

Daniel Weiss
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Pennsylvania State University

**CONTACT
INFORMATION**

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**RESEARCH
INTERESTS**

language acquisition, comparative psychology, developmental and cognitive psychology, speech perception, animal cognition and communication, motor planning

EMPLOYMENT

2009-present: Associate professor of Psychology and Linguistics, The Pennsylvania State University
2003-2009: Assistant professor of Psychology and Linguistics The Pennsylvania State University
2000-2003: Postdoctoral fellow, Brain & Cognitive Sciences, University of Rochester

EDUCATION

- 1994-2000 **Harvard University, Graduate School of Arts and Sciences, Cambridge, Ma, 02138**
Ph.D. in Psychology – Cognition, Brain & Behavior
- 1996 **Harvard University, Graduate School of Arts and Sciences, Cambridge, Ma, 02138**
M.A. in Psychology
- 1991-1994 **University of Maryland at College Park, College Park, Md. 20910**
BA in Psychology, (*Summa cum laude*),

PUBLICATIONS

- Weiss D.J., Kralik, J.D., & Hauser, M.D. (2001). Face processing in cotton-top tamarins (*Saguinus oedipus*). *Animal Cognition*, 3,(4)191-205.
- Weiss, D.J., Garibaldi, B. T., & Hauser, M. D. (2001). The production and perception of long calls by cotton-top tamarins (*Saguinus oedipus*): Acoustic analyses and playback experiments. *Journal of Comparative Psychology*, 15(3), 258-271.
- Hauser, M.D., Weiss, D.J. & Marcus, G. (2002) Rule learning by cotton-top tamarins. *Cognition*, 86, B15-B22.

- Miller C., Weiss, D.J. & Hauser, M.D. (2002) Mechanisms of acoustic classification in primates. A. Ghazanfar (Ed.), Primate Audition: Ethology and Neurobiology. CRC Press. 43-61.
- Weiss, D.J., Ghazanfar, A.A., Miller, C.T., & Hauser, M.D. (2002). Specialized processing of primate facial and vocal expressions: Evidence for cerebral asymmetries. L. Rogers and R. Andrew (Eds.), Comparative Vertebrate Laterality. 480-531.
- Weiss, D.J. & Hauser, M.D. (2002) Perception of harmonics in the combination long call of cotton-top tamarins (*Saguinus oedipus*) *Animal Behaviour* 64, 415-426.
- Maye, J. & Weiss, D.J. (2003) Statistical cues facilitate infants' discrimination of difficult phonetic contrasts. *Proceedings of the 27th Annual Boston University Conference on Language Development*
- Jordan, K., Weiss, D., Hauser, M., & McMurray, B. (2004) Individual recognition and antiphonal responses to loud contact calls produced by cotton-top tamarins (*Saguinus oedipus*). *International Journal of Primatology* 25(2), 465-475.
- Weiss, D.J. & Newport E. (2006) Mechanisms Underlying Language Acquisition: Benefits From a Comparative Approach. *Infancy* 9(2), 241-257.
- Weiss, D.J. & Santos, L. (2006) Introduction to Thematic Collection: Why Primates?: The Importance of Non-Human Primates for Understanding Human Infancy. *Infancy* 9(2), 133-146.
- Weiss, D.J. & Gerfen, C. (2006) Language segmentation in a bilingual environment. *Proceedings of the 30th Annual Boston University Conference on Language Development*
- Rosenbaum, D.A., Cohen, R.G., Jax, S.A., Weiss, D.J. & van der Wel, R. (2007) The problem of serial order in behavior: Lashley's Legacy. *Human Movement Science*, 26, 525-554.
- Weiss, D.J., Wark, J. & Rosenbaum, D.A. (2007) Monkey see, monkey plan, monkey do: The end-state comfort effect in cotton-top tamarins (*Saguinus oedipus*). *Psychological Science*, 18(12), 1063-1068.
- Maye J., Weiss, D.J. & Aslin R.N. (2008) Statistical phonetic learning in infants: Facilitation and feature generalization. *Developmental Science*, 11(1), 122-134.
- Weiss, D.J., Gerfen, C., & Mitchell, A. (2008) Colliding cues in word segmentation: The role of cue strength and individual differences. *Proceedings of the 32nd Annual Boston University Conference on Language Development*, 537-549.
- Weiss, D.J. & Maye, J. (2008) The role of contrast in the acquisition of phonetic systems. Avery, P., Rice, K., and Dresher, B.E. (Eds.) *Contrast in Phonology: Theory, Perception, Acquisition*. Mouton de Gruyter (Berlin/ New York), 219-230.
- Mitchel, A. D. & Weiss, D.J. (2009) Faces in segmentation: The role of audio-visual integration. *Proceedings of the 33rd Annual Boston University Conference on Language Development*, 667-678.
- Weiss, D.J., Gerfen, C. & Mitchel, A.D. (2009) Speech segmentation in a simulated bilingual environment: A challenge for statistical learning? *Language Learning and Development* 5, 30-49.

