

Sean Hutchins, Ph.D.

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Education

- 2008** McGill University, Canada
Ph.D. in Psychology
Dissertation: "Implicit Memory for Music: Factors Affecting Musical Priming and their Time Courses"
Advisor: Prof. Caroline Palmer
- 2002** University of Connecticut, USA
B.S. in Psychology, *summa cum laude*
B.S. in Cognitive Science, *summa cum laude*
(These are two separate degrees)

Research

- 2008 - Present** Postdoctoral Fellow
International Laboratory for Brain, Music, and Sound Research (BRAMS)
Université de Montréal
Advisor: Prof. Isabelle Peretz
Projects:
- The dissociation of pitch perception and production
 - The causes of poor singing in the general population
 - Neural correlates of pitch perception and production in the human voice
 - Perception and production of pitch in spoken sentences
 - Pitch production abilities of congenital amusics with pitch perception impairments
 - Implicit processing of pitch
- 2003-2008** Research Assistant
Department of Psychology

McGill University
Advisor: Prof. Caroline Palmer
Projects:

- Implicit memory for musical pitch
- The time course of repetition priming in music
- ERP effects of repetition priming in music
- Prosody in music

1998-2003

Research Assistant
Department of Psychology
University of Connecticut
Advisor: Prof. Whitney Tabor
Projects:

- Distinguishing syntactic from semantic anomaly in artificial neural networks
- The influence of semantic constraints on syntactic parsing in center-embedded sentences
- A dynamical model of sentence parsing which predicts reading time data

Scholarships, Awards and Honors

- 2011** Canadian Institute of Health Research (CIHR) operating grant (co-applicant; \$932,796 requested over 5 years; under review)
- 2009 - 2010** National Sciences and Engineering Research Council (NSERC) Create postdoctoral scholarship in auditory cognitive neuroscience (\$40,000)
- 2005 - 2008** Fonds Québécois de la Recherche sur la Nature et les Technologies (FQRNT) PBEEE doctoral fellowship for foreign students (\$75,000)
- 2007** NIH fellowship to attend ERP “Bootcamp” (hosted by Steven Luck, UC Davis; \$2,000)
- 2003 -2005** McGill Graduate Studies Fellowship (\$20,000)
- 2003 -2005** Tomlinson Masters Fellowship, McGill University (\$30,000)
- 1998-2002** Nutmeg Scholar, University of Connecticut, (Full Undergraduate Scholarship, \$50,000)

- 2002** University of Connecticut representative, State of Connecticut's College Academic Day
- 2001** Fellowship to attend Fourth Annual Workshop in Cognitive Science and Cognitive Neuroscience at IRCS at University of Pennsylvania (\$1,500)
- 2000-2001** New England Scholar, University of Connecticut
- 1999** Babbidge Scholar, University of Connecticut
- 1998 -2002** Dean's List, College of Liberal Arts and Sciences
- 1998** Presidential Scholars Program Candidate
- 1997** Perfect SAT score

Travel Awards

- 2004, 2005, 2007** Alma Mater Travel Award, McGill University (\$750)
- 2005, 2011** CIRMMT Travel Award (\$2000)

Teaching Experience

Advising:

- 2010 - Present** Catherine Roquet, Undergraduate / Master's student
- 2011** Pauline Larrouy-Maestri, visiting doctoral candidate from Université de Liège, Belgium
- 2008 - Present** Ad-hoc statistics advisor, BRAMS

Courses:

- Fall 2010** Neuropsychology of Music (graduate class), guest lecturer "Singing and the Human Voice", and "Language and Music" Université de Montréal
- Spring 2010** Psychology of Music (undergraduate class), guest lecturer
- Spring 2007** "Psychology of Singing"

McGill University

Fall 2011 Excel mini-workshop (advances uses of Microsoft Excel)
Spring 2009 BRAMS

Fall 2002 Psychology 132 (Introductory Psychology) Lab Instructor
Spring 2003 (4 sections)
University of Connecticut

Prepared to Teach:

Introductory level psychology, Research Methods in Psychology, Cognition, Statistics in Psychology, Sensation & Perception, Learning & Memory, Psychology of Language, and Music Cognition

