



Real forensic experts should pay more attention to the dangers posed by 'ad hoc experts'

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Introduction

Recent years have seen a great deal of attention given to the reliability of expert evidence admitted in criminal trials. However, almost no attention has been given to the reliability of evidence provided by so-called ‘ad hoc experts’. Indeed, many forensic scientists seem unaware that such a category of witness even exists, much less of the substantial threats they pose to the fairness of our criminal justice system.

‘Ad hoc experts’ are used for a number of evidence types¹. Here, we concentrate on one type that appears in Australian courts on a weekly basis: interpretation of indistinct covert recordings. The aim is to draw the attention of AJFS readers to serious problems in the handling of this much-used form of evidence, in the hope that the AAFS might develop a position on the issues and support calls for reform of practice.

Expert evidence

It is useful to set the discussion of ‘ad hoc expert’ evidence against a backdrop of developments in the field of expert evidence more broadly. AJFS readers will need little reminding of the issues².

One of the most discussed topics has been the problem of unintentional cognitive bias caused by too close a collaboration between investigators and forensic scientists³. Numerous studies have shown that even unconscious awareness of the broader context of a case can affect the most apparently objective scientific measurements⁴ (this is, of course, the reason for standard use of double-blind testing in mainstream science).

Another, related, concern has been to ensure that forensic scientists’ claimed proficiency in analysing or interpreting evidence is backed up by rigorous tests confirming they have genuine skills beyond those of an average observer⁵.

These and other issues are taken increasingly seriously in jurisdictions around the world⁶. A number of international initiatives designed to ensure that courts are provided with valid and reliable forensic evidence are generating productive debate here in Australia.

‘Ad hoc experts’

Covert recordings are conversations captured by a hidden listening device without the knowledge of one or more of the speakers. They potentially provide powerful evidence, but suffer from a serious problem: their clandestine nature means it is hard to control the recording conditions. The effect is that the audio is often of extremely poor quality – to the extent that ordinary listeners are unable to make out what is said.

Detectives, however, can often decipher indistinct covert recordings related to their investigation far better than can ordinary listeners. Further, transcripts produced by these detectives are

found to be of great assistance to other listeners, both in hearing words spoken, and in attributing utterances to individuals. The courts have therefore determined it is desirable for detectives' transcripts to be provided to assist the jury in interpreting indistinct covert recordings used as evidence in trials.

However, a transcript is not factual evidence in its own right. It is an opinion regarding the interpretation of the real evidence, which is the audio itself. Following *Butera 1987*⁷ it has become standard practice to overcome this problem by allowing detectives to provide opinion evidence in the role of 'ad hoc expert'.

An 'ad hoc expert' is someone without genuine expertise who is nevertheless deemed to have 'specialized knowledge' (in the sense of *Evidence Act s 79*) in relation to a particular case. Detectives are given this status in relation to indistinct covert recordings on the grounds they have 'specialized knowledge' obtained by listening to the audio 'many times'.

Of course, the danger is recognized that a jury might simply read and accept the detective's transcript without listening properly to the audio. For this reason, the judge is required to instruct the jury to listen carefully to the covert recording, and reach their own opinion as to its contents, using the detective's transcript only as an aid.

This may sound reasonable, and has certainly become a familiar, accepted practice to lawyers over the 30 years since *Butera*. However, from the point of view of phonetics (the science of speech) it harbors serious problems.

The problem

The legal principles just described were developed by the law with no consultation of phonetic science. This was on grounds that the perception and interpretation of speech are matters of 'common knowledge', well within the capability of any non-expert.

However, while speech perception might be an everyday ability, interpretation of indistinct recordings is a different matter altogether, about which expertise in phonetic science is highly relevant.

First, even for clear speech, the acoustic signal substantially under-determines the percept⁸. The effect is that everyday speech perception depends on contextual knowledge to a far greater extent than recognized by 'common knowledge', or even by scientists in other fields. With indistinct speech this effect is magnified enormously.

From the point of view of phonetic science, it is clear that what helps detectives interpret indistinct covert recordings related to their investigations is not 'listening many times', but contextual knowledge. The problem of course is that detectives' contextual knowledge is not neutral. Indeed, a detective creating a transcript as an 'ad hoc expert' combines within a single individual the very interaction between background knowledge and forensic analysis that causes the problematic cognitive bias referred to above.

Second, the idea that untrained listeners can evaluate transcripts of covert recordings simply by checking them against the audio is straightforwardly false. With indistinct audio, a transcript does not 'assist' perception; it creates perception. The power of this 'priming' effect is difficult to convey in writing, but numerous compelling examples are provided at forensictranscription.com.au, and see the article '*Assisting' listeners to hear words that aren't there*' (this issue).

The power of priming makes it possible for listeners to earnestly believe themselves to be 'listening carefully' and hearing an indistinct conversation 'with their own ears', while nevertheless being heavily but unwittingly influenced by the transcript – even when the transcript is substantively inaccurate⁹. Priming affects not just the jury, but lawyers, and even the judge. This means that, while it is possible in principle for 'ad hoc experts' to be cross examined¹⁰, this is

almost never done, as lawyers on both sides ‘check’ the transcripts and reach agreement about their content before admission.

This careless handling of ‘ad hoc expert’ evidence means there is nothing to stop a detective providing misleading transcripts in case after case, subject to none of the scrutiny increasingly applied to real experts. Examples of this are known.

The potential for injustice is evident, and indeed many cases are known where verdicts have involved reliance on misleading police transcripts¹¹. It is certain there are many more still to be discovered.

The solution

It is certainly essential to a functional criminal justice system that courts benefit appropriately from investigators’ insights into the content of indistinct covert recordings. However, the current system allows police transcripts far too much credence. The question is, what is a better way?

The most important thing is to recognize that forensic phonetics is a distinct science in its own right. Its findings contradict many apparent facts about speech that are widely accepted as ‘common knowledge’ in our society, even by those highly educated in other disciplines. This means the problems raised above are often responded to with ineffective strategies, such as, for one quick example, admitting indistinct recordings with no transcript. Even strategies proposed for improving the standards of forensic science in general need careful adaptation for speech evidence.

The solution is for the law, and law enforcement, to collaborate with genuine experts in forensic phonetics in designing and implementing a proper system for transcribing indistinct covert recordings. A good model is provided by the process recently used to develop the excellent *National Standards for Working with Interpreters in Courts and Tribunals* (<http://jccd.org.au/publications/>).

While there is much scope for debate among forensic scientists about proposed reforms in expert evidence, the need for reform in legal practice around ‘ad hoc experts’ is surely a matter about which all genuine experts can unite.

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