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Dr. Eugenia San Segundo

Distinguished Researcher
Department of Spanish Language & General Linguistics @ UNED Madrid

UNED

About me

In March 2020 I joined the Department of Spanish Language & General Linguistics at the National University of Distance Education (UNED), Madrid, where I work as *Beatriz Galindo Junior* Fellow.

I teach several courses in the Degree in Spanish language & literature and from January 2021 an open teaching course on *Forensic Phonetics*.

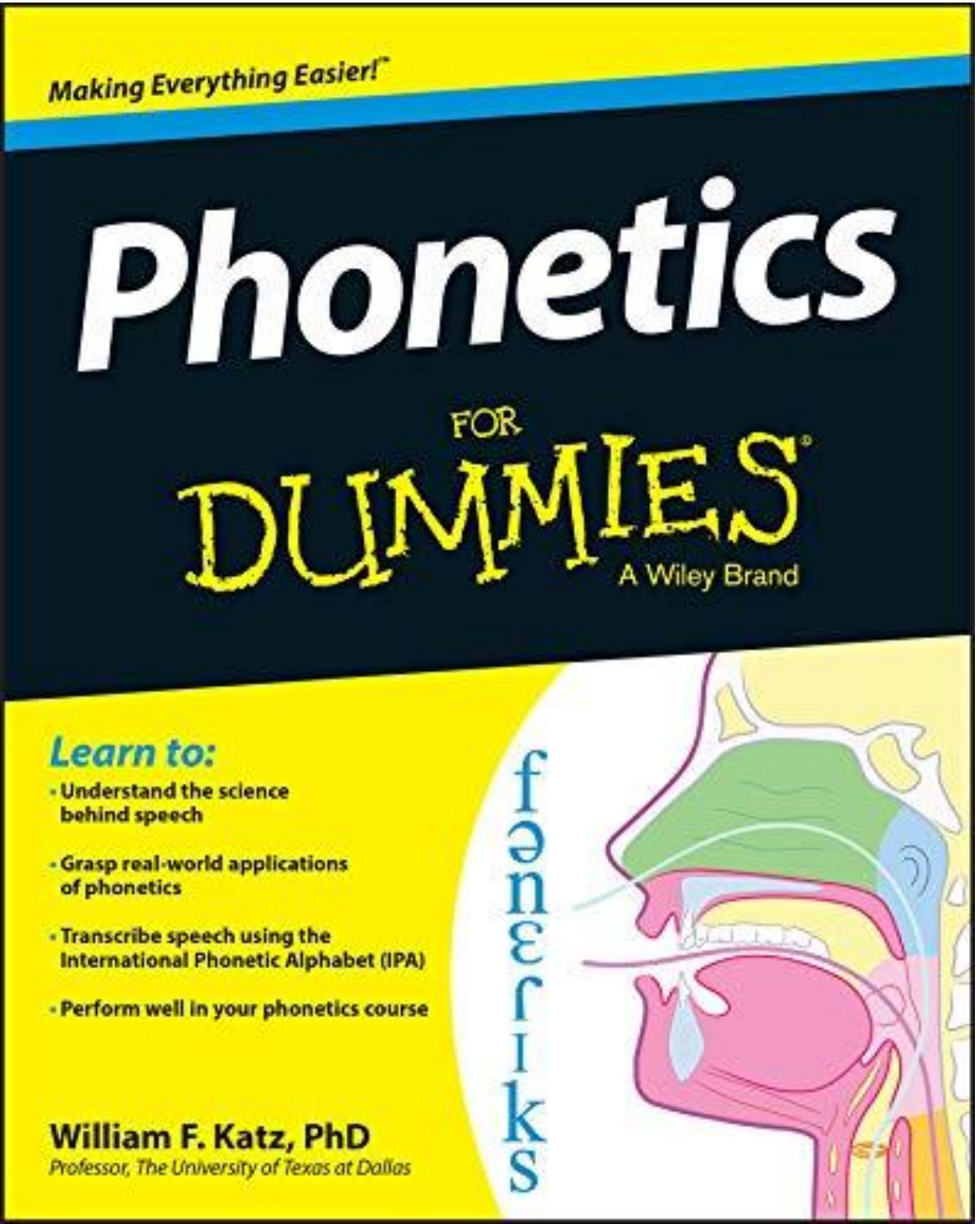
My research interests include: Forensic Speech Science, formant dynamics, voice quality production and perception, dysarthric speech, discourse analysis, and the study of twins and related speakers.

Interests

- Applied Linguistics
- Experimental Phonetics
- Forensic Phonetics

Education

PhD in Speech Sciences, 2014
Spanish National Research Council (CSIC), Madrid, Spain



Articulatory

Acoustic

Auditory

Merriam-Webster SINCE 1828

GAMES | BROWSE THESAURUS | WORD OF THE DAY | WORDS AT PLAY

forensic

Dictionary | Thesaurus

forensic adjective

Save Word

fo·ren·sic | \ fə-ˈren(t)-sik, -ˈren-zik \

Definition of *forensic* (Entry 1 of 2)

1 : belonging to, used in, or suitable to courts of judicature or to public discussion and debate

