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BLOOD PRESSURE RISES ON RELEVANT QUESTIONS IN LIE DETECTION—SOMETIMES AN INDICATION OF INNOCENCE NOT GUILT

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From the inception of scientific lie detection, examiners continually have discovered and utilized various criteria. These criteria serve as guides to the examiner in his attempt to classify the subject's polygraph (lie-detector) reactions into those indicating truth or those indicating falsehood.

There are many different polygraph criteria that indicate to the competent examiner whether the subject is telling the truth or lying. One of these criteria, classified as indicating deception, consists of a sharp or sudden rise in the person's blood pressure following the asking of a relevant (crime) question. The great majority of examiners give this particular response more credence, as indicating a falsehood, than they do any other single response.

However, in 1944 a new questioning technique was developed by John E. Reid. In developing and using this technique, Reid and his various associates discovered that the automatic classifying of a blood-pressure rise as a deception response was, indeed, a gross error!

These blood-pressure rises were found to be continually occurring on the charts of subjects later verified to be innocent of the crime under investigation.¹ These innocent persons were definitely responding on the polygraph with large blood-pressure rises when they denied committing the crime. Often their blood-pressure responses were greater in both height and duration than those of persons who later confessed.

Fortunately, not one of these innocent subjects was reported lying, but only because this new questioning technique of Reid's was being utilized.² However, if the older questioning technique—the irrelevant-relevant—had been used in these cases instead of the new Reid technique, probably most, if not all, of these truth-telling persons would have been reported as lying.

¹ A subject is established as "verified innocent" only when a trustworthy confession to the crime has been obtained from another person. Likewise, a person becomes "verified guilty" only after his confession. All illustrations appearing in this article are of such verification.

² This new questioning technique has been thoroughly explained and illustrated in a recent work. (F. E. INBAU and J. E. REID, *LIE DETECTION & CRIMINAL INTERROGATION*, 3rd. ed., THE WILLIAMS & WILKINS CO., Baltimore, pp. 16-23 and 34-48, 1953.)

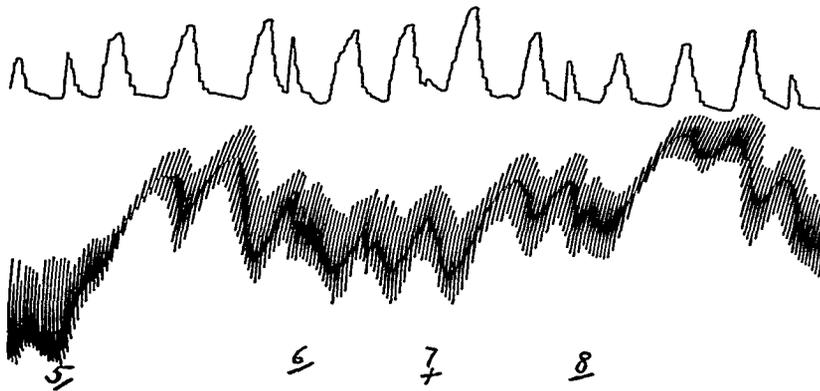


Figure 1

This subject was suspected of stealing some \$11,000 from the financial institution where he was employed. At 5 he was asked if he had stolen the missing money, 6 was the control question about what he has stolen since being an adult, 7 was an irrelevant question, and 8 was about stealing a fictitious amount of money. The subject did not know that this was a fictitious loss.

Observe the very large blood pressure rise on 5, but notice a large rise also occurring on 8. The conclusion that this subject was telling the truth to 5 was later verified as correct when another employee admitted the theft.

This response, of a significant blood-pressure rise on a relevant question, should still be regarded as a very reliable polygraph criteria. However, it is not one automatically indicating a falsehood on the part of the subject, but occasionally a response representing truthfulness!

The truthfulness of a person, who is responding with blood-pressure rises to the relevant questions, can usually be easily determined by the use of any one of the following four criteria.

1. When the subject responds to the control question (# 6) with a greater blood-pressure rise than he did to the two main relevant questions (almost always questions # 3 and # 5), this is strongly indicative of truth-telling.

2. If there is no or very little appreciable difference between the blood-pressure responses on the relevant questions and the control question, this is suggestive of truthfulness.

3. When the blood-pressure rises on the relevant questions equal or exceed those of the control question (# 6), a similar or larger rise on the guilt complex or fictitious-crime question (# 8), is indicative of telling the truth³ (Figure 1).

4. If the person's respiration on the relevant questions was normal and on the control question was significantly distorted to indicate deception, this is strongly suggestive of truthfulness to the relevant questions, regardless of the height or duration of the relevant blood-pressure responses (Figures 2, 3, and 4)!

³ For an explanation of the guilt-complex question, see pp. 14, 44, and 45; *opus cited* note 2.

