

Voice Identification Experiment

A friend of mine and I had a discussion awhile back concerning the use of voice identification technology to identify a ghost, specifically if you had a recording of the person alive, as well as an EVP that you suspected was from the same person. First, in order to perform a successful match, you would need the same words to have been said in both messages, and the more matching words present, the higher the percentage of identification that is possible. Then there is the small matter of equipment. I personally have some very expensive audio analysis software, SmaartLive 5.0 (\$695.00) and AcousticTools 4.0 (\$600.00) that could do a general match up, but for an exact match, you would need some additional equipment.

Equipment: Present laboratory spectrographic and/or computer voice comparison systems do not produce conclusive results, but meaningful findings are possible with careful analysis of speech samples collected under forensic conditions. The minimum requirements include the following equipment (IAI Voice Identification and Acoustic Analysis Subcommittee 1991; Committee on Evaluation of Sound Spectrograms, National Research Council, National Academy of Sciences 1979; Tosi 1979; Koenig 1993; Koenig 1986):

1. An analog sound spectrograph that produces excellent voice spectrograms, especially under noisy recording conditions. It is being quickly replaced with specialized spectrographic software.
2. Specialized spectrogram software that produces digitally calculated spectrograms that have been optimized for the speech and forensic communities. This software should be user-friendly and allow the operator to control all the important time and frequency characteristics of the graphic representation.
3. Specialized forensic voice identification algorithms that are presently being developed (Nakasone and Beck 2001; Reynolds et al. 2000). When fully developed, this specialized, computer-based software will allow automated and/or operator-assisted voice comparisons between different voice samples.
4. Editing software that allows two or more recorded voice samples to be selectively isolated and combined into a new recording.
5. A headphone-switching box that allows the rapid toggling between two input signals containing separate voice samples for aural comparison.

Cost: Adding spectrographic and computer-based voice identification capability to Phases I and II would cost between \$12,000 and \$25,000 and would allow comparisons between unknown recorded voices and known voice exemplars.

Possible, but a bit on the pricey side.

A different friend was asking me about Facial recognition software to compare images of the dead to the living. This technology also exists. For example, NICE Vision Pro CCTV enterprise management system has the capability to identify several points of identification of a face, and compare it to a known database. The cost of this technology is upwards of \$50,000.00.

But could you imagine the implications if either of these experiments were successfully carried out?