Weiss, D.J. & Wark, J. (2009) Hysteresis effect in a motor task in cotton-top tamarins (*Saguinus oedipus*) *Journal of Experimental Psychology: Animal Behavior Processes*, 35 (3), 135-141.

Chapman, K.M., Weiss, D.J., & Rosenbaum, D.A. (in press). Evolutionary roots of motor planning: The end-state comfort effect in lemurs. *Journal of Comparative Psychology*

Mitchel, A. & Weiss, D.J. (in press) What's in a face? Visual contributions to speech segmentation. *Language and Cognitive Processes*

Weiss, D.J. & Chapman, K. (in press) Animal Learning and Behavior. *To appear in the Corsini Encyclopedia of Psychology*

Weiss, D.J., Gerfen, C., & Mitchel, A. (in press) Colliding cues in word segmentation: The role of cue strength and general cognitive processes. *Language and Cognitive Processes*

Linck, J. & Weiss, D.J. (in review) Working memory predicts the acquisition of explicit L2 knowledge. GURT 2009 Conference Proceedings (peer reviewed).

Mitchel, A. & Weiss, D.J. (in review) Simultaneous statistical learning in two modalities: Evidence for modality-general accounts. *Cognition*

PUBLICATIONS IN PREPARATION

Chapman, K.M., Graves, H.M., Roberts, R. & Weiss, D.J. (in preparation) Do prosimian primates perceive intentional actions? Evidence from lemurs.

Maye, J. & Weiss, D.J. (in preparation) Distributional learning of a non-native tonal contrast by adult learners. To be submitted to *Journal of the Acoustical Society of America*

Rosenbaum, D.A. & Weiss, D.J. (in revision) Motor psychophysics: Computer animations provide a tool for estimating effort.

Weiss, D.J., Locke, J., & Dussias, N. (in preparation) The crying game: Nonhuman primates responses to human infant vocalizations.

Weiss, D.J., Newport, E., Aslin, R.N., and Wonnacott, L. (in preparation) Statistical Learning in Speech: Syllables or Segments? To be submitted to *Cognitive Psychology*

Weiss, D.J. (in preparation) Underlying representations of support structures by cotton-top tamarins (*Saguinus oedipus*)

GRANTS

External

NIH R03 HD048996-01 Bilingual Language Segmentation – (2005-2008), \$100,000

The goal of this grant is to explore how learners (infants and adults) can encapsulate statistical information from multiple input streams (simulating, in a reductionist way, bilingual input).

NSF 0519237 – A comparative investigation of statistical learning Jointly submitted with Jessica Maye (collaborator at Northwestern). (2005-2009), \$350,000
The goal of this grant is to elucidate the similarities and differences between three populations (human adults, infants, and nonhuman primates) with respect to the statistical learning of linguistic patterns.

Pending

NIH R21 HD060152-01 Role: **PI** - Language and Motor Sequencing, 2010-2012 – \$275,000 (co-Investigators include Eric Loken, Elina Mainela-Arnold, Carol Miller, David Rosenbaum)

NIH Role: Core Training Faculty - Center for Language Sciences at the Pennsylvania State University. T32 Training Grant.

NSF Role: Core faculty – Center for Language Sciences at the Pennsylvania State University PIRE proposal

Internal

2008-present Anticipatory planning in children and nonhuman primates. Level I CYFC award, \$5,000.00

2007-2008 Center for Language Science Cross-disciplinary Research Initiative
Level I CLS award, \$5,000.

2005 – 2006 Bilingual language acquisition. Level II CYFC award, \$20,000.

2004- 2005 Language Science Research Group CYFC Grant, *Research on Speech Perception*, (Role: Co-Investigator)

2003-2004 “The Mechanisms Underlying Language Acquisition” Penn State University Children, Youth, and Families Consortium. Level 1 award.

