

ROSARIO SIGNORELLO, PH.D.

CONTACT INFORMATION

Affiliation Laboratoire de Phonétique et Phonologie (LPP)
Université Sorbonne Nouvelle & CNRS

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EDUCATION

2010-2014 U. Grenoble Alpes, France and U. Roma Tre, Italy

*Doctorate of
Phylosophy
(double
international
program)* GPA: Highest Honors of the Commitee · *Linguistics and Psychology*
Title: *La Voix Charismatique: Aspects Psychologiques et Caractéristiques Acoustiques*
Description: Collected and phonetically-aligned political speech corpora (2 genders, 4 languages, 10 speakers, 3 communication contexts). Developed methodology to obtain voice acoustic profiles to compare political speech across genders, cultures, and communication contexts. Developed the psychological tool "MASCharP" to measure charisma from human non-verbal behavior. Investigated cross-cultural influence of voice quality patterns in the perception of leaders' charisma.
Advisors: Prof. Didier DEMOLIN & Prof. Isabella POGGI

2008-2010 Université Stendhal, Grenoble 3, France

Master of Arts GPA: 17/20 · *Computational Linguistics*
Title: *La parole ne s'arrte pas aux mots : à la recherche d'indices de culture dans le backchannel audio-visuel*
Description: Studied audio-visual micro-events of backchannel in human face-to-face interactions.

2003-2007 Università degli Studi di Palermo, Italy

Bachelor of Arts GPA: 107/110 · *Languages and Technologies*
Title: *Wiki-learning. teoria ed applicazione del collaborative learning via internet*
Description: Collaborative learning theories and computer-supported on-line collaborative learning with wiki websites. Developed a "Wiki-Learning" wiki website [<http://wiki-learning.pbworks.com>] for collaborative on-line learning

WORK EXPERIENCE IN SCIENTIFIC RESEARCH

Oct 2016-... Phonetics & Phonology Lab (LPP), CNRS

*Postdoctoral
Researcher in
Phonetics* (a) ANR project "ArtSpeech" for the development of articulatory phonetic synthesis to which I contribute with my scientific knowledge regarding the interaction between voice source and the speech sound articulators; (b) Study of the aerodynamics features of French fricatives using tracheal puncture technique; (c) Investigation of the phonetics phenomena of the Ruund language; (d) Non-invasive (external-lighting and sensing) photoglottographic (ePGG) technique; (e) Principal investigator of an international research project on the "Charismatic voice in leadership".
Ref.: Prof. D. DEMOLIN · +33 6 84 59 50 30 · didier.demolin@univ-paris3.fr

03/14-08/16 Head and Neck Surgery Dept., UCLA

*Postdoctoral
Scholar in
Voice Sciences* (a) Collaborated in developing the UCLA psychoacoustic perceptually-validated model of voice quality; (b) Impact of the interaction between vocal fold biomechanic variations and upper vocal tract resonances on the perception of voice quality; (c) Principal investigator of an international

research project on the “Vocalizations in non-human primate leadership”; (d) Physical modeling of vocal folds; (e) Collected political speech corpora in Mandarin Chinese, Korean, American English, American Spanish.
 Ref.: Prof. Jody KREIMAN · +1 (310) 825 0736 · jkreiman@ucla.edu

10-11/2013 GIPSA-LAB, CNRS

Research Associate
in Phonetics

Collected articulatory, aerodynamic and physiological data of Vietnamese and Brazilian Portuguese speakers
 Ref.: Prof. D. DEMOLIN · +33 6 84 59 50 30 · didier.demolin@univ-paris3.fr

