

Steven T. Piantadosi

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Massachusetts Institute of Technology
Brain & Cognitive Sciences Department
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Research interests

Language processing, language acquisition, machine learning, structured probabilistic modeling, theory of computation, information theory, philosophy of cognitive science

Education

Graduate:

Ph.D. (in progress) Department of Brain and Cognitive Sciences at the Massachusetts Institute of Technology

Undergraduate:

BS Mathematics, BA Linguistics from *The University of North Carolina at Chapel Hill*

Honors and awards

Graduate

NSF Graduate Research Fellowship Award, 2008-2011

Angus McDonald Award for Excellence in Undergraduate Teaching, 2009

Undergraduate academics

Kevin E. Reichardt Carolina Scholars Award, 2002-2006

The Marc Adam Eisdorfer Award in Linguistics, 2006

The Archibald Henderson Prize in Mathematics, 2006

UNC Graduate with highest honors in Mathematics, 2006

UNC Honors Program, 2002-2006

Pi Mu Epsilon National Honorary Mathematics Fraternity

Phi Beta Kappa

Undergraduate athletics

UNC Varsity Fencing Team Award of Excellence, 2006
Athletic Director's Scholar-Athlete Award, 2005 & 2006
Outstanding Senior Male Scholar Athlete, 2006
ESPN The Magazine Academic All-America First Team, 2006
ACC Senior Scholar-Athlete Award, 2006

Professional memberships and service

Member

Sigma Xi
AAAS
MAA
Cognitive Science Society

Organizer

Boston Society of Cognitive Science

Reviewer

Cognitive Science (ad hoc)
Language and cognitive processes (ad hoc)
Cognitive Science Society Conference, 2008 & 2009

First author publications

Piantadosi, S.T., Tily, H., & Gibson, E. The communicative function of ambiguity in Language. (in prep)

Piantadosi, S.T., Goodman, N., & Tenenbaum, J. A formal model of number bootstrapping. (in prep)

Piantadosi, S.T. & Gibson, E. Uniform information density in discourse.: a cross-corpus analysis of syntactic and lexical predictability. (in prep)

Piantadosi, S.T. 2008. Symbolic Dynamics on Free Groups. Discrete and Continuous Dynamical Systems - Series A. 20(3) : 725-738.

Non-first-author publications

Fedorenko, E., Piantadosi, S.T., Frank, M. & Gibson, E. The interaction of syntactic and lexical information sources in language processing: The case of the noun-verb ambiguity. (submitted)

Fedorenko, E., Cherkasskiy, L., Piantadosi, S.T., Scholz, J. & Saxe, R. The nature of

the listener's representations of the speaker's utterances. (in prep)

Conference talks

Piantadosi, S.T., Tily, H., Gibson, E. "The communicative lexicon hypothesis." CUNY Conference on Human Sentence Processing, 2009.

Piantadosi, S.T., Tily, H., Gibson, E. "The communicative lexicon hypothesis." Cogsci 2009.

Piantadosi, S.T., Goodman, N., Tenenbaum, J. "A formal model of number bootstrapping." Recursion, 2009.

Piantadosi, S.T., Gibson, E. "Uniform information density in discourse.: a cross-corpus analysis of syntactic and lexical predictability." CUNY Conference on Human Sentence Processing, 2008.

Piantadosi, S.T. "Symbolic Dynamics and Free Groups." UNC-Chapel Hill Department of Mathematics Seminar Talk, 2006.

Piantadosi, S.T. "Symbolic Dynamics and the Free Group." UNC-G Regional Undergraduate Mathematics Conference, 2005.

Piantadosi, S.T. "When Space Matters: An Algebraic Perspective on Spatial Population Dynamics." Santa Fe Institute, 2004.

Conference posters

Piantadosi, S.T., Goodman, N., Ellis, B., Tenenbaum, J. A Bayesian Model of the Acquisition of Compositional Semantics. Cogsci 2008.

Fedorenko, E., Cherkasskiy, L., Piantadosi, S.T., Saxe, R. "Prosody influences the listener's online representation of the speaker's thoughts." CUNY Conference on Human Sentence Processing, 2008.

Aizawa, H., Plitt, J., Piantadosi, S.T., Bochner, B. Human Eosinophils, Basophils, and HMC-1 Cells Express Both Short and Long Splice Variants of Siglec-8. 58th meeting of the American Academy of Asthma, Allergy and Immunology, 2002.

Previous research experience

Research in symbolic dynamics at The Erwin Schroedinger International Institute for Mathematical Physics in Vienna funded by a UNC University Center for

International Studies grant, Summer 2005.

Independent research in symbolic dynamics funded by a UNC Summer Undergraduate Research Fellowship, Summer 2005.

Research Experiences for Undergraduates at the Santa Fe Institute, Summer 2004.

Software development with the UNC Nanoscale Science Research Group, Summer 2003.

Research internship at Johns Hopkins School of Medicine, Asthma and Allergy Center, Summer 2001.

Computer programmer for the Antoni van Leeuwenhoek Hospital in Amsterdam, Netherlands, Summer 2000.
