

The Lie Detector Test - How Accurate?

How accurate is the lie detector test? The answer to that depends on who you ask. Various studies show results all over the board. In a recent Department of Defense Polygraph Institute study, one experiment found that less than 37% of test takers who were non-deceptive were classified as such. The remainder were either classified as "deceptive" (false-positives) or "inconclusive." (And people think a polygraph will "prove" their innocence?) The American Polygraph Association says on their web site that the problem of accuracy is one of differing methods of measuring it. Critics, they say, "who often don't understand polygraph testing, classify inconclusive test results as errors." This isn't an error, they say, but I imagine that if you are accused of murder, and you are innocent, you might want a more accurate result from a polygraph test than "inconclusive." (Interestingly, they will not call it a lie detector test, even though detecting lies is what it is supposed to accomplish.)

They explain the problem: "If 10 polygraph examinations are administered and the examiner is correct in 7 decisions, wrong in 1 and has 2 inconclusive test results, we calculate the accuracy rate as 87.5% (8 definitive results, 7 of which were correct.) Critics of the polygraph technique would calculate the accuracy rate in this example as 70%, (10 examinations with 7 correct decisions.)" The APA's argument is not entirely unreasonable. There are many ways to measure things.

On the other hand, what is more interesting, is that even in an argument from the biggest promoters of the polygraph, the example given is of 87.5% accuracy, and 20% "inconclusive" results. That might sound good until you realize that of a 100 people tested in a murder case, about 10 innocent people would be found to be "lying," and 20 with "inconclusive" results. The latter might include both innocent people and murderers.

Looked at another way, of a 100 murderers, 10 would be found to be telling the truth, and 20 would have inconclusive results. Out of 100 murders, 30 would not be identified, according to the accuracy assumed in the example.

But let's look at their method again, with a new example. Suppose 100 innocent people were questioned about a crime, and one was found to be telling the truth, while the other 99 tests were "inconclusive." This would appear to be a relatively useless test, right? It correctly identifies just 1 out of 100 innocent people, leaving a cloud of suspicion over the other 99. Yet, measuring the results the way the American Polygraph Association does, the accuracy would be 100%.

The lie detector test isn't considered science by most scientists, although somewhere on the APA web site, you can find a little about scientific evidence. Here is one small excerpt: "Researchers conducted 41 studies involving the accuracy of 1,787 laboratory simulations of polygraph examinations, producing an average accuracy of 80%. Researchers conducted 16 studies involving the reliability of independent analyses of 810 sets of charts from laboratory simulations producing an average accuracy of 81%."

80% is supposed to be accurate enough?! Is a test that would identify 200 out of a thousand innocent job applicants as liars, and many more as possible liars ("inconclusive") really something that should be promoted? Maybe this helps explain item number 7 from their "Checklist for the Polygraph Examiner": "Carry a minimum of \$50,000 or equivalent professional liability coverage."