

dektor

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The PSE (PSYCHOLOGICAL STRESS EVALUATOR) is an instrument that detects, measures and graphically displays certain stress-related components of the human voice.

Superimposed on the audible voice are inaudible frequency modulations. The FM quality of the voice is susceptible to the amount of stress that one may be under when speaking. To the human ear, a person may sound perfectly normal, free of tremors or "guilt-revealing" sound variations. The PSE senses the difference and records the changes in the inaudible FM qualities of the voice on a chart. When the chart is interpreted by an experienced examiner it reveals the key stress areas of the person being questioned.

The human body has two nervous systems - central nervous system and autonomic nervous system (and their various subdivisions). In each of these there are voluntary and involuntary reactions: those reactions controlled by the brain (voluntary) or those not controlled by the brain (involuntary, or reflex actions). The PSE is designed to detect the inaudible effect on the human voice of the involuntary reactions.

When one speaks the voice has two modulations - audible and inaudible. The audible portion is what we hear. The inaudible modulation comes from the involuntary areas (those not totally controlled by the brain or thought processes). Internal stress is reflected in the inaudible variations of the voice. These differences cannot be heard, but they can be detected and recorded by the PSE.

The key to successful use of the PSE is the preparation of simple selected questions keyed to the individual and structured to reveal normal or truthful answers and answers that are false. Once the personal pattern has been established any evasive or false answers reveal stress; if a person is not telling the truth then analysis of his voice pattern will show it.

The PSE has two great advantages over any similar instrumentation. First is its simplicity; it has few moving parts and is relatively easy to learn to operate. Second, the PSE does not have to be used at the time of the interview or interrogation. A tape recorder is used to make a permanent record of the interview. The tape is later fed into the PSE and the voice reactions recorded on the chart. Our examiners frequently make tape recordings for clients over the telephone, run the tape on the PSE and notify the client of the results of the test.

The instrument has multiple uses: i.e., pre-employment screening, determining theft, employee morale, efficiency or criminal activities. Over 500 are now in use by doctors, lawyers, criminologists, law enforcement officials and varied commercial organizations.

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