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Lie Detection in UFO Controversies

From: **Geoff Price** <Geoff@CalibanMW.com>
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Subject: Lie Detection in UFO Controversies

Lie Detection in UFO Controversies
=A91997 Geoff Price

Grappling with fraud and deception is par for the course in the context of UFO claims, and as a result, "lie detector" tests are frequently demanded of UFO claimants, and their results, positive or negative, brandished as evidence.

Some cases in particular have put lie detection in the spotlight, notably the Travis Walton abduction case of 1975, as well as the more recent (and divisive) case of Ed Walters and his Gulf Breeze photographs.

Kevin Randle, in his latest book the Randle Report, rules both cases a hoax, pointedly citing the original, failed polygraph test of Travis Walton (administered by John McCarthy, hereafter "the McCarthy test".) Gulf Breeze detractors, such as Carol and Rex Salisbury, have cited the successful voice stress analysis test conducted on a taped deposition given by Tommy Smith (who says he observed the fabrication of photographs by Walters).

Both of these examples represent somewhat irresponsible use of "lie detection" evidence, illustrating some of the pitfalls and common confusion that surrounds the topic.

Does It Work at All?

Is there any validity in lie detection at all? In the domain of applied psychology, lie detection is referred to as the psychophysical detection of deception (PDD). The most common PDD technique is the polygraph, a general term describing tests which measure and correlate a variety of physiological activities (sweat and gland, cardiovascular, respiratory activity) using analog ("conventional") or computerized instruments.

The polygraph has always been a controversial topic, and much of the public -- and many introductory textbooks in psychology courses -- treat the matter with considerable skepticism. However, the more strident criticisms of the polygraph were spurred by inadequate earlier techniques, long since soundly rejected by academic scrutiny. Contemporary studies have found significant validity in the most common of current techniques, the "Control Question Test" (CQT).

A recent article in the Journal of Credibility Assessment and Witness Psychology reviews the empirical and review literature concerning CQT, and concludes that, "when the ecologically valid laboratory studies and the high quality field studies are considered, both indicate high validity for the CQT." [1]

The Fifth Circuit of the U.S. Court of Appeals, in its decision in the U.S.

vs Posado in 1995, overturning "per se" exclusion of polygraph evidence, gave the following overview of the state of the evidence for polygraph:

"There can be no doubt that tremendous advances have been made in polygraph instrumentation and technique in the years since Frye. The test at issue in Frye measured only changes in the subject's systolic blood pressure in response to test questions. ... Modern instrumentation detects changes in the subject's blood pressure, pulse, thoracic and abdominal respiration, and galvanic skin response. Current research indicates that, when given under controlled conditions, the polygraph technique accurately predicts truth or deception between seventy and ninety percent of the time. Remaining controversy about test accuracy is almost unanimously attributed to variations in the integrity of the testing environment and the qualifications of the examiner. ... Further, there is good indication that polygraph technique and the requirements for professional polygraphists are becoming progressively more standardized. In addition, polygraph technique has been and continues to be subjected to extensive study and publication. Finally, polygraph is now so widely used by employers and government agencies alike."

And according to another court review:

"The predominant format employed in the field of polygraphy is the 'control question' technique ... There is no dispute in this case that the 'probable lie' version of the control question technique, when properly employed, is a highly accurate method for detecting deception and possesses the type of scientific validity that satisfies the reliability prong of Rule 702. Through numerous field and laboratory studies, researchers have determined that polygraph examinations using this technique produce results that have an accuracy rate of approximately ninety percent. ...

"The most thorough treatment of polygraph admissibility issues can be found in two district court opinions from Arizona and New Mexico [Galbreth and Crumby] ... both courts found that polygraph theory and technique had been tested by the scientific method and repeatedly validated in field and laboratory studies, subjected to stringent peer review and extensive publication, shown to have a remarkably low error rate when properly applied by a skilled polygrapher, enjoyed substantial acceptance within the scientific community, and was widely used within government and industry."

In short, there is sufficient evidence of the validity of polygraph testing to justify its use as one form of supporting evidence in the evaluation of UFO and other "extraordinary" claims, particularly in multiple witness situations.

