# Phonetics & Phonology @ UC San Diego

Who we are and what we're up to, as of February 2014

#### Sharon Rose, Professor

(BA, Toronto; MA, Université du Québec à Montréal; PhD, McGill) My research interests are varied, and are driven by primary data collection on African languages, particularly Ethiopian Semitic and Kordofanian (Niger-Congo). My primary research interests center on long distance phonotactics (harmony, dissimilation), tone and metrical structure, prosodic morphology and affix order. My recent work has also included collaboration on phonetics, syntax and psycholinguistics projects. I am currently working on a description and analysis of the Kordofanian language, Moro, funded by an NSF grant, which includes phonological research on tone, vowel harmony, dissimilation and intonation. I have supervised students (my own advisees as well as others) on a variety of topics. I particularly welcome students interested in combining fieldwork and phonological theory.

Eric Baković, Professor

(BA, UC Santa Cruz; PhD, Rutgers)

My interests are in phonological theory, and my research is generally about the complex interaction of phonological processes. My most recent work has been on blocking and opaque interactions in particular, and I am currently working on a formal method for understanding those interactions. It has been a particular pleasure working with students whose research foci are a bit removed from mine. This is a reflection of the diverse-yet-interactive (and collaborative) orientation of our program and of the campus.

#### Gabriela Caballero, Assistant Professor

(BA, Universidad de Sonora, Mexico; PhD, UC Berkeley) My research seeks to contribute to the documentation of indigenous languages of the Americas and to further our understanding of what is the possible range of variation in terms of phonology, morphology and their interaction. I specialize in Uto-Aztecan languages and conduct field re- search on Rarámuri, an endangered language spoken in northern Mexico. Together with Lucien Carroll, I'm currently working on tone and metrical structure and their interaction in Rarámuri word prosody. I'm also collaborating with Vsevolod Kapatsinski (U Oregon) in a project that investigates the ways in which morphological structure conditions phonological phenomena and the role that speech perception and processing might play in shaping morphological complexity in Rarámuri's agglutinating morphology.

Marc Garellek, Assistant Professor (BA, McGill; PhD, UCLA) My research focuses on understanding how components of the speech chain (articulation, acoustics, and perception) interact phonetically, and how phonological and psycholinguistic factors influence each link in the chain. I am currently interested in the phonetics of laryngeal sounds like glottal stops and breathy/creaky phonation types, and have studied the phonetics of laryngeals in a diverse group of languages including Mazatec, Hmong, and Tongan. The multidisciplinary nature of my research has led to frequent collaborations with electrical engineers and speech-language pathologists; I particularly enjoy working with those interested in applying a quantitative analysis of speech to a broad range of scientific questions.

Lucien Carroll, ABD (BA, BS, UCSB; MA ABT, SDSU) My primary interests are in phonological and phonetic description of tone and prosody. I've recently worked on speaker variation in the sandhi tones of Jinhua Wu, vowel lengthening and tone patterns in GiTonga, and (with Gabriela Caballero) on stress and tone in Rarámuri. My thesis is a phonological and acoustic description of word prosody and tone in Ixpantepec Nieves Mixtec. I am also interested in quantitative modeling of cross-linguistic variation as a product of synchronic variation and change.

Gabriel Doyle, ABD

(BA, Princeton; MA, UC San Diego)
I'm interested in better understanding the phonological aspects of language acquisition, especially certain difficult tasks within acquisition, such as balancing conflicting cues or identifying appropriate phonological constraints directly from realistic inputs. I build computational models and compare their results against empirical acquisition data to find plausible avenues for acquisition and to determine whether the stimulus actually is impoverished from the point of view of phonological learning. I also work in the Computational Psycholinguistics Lab with Roger Levy.

#### Wednesday Bushong, 3rd-year undergraduate

My interests mainly lie in language processing. Currently I am working on a project investigating to what extent people use their direct experience and abstract knowledge in online processing of syntax. In the future, I hope to ask similar questions in other linguistic domains (e.g., phonology).

# Bethany Keffala, ABD

(BA, Bryn Mawr; MA, UC San Diego)

I am interested in phonological acquisition, phonotactic knowledge, categorization and contrast within phonological systems, and how frequency and complexity impact phonological learning. My research, in collaboration with Jessica Barlow from SDSU, investigates the acquisition of syllable structures and segments in mono- and bilinguals, as well as interaction in bilingual phonological acquisition (Spanish and English mono- and bilinguals).