Invited Presentations

“Vocal Perception and Production in Congenital Amusia”, 9th Pan-European Voice Council, (Marseille, France, September 2011)

“The Psychology of Music” Concordia University, Department of Creative Arts Therapies (Montreal, February 2011)

“Voice Perception and Production”, Auditory Cognitive Neuroscience-CREATE Summer Workshop (McMaster University, 2010)

McGill Hebb colloquia, 2004, 2006, 2007

Service

2009-Present Reviewer for Cognition, Memory & Cognition, Neuropsychologia, Journal of Neuroscience, National Science Foundation (NSF)

2011 Host for visiting CEGEP students (18-20 yrs) interested in psychology career path

2008-2010 Centre for Interdisciplinary Research in Music, Media, and Technology Student Executive Committee

2007, 2008 Science Fair Judge, Selwyn School (ages 10-13)

2005 Student Coordinator for visiting lecturer (Jamshed Bharucha)

2003-2008 Member, McGill Savoy Society
2004-2005 Member-at-Large, McGill Savoy Society Executive
2006-2008 Director, McGill Savoy Society

2001-2002 Individualized Majors Committee, Undergraduate Representative

Professional Skills Training

2010 QBIN FSL analysis workshop (Montreal, QC), (brain imaging software)
2007 ERP Bootcamp (hosted by Dr. Steven Luck, UC Davis)
2007 BESA analysis workshop (Montreal, QC) (EEG analysis software)
2001 Fourth Annual Workshop in Cognitive Science and Cognitive Neuroscience (University of Pennsylvania, IRCS)

Other Skills

Computers:

Programming in Matlab, E-prime, Presentation, Max/MSP
Proficient in SPSS, FSL, EEProbe, Microsoft Office Suite, Adobe Audition, Finale, Melodyne, Unix

Languages:

Fluent in English and French

Music:

Trained Baritone Voice: Solo and Choral roles
11 years Piano
7 years Oboe / Bassoon
Composer / Arranger
Undergraduate training in Music Theory (Harmony I-IV, Counterpoint, Form and Analysis I & II, Composition, Music History I & II, Opera Workshop)

Publications

Hutchins, S. & Peretz, I. (2011). A frog in your throat or in your ear? Searching for the causes of poor singing. *Journal of Experimental Psychology: General*, Advance online publication. doi: 10.1037/a0025064.

- Hutchins, S. & Peretz, I. Perception and Action in Singing. (2011). In A. Green, E. Chapman, J. F. Kalaska, & F. Lepore (Eds), *Progress in Brain Research, Vol. 191, Enhancing Performance for Action and Perception: Multisensory Integration, Neuroplasticity, and Neuroprosthetics, Part I* (pp. 103-118). New York: Elsevier.
- Hutchins, S., Gosselin, N., & Peretz, I. (2010). Identification of Changes along a Continuum of Speech Intonation is Impaired in Congenital Amusia. *Frontiers in Auditory Cognitive Neuroscience*, doi: 10.3389/fpsyg.2010.00236.
- Hutchins, S., Zarate, J. M., Zatorre, R., & Peretz, I. (2010). An acoustical study of vocal pitch matching in congenital amusia. *Journal of the Acoustical Society of America*, 127(1), 504-512.
- Hutchins, S. & Campbell, D. (2009). Estimating the time to reach a target frequency in singing. *Annals of the New York Academy of Sciences*, 1169, 116-120.
- Hutchins S. & Palmer, C. (2008). Repetition priming in music. *Journal of Experimental Psychology: Human Perception and Performance*, 34, 693-707.
- Palmer, C., & Hutchins, S. (2006). What is musical prosody? In B. H. Ross (Ed.), *Psychology of Learning and Motivation*, 46 (pp. 245-278). Amsterdam, The Netherlands: Elsevier Press.
- Tabor, W. & Hutchins, S. (2004). Evidence for self-organized sentence processing: Digging-in effects. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 30(2), 431-450.
- Tabor, W. & Hutchins, S. (2000). Mapping the syntax/semantics coastline. In L. Gleitman & A. Joshi (Eds.), *Proceedings of the 22nd Annual Meeting of the Cognitive Science Society* (pp.511-516), Mahwah, New Jersey: Lawrence Erlbaum Associates.

