

Best Model . Predicting Cognitive Performance in Open-ended Dynamic Tasks - A Modeling Comparison Challenge. International Conference on Cognitive Modeling	2009
Best Paper . Behavior Representation in Modeling and Simulation Conference	2009
Best Thesis Award . German Society for Computational Linguistics & Language Technology	2003

Invited Lectures

Computational approaches to modeling dialogue, Dept. of Linguistics, U. of California, San Diego	2016
Alignment and Information in Dialogue: How contributions of ideas are reflected in language Korea Advanced Institute of Science and Technology (KAIST), Korea	2016
Alignment in Dialogue: Beyond Syntax. Invited talk, Linguistics Dept., Georgetown University	2015
Window into the mind: Syntactic priming and what it reveals about the psychology of dialogue Department of Psychology, Seoul National University, Korea	2015
Large-scale language data as window into the mind, Distinguished Lecture Series, Department of Library & Information Sciences, Sungkyunkwan University, Korea	2015
How the Mind Works: How Big Data Cognitive Science Unlocks the Mystery of the Human Mind, Invited 3-day lecture, King Abdullah University of Science & Technology, Saudi Arabia	2015
Big-data insights into cognitive representations of language processing, International Workshop on Advanced Learning Sciences, Taipei, Taiwan	2014
Social cognition, on the benefits of forgetting. School of Information Sciences & Tech, Penn State, PA	2012
Measuring and Modeling Language Convergence in Networks. TU Berlin, Germany	2011

Adaptation to conversation partners: On alignment in dialogue. IST, Penn State, PA	2010
Two-level, multi-strategy memory based control. Dynamic Stocks and Flows Modeling Challenge Symposium, Int'l Conf. on Cognitive Modeling, Provo, UT	2009
Cognitive Models of Alignment in Dialogue. Bielefeld University, Germany	2008
Structural Priming: Studies of Syntax and Alignment in Dialogue Corpora. U. Paris 7, France	2007
Statistics tutorial: Linear mixed models. Dept. of Psychology, U. of Dundee, UK	2007
FASiL: A multimodal dialogue system for E-Mail. Institute of Linguistics, U. Potsdam, Germany	2005
Aspects of a situationalized multimodal human-computer interface. School of Computer Science, Carnegie Mellon University, Pittsburgh, PA	2004
Media Laboratory, Massachusetts Institute of Technology, Cambridge, MA	2004
School of Informatics, University of Edinburgh, UK	2004
UI on the Fly: Generating a multimodal user interface with functional unification grammar. Computer Science Department, Macquarie University, Sydney, Australia	2003

Teaching

Penn State

Computational Models of Language - Graduate Seminar	2016
Cognitive Science: Introduction (400-level)	2013, 2017
Emerging Issues in Cognitive Science (Graduate)	2015
Intro. and intermediate Object-Oriented Programming (Java and Python) (200-level)	2012-2015

Sungkyunkwan University, International Summer Semester, Seoul, Korea

Data Science and Management	2016
How the Mind Works - A Big Data Approach	2015, 2016

Carnegie Mellon University

Cognitive Psychology, a 200-level lecture (140-180 students, 9 units) Department of Psychology, Carnegie Mellon University	2011, 2012
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Professional Activities and Service (Selection)

Founder and project lead, Aquamacs Emacs , a software project for science and engineering. More than 13,000 regular users world-wide, primarily in academia	2005-
Inventor/Developer, Zot bib web , a tool to create interactive, explorable web bibliographies	2016-
Senior program committee member, CogSci: Annual Mtg. of the Cognitive Science Society	2017
Area chair in Cognitive Modeling and Psycholinguistics, ACL: Assoc. Computational Linguistics	2016
General and program co-chair, ICCM: International Conference on Cognitive Modeling	2016
Program co-chair, SBP-BRiMS: <i>Social, Cultural, and Behavioral Modeling</i>	2016
Program co-chair, Behavioral Representation in Modeling and Simulation Conference	2013, 2014, 2015
Co-editor, Issue on Behavior Representation, <i>Computational and Mathematical Organization Theory</i>	2015
Co-editor, Issue on Computational Models in Linguistics, <i>Topics in Cognitive Science</i>	2012
Co-chair, 2nd and 3rd Workshops on <i>Cognitive Modeling and Computational Linguistics</i>	2011, 2012
Board member, ACL SIG Natural Language Generation	2005, 2006