Hope Morgan, ABD

(BA, Sonoma State; MA, UC San Diego)

My dissertation work is centered on the sub-lexical system of Kenyan Sign Language, which emerged only about 50 years ago. Goals for the phonological analysis include locating contrastive features and describing word types and minimal and maximal word forms. The task is complicated by highly divergent views of the underlying representation of segments in sign, the fact that descriptive sign phonology is an undeveloped field, and the possibility that some forms may still be emerging from undifferentiated wholes.

**Younah Chung**, 4th-year grad (BA, MA, Yonsei University, Seoul, Korea) I'm interested in phonetics and sociolinguistics, especially in the relationship between intonation and pragmatics. I've worked on Moro intonation examining duration and pitch in Moro polar questions. I'm currently working on speech cycling experiments in Korean, which lacks stress, to examine what, if any, elements are used in Korean for rhythm purposes.

# Page Piccinini, 4th-year grad

(BA, MA, Northwestern)

I am interested in phonetics and phonology and the role they play in bilingual speech production and perception. I am currently looking at Spanish-English code-switching to see if there are cues in the signal to alert the listener of an upcoming switch as phonotactic constraints from one language are mapped on to the other.

#### Amanda Ritchart, 3rd-year grad

BA. UCL

I am interested in the production and perception of intonation as well as dialectal variation. My most recent project, however, focuses on the interface of prosody and syntax.

#### Scott Seyfarth, 3rd-year grad

(BA, BM, Northwestern)

I'm interested in using quantitative methods to study the role of mental representation in sound change. I've worked on a corpus project that links probabilistic reduction to phonological change, and also on an experiment that compares hypotheses about neighborhood effects on vowel dispersion.

### Andrea Guerrero, 2nd-year grad

(BA, UC Berkeley

My primary research interests are phonology, morphology, and field work. I am also interested in language contact and variation among immigrant communities in California. I am currently looking at phonology and phonation types in Zapotec languages.

Andrés Aguilar, 1st-year grad (BA, UCLA; MA, CSUN) I am interested in phonology and in its interaction with morphology, and also in language documentation. I am currently studying how phonological processes interact with syllable structure in the agglutinative morphology of Nahuatl. I am also working with Gabriela Caballero on Rarámuri.

**Kevin Gabbard**, 1st-year grad (BA, The Ohio State University) My research is centered on the morphology and phonology of lesser studied languages, Cushitic and Uralic. My undergraduate work includes fieldwork on Temne, tonology, and on Somali, general phonological description and guttural theory. I conducted fieldwork in Tromsø, Norway, on South Saami while on a Fulbright Fellowship, 2012-2013. This work is on-going and is focused on the language's morpho-phonology.

#### Kati Hout, 1st-year grad

(BA, The Ohio State University)

My main research interest is description of the segmental phonology of Bantu languages, particularly hiatus resolution. I am also interested in questions of abstractness, opacity, and the relationship between phonetics and phonology. I am currently working on describing the behavior of exceptional stems in Somali-Bantu Chizigua (Mushunguli).





