

ROSARIO SIGNORELLO, PH.D.

CONTACT INFORMATION

Affiliation Laboratoire de Phonétique et Phonologie (LPP)
Université Sorbonne Nouvelle, Paris 3 & 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

10/2016-... LPP, U. Sorbonne Nouvelle, Paris 3 and CNRS

*Postdoctoral
Researcher in
Articulatory
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

- Acta Acoustica united with Acoustica* *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* *Voice in charismatic leadership* (2016). Edited by Nina Sun Eidsheim and Katherine L. Meizel.
 Author: **Signorello, R.**
- Interspeech* *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 review* *Aerodynamic features of French fricatives*.
 Authors: **Signorello, R.**, Hassid, S., Demolin, D.
- in review* *The acoustics of the charismatic voices: biological abilities and cultural strategies*
 Author: **Signorello, R.**
- 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

- IRIS* *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. Paris 3 *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 3 *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

- 2015 — 2016 University of California, Los Angeles, USA
 Guest Lecturer in Voice Sciences (lecture given in English)
 Department of Musicology · Graduate level, 24 heures
 Musicology 250: Voice Studies. Cours Topic: Voice and Race
- 2014 — 2015 University of California, Los Angeles, USA
 Guest Lecturer in Voice Sciences (lecture given in English)
 Department of Musicology · Graduate level, 24 heures
 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
 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
 Provides 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
 Establishes 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
Provides 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
Provides 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
Establishes 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	<i>Siren Calling</i> Oct. 1, 2016
CBS News	<i>What can we learn from the way presidential candidates talk?</i> Politics, June 18, 2016
The Washington Post	<i>The vocal tricks political candidates use to sound like leaders.</i> Science, June 2, 2016
NPR, Here & Now	<i>How Trump, Clinton And Sanders Change Their Voices To Win [...].</i> May 27, 2016
Los Angeles Times	<i>In politics, its not what you say but how you say it [...].</i> Science, May 26, 2016
American Institute of Physics	<i>Charismatic speaking strategies of presidential candidates.</i> May 25, 2016
The Atlantic	<i>How to Sound Charismatic.</i> Science, May 25, 2016
de Volkskrant	<i>Clinton en Trump gebruiken exact dezelfde spreektechnieken.</i> Nieuws, May 25, 2016
Forbes	<i>What's The Right Voice For A Leader?</i> Leadership, May 24, 2015
UCLA Newsroom	<i>Got charisma? Look for it in your voice.</i> Health + Behavior, Jan. 21, 2015
The Wall Street Journal	<i>How to Train Your Voice to Be More Charismatic.</i> Health & Wellness, Dec. 1, 2014
Le Monde	<i>Le charisme vocal, objet de science.</i> Science & Medicine, Nov. 6, 2014
The Independent	<i>What makes a politician sound charismatic?</i> Science, Nov. 3, 2014

BBC	<i>Charismatic speakers manipulate their vocal frequency.</i> Science & Env., Oct. 29, 2014
Science	<i>Got charisma? Depends on your voice.</i> ScienceShot, Oct. 29, 2014
The American Institute of Physics	<i>The Science of Charismatic Voices.</i> Oct. 29, 2014
Phys.org	<i>The Science of Charismatic Voices.</i> General Physics. Oct. 29, 2014
Radio France Intl.	<i>Quand les politiques donnent de la voix.</i> Accents d'Europe, Nov. 28, 2014
Radio France	<i>Le Charisme.</i> France Culture, Apr. 7, 2014

PROFESSIONAL SERVICE

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

PROFESSIONAL SOCIETIES

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

QUALIFICATIONS

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

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

TEACHING EXPERIENCE: OTHER LEVELS

Italian Teacher	2008 — 2009 Private school Les Portes de Chartreuse Middle and high school classes · Voreppe, France
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- 2008 — 2009 Public school Jean Vilar
Italian Teacher Middle school classes · Echirolles, France
- 2007 — 2008 Public international school Jean Jaurès
Italian Teacher Elementary school classes · Grenoble, France

EXTRACURRICULAR

- Associations* 2014 — 2015 Vice-president of the University of California, Los Angeles,
 Postdoc Society (SoPS)
- Languages*
- ITALIAN · Mother tongue
 - SICILIAN · Mother tongue
 - ENGLISH · Fluent
 - FRENCH · Fluent
 - SPANISH · Basic
 - PORTUGUESE · Basic (simple words and phrases only)
- Others*
- 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

May 16, 2017