Reviewing

Editorial review board member: <i>Frontiers in Psychology</i>	2015-
Panel member, National Science Foundation	2015
Ad-hoc reviewer for <i>Cognition</i> , <i>Cognitive Science</i> , <i>Topics in Cog.Sci.</i> , <i>Psychonomic Bulletin&Review</i> , <i>J Cog. Sci.</i> , <i>Cognitive Science Research</i> , <i>Engineering and Physical Sc. Research Council (EPSRC)</i> , <i>Intl. J. Human Computer Studies</i> , <i>J of Cognitive Engineering and Decision-Making</i> .	
Program Committee Member: Mtg. Association Computational Linguistics (ACL); Mtg. North-American ACL (NAACL); <i>Cognitive Modeling and Computational Linguistics (CMCL)</i> ; <i>Social Computing, Behavioral-Cultural Modeling and Prediction Conference (SBP)</i> ; Mtg. <i>Cognitive Science Soc. (CogSci, EuroCogSci)</i> ; previous years: <i>ACM CHI</i> , <i>ACM UIST</i> , <i>INLG</i> , etc.	2015

Visiting

Visiting Research Scientist, Center for Research in Language, Cognitive Science, University of California, San Diego	2017-
Speech Interfaces Group, Media Laboratory, MIT	2004
Dept. of Computer Science, Macquarie University, Australia	2003

Professional Service to Penn State

Graduate Advisory Committee, College of IST, Penn State	2015-
Faculty Advisor, Penn State Soaring Club	2012-
Initiator, Exchange Program with Sunkyunkwan University, Korea	2015
Task-Force: Global Engagement Network, PSU / National Taiwan Normal University	2015
Data Science Major development (Course Committee), College of IST, Penn State	2015
Graduate Recruiting Committee, College of IST, Penn State	2013-2015
Assessment Committee, College of IST, Penn State	2012-2014

Graduate Students

PhD

Dr. Yafei Wang, *Web-Forum Discourse*, 2013–2017, now: IBM Research
Ms. Moojan Ghafurian, *Decision-Making in Timing Tasks*, 2013–
Mr. Yang Xu, *Alignment in Web-Forum Discourse*, 2013–
Mr. Alexander G. Ororbia II, *Deep Learning with Restricted Boltzmann Machines*, 2013–
Mr. Jeremy R. Cole, *Unsupervised Cognitive Modeling of Language Processing*, 2014–

As PhD committee member

Dr. Michael Kenwick (2017), Dr. Siddharta Banerjee (2016), Dr. Kyle Williams (2016)

MSc: Saranya Venkatraman, 2017–

Skills

English, German; basic: French

Python, Java, C++, C, shell scripting, Prolog, Common Lisp, Emacs Lisp, LaTeX. basic: Perl, assembly, etc.

Certificated commercial and private pilot (glider, airplane), US, UK.

Publications

Manuscripts

A. G. Ororbia II*, T Mikolov, & D.R. (in review after invited revisions).

Learning Simpler Language Models with the Delta Recurrent Neural Network Framework.
Neural Computation

M. Vogelzang, A. De Rechteren van Hemert, D.R., J. Van Rij, P. Hendriks, & H. Van Rijn (in invited revision).

Towards cognitively constrained models of language processing: A review.
Frontiers Psychology.

D.R. & J. Grossklags (in review).

Timing Decisions: How Individual Differences and Task Perception Affect Choices.
Cognitive Science.

M. Ghafurian*, & D. Reitter (in revision).

Impatience in Dynamic Decision Making.

B. McDowell*, N. Chambers, A. Ororbia II*, D.R. (in revision)

Event Ordering with a Generalized Model for Sieve Prediction Ranking

M. Putnam, M. Carlson, D.R. (in prep.)

Integrated, not isolated: Defining typological proximity in an integrated multilingual architecture.