1996 McMaster Prize Grant in psychophysics

1995 McMaster Prize Grant in psychophysics

In preparation

NSF: Group behavior in primates (to be submitted August 2009)

NIH r01: Statistical learning of multiple inputs: when to combine (to be submitted Oct 2009)

HONORS

1999 George W. Goethals Teaching Award

1998 Derek Bok Award for excellence in teaching.

1997 Derek Bok Graduate Writing Fellowship

1995 Honorable Mention, Department of Defense Fellowship Award
1994 Elected to National Honor Society.
1994 Named as Dean's Scholar at University of Maryland
1991-1994 Dean's honor roll

PROFESSIONAL SERVICE

Editorial Board Language Learning and Development

Special Action Editor: *Infancy* – special edition on comparative work with primates

Ad hoc reviewer: Animal Cognition
Child Development
Cognition
Developmental Psychology
Ethology
Language Learning and Development
Journal of the Acoustical Society of America
Journal of Comparative Psychology
Journal of Experimental Psychology: Learning, Memory, and Cognition
Journal of Speech, Language, and Hearing Research
National Science Foundation
Philosophical Transactions of the Royal Society
Psychological Science

Conference reviewer: Boston University Conference on Language Development (2009)
Second Language Research Forum
European Cognitive Science Society (2007)
Cognitive Science Society (2007)

Professional memberships *American Psychological Association*
Animal Behaviour Society
Association for Psychological Science
Cognitive Science Society - 2006
Eastern Psychological Association - 2005-2006
International Linguistics Association - 2007
International Society on Infant Studies

RECENT CONFERENCE PRESENTATIONS (REFERREED)

Chapman, K.M. & Weiss, D.J. (2009) Motor Planning in Lemurs: The end-state comfort effect. The 16th International Conference on Comparative Cognition, Mebourne, Fl.

Linck, J. & Weiss, D.J. (2009) Working memory predicts the acquisition of explicit L2 knowledge. Georgetown University Round Table, Washington, DC

Chapman, K.M. & Weiss, D.J. (2008) Learning the ropes: Motor planning in cotton-top tamarins (*Saguinus oedipus*). Comparative Cognition and Learning Society Meeting, Chicago, il.

- Mitchel, A. & Weiss, D.J. (2008) Faces in segmentation: The role of audio-visual integration. 33rd Annual Boston University Conference on Language Development
- Weiss, D.J., Gerfen, C. & Mitchel, A. (2007) Colliding cues in word segmentation: The role of cue strength and individual differences. 32nd Annual Boston University Conference on Language Development
- Weiss, D.J., Gerfen, C., Mitchel, A. & Rizzo, W. (2007) Inhibitory control in speech segmentation International Linguistics Association Annual Meeting, New York, NY
- Weiss, D.J., Wark, J.D. & Rosenbaum, D.A. (2007) A comparative approach to motor planning International Linguistics Association Annual Meeting, New York, NY
- Weiss, D.J. (2006) A comparative approach to motor planning *Cognitive Science Society*. Vancouver, Ca.
- Mitchel, A., Weiss, D.J., Gerfen, C. & Rizzo, W. (2006) The role of pauses in segmenting speech: A new perspective on colliding cues. *Hoosier Mental Life*
- Weiss, D.J. & Gerfen, C. (2006) Bilingual Speech Segmentation. *Eastern Psychological Association*
- Weiss, D.J. & Newport, E.L. (2006) A commentary on the language evolution symposium. *American Association for the Advancement of Science*. St. Louis, Mo.
- Weiss, D.J. & Gerfen, C. (2005) Language segmentation in a bilingual environment. 30th Annual Boston University Conference on Language Development
- Newport, E., Weiss, D.J., Aslin, R.N., and Wonnacott, L. (2004) Statistical Learning in Speech: Syllables or Segments? 29th Annual Boston University Conference on Language Development.
- Maye, J. and Weiss, D.J. (2004) "Phonetic Learning in Infancy" International Conference of Infant Studies (ICIS), Chicago, IL.
- Weiss, D.J. and Maye, J. (2002) "The role of contrast in the acquisition of phonetic systems." Second International Conference on Contrast in Phonology, Toronto.
- Weiss, D.J. and Maye, J. (2002) "Statistical cues facilitate infants' discrimination of difficult phonetic contrasts." 27th Annual Boston University Conference on Language Development.