However, the responsible use of lie detection evidence requires a clear understanding of which kinds of tests are well-grounded in scientific validity and which are not.

Walton and the McCarthy Test

A total of thirteen polygraph examinations have been administered in conjunction with the Travis Walton case of 1975, a prodigious case as far as the use of polygraph evidence is concerned. A total of nine individuals were tested, including the seven primary participants and Walton's mother and brother. Eleven of the tests were passed, one was inconclusive, and one, the McCarthy test, was failed -- by the primary actor Walton.

Initially, the six alleged witnesses to the close encounter (during which Walton was zapped by a "blue light" from a close, hovering "smooth" and "reflective" disc-shaped object) were subjected to polygraph tests. These were CQT examinations administered by Cy Gilson of the Arizona Department of Public Safety (state police), primarily addressing the possibility of some non-extraordinary foul play at work, but pointedly questioning the witnesses regarding the veracity of the reported UFO event. Five of the six passed, with one inconclusive result. Since an "inconclusive" reading is not the same as a "deceptive" reading (it is simply an unsuccessful test, to be disregarded) the results provided strong evidence of a real event.

Next, a private investigator named John McCarthy was hired to test Walton relatively soon after his reappearance. McCarthy ruled Walton deceptive, and the test results were regrettably suppressed by the ufological group APRO and the National Enquirer. A follow-up examination by George Pfeifer ruled Walton truthful.

Twenty years later, in 1993, Cy Gilson retested key participants Travis Walton, (foreman and Walton friend) Mike Rogers, and Allen Dalis (the

original "inconclusive" result), using a state-of-the-art computer-scored CQT methodology. All three passed.

The probabilistic significance of the unanimous passing of CQT examinations by all six witnesses is not to be taken lightly. Since they are independent tests, the odds of gross hoax (all participants lying about the UFO encounter) is less than one-tenth of a percent using the conservative figure of 70% for test accuracy, and on the order of one in ten million using the 90% figure. In short, quite strong evidence that some kind of startling event or elaborate hoax took place.

Nonetheless, the PDD results for the primary actor Walton were contradictory ("dueling" results). In the Randle Report, Kevin Randle reviews this contradiction and settles in favor of the McCarthy test. He cites the opinion of a polygraph examiner who believes that Walton could have become comfortable with his fraud in the retelling, and thus passed the later tests in 1993. He then emphasizes the 1975 McCarthy test, stating that, given its proximity to the original event, this test "speaks volumes" about Walton's truthfulness.

Unfortunately, Randle never raises the issue of polygraph methodology. John McCarthy in 1975 was still using what is called the "Relevant/Irrelevant" (RI) examination format. Test transcripts were forwarded by Allan Hendry of CUFOS to Dr. David Raskin, a published scholar and recognized authority on the polygraph, who described the technique as "unacceptable" and "thirty years out of date".[2]

A cursory examination of the literature readily confirms the degree to which the RI technique is held in low regard. The aforementioned psychology article on polygraphy states brusquely, "Of the three techniques discussed in this paper, there seems to be general agreement in the scientific literature that the Relevant-Irrelevant Test lacks validity".

Crucial is the issue of why, specifically, RI tests have been found to be unreliable. The same court review that praises CQT as "a highly accurate method for detecting deception" explains that:

"The relevant/irrelevant technique has been determined by researchers to produce an unacceptably high number of 'false positive' errors (because even an innocent subject will recognize the significance of the relevant question and may react to it) and has generally been discarded in favor of other techniques that have been shown to have a higher degree of reliability."

Dr. Charles Honts, another heavily published scholar of PDD techniques, and an authority who has testified as an expert witness in key court cases involving polygraph evidence, concurs that "the relevant/irrelevant technique has been conclusively shown to be an invalid technique in published scientific research."[3]

Specifically, "the relevant/irrelevant technique is known to produce a large number (80+%) of false positive errors (the truthful fail the test). A failed RI test should be given no weight for any purpose."

In other words, under the right conditions, you would want to bet -- and bet heavily -- that a truthful respondent will fail a RI polygraph exam. In this context, the other issues raised by critics of the McCarthy test -- Walton's psychological distress, McCarthy's alleged hostility -- simply establish that we have exceptionally good reasons to discount the results.