*Asterisks indicate advisees.
Publications are available at
www.david-reitter.com/pub

Journal Articles

Yang Xu* and D.R.

Entropy in conversation: Towards an information-theoretic model of dialogue.
Cognition, accepted pending revisions, 2017.

Vito D'Orazio, Michael Kenwick, Matthew Lane, G. Palmer, & D.R.

Crowdsourcing the measurement of interstate conflict.
PLOS ONE, 11(6), 2016.

Jeyon Paik, J., Jong Kim, Frank E. Ritter, D.R.
Predicting User Performance and Learning in Human-Computer Interaction with the Herbal Compiler.
ACM Transactions on Computer-Human Interaction 22 (5), 2015.

D.R. and Johanna D. Moore
Alignment and Task Success in Spoken Dialogue.
Journal of Memory and Language, 76, 29-46, 2014.

D.R., Frank Keller, and Johanna D. Moore.
A computational cognitive model of syntactic priming.
Cognitive Science, 35(4):587-637, 2011.

D.R. and Christian Lebiere.
How groups develop a specialized domain vocabulary: A cognitive multi-agent model.
Cognitive Systems Research, 12(2):175-185, 2011.

D.R. and Christian Lebiere.
A cognitive model of spatial path planning.
Computational and Mathematical Organization Theory, 16(3):220-245, 2010.

D.R..
Metacognition and multiple strategies in a cognitive model of online control.
Journal of Artificial General Intelligence, 2(2):20-37, 2010.

Kevin A. Gluck, Clayton T. Stanley, Jr. L. Richard Moore, D.R., and Marc Halbrügge.
Exploration for understanding in cognitive modeling.
Journal of Artificial General Intelligence, 2(2):88-107, 2010.

D.R..
Simple signals for complex rhetorics: On rhetorical analysis with rich-feature support vector models.
LDV-Forum, Journal for Computational Linguistics and Language Technology, 18(1/2):38-52, 2003.

Archival and Refereed Conference Articles and Book Chapters

Yang Xu*, D.R.
Spectral Analysis of Information Density in Dialogue Predicts Collaborative Task Performance.
In: *Proc. 55th Annual Mtg. of the Association for Computational Linguistics*. Vancouver, Canada, 2017.

Yafei Wang*, D.R., John Yen
How emotional support and informational support relate to linguistic alignment.
In: *Social, Cultural, and Behavioral Modeling*. Washington, D.C.: Springer, 2017.

Jeremy Cole*, Moojan Ghafurian*, D.R.
Is Word Adoption a Grassroots Process? An Analysis of Reddit Communities.
In: *Social, Cultural, and Behavioral Modeling*. Washington, D.C.: Springer, 2017.

D.R.
Who Aligns With Whom in Web Forum Dialogue: Studies in Big-Data Computational Psycholinguistics
In M. N. Jones (Ed.), *Big Data in Cognitive Science*. Routledge Psychology Press. 2017.

Yang Xu* and D.R.

Entropy converges between dialogue participants: explanations from an information-theoretic perspective.

In *Proc. 54th Annual Mtg. Association for Computational Linguistics (ACL), Vol. 1 (Long Papers)*, 537-546, Berlin, Germany, 2016.

Yang Xu* and D.R.

Convergence of Syntactic Complexity in Conversation

In *Proc. 54th Annual Mtg. Association for Computational Linguistics (ACL), Vol. 2 (Short Papers)*, 443-448, Berlin, Germany, 2016.

Moojan Ghafurian*, D.R.

Impatience induced by waiting: An Effect Moderated by the Speed of Countdowns

In *Proc. Designing Interactive Systems*, 556-564, Brisbane, Australia, 2016.

Jeremy Cole*, Ying Xu, & D.R.

How People Talk About Armed Conflicts

In *Social, Cultural, and Behavioral Modeling. SBP-BRiMS 2016. Lecture Notes in Computer Science*, vol 9708. pages 366-376. Washington, D.C.: Springer, 2016.

Alexander G. Ororbia II*, C. Lee Giles, & D.R.

Learning a Deep Hybrid Model for Semi-Supervised Text Classification.

In *Proc. Empirical Methods in Natural Language Processing (EMNLP)*, 471-481, Lisbon, Portugal, 2015.

