

# LEGAL ADMISSIBILITY OF THE POLYGRAPH

*Compiled and Edited by*  
**NORMAN ANSLEY**

*Editor*

POLYGRAPH, Journal of the American Polygraph Association

**CHARLES C THOMAS • PUBLISHER**  
*Springfield • Illinois • U.S.A.*

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## INTRODUCTION

When John Reid suggested Chicago as the site of the seventh annual seminar of the American Polygraph Association and agreed to serve as program chairman, this book became inevitable. John is one of the giants in the polygraph field, a man whose accomplishments are too numerous and too varied to detail here. As an integral part of his role as a father figure for the polygraph field, John can be a pretty stern taskmaster. He has always censured the rest of us for our failure to write, to publish, to provide the positive data so essential to counteract the floods of negative propaganda put out by opponents of the polygraph.

In essence, Mr. Reid proposed that the 1972 seminar constitute a symposium directly aimed at overturning the 1923 Frye decision, which remains the basis after fifty years for rejecting polygraph evidence as admissible legal testimony. The American Polygraph Association, of which I had the honor to be President at the time, agreed, despite the expense of assembling the group of experts whose papers are published in this volume. During this period of labor-inspired attacks in Congress and in the media, it is literally a matter of life or death for the polygraph field to carry the attack to our detractors.

This book then represents the coming of age of the polygraph field. Here are set forth the views of experts in the disparate fields of law, psychology, and physiology, all agreeing that the scientific evidence of validity and reliability of polygraph is acceptable to associated professions. A labor-management panel established that the labor opposition to the polygraph is not so monolithic as had been presumed. New and promising techniques in papers by polygraph experts show clearly the continuing interest of the field in self improvement.

No volume of this size could possibly set forth everything which is happening in a young and vibrant field. If we have given you something factual to refute the half-truths and untruths, told by those who do not agree with the use of polygraphs, we have succeeded in our mission.

Raymond J. Weir, Jr.

Washington, D. C.



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## LEGAL ADMISSIBILITY OF THE POLYGRAPH



# LEGAL ADMISSIBILITY OF THE POLYGRAPH

## SECTION I

## LAW



## Chapter 1

# TEAM TESTING WILL BRING THE POLYGRAPH SAFELY INTO COURT

MARSHALL HOUTS

### The Sages of Chelm

A FRIEND OF MINE recently introduced me to a delightful collection of Jewish stories entitled “The Sages of Chelm.”

In one, a group of worshippers were busily digging the footings to the new synagogue, when a disturbing thought occurred to a laborer. “What will we do with all this earth we’re digging up?” he asked. “We can’t just leave it here where our Temple will be built.” A pall fell over the men as they rested on their spades and pondered the question. Suggestions were made but just as quickly rejected. Finally, one of the Chelmites smiled and held up his hand for silence. “I have the solution,” he proclaimed. “We will dig a deep pit, and into it we’ll shovel all the dirt we’re digging up for our synagogue!” A round of applause greeted this proposal until another Chelmite protested, “That won’t work at all! What will we do with the earth from the pit?” A stunned silence followed while the men tried to cope with this problem, but the first Chelmite soon provided the answer. “It’s all very simple,” he said. “We’ll dig another pit, and into that one we’ll shovel all the earth we’re digging now, and all the earth we take out of the first pit. The only thing we must be careful about is to make the second pit twice as large as the first one.”

There being no argument with this example of Chelmic wisdom, the workers returned to their digging.

### Are We Now Believing Our Own Propaganda?

My thirty years experience in the forensic arena make me wonder if we are not performing exactly like the diggers of the synagogue at Chelm: Are we not blissfully moving the dirt from one pit to another, euphorically ignoring the controlling realities of our illusory goals of *forensic proof*, *fact-finding*, or, especially, *truth*?

