

the stress of examinations, with any group willing to accept severe punishment for being caught and a considerable monetary reward for participating, a "genuine" test such as hiding an ICBM and interrogating the groups that might have done it, and the like.

The kinds of tests should include straight lie detection, guilty knowledge detection, and zeroing in on a location or some other attribute beyond the knowledge of the interrogator. There is disagreement as to whether these methods involve different psychological processes or whether different physiological responses occur, or whether the difference is a matter of degree of attention and emotional involvement; but there is no disagreement that there would be a methodological difference both in the measurements and the interrogation procedure, depending on what one was after.

Telemetering with sensors on the body is now quite practicable. Some measurements could be made without any body attachments, such as skin temperature, respiration patterns and rate, eye movements, and possibly pulse rate by measuring the ballistic action of the body.

An additional measure suggested after the first list is the Luria technique which involves squeezing a bulb with one hand while maintaining the other steady. This seems to measure general level of emotionality or anxiety. Further, for field work, the data should be recorded on magnetic or paper tape and the question arose as to whether the interrogator should or should not have the responses of the subject before him. For many purposes, a pretaped interrogation could be used, for others not.

The questions of kinds of situations to use in examining the polygraph technique was discussed at length, especially the transfer from the artificial lie situation of the laboratory to real life. While it was agreed that the differences which seemed to be of kind might actually be only of degree (involving response curves of different slope) nonetheless various measures are better indicators in one case than in another. The questions of experimental design, of field testing and of laboratory testing, therefore, need special scrutiny.

On the question of titrating or calibrating the individual, despite considerable detailed disagreement, there was a general consensus that certain initial test examinations would be valuable. For one thing, one could measure general reactivity and perhaps exclude certain individuals as unsatisfactory for the detailed examination. For another, one can get an idea of the general reactivity of different indicators for a particular individual. This may help the judgment as to the validity of the subsequent examination without necessarily indicating what the results of the examination would be. There was also some disagreement on the use of different stressors, different modes of stressing, the use of different methods of interrogation for lying, the validity of transferring from artificial to real life responses and the like. Some of the specific stressors that have been considered are various drugs, cold, pain, sensory isolation, and different sorts of interview situations. Drugs, pain, or sensory deprivation might also be used as sensitizers to potentiate or magnify autonomic responses to the test situations. Here is clearly one area of research.

The multiphasic personality inventory or other paper and pencil tests might also be used to calibrate the individual. Although these could easily be "faked," the mere relation of responses on these to the polygraph findings would give evidence of the use of countermeasures. The point was reemphasized that some of these preliminary tests might be highly important in indicating the degree of validity of the actual tests from individual to individual.

There was general agreement that test stimuli and judgments should be as objective as possible. Photographs or movies could be used as a stimulus situation while moving pictures of the subject could be used as an indicator of the response. It is a matter for research as to whether the polygraph response to the possession of guilty knowledge will be alike or different to that of lying, depending upon the mood and other conditions under which the subject is tested. For example, will a man who is telling a lie to benefit himself react the same way when he is telling a lie as a patriotic duty to his country?

The use of corneal reflections, retinal potential measurements, or the Macworth camera was discussed to tell what a person is looking at and how important it is to him.

There seems to be less concern with false negatives than with false positives. False negatives are relatively unimportant when a considerable number of persons who might be presumed to have guilty knowledge are examined. False positives are regarded as more dangerous and reprehensible in the courts. There