Alexander G. Ororbia II*, D.R., Jian Wu, & C. Lee Giles

Online Learning of Deep Hybrid Architectures for Semi-Supervised Categorization.

In *Machine Learning and Knowledge Discovery in Databases. Proc. European Conference, ECML PKDD 2015. Lecture Notes in Computer Science*, vol 9284. pp 516-532. Porto, Portugal: Springer, 2015.

Alexander G. Ororbia II*, Yang Xu, D. R., Vito D'Orazio

Error-correction and Aggregation in Crowd-Sourcing of Geopolitical Incident Information.

In *Social Computing, Behavioral-Cultural Modeling, and Prediction. SBP 2015. Lecture Notes in Computer Science* vol 9021. pp 381-387. Washington D.C.:Springer, 2015.

D.R.

Hungry wolves, creepy sheepies: the gamification of the programmer's classroom.

In J. M. Carroll (Ed.), *Innovative Practices in Teaching Information Sciences and Technology* (pp. 19-29). Springer.

D.R. and Christian Lebiere.

Social cognition: Memory decay and adaptive information filtering for robust information maintenance.

In *Proc. Twenty-Sixth AAAI Conference on Artificial Intelligence (AAAI-12)*, Toronto, Ontario, 2012.

D.R. and Johanna D. Moore.

Predicting success in dialogue.

In *Proc. 45th Annual Meeting of the Association of Computational Linguistics (ACL)*, pp. 808-815, Prague, Czech Republic, 2007.

D.R., Julia Hockenmaier, and Frank Keller.
Priming effects in Combinatory Categorical Grammar.
In: *Proc. 2006 Conference on Empirical Methods in Natural Language Processing (EMNLP)*, pp. 308-316, Sydney, Australia, 2006.

D.R., Frank Keller, and Johanna D. Moore.
Computational modelling of structural priming in dialogue.
In *Proc. Human Language Technology conference - North American chapter of the Association for Computational Linguistics annual meeting (HLT-NAACL)*, pp. 121-124, New York, 2006.

Other Refereed Conference and Workshop Papers

Jeremy Cole*, Moojan Ghafurian*, & D. R.
Linking Memory Activation and Word Adoption in Social Language Use via Rational Analysis.
In: *Proceedings of the 15th International Conference on Cognitive Modeling*. London, UK, 2017.

Jeremy Cole* & D. R.
Examining Working Memory during Sentence Construction with an ACT-R Model of Grammatical Encoding.
In *Proceedings of the 15th International Conference on Cognitive Modeling*. London, UK, 2017.

Matthew A. Kelly*, D. R., & Robert L. West
Degrees of Separation in Semantic and Syntactic Relationships.
In *Proceedings of the 15th International Conference on Cognitive Modeling*. London, UK, 2017.

Moojan Ghafurian*, D.R.
Gender Differences in the Effect of Impatience on Men and Women's Timing Decisions
In *Proc. 38th Annual Conference of the Cognitive Science Society*, Philadelphia, PA, 2016.

Yang Xu* and D.R.
An Evaluation and Comparison of Linguistic Alignment Measures.
In *Proc. Cognitive Modeling and Computational Linguistics (CMCL)*. Denver, CO: Association for Computational Linguistics. 2015.

Yafei Wang*, John Yen, and D.R.
Pragmatic Alignment on Social Support Type in Health Forum Conversations.
In *Proc. Cognitive Modeling and Computational Linguistics (CMCL)*. Denver, CO: Association for Computational Linguistics, 2015.

Moojan Ghafurian* and D.R.
Impatience, Risk Propensity and Rationality in Timing Games.
In *Proc. 36th Annual Conference of the Cognitive Science Society*. Quebec City, Quebec, 2014.

Jens Grossklags and D.R.
How Task Familiarity and Cognitive Predispositions Impact Behavior in a Security Game of Timing.
In *Proc. 27th IEEE Computer Security Foundations Symposium*. Vienna, Austria: IEEE, 2014.

Yafei Wang*, D.R., and John Yen.

Linguistic Adaptation in Online Conversation Threads: Analyzing Alignment in Online Health Communities.