// a lawyer's forensic skills

2 : ARGUMENTATIVE, RHETORICAL

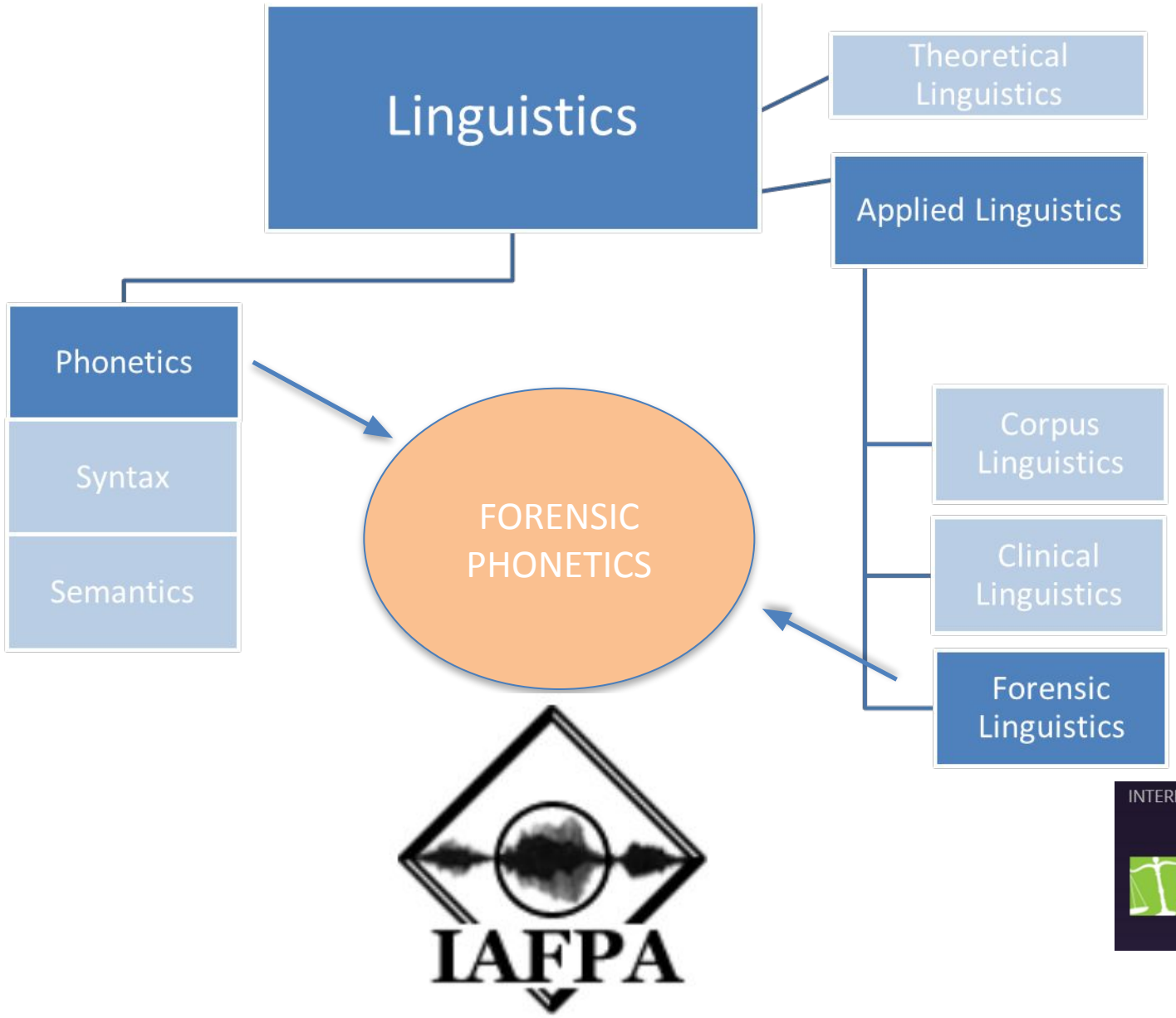
// forensic eloquence

3 : relating to or dealing with the application of scientific knowledge to legal problems

// forensic medicine

// forensic science

// forensic pathologist



INTERNATIONAL ASSOCIATION OF FORENSIC AND LEGAL LINGUISTS

IAFL

PLAN DE TRABAJO

En el cómputo de horas se incluyen el tiempo dedicado a las horas lectivas, horas de estudio, tutorías, seminarios, trabajos, prácticas o proyectos, así como las exigidas para la preparación y realización de exámenes y evaluaciones.

TEMA: Tema 1. La Lingüística y sus aplicaciones - 12 Horas

TEMA: Tema 2. Aprendizaje y enseñanza de lenguas - 12 Horas

TEMA: Tema 3. Traducción y mediación lingüística - 12 Horas

TEMA: Tema 4. Lexicografía - 12 Horas

TEMA: Tema 5. Planificación y políticas lingüísticas - 12 Horas

TEMA: Tema 6. Lingüística Forense - 24 Horas

TEMA: Tema 7. Diagnóstico y terapia de los trastornos del lenguaje y del habla - 12 Horas

TEMA: Tema 8. Lingüística computacional y tecnologías del habla - 24 Horas

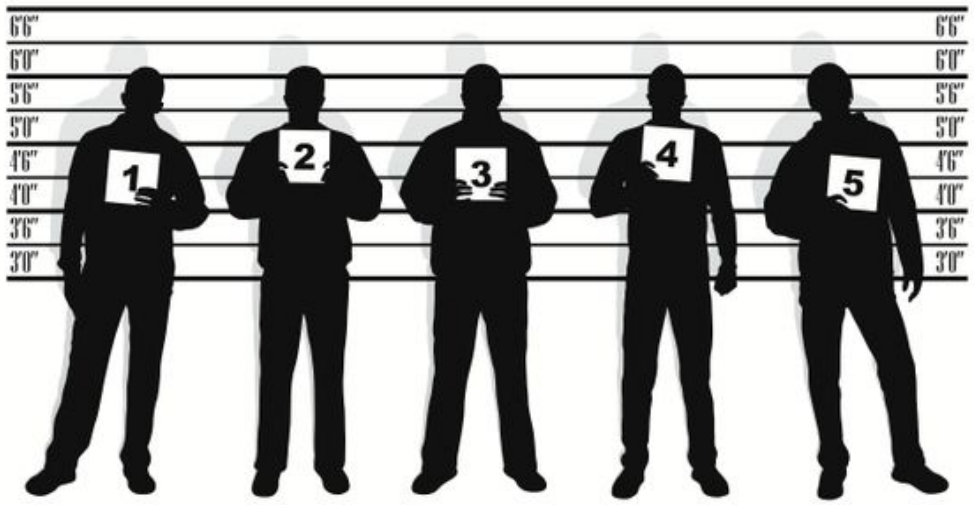
PEC: Pruebas de evaluación continua - 3 Horas