PUBLICATIONS

Refereed publications and conference proceedings

- Interspeech* Aerodynamic features of french fricatives. In Proceedings of the 18th Interspeech, ISCA editor, pp. 2267 - 2271
 Authors: **Signorello, R.**, Hassid, S., and Demolin, D.
- Acta Acust united Ac* Impact of vocal tract resonance on the perception of voice quality changes caused by varying vocal fold stiffness (2016, Vol. 102, p. 209-213).
 Authors: **Signorello, R.**, Zhang, Z., Gerratt, B., and Kreiman, J.
- The Oxford Handbook of Voice Studies Interspeech* Voice in charismatic leadership (in press). Eidsheim, N.S. and Meizel, K. L. (Eds.).
 Author: **Signorello, R.**
- The physiological use of the charismatic voice in political speech.* In Proceedings of the 14th Interspeech, p. 987 - 991
 Authors: **Signorello, R.**, Demolin, D.
- Affective Computing and Intelligent Interaction* The perception of charisma from voice. a cross-cultural study. In Proceedings of the 2013 Humaine Association Conference on Affective Computing and Intelligent Interaction, p. 552 - 557
 Authors: D'Errico, F., **Signorello, R.**, Demolin, D., and Poggi, I.
- Social Computing* How charisma is perceived from speech. In Proceedings of the Fourth ASE/IEEE International Conference on Social Computing, p. 435 - 440
 Authors: **Signorello, R.** and Demolin, D.
- GSCP* Charisma perception in political speech: a case study. In Proceedings of the of the VIIth GSCP International Conference : Speech and Corpora, p. 343 - 348
 Authors: **Signorello, R.**, D'Errico, F., Poggi, I., and Demolin, D.
- AISC* Le dimensioni del carisma. In Proceedings of the IX Convegno Annuale dell'Associazione Italiana di Scienze Cognitive, p. 245 - 252
 Authors: D'Errico, F., **Signorello, R.**, and Poggi, I.
- WACA* A la recherche d'indices de culture et/ou de langue dans les micro-événements audio-visuels de l'interaction face à face In Proceedings of WACA, p. 69 - 76
 Authors: **Signorello, R.**, Aubergé, V., Vanpé, A., Granjon, L., and Audibert, N.

Other Manuscripts

- in preparation* A psychoacoustic model of spectral noise in the voice source.
 Authors: **Signorello, R.**, Rhee, N., Antoñanzas-Barroso, N., Gerratt, B. R., and Kreiman, J.
- in preparation* Vocal fundamental frequency and sound pressure level in charismatic speech: A cross-gender and language study
 Author: **Signorello, R.**, Demolin, D., Henrich-Bernardoni, N., Gerratt, B.R., Zhang Z., and Kreiman J.
- in preparation* The perception of charismatic voices: biological abilities and cultural strategies
 Authors: **Signorello, R.**, Demolin, D., Poggi, I., and D'Errico, F.

INVITED SEMINARS

- ISIR *Voice Quality and the Perception of Speakers' Social Attractiveness*. Institut des Systèmes Intelligents et de Robotique, CNRS (UMR 7222) & Université Pierre et Marie Curie, Paris 6. January 23, 2017, Paris, France.
Invited by Pr. Mohamed Chetouani
- U. Sorbonne Nouvelle *Voice Quality and the Perception of Speakers' Social Image*. Laboratoire de Phonétique et Phonologie (LPP), CNRS (UMR 5267) & Université Sorbonne Nouvelle, Paris 3. October 7, 2016, Paris, France.
Invited by Dr. Rachid Ridouane
- USC *Impact of Vocal Fold Biomechanic Variations on the Perception of Voice Quality*. University of Southern California, Department of Linguistics. January 25, 2016, Los Angeles, CA, USA.
Invited at the PhonLunch event
- UCLA *The charismatic voice: biological abilities and culturally-mediated strategies*. University of California, Los Angeles, Dept. of Integrative Biology & Physiology. April 6, 2015
Invited by Prof. Stephanie A. White
- USC *The Science of Charismatic Voices*. University of Southern California, Department of Linguistics. March 25, 2015, Los Angeles, CA, USA.
Invited by Prof. Sandra Ferrari-Disner
- XXII PVC *Acoustic characteristics of the charismatic voice*. Plenary session of the XXII Annual Pacific Voice Conference (East). April 12, 2014; Krakow, Poland.
Invited by Dr. Krzysztof Izdebski, Conference Chair
- U. of Padova *Aspetti psicologici del carisma e della leadership e strumenti per la descrizione del carisma in Italiano, Francese e Portoghese Brasiliano* (in Italian). Università degli Studi di Padova, Language and Communication Lab. May 7, 2013.
Invited by Prof. Maria Grazia Busà
- U. of Padova *Produzione della voce carismatica e percezione del carisma in Italiano, Francese e Portoghese Brasiliano* (in Italian). Università degli Studi di Padova, Language and Communication Lab. May 6, 2013.
Invited by Prof. Maria Grazia Busà
- U. Montpellier *La voix charismatique des leaders politiques : influence des caractéristiques acoustico-prosodiques sur l'audience* (in French). Université Paul-Valéry, Montpellier 3, Praxiling Laboratory, CNRS (UMR 5267). January 14, 2013.
Invited by Dr. Melissa Barkat-Defradas

