A Critical Analysis of Honts' Study: The Discussion (Stimulation) of Comparison Questions

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Abstract

Honts (1999) selected eleven laboratory studies that included a discussion of questions and/or the stimulation of comparison questions between the repetitions of the question list for comparison with eight laboratory studies where comparison questions were not discussed between repetitions. According to Honts' analysis of the results of those studies, the error rate was significantly reduced where questions were reviewed between repetitions, especially with guilty subjects where the error rate was reduced by 54%. Honts asserts that these results clearly support the review of questions between charts, and that the attacks against its practice by Abrams in several court cases have had a negative impact on the admissibility of polygraph examinations in United States courts of law. A critical analysis of Honts' study reveals selective scholarship and a seriously flawed research methodology, which call into question the conclusions of his study.

Key words: Comparison question, directed-lie comparison question, false negative, probable-lie comparison question, psychological set, zone comparison indication-remedy, tri-zone reaction combinations.

The Honts (1999) article regarding the inter-chart discussion of comparison questions appears to be an attempt to justify a procedure that lacks even face validity. The discussion of comparison questions alone, or their stimulation with mere inquiry about the relevant questions between charts, must have a psychological effect on the examinee whether innocent or guilty of the offense for which he or she is being polygraphed. The effect of this procedure on the psychological set of the examinee is not selective of the examinee's guilt or innocence. The results of a recently completed study (Matte & Reuss, 1999) show that the discussion of comparison questions between the charts or repetitions for the guilty examinee can have the effect of increasing the examinee's apprehension toward the directed-lie comparison questions (DLCQ), a comparison question normally used by Honts. The resultant increased apprehension of the guilty examinee to the DLCQ shifts the examinee's psychological set from the relevant questions to the DLCQs. This shift may evoke a correspondingly greater physiological arousal to the DLCQs than the relevant questions, resulting in a false negative.

This author does not believe that any competent polygraphist would subscribe to the practice of discussing the relevant (crime) questions alone between charts, or doing so with a mere inquiry about the comparison questions, for the obvious reason that it could reorient the innocent examinee's psychological set from the comparison questions to the relevant questions, inviting a false positive result. Conversely the opposite is also true (a possible exception, Combination H of Backster Rule 4, is discussed below): a false negative could result from discussing only the comparison questions between charts (Honts & Raskin 1988; Horowitz, Kircher, Honts & Raskin 1997), discussion of both the relevant and comparison questions, but placing more emphasis on the probable-lie comparison questions (PLCQs) (i.e. Honts 1999; Honts & Gordon 1999; State of Montana v. Gordon, Jefferson County Court, Case No. D.C. 97-154), can also reorient the guilty examinee's

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psychological set, inviting a false negative result. But in the case of the DLCQ, the probability of a false negative would be expected to be significantly greater, because examinees better understand how the reactions to it will be used for comparison against the reactions to the relevant questions.

Interestingly, both studies by Honts & Raskin (1988) and Horowitz, Kircher, Honts & Raskin (1997) indicate that only the comparison questions (PLCQs and DLCQ) were reviewed between each chart. There is no mention in either of the aforesaid studies of any review of the relevant questions between each chart.

In his article, Honts states, "The present results could be criticized because they are from laboratory studies. However, it is very difficult to imagine that false negative outcomes are easier to produce in real case rather than in simulations. Certainly, most scientists and polygraph examiners would agree that the relevant issues of nearly all real cases are more salient than the relevant issues of laboratory simulations."

The case Honts makes that the discussion of comparison questions would have less impact on the guilty examinee in a real-life case due to the increased salience of the relevant questions versus a guilty examinee in a laboratory scenario, would not hold true in at least those instances when a DLCQ was used. This is because the guilty examinee in a real-life case would associate the DLCQ as the means by which his or her physiological lie pattern is acquired for comparison with the relevant questions (Matte 1998; Matte & Reuss, 1999). Thus the response intensity of the DLCQ becomes related to the response intensity of the relevant questions, which in a real-life examination is significantly greater than in the laboratory. Hence the discussion of the DLCQ between tests has the effect of reinforcing the importance of the DLCQ and its ability to identify the guilty examinee's lie pattern for comparison to the relevant questions. The real-life fear of detection to the relevant question(s) can be transferred to the DLCQ, which offers the guilty examinee an equal if not greater threat of lie identification. Guilty examinees in real-life examinations have significantly more incentive to use countermeasures on test questions than guilty examinees in a mock crime paradigm. Recent survey research (Matte & Reuss, 1999) revealed that 86% of guilty participants considered the DLCQ an equal or greater threat than the relevant questions.