Forensic Phonetics

- Speaker profiling

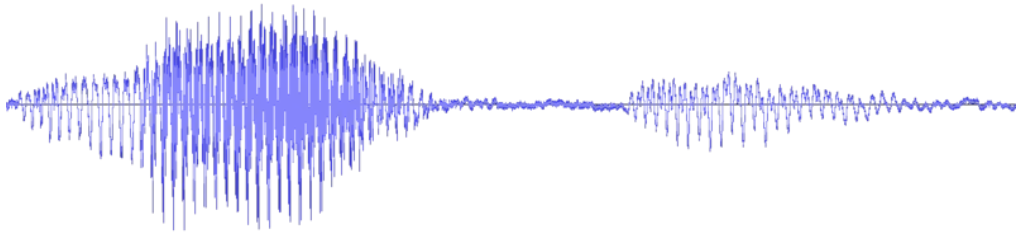
Forensic Phonetics

- Design and validation of voice line-ups

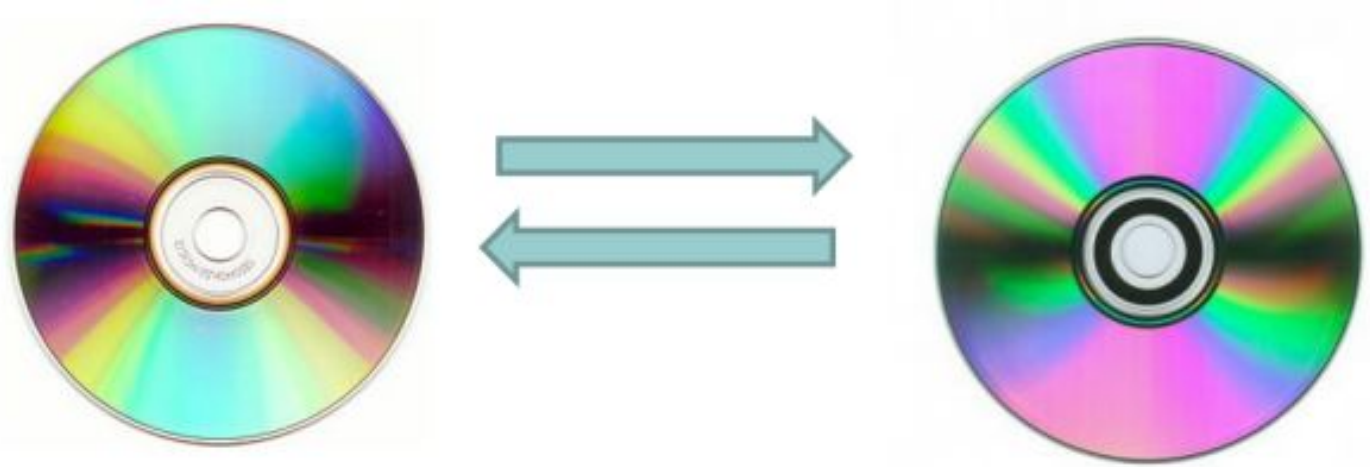


Forensic Phonetics

- Determining whether a recording has been edited
- Determining the content of a recording
  - Transcription >>> Disputed utterances