In Proc. *Cognitive Modeling and Computational Linguistics*. Workshop at the Mtg. of the Association for Computational Linguistics, 2014.

D.R., Jens Grossklags, and Alan Nochenson.
Risk-seeking in a continuous game of timing.

In R. West and T. Stewart, editors, *Proc. 12th International Conference on Cognitive Modelling*, pages 397-403, Ottawa, Canada, 2013.

D.R. and Paul Scerri.

Smooth dynamics, good performance in cognitive-agent congestion problems.

In Proc. *35th Annual Mtg. of the Cognitive Science Society*, pages 3269-3274, Berlin, Germany, 2013.

Paul Scerri and D.R.

Cognitive Instance-Based Learning Agents in a Multi-Agent Congestion Game.

In Workshop on Information Sharing in Large Scale Multi-Agent Systems, at AAMAS, 2013.

D.R. and Christian Lebiere.

Towards cognitive models of communication and group intelligence.

In Proc. *33rd Annual Meeting of the Cognitive Science Society*, pp. 734-739, Boston, MA, 2011.

D.R., Katia Sycara, Christian Lebiere, Yury Vinokurov, Antonio Juarez, and Michael Lewis.

How teams benefit from communication policies: information flow in human peer-to-peer networks.

In Proc. *20th Behavior Representation in Modeling & Simulation (BRiMS)*, 8 p., 2011.

D.R. and Christian Lebiere.

Accountable modeling in ACT-UP, a scalable, rapid-prototyping ACT-R implementation.

In Proc. *10th International Conference on Cognitive Modeling (ICCM)*, pp. 199-204, Philadelphia, PA, 2010.

D.R., Ion Juvina, Andrea Stocco, and Christian Lebiere.

Resistance is futile: Winning lemonade market share through metacognitive reasoning in a three-agent cooperative game.

In Proc. *19th Behavior Representation in Modeling & Simulation (BRiMS)*, 9 p., Charleston, SC, 2010.

D.R. and Christian Lebiere.

On the influence of network structure on language evolution.

In Ron Sun, editor, *Proc. CogSci Workshop on Cognitive Social Sciences: Grounding the Social Sciences in the Cognitive Sciences*, Portland, Oregon, 2010.

D.R. and Christian Lebiere.

Did social networks shape language evolution? A multi-agent cognitive simulation.

In Proc. *Cognitive Modeling and Computational Linguistics Workshop (CMCL)*, pp. 9-17, ACL, Uppsala, Sweden, 2010.

Christian Lebiere, Andrea Stocco, D.R., and Ion Juvina.

High-fidelity cognitive modeling to real-world applications.

In *Proc. NATO Workshop on Human Modeling for Military Application*, 19 p., Amsterdam, NL, 2010.

D.R., Christian Lebiere, Michael Lewis, Huadong Wang, and Zheng Ma.

A cognitive model of visual path planning in a multi-robot control system.

In *Proc. Systems Man Cybernetics 2009 (IEEE-SMC)*, 7 p., San Antonio, TX, 2009.

D.R. and Christian Lebiere.

Towards explaining the evolution of domain languages with cognitive simulation.

In *Proc. 9th International Conference on Cognitive Modeling (ICCM)*, 8 p., Manchester, UK, 2009.

D.R. and Christian Lebiere.

A subsymbolic and visual model of spatial path planning.

In *Proc. Behavior Representation in Modeling and Simulation (BRIMS)*. 8 p., 2009.

Best paper award BRIMS 2009.

D.R. and Frank Keller.

Against sequence priming: Evidence from constituents and distitueents in corpus data.

In *Proc. 29th Annual Conference of the Cognitive Science Society (CogSci)*, pp. 1421-1426, 2007.

Ben Hachey, Gabriel Murray, and D.R..

Dimensionality reduction aids term co-occurrence based multi-document summarization.

In *Proc. COLING-ACL Workshop Task-Focused Summarization and Question Answering 2006*, pp. 1-7, Sydney, Australia, 2006.

Myroslava O. Dzikovska, D.R., Johanna D. Moore, and Claus Zinn.