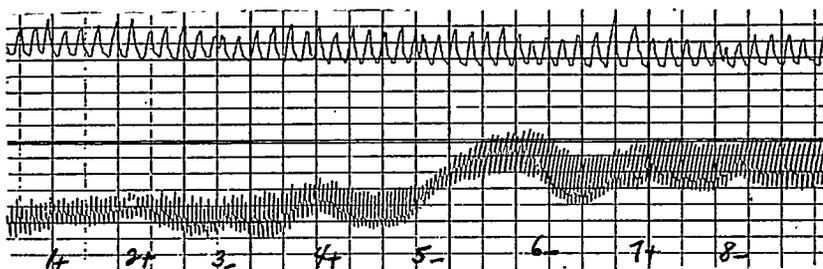


Figure 2

This case involved a felonious assault. Questions 1, 2, 4, and 7 are irrelevant. Question 6 is the control question. 3 and 8 pertain to his knowing if certain men were involved in this attack. Question 5 was, "Did you hit——last Friday night?"

The most outstanding response to this test was the subject's blood pressure rise to question 5. However, there are no indications of deception in the breathing at this question. There is no blood pressure rise on the control question, 6, although there is a definite suppression in the respiration followed by relief just before 7.

The reporting that this man was telling the truth about this crime was later verified as accurate by another's full confession.

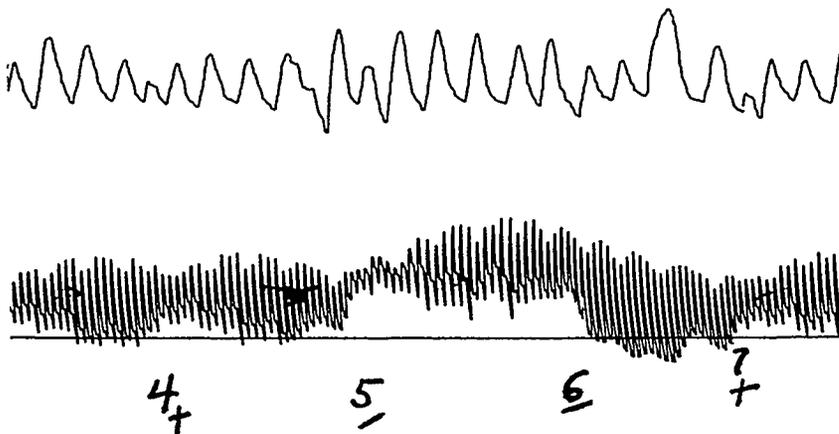


Figure 3

This test pertained to a money embezzlement from a new-car dealer. Question 5 was if the subject herself had stolen the money, 4 and 7 were irrelevant, and control question 6 dealt with her stealing anything in her life.

Notice the definite rise in pressure at 5, but on 5 there are no indications of deception in the breathing. The breathing response at 6 indicates deception. The interpretation of this subject's innocence was verified as correct when another cashier confessed after her test.

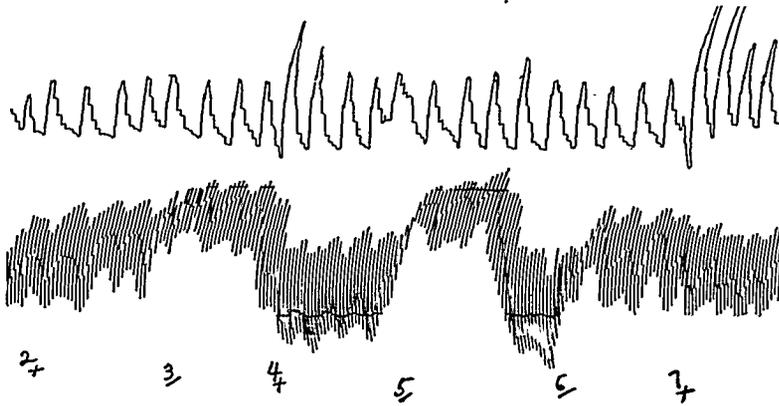


Figure 4

This subject, a teller, was suspected of stealing a \$5,000 bond from his bank. Question 3 pertains to knowing who stole the bond, 5 if he himself had stolen the bond, and 6 was the control question, "Did you ever steal anything in your life?" 2, 4, and 7 are irrelevant.

Large blood-pressure rises on 3 and 5 indicate deception on the part of this suspect. However, at 6 the breathing response, indicating deception, is much greater than at 3 and 5. Notice the breathing relief at 7.

The diagnosis of this subject's innocence by the examiner was proven correct by the next person tested—he confessed to the theft and returned the bond.

CONCLUSION

During polygraph tests subjects very often respond to the crime questions with a definite rise in blood pressure. Whenever this happens, the examiner should be very wary before deciding that such a reaction is one indicating deception. This is particularly true if there were no significant changes in the subject's respiration on these same questions.

With the proper utilization of the Reid control-questioning technique, any one of the above four criteria can be applied. Apparently, only with this technique can an examiner accurately determine if a blood-pressure rise is one indicating lying, or if it is a rise due to truthfulness.

The writer is confident that if these four criteria are properly applied, the reason for the majority of the lie detection errors occurring today will be eliminated.