



D38 A New Development of the Process of Polygraph Test by the Principles of Science and Identification

Fuh-Kuo Lee, BA, and Lee Chen, MS*, Scientific & Technical Research Center, Investigation Bureau, Taiwan, ROC, 74, Chung-Hwa Road, Hsing-Dien City, 100, Taiwan, ROC*

The new process we present is expected to be challenged, as long as it can pass the examination of the principle of science, we believe it is a chance to be examined by the court or academy.

This presentation will impact the forensic community and/or humanity by demonstrating the challenge of junk science on the work of polygraph testing. We believe there is enough space to modify the testing process of this technique, to meet the scientific criteria, even by court debate. This presentation may offer some new concepts on the process of the testing and we hope it will open a new direction to reconsider the scientific character of lie-detection.

Based on the basic principles of scientific identification, we have tried to modify and enhance the quality control of the process of common lie-detection (polygraph identification) work. The principles applied include; the checking and screening criteria of physical and psychological abnormality, the practice of reproducibility, the development of a new technique to understand memory more efficiently, the level divided for curve shape on GSR, and the time interval between every two questions.

Through this modified process, we found there are some good ways to change and to meet the requirements of basic scientific principle. First, a very discreet screen process is applied to screen any of the abnormal physical or psychological situation of the examinant to get rid of all suspected countermeasure interferences. Second, through the preexamination interview, a new method was developed to label the memory of the special event which is targeted by the detection. Then, to concentrate on the test process to avoid the decay of the contrast of the relevant and the control answers. This is a way to reach the criterion of reproducibility. For the quality control, a smooth GSR curve without any unexplainable notch are strongly demanded. And a quality control SOP was designed to regular the examination process to reach the consistency by the different examiners. On this point, our minimum requirement is the getting of GSR result has to be unified. There are also some techniques developed to reach this demand.

Since we applied this modified lie-detecting process on our identification work years ago, there are more than thousands cases have been detected for the trial court of Taiwan. The recent statistics on the high court of Taiwan showed more than 30% of the identifications were not questioned or contended by either of the two parties on the trial process. And the adopt rate by the court even higher than 60%.

Polygraph, Memory, Quality Control