# Selected recent and upcoming work and such

#### Publications (2012 - to appear)

- E. Baković. 2013. Phonology and phonological theory. Oxford Handbook of Language Production.
- E. Baković. 2013. Blocking and Complementarity in Phonological Theory. Equinox.
- E. Baković. 2012. Local blocking and minimal violation. Proc. CLS 45.
- G. Caballero, L. Carroll. To appear. Procesos de adaptación prosódica en préstamos en el rarámuri de Choguita y en el tu'un savi de Ixpantepec Nieves. Proc. CILLA.
- G. Caballero. To appear. Derivation in Uto-Aztecan:
- Rarámuri. Oxford Handbook on Morphological Derivation. G. Caballero, S. Inkelas. 2013. Word construction: tracing
- an optimal path through the lexicon. Morphology 23 G. Caballero. 2013. Multiple Exponence of derivational morphology in Rarámuri (Tarahumara). BLS 33
- G. Caballero. 2012. La fonología y morfología de los dominios morfológicos del rarámuri de Choguita. Proc.
- G. Caballero, A. C. Harris. 2012. A working typology of Multiple Exponence. Sel. Proc. 14th Int'l Morphology Mtg. R. Colavin, R. Levy, S. Rose. To appear. Modeling OCP-Place in Amharic with the Maximum Entropy Phonotactic Learner, Proc. CLS 46.
- G. Doyle, R. Levy. 2013. Combining multiple information types in Bayesian word segmentation. Proc. of NAACL. M. Garellek, P. Keating, C. M. Esposito, J. Kreiman. 2013. Voice quality and tone identification in White Hmong. JASA 133.
- C. Grijalva, P. Piccinini, A. Arvaniti. 2013. The vowel spaces of Southern Californian English and Mexican Spanish as produced by monolinguals and bilinguals. POMA 19. M. Garellek, R. A. Samlan, J. Kreiman, B. R. Gerratt. 2013. Perceptual sensitivity to a model of the source spectrum. POMA 19.
- M. Garellek. 2012. The timing and sequencing of coarticulated non-modal phonation in English and White Hmong.
- P. Jenks, S. Rose. To appear. Mobile Object Markers in Moro: The Role of Tone. Language.
- H. Morgan, R. Mayberry. 2012. Complexity in two-handed signs: evidence for sub-lexical structure in a young sign language. Sign Lg. and Linguistics 15 (1).
- P. Piccinini, A. Arvaniti. To appear. Accessing cross language categories in learning a third language. Proc. BUCLD 38.
- P. Piccinini, E. Kramer. 2013. Unsupervised machine learning for the accurate classification of the discourse marker like in code-switching utterances. POMA 19.
- A. Ritchart, A. Arvaniti. 2014. The use of high rise terminals in Southern Californian English. POMA 20.
- S. Rose. 2013. The morphological structure of the Moro verb. Nuba Mountain Language Studies.
- A. Strabone, S. Rose. 2012. Morphophonological properties of Moro causatives. Sel. Proc. ACAL 41.

#### Presentations (2012 - upcoming)

- E. Baković. Oct. 2013. Defining phonological interactions with string set intersection. Invited talk, Workshop on "Opacity in Grammar", University of Leipzig.
- E. Baković. Apr. 2013. Defining phonological interactions with string set intersection. Short course, UMass.
- E. Baković. May 2012. Breaking down rule interactions. NAPhC 7, Concordia University, Montréal.
- W. Bennet, S. Rose. Jan. 2014. Correspondence and Moro [-voice] dissimilation. OCP 11, Leiden University.
- K. M. Brooks, B. Pajak, E. Baković. Nov. 2013. Learning biases for phonological interactions. Phono. 2013, UMass. K. M. Brooks, B. Pajak, E. Baković. Jan. 2013. Learnability of complex phonological interactions: an artificial language learning experiment. LSA 87, Boston.
- G. Caballero. Apr. 2014. [TBA.] Invited talk, Workshop on the Sound Systems of Mexico and Central America, Yale. G. Caballero. Nov. 2013. Loanword prosody in two Mexican Languages. Invited talk, Group on American Indian Languages, UC Berkeley.