CONFERENCES PRESENTATIONS

- 171th ASA The acoustics of charismatic voices in Korean political speech: A cross-gender study (2016). *The Journal of the Acoustical Society of America* 139 (4), 2123-2123. Poster presentation
Authors: Rhee, N. and **Signorello, R.**
- 171th ASA The voice acoustics of the 2016 United States presidential election candidates: A cross-gender study (2016). *The Journal of the Acoustical Society of America* 139 (4), 2123-2123. Poster presentation
Authors: **Signorello, R.** and Rhee
- 171th ASA Acoustics and perception of charisma in bilingual English-Spanish 2016 United States presidential election candidates (2016). *The Journal of the Acoustical Society of America* 139 (4), 2018-2018. Poster presentation
Author: **Signorello, R.**
- 10th ICVPB Toward a psychoacoustic model of spectral noise in the voice source (2016). Oral presentation
Authors: **Signorello, R.**, Rhee, N., Gerratt, B. R., and Kreiman, J.

- 11th PEVOC Fo and intensity in charismatic political speech: A cross-cultural study (2015). Oral presentation
Authors: **Signorello, R.**, Demolin, D., Henrich-Bernardoni, N., Kreiman, J., Gerratt, B. R., and Zhang, Z.
- 169th ASA Sufficiency of a four-parameter spectral model of the voice source (2015). The Journal of the Acoustical Society of America 137(4), 2266. Poster presentation
Authors: Kreiman, J., Gerratt, B. R., **Signorello, R.**, and Rastifar, S.
- 168th ASA The biological function of fundamental frequency in leaders' charismatic voices (2014). The Journal of the Acoustical Society of America 136 (4), 2295-2295. Poster presentation
Authors: **Signorello, R.**
- 168th ASA Impact of vocal tract resonance on the perception of voice quality changes caused by vocal fold stiffness (2014). The Journal of the Acoustical Society of America 136 (4), 2295-2295. Poster presentation
Authors: **Signorello, R.**, Zhang, Z., Gerratt, B., and Kreiman, J.
- 10th PEVOC The acoustic correlates of persuasive voice: a cross-language study (2013). Oral presentation
Authors: **Signorello, R.** and Demolin, D.
- RJCP 2011 Indices de langue et de culture dans les micro-événements audibles et visibles de l'interaction face à face (2011). Poster presentation
Authors: **Signorello, R.**, Aubergé, V., Vanpé, A., Granjon, L., and Audibert, N.
- Roma Tre 2011 Il carisma del corpo: caratteristiche acustiche della voce carismatica. Oral presentation. X Giornate della Ricerca, Università degli Studi Roma Tre, Italy
Authors: **Signorello, R.**, Poggi, I., Demolin, D., and D'Errico, F.

TEACHING EXPERIENCE: UNIVERSITY LEVEL

- 2017 — 2018 Université Sorbonne Nouvelle, Paris, France
Institut de Linguistique et Phonétique Générales et Appliquées, ILPGA · Undergraduate level, 18 hours
Cours topics: experimental phonetics; prosody; affective speech; charismatic voice; varieties of French; phonetic transcription.
- 2017 — 2018 Université Sorbonne Nouvelle, Paris, France
Département d'Etudes Italiennes et Roumaines (EIR) · Undergraduate level, 18 hours
Cours topics: Anatomy and physiology of the vocal tract. Speech acoustics. Speech perception. The speech sounds of Italian: vowels and consonants. Phonetic transcription.
- 2015 — 2016 University of California, Los Angeles, USA
Department of Musicology · Graduate level, 24 hours
Musicology 250: Voice Studies. Cours topics: voice and race; voice acoustics; voice perception, larynx dissection
- 2014 — 2015 University of California, Los Angeles, USA
Department of Musicology · Graduate level, 24 hours
Musicology 250: Voice Studies. Cours topics: ontology, epistemology, and definitions of voice; voice meets notes, texts, and characters; vocal flexibility and vocal identity; performance, the exchange value of voice; voice perception, larynx dissection; voice across history and space; voice as marking geographic and/or cultural territory; Lacan on voice; post-human voices and singing as intermaterial practice.
- 2012 — 2013 Université Stendhal, Grenoble 3, France