Data-driven modelling of human tutoring in calculus.

In *Proc. ECAI 2006 Workshop on Language-enabled Educational Technology*, pp. 22-28, Riva del Garda, Italy, 2006.

D.R., Johanna D. Moore, and Frank Keller.

Priming of syntactic rules in task-oriented dialogue and spontaneous conversation.

In *Proc. 28th Annual Conference of the Cognitive Science Society (CogSci)*, pp. 685-690, Vancouver, Canada, 2006.

Ben Hachey, Gabriel Murray, and D.R..

The Embra system: Query-oriented multi-document summarization with a very large latent semantic space.

In *Document Understanding Conference (DUC)*, 6 p., Vancouver, Canada, 2005.

Hans Dolfing, D.R., Luis Almeida, Nuno Beires, Michael Cody, Rui Gomes, Kerry Robinson, and R. Zielinski.
The FASiL speech and multimodal corpora.

In *Proc. INTER/EUROSPEECH 2005*. 4 p., Lisbon, Portugal.

Erin Panttaja, D.R., and Fred Cummins.

The evaluation of adaptable multimodal system outputs.

In *Proc. DUMAS Workshop on Robust and Adaptive Information Processing for Mobile Speech Interfaces*, pp. 69-76, 2004.

D.R..

A development environment for multimodal functional unification generation grammars.

In *Third International Conference on Natural Language Generation (INLG). 2nd Volume, posters*. 4 p., 2004.

D.R., Erin Panttaja, and Fred Cummins.
UI on the fly: Generating a multimodal user interface.
In *Proc. Human Language Technology Conference 2004 / North American Chapter of the Association for Computational Linguistics (HLT/NAACL)*, pp. 45-48, 2004.

D.R. and Manfred Stede.
Step by step: underspecified markup in incremental rhetorical analysis.
In *Proc. 4th International Workshop on Linguistically Interpreted Corpora (LINC) at EACL*, pp. 77-84, Budapest, 2003.

D.R.. Statistical part-of-speech guessing for German: Support vector classifiers versus voting.
In *Proc. 12th Student Conference on Computational Linguistics (TaCoS)*, 8 p., Potsdam, Germany, 2002.

Daniela Berger, D.R., and Manfred Stede.
XML / XSL in the dictionary: The case of discourse markers.
In *Proc. 2nd Workshop on NLP and XML (NLPXMP) at COLING*, pp. 1-8, Taipei, Taiwan, 2002.

D.R., Stefan Covaci, Florin Oltean, Catalin Bacanu, and Traian Serbanuta.
Hybrid natural language processing in a customer-care environment.
In *Proc. 11th Student Conference on Computational Linguistics (TaCoS)*, 8 p., Heidelberg, Germany, 2001.

Edited Volumes

D.R. & Frank E. Ritter
Introduction to the Issue on Computational Models of Memory: Selected Papers From the International Conference on Cognitive Modeling. *Topics in Cognitive Science, Issue on Computational Models of Memory* 9(1), 48-50, 2017.

William G. Kennedy, Robert St. Amant, & D.R.
Behavior representation in modeling and simulation: introduction to CMOT special issue: BRiMS 2013. *Computational and Mathematical Organization Theory*, 22(1), 1-3, 2016.

Xu, Kevin S., D.R., Lee, Dongwon, Osgood, Nathaniel (Eds.)
Social, Cultural, and Behavioral Modeling. 9th International Conference, SBP-BRiMS 2016. LNCS, 9708. Springer, Switzerland.

D.R., E. Webb Stacy, Elizabeth Mezzacappa (Eds.)
Proceedings of the 24th Annual Conference on Behavior Representation in Modeling and Simulation. Washington, D.C.: BRiMS Society, 2015.

Robert St.Amant, D.R., E.Webb Stacy (Eds.)
Proceedings of the 23rd Annual Conference on Behavior Representation in Modeling and Simulation. Washington, D.C.: BRiMS Society, 2014.

William G. Kennedy, D.R., Robert St.Amant (Eds.).
Proceedings of the 22rd Annual Conference on Behavior Representation in Modeling and Simulation. Ottawa, Canada: BRiMS Society, 2013.

