

Janniro, M. J., & Cestaro, V. L. (1996). Effectiveness of detection of deception examinations using the computer voice stress analyzer. (Report No. DoDPI96-R-0005). Fort McClellan, AL: Department of Defense Polygraph Institute.

Janniro and Cestaro (1996) investigated the utility of the Computer Voice Stress Analyzer (CVSA) in the detection of deception. The CVSA is designed to identify stress-related changes in voice (i.e., “subaudible microtremors”), and it is argued that the CVSA should capture voice changes due to stress related to deception. Outputs of the CVSA are examined and judged by a trained examiner whether or not a particular individual is being truthful. Evidence from previous studies is mixed and inconclusive, and the present study examined the utility of the CVSA in the detection of deception.

A total of 109 participants were assigned to the deceptive group or the non-deceptive group. A participant in the deceptive group was instructed to take \$100 from a box in a scenario room and then to hid \$100 on him or her, while a participant in the non-deceptive group did not have to perform the theft. Then, in the questioning phase, a participant in the deceptive group was told to lie about taking and hiding \$100. A participant in the non-deceptive group responded truthfully.

Based on the comparison between critical responses (ones that the deceptive group had to lie about) and control responses, trained examiners judged whether or not a particular individual is being truthful. The overall accuracy was 49.8%, and it was not different from the chance level. Moreover, no examiner did better than the chance level. Although the consistency of judgment among examiners was found, the CVSA failed to provide sufficient information in the detection of deception.