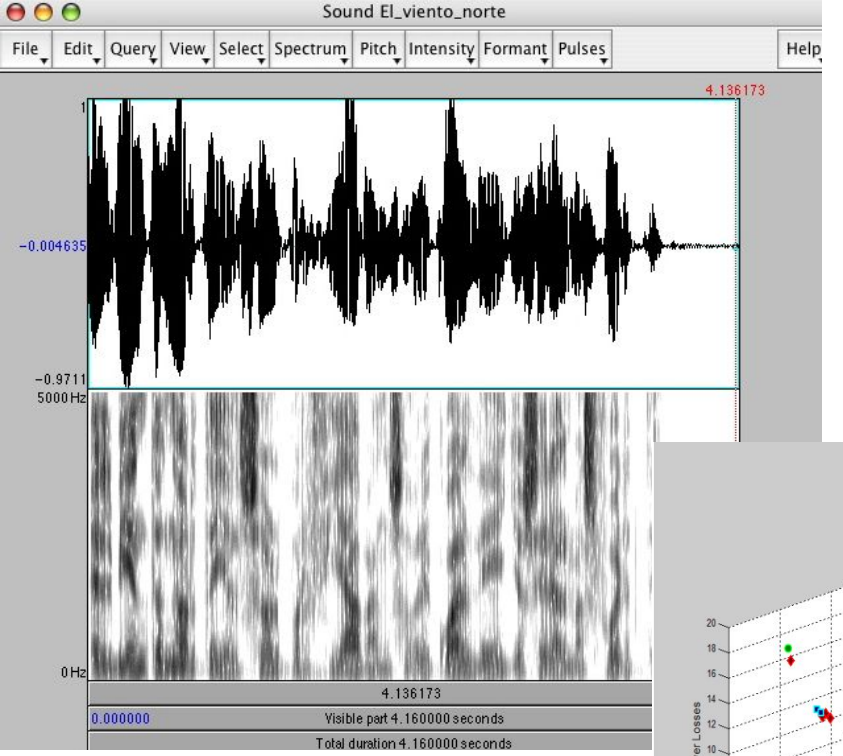
Forensic Voice Comparison

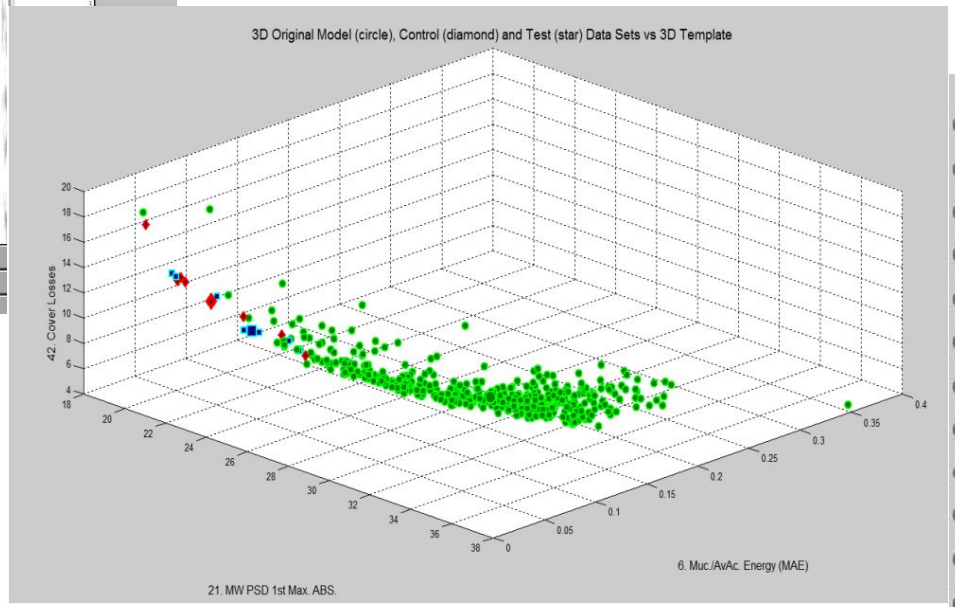


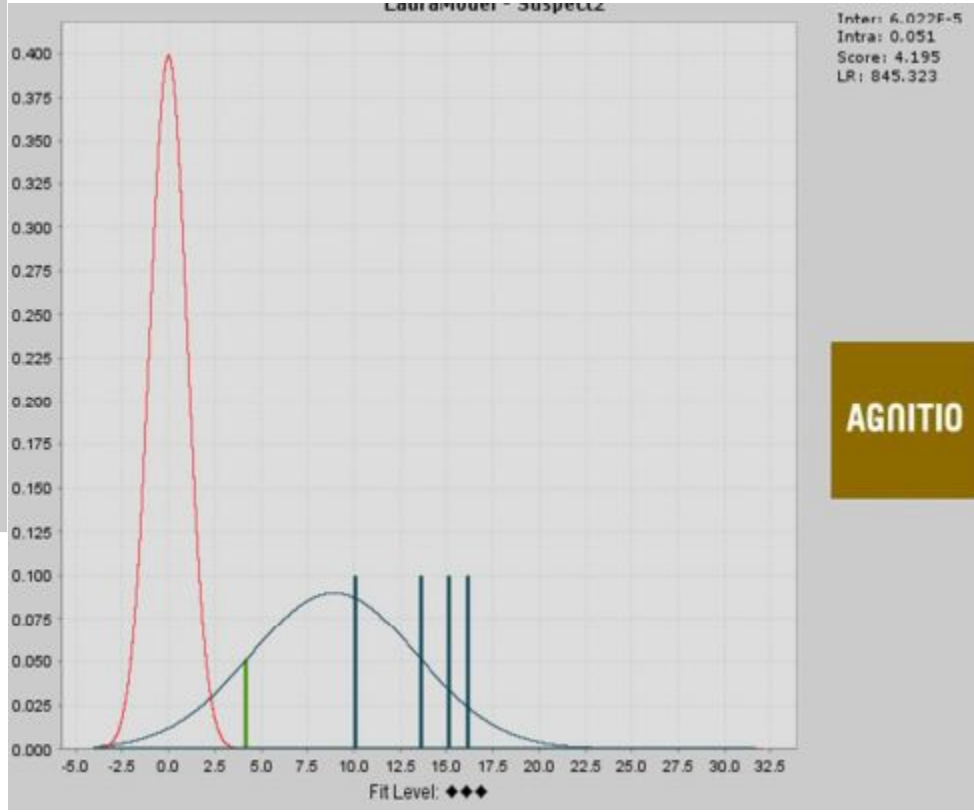
Recording of the unknown offender
(threat, blackmail, drug traffic)