The use by Honts of several laboratory studies involving diverse polygraph techniques and methodology completely ignores that there may be many other significant factors responsible for the difference in accuracy and percentage of false negatives and positives. These factors could include the type of test used (multiple- or single-issue), types of comparison questions (current exclusive, non-current exclusive, non-exclusive, disguised, relevant-connected, directed-lie), the polygraph testing methodology including the pretest interview format, the test data analysis, and the competency of the polygraphist, to name a few. Furthermore, Honts' selection of studies where comparison questions were not discussed between charts is very limited and selective. The Szucko and Kleinmuntz (1981) study selected by Honts reflects the poverty of his selection process. The Szucko et al study used four examiner-trainees, which of itself should have eliminated the study from consideration inasmuch as it does not replicate a real-life examination. Furthermore, the integrity of the Szucko study has been seriously questioned, in that one of the participating examiners (Chodkowski, 1986) challenged the facts as they were published. It is interesting to note that nowhere in the Szucko study does it state that the comparison questions were not discussed with the examinees between charts. Yet Honts states in his Study Selection that "The studies shown in Table 1 were selected for inclusion in the analysis because they met at least one of the following criterion: The method section of the study explicitly described the discussion of, or the lack of discussion of, comparison and/or relevant questions between question list repetitions." Thus many other studies which reflected significantly higher accuracy rates could have qualified for inclusion in Honts instant article which at best can only be classified as selective scholarship.

In footnote #3, Honts states that "When I attended the Backster School of Lie Detection

in San Diego in 1976 the review of questions and the stimulation of comparison questions between charts was considered to be a standard practice." Honts previously made a similar statement under oath in U.S. v. Gilliard, to wit: "When I went through polygraph school at Backster, that was a standard part of the practice, to discuss the control (comparison) questions between the tests." In that latter statement, Honts mentions the discussion of the comparison questions only. In an e-mail to Honts, Dr. Ronald M. Reuss (1998) advised him that his testimony regarding the Backster school practice of discussing the comparison questions between tests was in error, based on a letter he had read from Backster (1998). Honts now has added the relevant questions in his description of the discussion that takes place between charts, but it should be noted that Honts' statement "the review of questions and the stimulation of comparison questions") confirms the emphasis is squarely on the comparison questions. Backster's letter, reprinted verbatim below, contradicts Honts' statements in U.S. v. Gilliard, and in his 1999 study:

> "After formulation and discussion of control (contrast) questions during the pre-test interview, further routine discussion of these questions will be avoided except as dictated by principles outlined in our Zone comparison Indication-Remedy table.
>
> 1. Should the examinee be reacting to relevant questions only (Combination A), there is no need for further stimulation on the control (contrast) questions through between-charts discussion. The adequacy of these questions can be verified by obtaining additional admissions following the last chart collected on that same target issue and prior to seeking target issue admissions due to the examinee's reactions to the relevant questions.
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> 2. Should the examinee be reacting to the control (contrast) questions only (Combination B) there is no need for further "between charts" discussion of these questions.
>
> 3. Should the examinee be reacting to both the relevant questions and the control (contrast) questions (Combination D), further direct discussion of these questions could be counter-productive. In a more subtle fashion the examiner should reduce the intensity of these questions through a more indirect approach.*
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> 4. Should the examinee show no reaction to any of the questions (Combination H) it would then be proper to attempt to stimulate reaction to the control (contrast) questions by directly discussing these questions between charts.
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> As indicated on the enclosed "Tri-Zone" Reaction Combinations table, the above procedures have been a stable and consistent part of our polygraph examiner training material since 1962." (See attached "Tri-Zone" Reaction Combinations)
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> *Note: This indirect approach requires that the examiner first review an irrelevant (neutral) test question with the examinee and make a cosmetic change. The examiner then reviews the relevant test questions with the examinee, which is followed by the review of the changed control questions. The focus is thus not on the control questions which are in some fashion changed to reduce their intensity. (Remedy listed in Combination D).

In summation, Honts acknowledges that "[c]orrelational studies and analyses are not as good as experiments in determining causation." The recently completed survey by Matte and Reuss (1999) suggests that the direct review or discussion of comparison questions between charts may increase the guilty examinee's apprehension regarding the DLCQ, thus creating a formula for false negative results.

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