Randle's comment that the McCarthy test "speaks volumes" about the veracity of the case is in striking contrast to Honts' comment that a "failed RI test should be given no weight for any purpose", and is rendered more disappointing still by the fact that even a cursory review of the literature would have prevented it.

The 1993 Gilson Tests

With the McCarthy test disregarded, we're left with the remaining successful tests, most notably the 1993 CQT exams of the key players by Gilson. Critics have floated a number of reasons as to why these tests should (also) be considered suspect.

I asked Charles Honts to comment specifically on Randle's suggestion that the tale gets easier in the retelling. He replied, "I know of no scientific evidence that suggests that the passage of time, per se, would affect the validity of the polygraph. In fact the available research fails to show such effects, but no study has looked at time intervals in terms of years."

"I think the suggestion that telling a story over and over would make you comfortable with the story and enable you to pass the test is most unlikely."

Others have suggested, based on McCarthy's feelings in 1975 that Walton was trying to consciously "distort" his breathing to beat the test, that Walton has trained himself in "countermeasures" to beat polygraph examinations. To this possibility, Honts replies, "Possible, but very unlikely. Research has shown that under the proper conditions there are techniques that people can learn to enable some of them to beat comparison question test. However, this research also shows two additional things: Sophisticated training is necessary for the countermeasures to work, and the computer analysis that Gilson used is very hard to beat, much harder than the numerical scoring used by polygraph examiners. In fact the CAPS/CPS computer scoring is THE BEST COUNTER-COUNTERMEASURE known." (emphasis original)

Honts provides additional background on the examiner and technique employed in the tests in question: "The computer analysis program that Gilson used has been the topic of peer-reviewed scientific publication and has been shown to be valid see, Kircher and Raskin (1988) J Applied Psychology."

"I have known Cy Gilson for about 14 or 15 years. He was a respected police officer and polygraph examiner while he worked for the State of Arizona. I have seen his polygraph work in other cases and it has been of high quality. My impression of Cy Gilson is that he is not give to wild flights of fancy. I know of nothing that would suggest to me that he is anything but an honorable and honest man."

Ultimately, even ascertaining Walton's truthfulness will never completely solve the mystery of his five-day disappearance, since it's possible that he was the subject of an entirely sophisticated kidnapping/hoax. Nevertheless, the eyewitness testimony, endorsed by rigorous polygraph cross-examination, provides strong evidence that the events have been faithfully reported by the relevant parties.

Kevin Randle does provide some other (new) evidence of hoax in the case, casually dropping in his conclusion that some unnamed members of Walton's family have confided to some unnamed investigators that the whole business was indeed a hoax planned and executed by Walton. Well... polygraph evidence may not be as "hard" as a proverbial flying saucer on ice, but it is at least more solid than this sort of curious hearsay, and it seems fair to request substantiation of such rumors before weighing them seriously.

Gulf Breeze, Ed Walters, and Tommy Smith

Another controversial case which features "dueling" PDD evidence is the "Gulf Breeze" case of Ed Walters and his sensational UFO photographs and videos. One of the many explosively controversial moments in the case came with the testimony of Tommy Smith, a young man who claimed in a taped deposition that he was with Ed Walters on an occasion when Walters hoaxed (fabricated) a UFO photograph.

Investigators applied a voice stress analysis (VSA) test to the taped testimony, which was passed. A VSA test is a (usually computerized) mechanical analysis of the human voice to determine truthfulness. It differs from polygraph tests in that it monitors only voice patterns. In concept, as advertised by the companies that sell it, VSA promises a powerful tool for evaluating claims, since it can be conveniently used on any recorded testimony at the leisure of investigators.

Lined up against Smith's VSA success is an also successful but controlled VSA test conducted on testimony by Ed Walters, in which he denies perpetrating a hoax. A controlled test compares critical testimony against control testimony -- a normal sample of the subject's voice patterns (apparently unavailable in the Smith case.)

Do we prefer the Walters VSA test on the grounds that it was controlled? Ultimately, the issue of controlled versus uncontrolled VSA tests is hard to settle, because there simply is no compelling body of evidence supporting VSA in any form.