Recording of the suspect

Methods

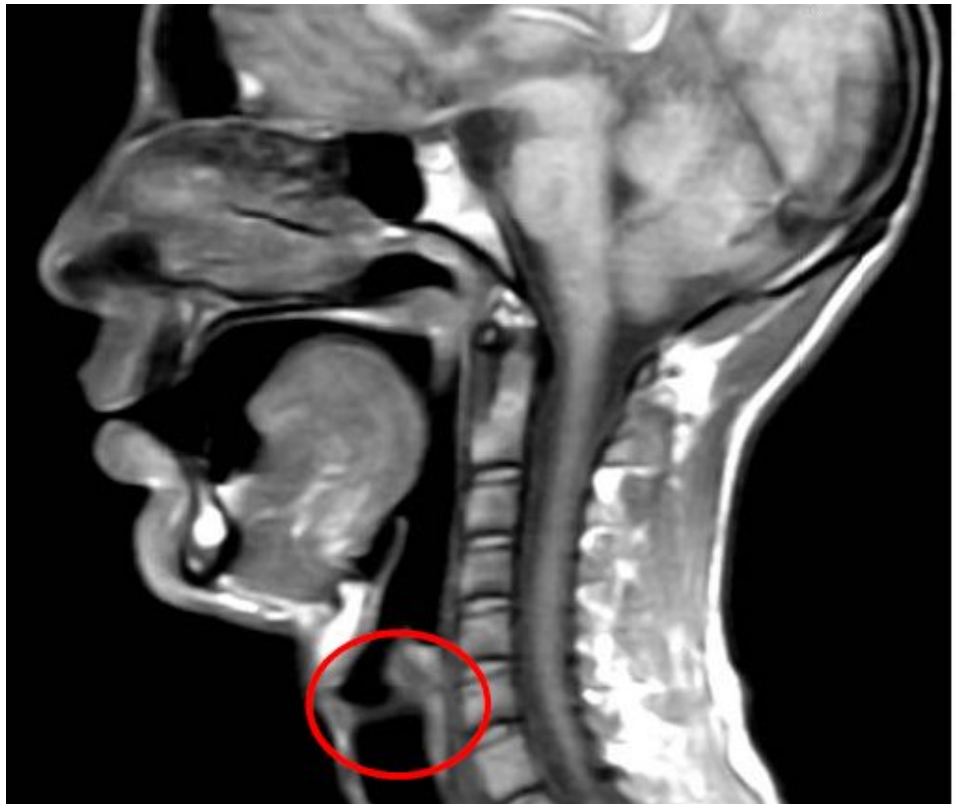


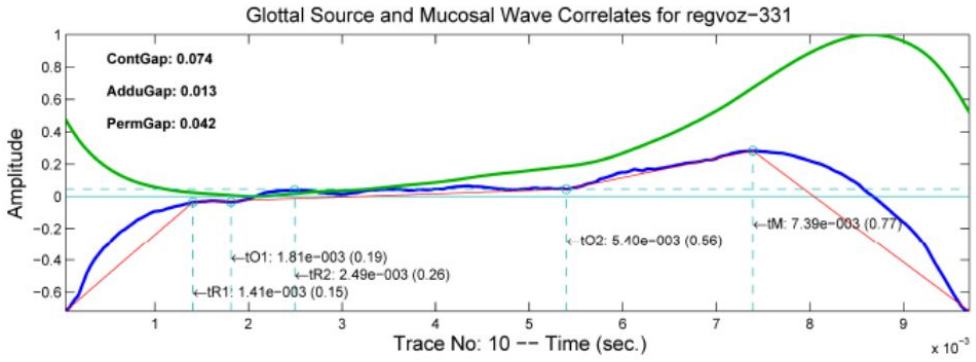


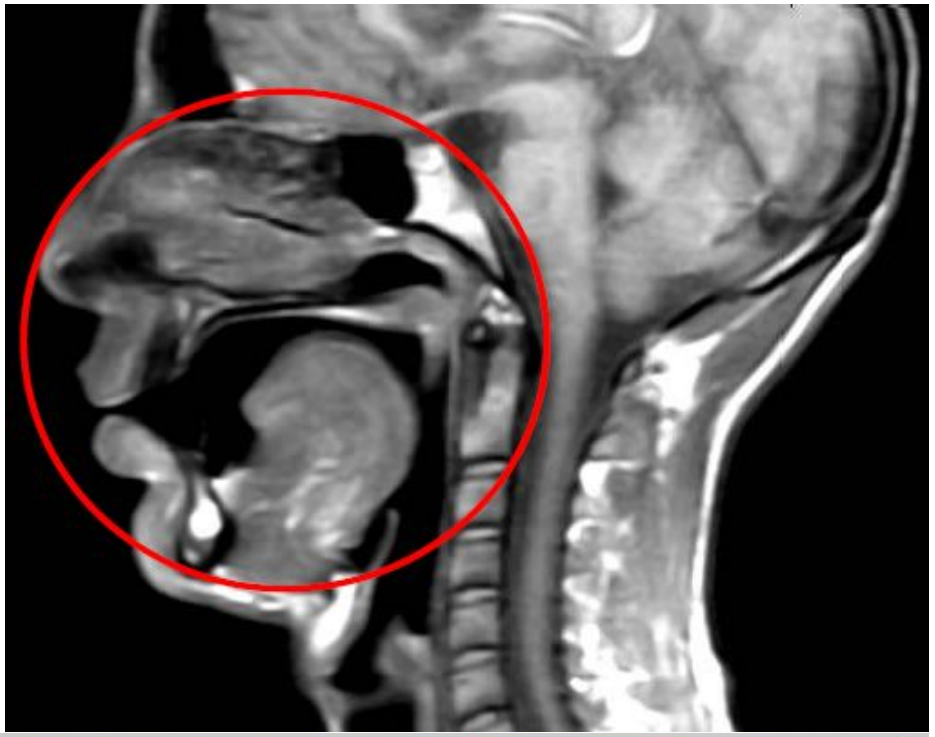


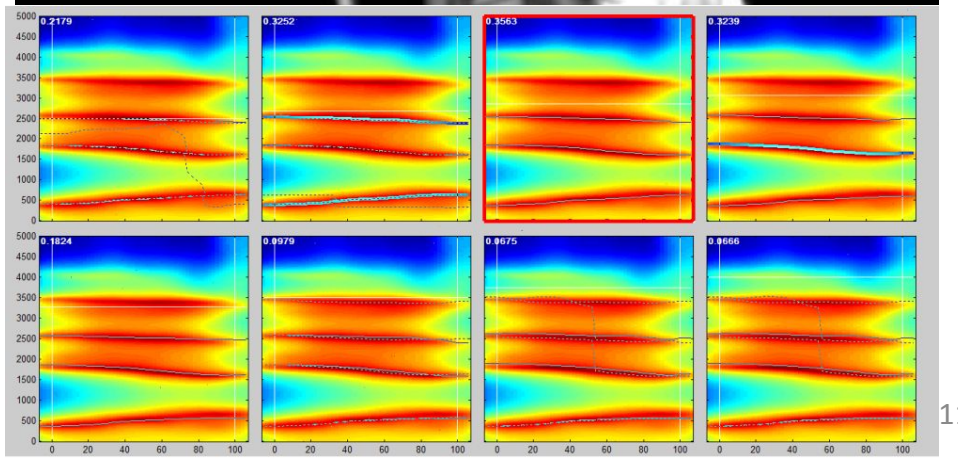
AGNITIO

Voice parameters









The International Journal of Speech, Language and the Law

IJSLL (PRINT) ISSN 1748-8885
IJSLL (ONLINE) ISSN 1748-8893

Article

International practices in forensic speaker comparison

Erica Gold and Peter French

The International Journal of Speech, Language and the Law

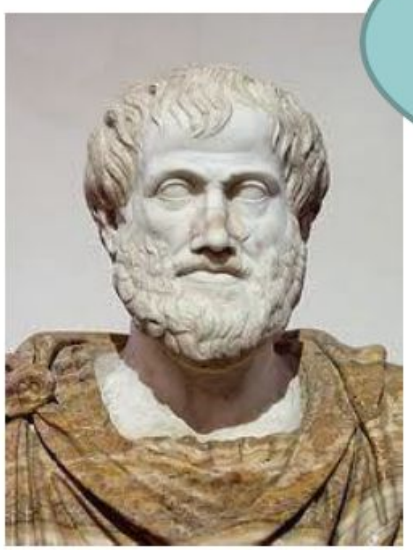
IJSLL (PRINT) ISSN 1748-8885
IJSLL (ONLINE) ISSN 1748-8893

Article

Current methods in forensic speaker identification:

Results of a collaborative exercise

Tina Cambier-Langeveld



The whole is greater than the sum of the parts

Best Practice Manual for the Methodology of Forensic Speaker Comparison

ENFSI-BPM-FSC-01
Version 01 – November 2021

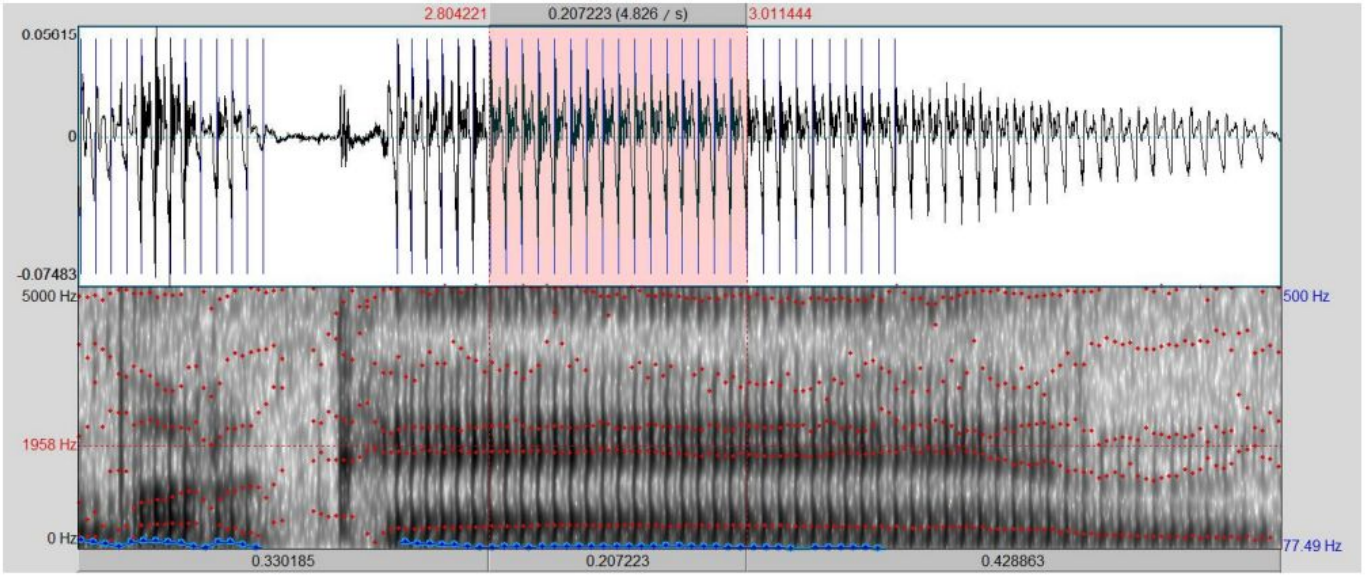
5.1 Principles

The methodology of Forensic Speaker Comparison was developed for the purpose of analysing unknown speakers in telephone interceptions and other forensic and comparing them either among themselves and/or with known speakers.

If there is more than one unknown speaker within one case scenario, unknown speakers must not be pooled automatically. They have to be analysed separately or at least checked in detail before being pooled.

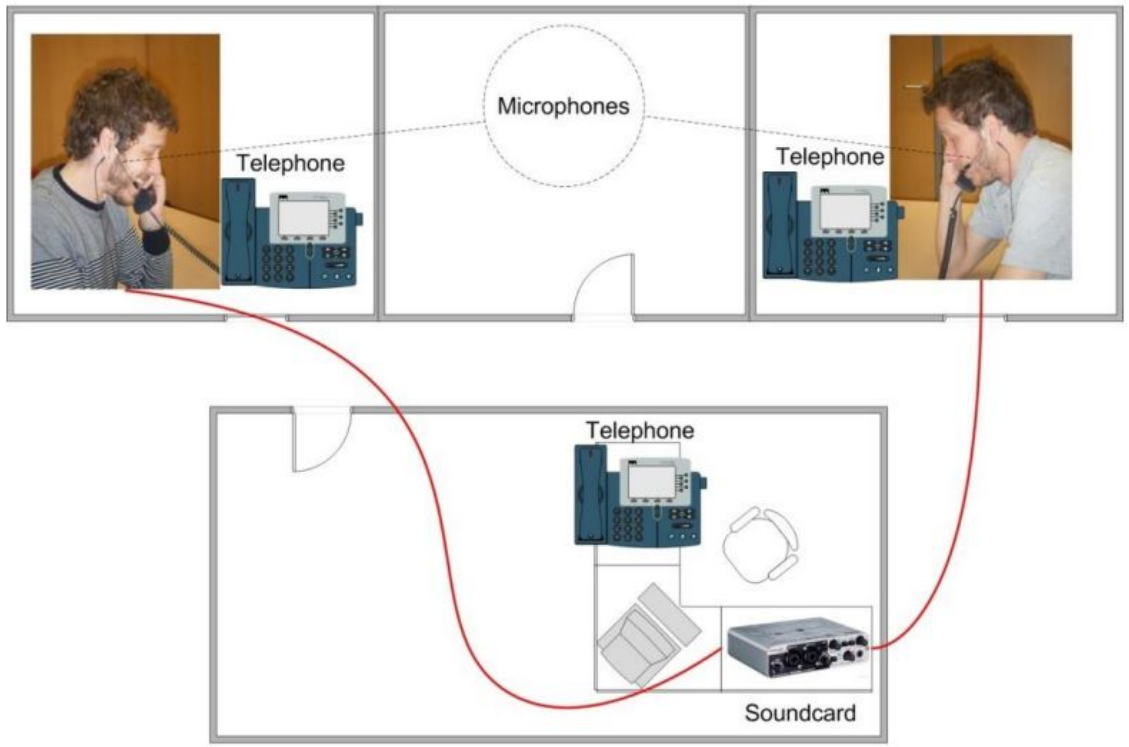
A fundamental principle of this methodology is that a range of speech features can be analysed to capture the many dimensions on which speakers can be distinguished. According to the literature (e.g. [09], [10], [16]), speech features should be as independent from one another as possible to reach a high degree of speaker-discriminatory power. The relationship between intra- and inter-individual speaker variation determines the relevant discriminatory information. All findings are compared and evaluated on the basis of the (dis-)similarity and the typicality of speaker-specific characteristics. In this process the knowledge and competence of the experts play a substantial role. The expert has to make decisions at every step of the speaker comparison analysis using available scientific background information, as well as their experience. After the comparison and evaluation process a conclusion statement is given. The results of the examination are documented in an expert report.

Voice Quality



	FIRST PASS		SECOND PASS						
				Moderate			Extreme		
	Neutral	Non-neutral	SETTING	1	2	3	4	5	6
A. VOCAL TRACT FEATURES									
1.Labial			Lip rounding/protrusion						
			Lip spreading						
			Labiodentalization						
			Extensive range						
			Minimised range						
2. Mandibular			Close jaw						
			Open jaw						
			Protruded jaw						
			Extensive range						
			Minimised range						
3. Lingual tip/blade			Advanced tip/blade						
			Retracted tip/blade						
4. Lingual body			Fronted tongue body						
			Backed tongue body						
			Raised tongue body						
			Lowered tongue body						
			Extensive range						
			Minimised range						
5. Pharyngeal			Pharyngeal constriction						
			Pharyngeal expansión						
6. Velopharyngeal			Audible nasal escape						
			Nasal						
			Denasal						
7. Larynx height			Raised larynx						
			Lowered larynx						
B. OVERALL MUSCULAR TENSION									
8. Vocal tract tension			Tense vocal tract						
			Lax vocal tract						
9. Laryngeal tension			Tense larynx						
			Lax larynx						

C. PHONATION FEATURES									
	SETTING	Present		Scalar Degree					
		Neutral	Non-neutral	Moderate			Extreme		
				1	2	3	4	5	6
10. Voicing type	Voice								
	Falsetto								
	Creak								
	Creaky								
	Whisper								