- G. Caballero, L. Carroll. Dec. 2013. Documenting tone and P. Piccinini, A. Arvaniti. Jan. 2014. Accessing cross lanintonation in Choguita Rarámuri (Tarahumara). Language Documentation and Linguistic Theory 4, SOAS, London.
- G. Caballero, L. Carroll. Oct. 2013. Loanword prosody in Choguita Rarámuri (Tarahumara) and Ixpantepec Nieves Tu'un Savi (Mixtec). CILLA VI.
- G. Caballero. Dec. 2012. Assessing functionality of Multiple Exponence in Choguita Rarámuri. Colloquium, UCLA. G. Caballero, V. Kapatsisnki. Oct. 2012. Redundant mark-
- ing helps morpheme recognition in noise: Experimental evidence from Choguita Raramuri (Tarahumara). The Men- of Sound Systems, Ann Arbor. tal Lexicon, Univ. de Montréal and McGill, Montréal
- G. Caballero, V. Kapatsinski. Sept. 2012. Perceptual functionality of multiple exponence: experimental evidence from Choguita Rarámuri. AIMM 1, UMass.
- G. Caballero. Mar. 2012. Stress and tone in Choguita Rarámuri (Tarahumara) word prosody. Colloq., UCSC. G. Caballero. Mar. 2012. Stress and tone in Choguita Rarámuri (Tarahumara) word prosody. Invited keynote speaker, Workshop on Structure and Constituency in the Languages of the Americas 17, University of Chicago.
- G. Caballero. Feb. 2012. Tono y acento en el sistema prosódico del rarámuri (tarahumara) de Choguita. Invited talk, Tono, acento y estructuras métricas en lenguas mexicanas, Colegio de México.
- G. Caballero. Jan. 2012. The prosody of interrogative and focus constructions in Choguita Rarámuri. SSILA, Portland. Colloq., Leiden University Centre for Linguistics. G. Caballero, A. P. Pintado. July 2012. Frames of reference S. Rose. Feb. 2014. Issues in Moro vowel harmony. Colin the language of space in Coyachique Rarámuri and Choguita Rarámuri. The Language of Space in Latin American Indigenous Languages Workshop, Vienna.
- L. Carroll. Jan. 2014. Ixpantepec Nieves Mixtec word prosody. SSILA, Minneapolis.
- L. Carroll. Feb. 2013. Ixpantepec Nieves Mixtec word prosody. 1st Int'l Conf. on Meso-American Linguistics. L. Carroll. Sept. 2012. When multiple exponence is blocked. 1st American Int'l Morphology Meeting.
- Y. Chung, S. Rose. Mar. 2012. Duration and pitch in Moro polar questions. ACAL 43, New Orleans.
- Y. Chung, A. Arvaniti. July 2012. Speech Cycling in Korean. PoRT2012, Glasgow, UK.
- Y. Chung, A. Arvaniti. June 2013. Speech rhythm in Korean: Experiments in speech cycling. ICA 21 / ASA 165 / CAA 52, Montréal.
- R. Colavin, R. Levy, S. Rose. Jan. 2012. Underrepresentation and word-acceptability in Amharic: Evidence from a judgment task. LSA 86, Portland.
- K. Gabbard. Apr. 2014. An example of self-destructive feeding without deletion in Somali. ACAL 45, U. of KS.
- M. Garellek, R. A. Samlan, J. Kreiman, B. R. Gerratt. 2013. Perceptual interactions among components of a spectral-domain voice source model. ASA 166, San Fran.
- M. Garellek, R. A. Samlan, J. Kreiman, B. R. Gerratt. 2013. Perceptual sensitivity to a model of the source spectrum. ICA 21 / ASA 165 / CAA 52, Montréal.
- C. Grijalva, P. Piccinini, A. Arvaniti. June 2013. The vowel spaces of Southern Californian English and Mexican Spanish as produced by monolinguals and bilinguals. ICA 21 / ASA 165 / CAA 52, Montréal.
- K. Hout. Apr. 2014. Exceptions to hiatus resolution in Somali-Bantu Chizigua (Mushunguli). Endangered Languages Workshop, ACAL 45, U. of KS.
- B. Keffala, J. Barlow. Jan. 2014. Frequency and complexity differences predict interaction in bilingual phonological acquisition. LSA 88, Minneapolis.
- B. Keffala, J. Barlow, June 2013, Interaction in Spanish-English Bilinguals' Acquisition of Segments and Syllable Types. Int'l Child Phonology Conf., Nijmegen.
- B. Keffala, J. Barlow. June 2012. Learning Liquids: Frequency and markedness as guiding factors in acquisition. Int'l Child Phonology Conf., Minneapolis.
- P. Piccinini, E. Kramer. June 2013. Unsupervised machine learning for the accurate classification of the discourse marker like in code-switching utterances. ICA 21 / ASA 165 / CAA 52, Montréal.
- P. Piccinini, A. Arvaniti. Apr. 2014. The role of language dominance and language mode in speech processing by bilinguals. Meeting of the British Association of Academic Phoneticians, Oxford.