Manuscripts currently in preparation or submitted:

- Hutchins, S. & Peretz, I. They know not what they do: Vocal pitch shift without awareness in congenital amusia (pitch deafness). (submitted to Cortex).
- Hutchins, S., Roquet, C., & Peretz, I. What counts as "in tune"? A comparison of voice and instruments. (submitted to Music Perception).
- Hutchins, S., Palmer, C., & Steinhauer, K. Repetition priming in music: An ERP study. (in preparation)

Published Abstracts:

Hutchins, S., & Peretz, I. (2010). Double dissociation of pitch production and perception. *Journal of Cognitive Neuroscience*, D43.

Gosselin, N., Hutchins, S., & Peretz, I. (2010). Statement-Question categorization in congenital amusia. *Journal of Cognitive Neuroscience*, E33.

Hutchins, S., Palmer, C., & Steinhauer, K. (2009). Repetition priming in music: An ERP study. *Journal of Cognitive Neuroscience*, H55.

Hutchins, S. & Palmer, C. (2007). The role of sensory and cognitive processes in repetition priming in music. *Journal of Cognitive Neuroscience*, F145.

Hutchins, S., & Palmer, C. (2005). Repetition priming in music performance. *Abstracts of the Psychonomic Society*, 10, 106.

Conference Presentations:

Hutchins, S., & Peretz, I. (2011). What causes poor singing ability? The Neurosciences and Music IV, Edinburgh, UK.

Hutchins, S. & Peretz, I. (2011). Perception and production of sentences in amusia. The Neurosciences and Music IV, Edinburgh, UK.

Finkel, S., Veit, R., Birbaumer, N., Hutchins, S., Tkaczynska, Z., & Kleber, B. (2011). The role of primary somatosensory cortex for vocal control in amateur singers – a neuronavigated rTMS study. The Neurosciences and Music IV, Edinburgh, UK.

Robitaille, N., Hutchins, S., Moreau, P., & Peretz, I. (2011). Musical pitch violations elicit a N200 in congenital amusia even when attention is controlled. Human Brain Mapping, Québec, QC.

Hutchins, S., Zarate, J. M., Zatorre, R., & Peretz, I. (2009). Pitch matching in amusia. AIRS Start-up Conference, Charlottetown, PE, June.

Kukona, A., Tabor, W., & Hutchins, S. (2008). Evidence for self-organized parsing: Local coherence facilitation. 21st Annual CUNY Conference on Human Sentence Processing, Chapel Hill, NC

Hutchins, S. & Palmer, C. (2007). The role of response time in a music production task. 8th Biennial Conference of the Society for Music Perception and Cognition, Montreal, QC, August.

Campbell, D. & Hutchins, S. (2006). Frequency trace ANOVA models for repetition priming. 71st Annual Meeting of the Psychometric Society, Montreal, QC, June.

Palmer, C. & Hutchins, S. (2006). Symposium: Music and cognition: What cognitive science can learn from music cognition. 28th Annual Meeting of the Cognitive Science Society, Vancouver, BC, July.

Hutchins, S. & Palmer, C. (2005). Repetition priming in music production. 15th Annual Meeting of the Canadian Society for Brain, Behaviour, and Cognitive Science, Montreal, QC, July.

Hutchins, S. & Palmer, C. (2004). Repetition priming in a music production task. 3rd Annual Auditory Perception, Cognition, and Action Meeting, Minneapolis, MN, November.

Hutchins, S. (2003). Harmonic Functional Categorization. 6th Biennial Conference of the Society for Music Perception and Cognition, Las Vegas, NV, July.

Tabor, W. & Hutchins, S. (2003). Evidence for self-organized parsing: Digging in effects. 16th Annual CUNY Sentence Processing Conference, Cambridge, MA, March.

Tabor, W. & Hutchins, S. (2000). A model that derives the syntax/semantics distinction. 13th Annual CUNY Sentence Processing Conference, La Jolla, CA, March.

References:

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Canada Research Chair in Neurocognition of Music
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