CSIC

CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS

THE UNIVERSITY of York

The York Research Database

University | A to Z | Departments

» Research » York Research Database » Projects » Voice and Identity: source, filter, biometric

- Research Database
- Publications
- Researchers
- Projects
- Activities
- Datasets
- Departments and units
- How to use this site

Voice and Identity: source, filter, biometric

Research project (funded) › Research

Project participant(s)

Prof Paul Foulkes (Principal investigator)
Prof Peter French (Researcher)
Dr Philip Harrison (Researcher)
Dr Vincent Hughes (Researcher)
Dr Eugenia San Segundo Fernandez (Researcher)

Department / unit(s)

Language and Linguistic Science

Status	Finished
Effective start/end date	1/02/15 → 11/09/19

Simplified Vocal Profile Analysis (VPA) protocol

Current projects

The following projects are currently being funded by IAFPA research grants:

- **How to deal with voice quality in forensic phonetics: a feasibility study towards a simplified perceptual protocol**
- Investigators: Eugenia San-Segundo Fernandez (National University of Distance Education (UNED), Spain)

Eugenia San Segundo, Radek Skarnitzl (2021). A computer-based tool for the assessment of voice quality through visual analogue scales: VAS-Simplified Vocal Profile Analysis. *Journal of Voice*, Vol. 35, Issue 3, pp. 497.e9-497.e21.

PDF Cite

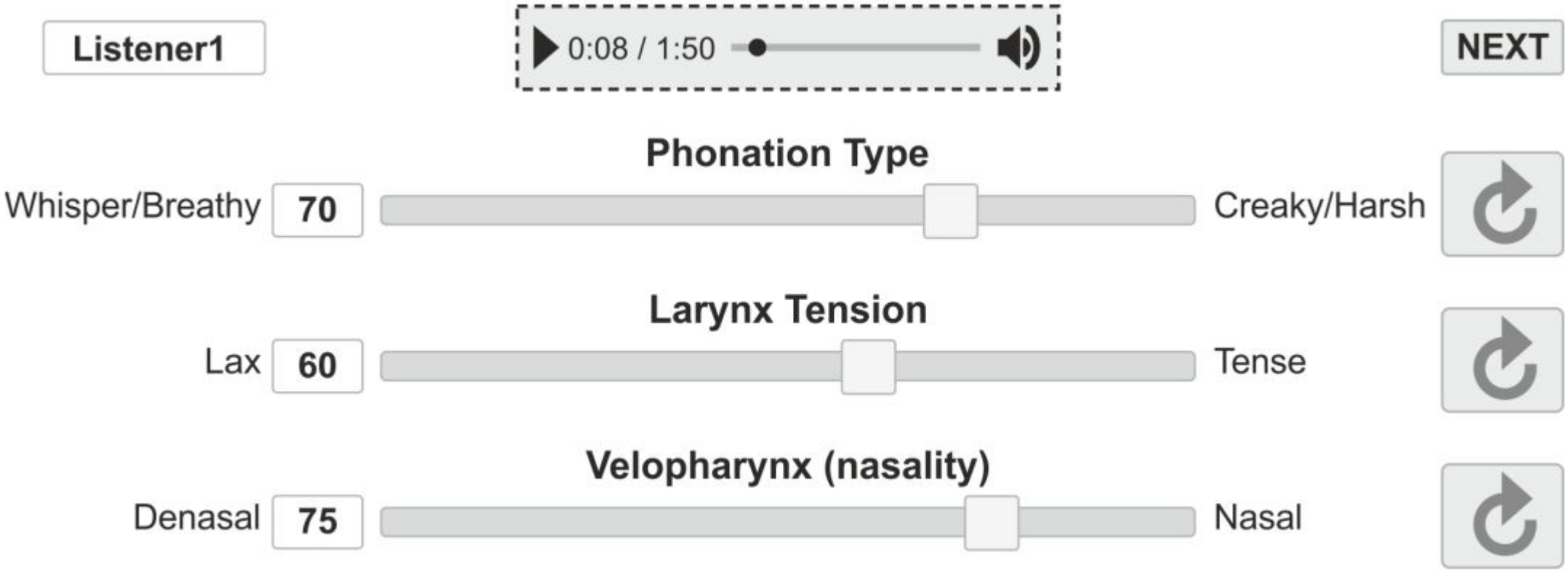
Eugenia San Segundo (2021). International survey on voice quality: Forensic practitioners versus voice therapists. *Estudios de Fonética Experimental*, Vol. XXX, pp. 9-34.

PDF Cite

Eugenia San Segundo, José A. Mompeán (2017). A Simplified Vocal Profile Analysis Protocol for the Assessment of Voice Quality and Speaker Similarity. *Journal of Voice*, Vol. 31, Issue 5, pp. 644.e11 - 644.e27.