The Department of Defense Polygraph Institute conducted an extensive inquiry into VSA tests, and eventually made the following statement in September of last year (1996):

"To date, we have found no credible evidence in information furnished by the manufacturers, the scientific literature, or in our own research, that voice stress analysis is an effective investigative tool for determining deception. ... The preponderance of evidence indicates the polygraph is far

more accurate at detecting deception than is voice stress analysis."

Charles Honts concurs: "For once, I am in total agreement with DODPI! There is NO published evidence to support the validity of VSA." This is in sharp contrast to the many lab and field studies that have been conducted in the study of the polygraph.

Which suggests that, until appropriate validation is presented, VSA claims should be disregarded entirely, particularly in light of the uncritical citing of very high accuracy rates provided by manufacturers (eg 95% accuracy according to some touting Smith's testimony.)

Judging from the available information, the elimination of VSA claims leaves only the passed polygraph test administered to Walters by Harvey McLaughlin in February, 1988 as far as PDD evidence goes. Reports seem to indicate that this test was competently administered, although details are scarce.

Some critics have argued that Ed Walters is (or could be) a sociopath, and would therefore be able to beat polygraph tests at will. This is another "common sense" objection that doesn't have much support in published research. Certainly in the case of psychopathology, the data is particularly clear in that psychopaths have no special ability to fool the polygraph.[4]

Notes

[1] From the Journal of Credibility Assessment and Witness Psychology, 1997, Vol. 1, No. 1, 9-32, hosted by the Department of Psychology of Boise State University, "Truth or Just Bias: The Treatment of Psychophysiological Detection of Deception in Introductory Psychology Textbooks", by Mary K. Devitt, Oklahoma State University, Charles R. Honts, Boise State University, and Lynelle Vondergeest, University of North Dakota.

An online version is available at:

<http://truth.idbsu.edu/jcaawp/9602/9602.html>

A fuller excerpt:

"The most commonly used test in the field is the Control Question Test. We will focus most of our analysis on validity studies of the CQT. ... A recent review (Honts & Quick, 1995), found four field studies of the CQT (Honts, 1994b, now in press; Honts, & Raskin, 1988; Iacono & Patrick, 1991; and Raskin, Kircher, Honts, & Horowitz, 1988) and two of the CKT (Elaad, 1990; Elaad, Ginton, & Jungman, 1992) that were able to meet the stringent requirements for a useful field study described above. Three of the field studies (Honts, 1994; Honts & Raskin, 1988; Raskin et. al., 1988) produced accuracy rates above 90%. The independent evaluators in the third study (Iacono & Patrick, 1991) produced a high false positive rate, although the accuracy rate of the original examiners exceeded 90%.

[...]
"Laboratory Studies Concerning Forensic Settings. A recent meta-analysis of 15 laboratory studies (Kircher, Horowitz, & Raskin, 1988) of the Control Question Test indicated a wide range of validity estimates. One study found near chance results, while six of the studies produced moderate validity estimates, and eight of the studies report validity coefficients of 0.7 or better. In four of the studies, the validity coefficients exceeded 0.8. The Kircher et al. meta-analysis noted that these laboratory studies differed widely in their ecological validity. Some studies used mock crimes and procedures that closely modeled field conditions while other studies were very artificial and used unrealistic procedures. Moreover, the Kircher et al., meta-analysis indicated that those laboratory studies that most closely modeled field conditions produced the highest accuracy rates.

[...]

"Although there is controversy, the empirical and review literature concerning PDD suggests the following conclusions: There is little support for the Relevant-Irrelevant Test, but this test is in frequent use only in employment settings. The laboratory and field data concerning the Control Question Test are mixed. However, when the ecologically valid laboratory studies and the high quality field studies are considered, both indicate high validity for the CQT."

[end quote]

[2] Dr. Raskin has testified as an expert witness on polygraph in

influential court cases and before Congress. Some of his published studies are mentioned in the citation above.

[3] A selection of Dr. Honts' professional publications and reports is available online:

<http://truth.idbsu.edu/honts/cv2.html>

In terms of the specific comment here re:RI tests, Honts advises the reader to see the paper by Horowitz et al in the first issue of the 1997 vol of the journal PSYCHOPHYSIOLOGY, a "peer-reviewed scientific journal".

[4] See [1]

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