

Jonah Katz

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Employment

2010– **CNRS**
Post-doctoral researcher
Institut Jean–Nicod
EURYI Grant, Principal Investigator Philippe Schlenker
Current activities include: conducting my primary research on fine-grained phonetic timing and its interaction with phonology; running a seminar on the comparative structure of music and language; advising and evaluating student projects; collaborating with Benjamin Spector and Philippe Schlenker of Institut Jean Nicod on linguistic and domain-general properties of focus; collaborating with Asaf Bachrach and Christophe Pallier of Neurospin and Emmanuel Chemla of the Laboratory for Cognitive Science and Psycholinguistics on experimental investigations of hierarchical structure in language and music. Long-term plans for my tenure here, and for the grant more generally, include investigations of the neural substrates for effects discovered in the music-language experiments mentioned above; and helping to foster a broad research program comparing the formal properties of various complex cognitive systems, such as spoken language, musical systems, and sign language.

Education

2005–2010 **Massachusetts Institute of Technology**
Ph.D. in linguistics (5-year program in phonetics and phonology)
Dissertation: ‘Compression effects, perceptual asymmetries, and the grammar of timing’
Filed September 2010
Committee: Edward Flemming (chair), Adam Albright, Donca Steriade
My dissertation examines the existence and nature of durational trading

relations within the syllable. There is a tendency in many languages for vowel duration to vary inversely with the duration of an adjacent consonant or cluster. These effects have often been analyzed as emerging from general principles of articulatory coordination. I argue instead that perceptual goals play a crucial role in this domain, with perceptibility targets strongly constraining timing patterns. In particular, vowel duration in English is partly conditioned by the perceptual properties of an adjacent segment, with more shortening possible when the surrounding context contains more information about the vowel. In this way, differences in temporal patterning mirror perceptual asymmetries. Constraints on temporal patterns also appear to interact with systems of phonological contrast in circumscribed ways. The dissertation examines what types of phonological patterns are predicted by those constraints and to what extent those predictions are borne out in phonological typology.

1999–2003 **University of Massachusetts Amherst**

B.A. *cum laude* in Linguistics

B.A. *cum laude* in Music
concentration: jazz piano performance

Minor in Spanish

Papers

RESUBMITTED Compression effects and perceptual asymmetries. Under review at *Journal*
JULY 2011 *of Phonetics*.

RESUBMITTED (with Elisabeth Selkirk) Contrastive focus vs. discourse-new: evidence
APRIL 2011 from prosodic prominence in English. Under review at *Language*.

UNDER (with David Pesetsky) The identity thesis for language and music. To be
REVISION re-submitted to *Language*. Posted on LingBuzz: <http://ling.auf.net/lingBuzz/000959>

Invited Talks

2011 (with Maria Giavazzi) Timing and the phonetics–phonology interface. Time
in Phonology, Universitat Rovira i Virgili, Tarragona, Spain, June 2011.

2011 (with David Pesetsky) Language and Music: same structures, different
building blocks. Music and Language in the Brain, University of Aarhus,
Denmark, May 2011.

- 2011 (with Elisabeth Selkirk) Contrastive focus vs. discourse-new: evidence from prosodic prominence in English. SIGMA research group (Structures and Interpretations: Grammars, Models and Analyses), Departement d'Etudes Cognitives, Ecole Normale Superieure, Paris, March 2011.
- 2011 English duration patterns mirror perceptual asymmetries. Laboratoire Psychologie de la Perception, Paris, March 2011.
- 2011 Language and Music: same structures, different building blocks. INSERM-CEA Cognitive Neuroimaging Unit, Saclay, France, March 2011.
- 2011 Compression effects, perceptual asymmetries, and the grammar of timing. University of Southern California, Los Angeles, February 2011.
- 2011 Compression effects mirror perceptual asymmetries. Institut fuer Phonetik und Sprachverarbeitung, Munich, January 2011.
- 2010 Similarity, timing, and Focus. University of Missouri, Columbia, January 2010.
- 2009 (with David Pesetsky) The Identity Thesis for Language and Music. Sounds and Structures, Freie Universitat Berlin, December 2009.
- 2009 (with David Pesetsky) The Recursive Syntax and Prosody of Tonal Music. Recursion: Structural Complexity in Language and Cognition, UMass Amherst, May 2009.

Other Presentations

- 2011 (Poster with Maria Giavazzi) Timing, perceptual distinctiveness, and cluster phonotactics in Spanish and Italian. Phonetics and Phonology in Iberia, Universitat Rovira i Virgili, Tarragona, Spain, June 2011.
- 2011 English duration patterns mirror perceptual asymmetries. LSA annual meeting, Pittsburgh, January 2011.
- 2010 Similarity and bias in an English hip-hop corpus. Laboratoire de Sciences Cognitives et Psycholinguistique, Ecole Normale Superieure, Paris, November 2010.
- 2010 Phonetic similarity in an English hip-hop corpus. LSA annual meeting,

Baltimore, January 2010.