PDF Cite

Simplified Vocal Profile Analysis (VPA) protocol



https://eugeniasansegundo.github.io/vas/tool.html

A preliminary approach to the acoustic-perceptual characterization of dysarthria

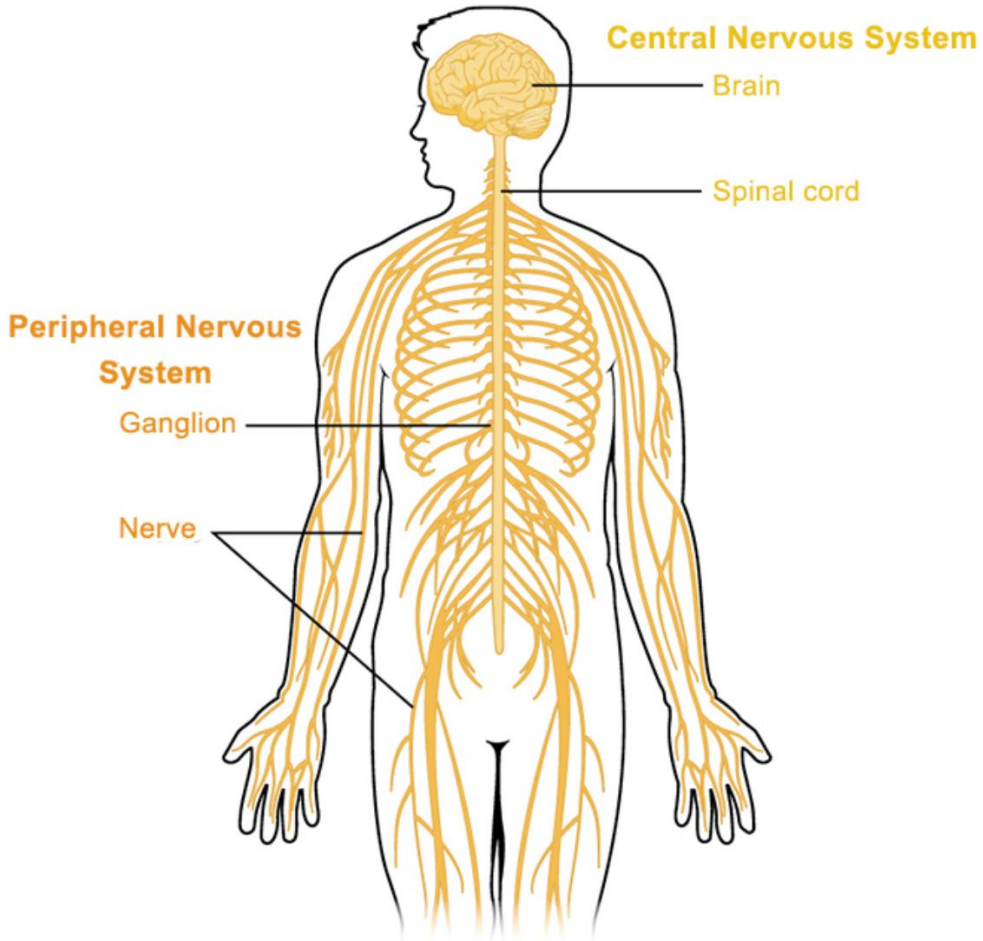
Eugenia San Segundo

Dept. Spanish Language & General Linguistics, UNED, Madrid, Spain

Jonathan Delgado

Dept. Developmental and Educational Psychology, La Laguna University, Tenerife, Spain

ISAPh2021
THE 3RD INTERNATIONAL SYMPOSIUM ON APPLIED PHONETICS
UNIVERSITAT ROVIRA I VIRGILI
TARRAGONA (SPAIN) · SEPTEMBER 6-8, 2021



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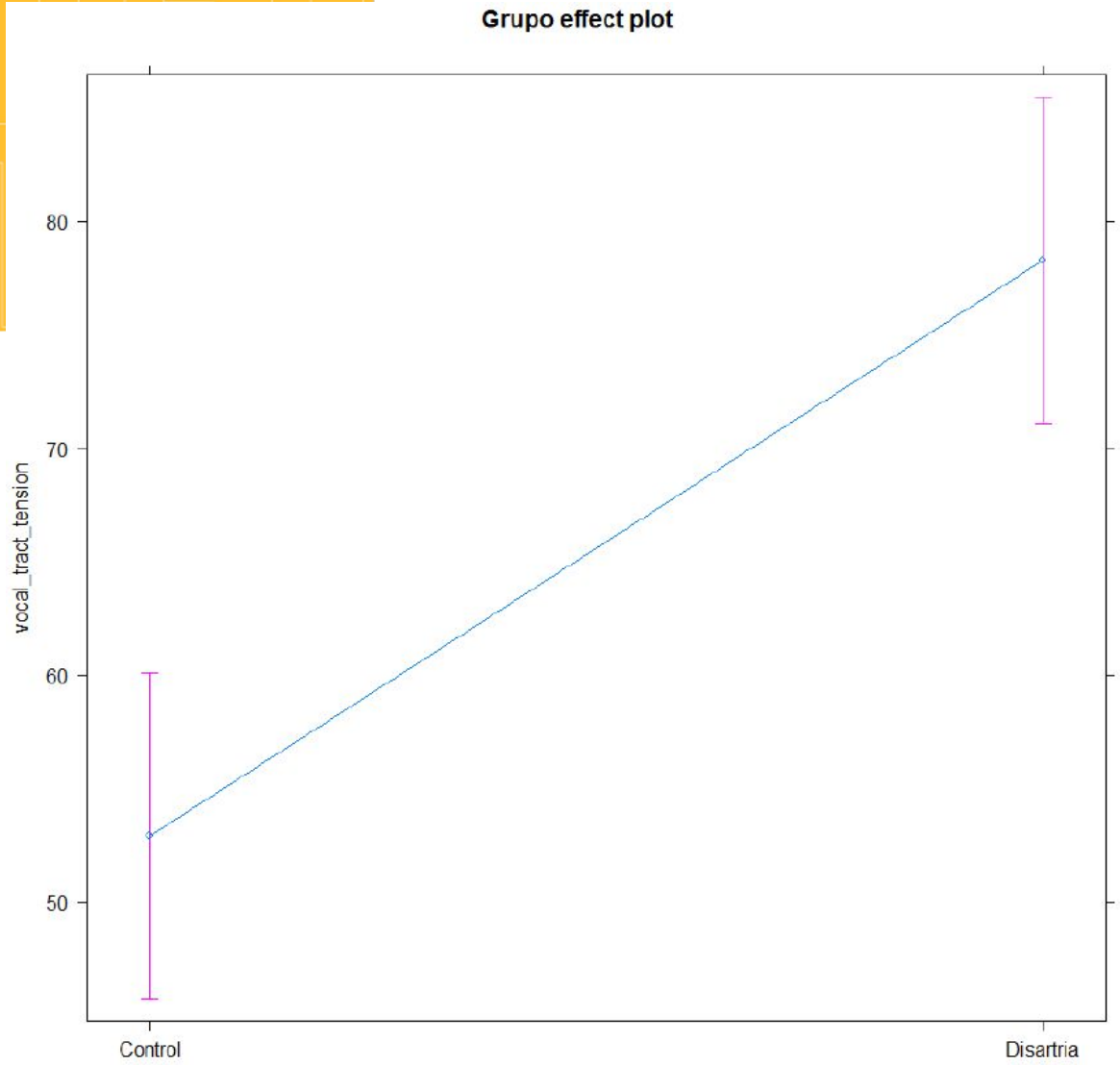

Desarrollo profesional y personal

6 créditos

Curso académico 2021-2022

La huella vocal. Peritajes en fonética judicial

del 10 de enero al 11 de julio de 2022

CERTIFICADO DE ACTUALIZACIÓN PROFESIONAL

Solicitud de matrícula online

Periodo de matriculación:

Del 6 de septiembre al 30 de noviembre de 2021.