Practical Polygraph: The "Dirty Pass" Result

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Results from scientific experiments, in the tradition of null-hypothesis significance testing (NHST) are commonly reported as either *statistically significant*, or more simply as sig, or not statistically significant, also *n.s*. Results from scientific tests, whether based on the principles of NHST or Bayesian Analysis (BA) are often reported using the slightly more practical terms *positive* and *negative*. Of course, some test results are *inconclusive*. Implicit in all of this is that scientific results made under uncertainty are always probabilistic. That is, the purpose of the test is to quantify and/or reduce the degree of uncertainty surrounding the various possible conclusions about the practical meaning of the test result.

In polygraph testing the contextual allegories for abstract and "sciency" results are *deception indicated* (DI) or *significant reactions* (SR) and *no deception indicated* (NDI) or no significant reactions (NSR). Some analytic results may not support either conclusion and are reported as no opinion – with the implication that a test result is a professional opinion based on an analysis of available data. In more practical terms these terms are used to signify that an examinee has lied or told the truth. An even more simplified interpretation would describe polygraph results as either *passed or failed*. Regardless of our preferred form of categorical result, all categorical results are a simplification of the probabilistic result. It is inevitable, because statistics is the mathematical language of science, that all scientific test results are fundamentally probabilistic – regardless of whether based on an abstract statistical classifier or a statistical value intended to describe the practical and mundane likelihoods associated with the categorical result. Taken literally, polygraph test results mean only that a person is *probably deceptive or probably truthful.* As a social convention, and for convenience, we often leave out the word probably when discussing a test result. However, it remains an enduring and implicit fact that the result is probabilistic and that the goal of the test is to quantify that probability.

For the most part it makes no real difference which categorical terms we select. This is because there is uniformity in the practical meaning of the terms DI, SR, *lied*, and *failed*. Similarly, there is also uniformity in the practical meaning of the terms NDI, NSR, *truthful* and *passed*. Substitution of these terms will lead to the same practical meaning.

An interesting aspect of the polygraph test is that the goals of the test are often three-fold: 1) to support and increase disclosure of information of interest to investigators, 2) to potentially deter the mani-

festation of problem behaviors or the selection problematic individuals and 3) to support and increase in the likelihood of correct or incorrect classifications about deception or truth-telling. In this way, the polygraph test can be thought of as a *decision support tool*, for which the ultimate decision rests with the professionals and where the test itself is merely a tool to increase the value of the information available for decision-making. Of these three practical objectives, only the third pertains to the test result itself. The first two objectives pertain to the polygraph process.

Field polygraph examiners with any amount of experience will no doubt recall any number of cases in which a person has produced truthful results after disclosing or revealing information in the pretest interview that is of greater value or importance, to an agency or referring agent, than the test result itself. What then should be done with the truthful result? Or, how should the truthful result be characterized or understood. One suboptimal and unscientific solution will be for an individual professional – whether the polygraph examiner or referring agent – to arbitrarily decide that a person has failed the polygraph test. A problem with this approach is that the selection of categorical term can lead to confusion because the substitution of categorical terms can lead to confusion or misunderstanding around the test result. For example: if a professional were to arbitrarily call it a *failed* test when a person has produced NDI or NSR results after making substantive and concerning admissions during a pretest interview, then it would convey an inconsistent meaning about the test result if we substitute a different categorical scheme. In other words, the term *failed*, in this usage, does not equate to lied or *deceptive*. There will be inevitable confusion or vulnerability, especially in a legal or forensic context, as to how a truthful test result is characterized in this way.

The objective, when a person has produced NDI or NSR results after making substantive and actionable admissions, will be to characterize the results in a manner that supports the consistency, objectivity and scientific basis for the probabilistic and categorical result while also supporting the correct administrative response to the information obtained. A practical solution that has been observed in some polygraph programs is the notion of the *"dirty-passed test"*. This term, although slightly gritty, achieves these objectives because it is descriptive. It honors the efforts of examinees who respond in the intended way, by attempting to be truthful when they reported information that is of interest to a referring agent. It also draws attention to the fact that the information obtained in the pretest may be of equal or greater importance to administrative decisions than the test result itself. Importantly, the notion of a *dirty-pass* does not distort the meaning of the categorical result by invoking non-uniformity when different terms are substituted. It avoids the temptation to convey scientific test results in a manner that invokes percep-

tions of arbitrariness, and maintains the characterization of test results as a description.

All test results are, after all, not a verb or action and not a physical or material substance. Most importantly, this term separates the administrative classification of a polygraph test results from the scientific classification of the test results. Of course, field examiners and agencies are under no obligation to make use of this suggestion, which is offered here solely for discussion and information.