- 2010 (poster with Maria Giavazzi) Phonological faithfulness and morphological well-formedness in Kinande loanword adaptation. LSA annual meeting, Baltimore, January 2010.
- 2008 Phonetic Similarity in an English Hip-Hop Corpus. UMass-MIT Meeting in Phonology, November 2008.
- 2008 (poster) Compensatory Shortening and Phonetic Representations. Workshop on Consonant Clusters and Structural Complexity, Munich, July-August 2008.
- 2008 Towards a Generative Theory of Hip-Hop. Music, Language, and the Mind, Tufts University, July 2008.
- 2008 Optimal musical grouping. MIT Linguistics Colloquium, April 2008.
- 2008 'Compensatory Shortening' and Phonetic Representations in English. MIT-UMass Meeting in Phonology, March 2008.
- 2007 Optimal musical grouping. Language and Music as Cognitive Systems, University of Cambridge, UK. May 2007.
- 2006 (with John Kingston, Della Chambless, Daniel Mash, Eve Brenner, and Shigeto Kawahara) Sequential contrast and perception of coarticulated segments. Tenth Conference on Laboratory Phonology, Paris. June 2006.

Teaching and Advising

- Fall 2006 **Introduction to Linguistics** (MIT 24.900)
Teaching assistant to Donca Steriade. Led a discussion section, graded student assignments and exams, offered feedback on course content and materials, worked with students to develop a 15–20 page term paper on an original research topic.
- Fall 2007 **Introduction to Linguistics** (MIT 24.900)
Teaching assistant to David Pesetsky. Same duties as above.
- Fall 2008 **Graduate Introduction to Phonology** (MIT 24.961)
Teaching assistant to Edward Flemming. Helped prepare course materials,

graded all assignments, weekly discussion sections, intensive meetings with first-year graduate students to discuss problem sets and final papers.

Fall 2010– **Music, Language, and Cognition Study Group** (Department of cognitive sciences, Ecole Normale Superieure)
Organizer and lecturer/discussion leader. This is an ongoing general course on basics of music theory and music cognition, relationships to linguistic structure, and questions of cognitive organization in the two domains. Participants include students at various levels, post-doctoral fellows, and permanent researchers.

June 2011 **Expert committee member**
CogMaster (inter-university masters program) first-year internship report for Claire Pelofi: ‘Semantic and syntactic processing in music: a possible comparison to language’. Served as specialist reviewer for this student’s paper, grading, writing an evaluation, and participating in the defense.

Summer 2011– **Advisor**
CogMaster (inter-university masters program) thesis for Marine Guillanton on metrical structure in music and language, title TBD. Working with this student to review literature, formulate hypotheses, design and carry out experiments to test them, write up and defend thesis.

Research Experience

2004–2005 **Research Fellow**, NIDCD 1R01DC006241-01A1, *Context Effects on Sensitivity, Bias, and Parsing Phonetic Information*. PI: John Kingston, UMass Amherst.
Grant project included multiple experiments testing effects of sequential contrast on auditory perception. Duties included designing experiments, constructing auditory stimuli, running experiments, and interpreting results. Significant teamwork aspect.

2003–2004 **Research Assistant**, NSF BSC-0004038, *The Reflexes of Focus in Phonology*. PI: Elisabeth Selkirk, UMass Amherst.
Duties included designing, carrying out, and analyzing the results of an elicitation experiment on the phonetic reflexes of contrastive focus and givenness/newness in English.

Honors & Awards

2006–2010 National Science Foundation Graduate Research Fellowship Award

2005–2010 MIT Presidential Graduate Fellowship

Service

2011 Reviewer for Linguistic Society of America annual meeting.

2010 Reviewer for *Journal of Linguistics*.

2008–2009 Founding co-organizer of the MIT Music-Language Reading Group.

2008–2009 Founding co-editor of departmental newsletter *What's Happening At MIT*.

2006 Departmental curriculum committee

2005–2010 Various departmental duties and activities, e.g. colloquium organizer, student representative, Ling-Lunch seminar organizer

Languages

Human:

English (native)

Spanish (reasonable conversational fluency, reading and writing ability, grammatical knowledge)

Russian (grammatical knowledge, limited conversational ability, limited reading and writing ability)

Kinande, Bantu (fieldwork)

Reading ability in most Romance languages

French: in progress

Computer (basic proficiency):

Perl

Praat scripting

R

LaTeX

HTML

Statistics

Proficient with general linear models, logistic regression, hierarchical log-linear models, mixed effects models, non-parametric statistics, biased choice and signal-detection theoretic models

References

Directeur de Recherche Philippe Schlenker
Institut Jean–Nicod – Département d'Etudes Cognitives

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