- guage categories in exposure to a third language. LSA 88.
- P. Piccinini. Dec. 2013. Predicting code-switches from phonetic information: The discourse marker like in Spanish-English code-switching. ASA 166, San Francisco.
- P. Piccinini, A. Arvaniti. Nov. 2013. Accessing cross language categories in learning a third language. BUCLD 38.
- P. Piccinini, A. Arvaniti. June 2013. Accessing cross language categories in learning a third language. 2013 Linguistic Institute Workshop on Variation in the Acquisition
- P. Piccinini. Jan. 2013. The predictive power of gradient phonetic cues in Spanish-English code-switching. LSA 87. A. Ritchart, Y. Chung. Jan. 2014. Question Prosody in
- Ixpantepec Nieves Mixtec. SSILA, Minneapolis. A. Ritchart, A. Arvaniti. Dec. 2013. The use of high rise terminals in Southern Californian English. ASA 166, SFO.
- A. Ritchart, A. Arvaniti. June 2013. High Rise Terminals in Southern Californian English. PaPI 6, Univ. of Lisbon.
- A. Ritchart, S. Rose. Aug. 2013. Moro vowel harmony: representational issues. CALL 43, Leiden University.
- A. Ritchart, S. Rose. July 2013. Transparency in Moro vowel harmony. French Phono. Network Mtg., Nantes.
- A. Ritchart, S. Rose. Mar. 2013. The two schwas in Moro vowel harmony. ACAL 44, Georgetown.
- S. Rose. Feb. 2014. Vowel harmony meets centralization.
- loq., Institute for African Studies, Cologne University.
- S. Rose. Aug. 2013. Types of dissimilation in Moro. Nuba Mountain Languages Phonology Workshop, Leiden Univ.
- S. Rose, Apr. 2013. Phonological restructuring and long distance phonology: implications for typology. Invited talk,
- S. Rose. Nov. 2012. The syntax and prosody of Moro questions. Colloquium, UCLA.
- S. Rose. Aug. 2012. Verb complements in Moro. WOCAL 7, University of Buea, Cameroon.

# Funding (2012 - present)

- A. Aguilar. 2013-2015. San Diego Fellowship.
- E. Baković, P. Radcliff, K. Woolard, A. Davis, P. Piccinini, A. Ribot-Bencemo. 2013-2014. Catalan independence: Voluntary organizations and the construction of social change. UCSD Interdisciplinary Collaboratories Grant.
- F. Ackerman, S. Rose. 2008-2013. Moro Language Project. NSF grant BCS-0745973 (\$199,917).
- G. Caballero. 2012-2014. A reference grammar of Choguita Rarámuri (Tarahumara). NSF grant DEL-1160672 (\$162,191). / 2008-2010. Hans Rausing Endangered Languages Documentation Project grant (£43,739).
- G. Caballero. 2011-2012. UCSD Hellman Fellowship.
- L. Carroll. 2013-2014. Ixpantepec Nieves Mixtec Word Prosodic Phonology. UC MEXUS Diss. Research Grant.
- K. Gabbard. 2013-2015. Cota-Robles Fellowship
- H. Morgan, 2010-2013, UCSD Center for Academic Research and Training in Anthropogeny Fellowship.
- P. Piccinini. 2012-2013. UCSD Center for Research on Language NIH Predoctoral Training Fellowship.
- S. Rose. 2013-2014. KNAW Visiting Professor Fellowship, Leiden University.
- S. Seyfarth. 2013. NSF East Asia and Pacific Summer Institute award (New Zealand). .....

#### Alumni (2003 - 2013)

Rebecca Colavin, PhD 2013 (Advisors: Rose & Levy) Dissertation: Phonotactic probability in Amharic: a psycholinguistic and computational investigation.

Bozena Pajak. PhD 2012 (Advisors: Baković & Levv) Postdoctoral researcher, Center for Language Sciences, Univ. of Rochester. Dissertation: Inductive inference in non-native speech processing and learning

Cynthia Kilpatrick, PhD 2009 (Advisor: Baković) Assistant Professor, Department of Linguistics & TESOL, UT Arlington. Dissertation: The Acquisition of Ungrammaticality: Learning a Subset in L2

Prinontactics.

Nicoleta Bateman, PhD 2007 (Advisor: Rose)
Associate Professor, Liberal Studies, CSU San Marcos.
Dissertation: A Crosslinguistic Investigation of Palatalization.
Alicia Muñoz Sánchez, PhD 2003 (Advisor: Rose)

Ancia Muliuz Bardinez, Fild 2005 (Advisor, Rose) Spanish Language Academic Coordinator, Linguistics Department, UCSD. Dissertation: The Effect of Phonological Status on the Acquisition of New Contrasts: Evidence from Spanish and Japanese L2 Learners of English.

Contrasts. Evideon, PhD 2003 (Advisors: Polinsky & Rose)
Director, Heritage Language Initiative, Department of Foreign Languages and
Literatures, Portland State University.
Dissertation: Phonetics of Language Attrition: vowel production and articulatory setting in the speech of Western Armenian heritage speakers.