



Cambridge Society for the Application of Research

Churchill College
Storey's Way
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“We know who you are from the way you
sound (*or do we....?*)”

Speaker identification in forensic contexts

Dr Kirsty McDougall, Department of Linguistics
University of Cambridge

7.30 p.m., Monday 19th January, 2009

The Wolfson Lecture Theatre, Churchill College, Storey's Way, Cambridge

Dr McDougall writes:

An increasing number of criminal cases involve speech recordings – for example, a hoax emergency call, a fraudulent phone transaction, an obscene voicemail, or the planning of a drug deal – so demand for expert phonetic evidence is growing rapidly.

In forensic speaker identification, the linguist is asked to compare the voice of an unknown speaker recorded committing or confessing to a crime with the voice of a suspect, and assess the likelihood that the two speech samples came from the same person.

Despite the impression given by popular television crime series such as CSI, there is no technique for identifying a speaker with 100% reliability. A person's voice varies, depending on tiredness, emotion, how loud and fast he or she is speaking, and many other factors.

This variability within an individual's voice makes the task of speaker identification very complicated in the forensic domain, where recordings are usually short, of poor quality and in a range of speaking styles.

This lecture will outline current approaches to the analysis of speech for forensic speaker identification, and describe new research into the speaker-characterising potential of acoustic dynamic properties of speech being carried out as part of the **DyViS** project at Cambridge.

About the speaker:

Kirsty McDougall is a phonetician who specialises in the area of speaker characteristics. She is particularly interested in what makes a speaker's voice sound individual acoustically, and how this knowledge can be applied in forensic contexts.

Kirsty completed a BA in linguistics and a BSc in mathematics and statistics at the University of Melbourne, Australia before coming to Cambridge to undertake an MPhil and PhD in phonetics in the Department of Linguistics, University of Cambridge.

She is currently a research associate in the same department, and Director of Studies in Linguistics at Clare College. She also acts as an expert witness for cases involving forensic phonetic analysis such as speaker identification, voice parades (ear-witness identification), transcription and questioned utterance analysis.

The Organising Secretary adds.....

Phonetics is a fascinating subject; did you know that the voice one hears on most of our long-distance telephone calls is synthesised from a 'look-up table' of phonons? It's not the voice of the caller at all! See you on Monday 19th

Best Regards

Richard Freeman, CSAR Organising Secretary

Coffee available, as usual, in the foyer outside the lecture theatre from ~7.00 p.m.

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