- Teaching Fellow in Phonetics and Phonology (lecture given in French)* *Department of Linguistics* · Undergraduate classes, 60 hours
 Cours Topics: Introduction to phonetics and phonology including: Physiology of the vocal apparatus; Vocal source and vocal tract characterization; Speech production, acoustics, and perception; Phonological analysis and theories. Students majoring in Linguistics practice in production and perceiving all the sounds in the International Phonetic Alphabet with examples in endangered languages, learn about phonological importance of phonemes and of extra-linguistic uses of sounds.
- 2011 — 2012 Université Stendhal, Grenoble 3, France
- Teaching Fellow in General Linguistics (lecture given in French)* *Department of Linguistics* · Undergraduate classes, 24 hours
 Cours Topics: Providing an introduction to various sub-disciplines of Linguistics: Phonetics, Phonology, Morphology, Grammar, and Computational Linguistics. Students majoring in Linguistics and in other disciplines learn the basic concepts of linguistics
- 2011 — 2012 Université Stendhal, Grenoble 3, France
- Teaching Fellow in Informatics for Humanities (lecture given in French)* *Department of Technology-Enhanced learning* · Undergraduate classes, 48 hours
 Cours Topics: Establishing the link between practical use of software like Microsoft Word, Excel, PowerPoint, and Access, as well as the languages like XHTML, XML and CSS with different disciplines in the Humanities (French, Foreign Languages, Visual Arts, Linguistics, Musicology).
- 2011 — 2012 Università degli Studi Roma Tre, Italy
- Teaching Assistant in Psychology (lecture given in Italian)* *Department of Education* · Undergraduate classes, 12 hours
 Cours Topics: Providing an introduction to the principal areas and concepts of psychology. Students majoring in Education Sciences learn basic concepts of experimental methodology in psychology. My contribution to this course was specifically on experimental methods to measure the perception of charismatic traits, personality, and emotional states in humans.
- 2010 — 2011 Université Stendhal, Grenoble 3, France
- Teaching Fellow in General Linguistics (lecture given in French)* *Department of Linguistics* · Undergraduate classes, 36 hours
 Cours Topics: Providing an introduction to various sub-disciplines of Linguistics: Phonetics, Phonology, Morphology, Grammar, and Computational Linguistics. Students majoring in Linguistics and in other disciplines learn the basic concepts of linguistics
- 2010 — 2011 Université Stendhal, Grenoble 3, France
- Teaching Fellow in Informatics for Humanities (lecture given in French)* *Department of Technology-Enhanced learning* · Undergraduate classes, 24 hours
 Cours Topics: establishing the link between practical use of software like Microsoft Word, Excel, PowerPoint, and Access, as well as the languages like XHTML, XML and CSS with different disciplines in the Humanities (French, Foreign Languages, Visual Arts, Linguistics, Musicology).
- 2009 — 2010 U. Pierre Mendès France, Grenoble 2, France
- Tutor (class given in French)* *Department of Economics* · Lab
 Labs in information technology
- 2006 — 2007 Università degli Studi di Palermo, Italy
- Tutor (class given in Italian)* *Department of Humanities* · Lab
 Provides knowledge in information technology tools in educational technology and on-line collaborative learning

PRESS COVERAGE

- UCLA Magazine *Siren Calling* Oct. 1, 2016
- CBS News *What can we learn from the way presidential candidates talk?* Politics, June 18, 2016

<i>The Washington Post</i>	<i>The vocal tricks political candidates use to sound like leaders.</i> Science, June 2, 2016
<i>NPR, Here & Now</i>	<i>How Trump, Clinton And Sanders Change Their Voices To Win [...].</i> May 27, 2016
<i>Los Angeles Times</i>	<i>In politics, its not what you say but how you say it [...].</i> Science, May 26, 2016
<i>American Institute of Physics</i>	<i>Charismatic speaking strategies of presidential candidates.</i> May 25, 2016
<i>The Atlantic</i>	<i>How to Sound Charismatic.</i> Science, May 25, 2016
<i>de Volkskrant</i>	<i>Clinton en Trump gebruiken exact dezelfde spreektechnieken.</i> Nieuws, May 25, 2016
<i>Forbes</i>	<i>What's The Right Voice For A Leader?</i> Leadership, May 24, 2015
<i>UCLA Newsroom</i>	<i>Got charisma? Look for it in your voice.</i> Health + Behavior, Jan. 21, 2015
<i>The Wall Street Journal</i>	<i>How to Train Your Voice to Be More Charismatic.</i> Health & Wellness, Dec. 1, 2014
<i>Le Monde</i>	<i>Le charisme vocal, objet de science.</i> Science & Medicine, Nov. 6, 2014
<i>The Independent</i>	<i>What makes a politician sound charismatic?</i> Science, Nov. 3, 2014
<i>BBC</i>	<i>Charismatic speakers manipulate their vocal frequency.</i> Science & Env., Oct. 29, 2014
<i>Science</i>	<i>Got charisma? Depends on your voice.</i> ScienceShot, Oct. 29, 2014
<i>The American Institute of Physics</i>	<i>The Science of Charismatic Voices.</i> Oct. 29, 2014
<i>Phys.org</i>	<i>The Science of Charismatic Voices.</i> General Physics. Oct. 29, 2014
<i>Radio France Intl.</i>	<i>Quand les politiques donnent de la voix.</i> Accents d'Europe, Nov. 28, 2014
<i>Radio France</i>	<i>Le Charisme.</i> France Culture, Apr. 7, 2014