RECENT CONFERENCE POSTERS (REFERREED)

- Chapman, K. & Weiss, D.J. (2009) Stick To The Plan: How Tamarin Monkeys Coordinate Sequential Motor Actions. 50th Annual Meeting of the Psychonomic Society, Boston (*forthcoming*)
- Mitchel, A. and Weiss, D.J. (2008) Multi-sensory statistical learning: Evidence for modality-general mechanisms. *Cognitive Science Society*. Washington, DC.
- Mitchel, A. and Weiss, D.J. (2007) The role of faces in bilingual segmentation: The importance of audio-visual synchrony. 3rd Annual Rovereto Workshop on Bilingualism

Weiss, D.J. and Gerfen, C. (2007) The influence of pauses on statistical learning: New thoughts on colliding cues. Society for Research on Child Development, Boston, Ma.

Weiss, D.J. and Gerfen, C. (2005) Bilingual Speech Segmentation. 46th Annual Meeting of the Psychonomic Society, Toronto.

INVITED TALKS

"Commentary on Mirror Neuron Symposium" Morris Symposium on Language, Cognition and Motor Control System, Stonybrook University, May, 2009

"Motor planning in primates" Anthropology Colloquium, Penn State University, March 2009

"Statistical learning and the curse of dimensionality" Center for Language Science, Penn State University, January, 2009

"Motor Planning in Primates" University of Massachusetts Neuroscience and Behavior Program, October, 2008

"Simon says: Language and general cognitive functions are related" University of Iowa, October, 2008

"Serious Monkey Business" Cognitive Brown Bag, Penn State University, November, 2007

"The Crying Game: A comparative approach to the perception of human infant vocalizations" HDFFS Methods Lunch, Penn State University, October, 2007

"Statistical learning and bilingualism" Invited Speaker for the 3rd Annual Rovereto Workshop on Bilingualism, Rovereto, Italy, September, 2007

"Motor control: A comparative approach." *Third International Workshop on Posture-Based Motion Planning*, University Park, Pa. June, 2007

"Statistical learning in word segmentation: Challenges from L1 and L2" Ohio State Linguistics Department, co-presented with Chip Gerfen, February, 2007

"Statistical learning in word segmentation: How are conflicting cues resolved?" Northwestern University, November, 2006

"Competition in statistical learning" Center for Language Sciences, Penn State University, September 2006

"Statistical learning of L1 and L2" New York University, Cognitive Area, July 2005

"Statistical learning of L1 and L2" University of Connecticut Developmental Colloquium series April 2005

"Statistical learning of L1 and L2" Language Science Group, Penn State University, January 2005

"Bilingual speech segmentation" HDFFS Methods Lunch, Penn State University, October, 2004

"A comparative approach to the study of language" Language Science Group, Penn State University, March 2004

"Of monkeys and men: A comparative approach to the study of vocal communication"
National Institutes of Health Biology Meeting, May 2003

"Thinking about animal thinking" University of Rochester Honors Psychology Group, March 2002

"Acoustic Perception in Primates" University of Rochester Brain and Cognitive Sciences, 2002

TEACHING EXPERIENCE

Penn State University

2003-present Continuation of Animal Minds course,
Advanced methods in psychology (Psyc 401)
Introduction to Language Acquisition
Advanced laboratory methods in animal research
Proseminar in Cognitive Psychology
Graduate Seminar in Language Acquisition (Psych 525; Spring 2009)

University of Rochester

2001-2003 Designed and taught a course on animal cognition and communication
(BCS/PSY183 Animal Minds) at University of Rochester

Harvard University

1998 Tutor in Psychology (Selected position; led a seminar for sophomores covering
areas such as Communication, Memory, Intelligence, Psychopathology,
Addiction, and Emotion)

**1997 and
1999-2000** Tutor for Mind, Brain, and Behavior Program
(Selected position; led a seminar for sophomores in selected topics in cognitive
neuroscience)

1995-1998 Teaching Fellow for Introduction to Psychology

1996 Teaching Fellow for Cognitive Psychology

UNIVERSITY SERVICE

2009 - present Promotion and Tenure Committee - Department of Psychology at Penn State

2009 - present Cognitive Area Head

2009 - present Member of the University IRB

2009 - present Linguistics search committee

2009 - present Member of Social, Life, and Engineering Sciences Imaging Center advisory
committee

2008-2009 Linguistics executive committee

2008-2009 Ad hoc committee member for IT issues

2007-present Member of the Graduate Training committee for the Dept. of Psychology

2003-present Served on 18+ graduate student committees (Masters and PhD)

2003-present Active member of Center for Language Science

GRADUATE STUDENTS

Kate Chapman
Helen Marie Graves
Aaron Mitchel