John Hale and D.R. (Eds.)
Issue on Computational Models of Natural Language.
Topics in Cognitive Science, 5(3), (11 papers). 2013.

Theses

Context effects in language production: Models of syntactic priming in dialogue corpora.
PhD thesis, University of Edinburgh, 177 p., 2008.

Hybrid planning and realization of coherent utterances for multimodal natural language dialogue systems.
Master's thesis, University College Dublin, 115 p., 2004.

Rhetorical analysis with rich-feature support vector models.
Master's thesis, University of Potsdam, 94 p., 2003.

Abstract-based Conference Talks and Posters

An Efficient System for Conflict Data Production
(V. D'Orazio, D.R., G. Palmer, M. Kelly, M. Kenwick, Z. Terechshenko, D. Okyere)
Presented at the 2017 Conference of the Society for Political Methodology (PolMeth), Madison, WI

A.G. Ororbia II*, D. R., C.L. Giles
The Temporal Neural Coding Network: Towards Lifelong Language Learning.
Presented at the 11th Annual Machine Learning Symposium, The New York Academy of Sciences.

Human Visual Perception of the 17 Wallpaper-Group Patterns using Timed Trials.
(Y. Liu, J. Cole*, & D.R.)
Oral presentation at the Vision Sciences Society Sixteenth Annual Meeting, Florida, 2016.

Systematic, Individual and Situational Biases in Timing Decisions.
(M. Ghafurian*, J. Grossklags, D.R.) Oral Presentation at the International Meeting of the Psychonomic Society, Granada, Spain, 2016

Symmetry Features and Group Hierarchy Model Human Symmetry Perception.
(J. Cole*, D.R., Y. Liu) Poster at the International Meeting of the Psychonomic Society, Granada, Spain, 2016

Cognitive Models Predicting Surprisal in Robot Operators.
(D.R., Y. Xu*, P. Craven, A. Sándor, R.C. Garrett, E.V. Cross, J. L. Franke) Poster and Abstract presented at the International Conference for Cognitive Modeling, Groningen, Netherlands, 2015

Cognitive Security.
(D.R., C. Gonzalez, C. Lebiere and J. Meyer.) Panel presented at the 13th Annual Workshop on the Economics of Information Security, University Park, PA, 2014.

Computational and Underspecified Approaches to Standardization.
In: "Methods for Communicating the Structure and Content of a Cognitive Model", a discussion panel at Human Factors and Ergonomics Society International Annual Meeting. San Diego, CA, 2013.

Modeling Efficiency-guided Modality Choice in Voice and Graphical User Interfaces.
(S. Schaffer (TU Berlin), and D.R.). Poster at the 2012 International Conference on Cognitive Modeling. Berlin, Germany, 2012.

Cognition and social dynamics: a new approach to emergent phenomena.
(With A. Coman, W. Mason, W. Hirst) Symposium at the 23rd Annual Convention of the Association for Psychological Science, Washington, D.C., 2011.

Scaling Individual Decision Making Models to Models of Social Networks.
(With C. Gonzalez, C. Lebiere, I. Juvina, I. Erev, M. Zinkevich)
Symposium at Behavior Representation and Modeling, Provo, UT, 2011.

The Geo Game: Information propagation and collaboration in large human networks.
Talk at *Scaling Individual Decision Making Models to Models of Social Networks*, a Symposium at the 20th Behavior Representation in Modeling & Simulation Conference, 2011.

ACT-UP: A cognitive modeling toolkit for composition, reuse and integration. (With C. Lebiere)
Talk at MODSIM World Conference and Expo, Hampton, VA, 2010.

Results and lessons learned from the 2009 DSF model comparison challenge.
(With W. Warwick, V. Dutt, K.A. Gluck)
Symposium at the 19th Behavior Representation in Modeling & Simulation Conference, 2010.

Structural priming in language production as the result of learning and spreading activation in ACT-R.
(With F. Keller.)
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The repetition of general lexical material boosts structural priming in language production.
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Successful dialogue requires syntactic alignment. (With J. D. Moore)
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Corpus-based evidence against sequence priming. (With F. Keller and J. Hockenmaier)
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