PROFESSIONAL SERVICE

<i>Peer-reviewer, Organizer</i>	7ème Journées de Phonétique Clinique. June 29-30, 2017. Paris, France
<i>Peer-reviewer</i>	XXII Annual Pacific Voice Conference (East). April 11-13, 2014. Krakow, Poland
<i>Peer-reviewer, Organizer</i>	4th International Symposium in Rhotics, R-atics 2013. October 29-31, 2013. Bernin, France
<i>Peer-reviewer</i>	Workshop on Conflict and Communication. October 29-31, 2013. Rome, Italy
<i>Organizer</i>	Rencontre des Jeunes Chercheurs en Parole 2011. May 25-27, 2011. Grenoble, France

PROFESSIONAL SOCIETIES

<i>ASA</i>	Early career member of the Acoustical Society of America, since 2014
<i>ISCA</i>	Member of the International Speech Communication Association, since 2013

QUALIFICATIONS

<i>Voice, Speech</i>	UCLA voice analysis software (Inverse Filter, Sky, Synthesis), Praat scripting language, Audacity, SPPAS, VoiceSauce (MatLab), Phonedit
<i>Phonetics</i>	Voice and speech data collection methods: Acoustics, ultrasound, aerodynamics, electroglottography, electromyography, and non-invasive (external-lighting and sensing) photoglottographic (ePGG)
<i>Social Psychology</i>	Developer of the MASCharP (Multi-dimensional Adjective-based Scale of Charisma Perception); PsychoPy

<i>Statistical analysis</i>	R (psych, GPArotation, corpcor, smacof, cmdscale), SPSS
<i>Others</i>	Limesurvey, PHP, JavaScript, PERL, MySQL, Microsoft Access, XML, XHTML, CSS, L ^A T _E X, LyX, BibDesk, E-learning (Moodle, Rosetta Stone, Hot Potatoes), Adobe Acrobat Pro and Photoshop, Microsoft Office (Word, Excel, PowerPoint)

AWARDS

<i>Doctoral Scholarship</i>	2010-2013. Granted by the French Ministry of National Education and Research. Amount € 60.000
<i>AIRES Culturelles</i>	2011. Travel grant from the Université Stendhal, Grenoble 3. Amount € 1.200
<i>AIRES Culturelles</i>	2010. Travel grant from the Université Stendhal, Grenoble 3. Amount € 1.200

TEACHING EXPERIENCE: OTHER LEVELS

<i>Italian Teacher</i>	2008 — 2009 Private school Les Portes de Chartreuse Middle and high school classes · Voreppe, France
<i>Italian Teacher</i>	2008 — 2009 Public school Jean Vilar Middle school classes · Echirrolles, France
<i>Italian Teacher</i>	2007 — 2008 Public international school Jean Jaurès Elementary school classes · Grenoble, France

EXTRACURRICULAR

<i>Associations</i>	2014 — 2015 Vice-president of the University of California, Los Angeles, Postdoc Society (SoPS)
<i>Languages</i>	ITALIAN · Mother tongue SICILIAN · Mother tongue ENGLISH · Fluent FRENCH · Fluent SPANISH · Basic PORTUGUESE · Basic
<i>Others</i>	Restaure antique bikes · Cross-country cycling · Volunteer and activist in bike workshops and associations Over 10 years playing tenor saxophone. Proficiency in light orchestral music and Sicilian traditional music Muay Thai · Hiking · Soccer · Snowboard

October 12, 2017