Have we not been swept along in our own propaganda so that we now fervently believe in the ringing phrases of *scientific advances*, *outstanding progress*, *forensic sophistication*, *great developments*, *persuasive proof*, and *conclusive evidence*? I hasten to add that my observations apply to *all* facets of courtroom *proof* and not to the polygraph alone. My aim is a quick review of a few basic fundamentals of our forensic problems generally, with an effort to place the polygraph in a more balanced perspective.

### Polygraph in Perspective: Compared to What?

The only meaningful perspective for the polygraph is beautifully illustrated by the ancient tale of the man who is asked: "How's your wife?" He replies, "Compared to what?" In other words, to adequately appreciate the forensic status of the polygraph, we must approach it on the practical plane of "compared to what?" This leads us into a reconsideration of our fundamental goals in the courtroom, the interrogation room, the settlement negotiation, or the plea bargaining conference.

### Truth Is Purely Subjective

The first premise we need to reaffirm is the nature of this concept we label truth: Truth is purely subjective.

By way of quick example, let's take a recent wire service story. Someone decided to poll a cross-section of Berber peasants in the heartland of Morocco about our moon landing three years ago. Eighty-eight percent of the primarily illiterate farmers and herdsman had heard reports of the moon walks, but 63 per cent either thought the landings were a hoax, or had serious doubts about them. Several of the younger men had observed Neil Armstrong on TV or in newsreels, "... jumping around on the moon; but it really wasn't the moon. It was a Hollywood fake!" One man who had his own pilgrimage to Mecca by jet aircraft termed the idea of reaching the moon "impossible." "The moon never stands still," he reflected, "so how are you going to land on it?" A bright, intelligent young woman asked the pollster: "How can anyone possibly reach the moon? It's too far away." But at the other end of the spectrum, a 65-year-old community leader explained his doubts: "It's not so far away that we wouldn't be able to see some signs of the men if they were there, and the moon looks the same to me now as it always has." One of the few high school graduates polled placed his skepticism on religious grounds: "I'm sure it's scientifically possible to go to the moon, and the Koran does not forbid it; but the Koran does warn you against believing things which you have not seen firsthand with your own eyes. It's like believing false prophets, so I cannot accept it."

To whom, then, is it truth that Neil Armstrong and his fellow astronauts have actually reached the moon?

### Facts Are Also Subjective

Our quandary over the subjective character of truth has recently led some of our academicians into evasive semantic efforts. They have made a great hubbub that truth and fact are two separable and distinct commodities; facts and fact-finding are really objective processes. Since these are the basic elements of truth, we can somehow improve this intangible of truth by manipulating our approach to the facts. As they dream it, truth can be constructed as a rational, universal, obtainable commodity that is just as real as the chairs in which you sit, or the floor on which I stand.

I have no intention of entering this metaphysical debate, but will only reaffirm my belief that, semantic arguments to the contrary, fact and fact-finding are also purely subjective processes. We madly delude ourselves if we think otherwise.

Whether as investigator, witness, judge, lawyer, or juror, we each perceive, interpret, and decide according to our own individual needs. Perception and interpretation are based on experience, so we perceive what we expect to perceive. Our conclusions of truth and opinions on fact are all flavored by bias, since no man is without prejudice, particularly to the correctness of his own opinion.

### Fact-finding—The Most Tenuous Human Endeavor

The only logical conclusion possible is that the so-called process of fact-finding and searches for truth are the most tenuous of all human endeavors. Our failures, and they are many and frightening, stem from the fact that we are attempting the impossible. We seek perfection in a realm in which anything close to perfection is not attainable.

Our goals, therefore, must be drastically reappraised. Our needs can only be filled if we look realistically at our tools, recognizing full well that we are limited to comparisons instead of absolutes.

This realization of our basic limitations brings us back to our practical approach to the polygraph.

“How good is the polygraph?” we ask.

“Compared to what?” we must respond.

### Polygraph Compared with X-ray

Let's make a quick comparison of the polygraph to the most frequently used *scientific* courtroom tool. I refer, of course, to the X-ray, which has been admitted into evidence since 1898, only three years after Roentgen introduced it to medicine. The legal rote for admissibility is simple:

“Doctor, are these X-rays of the plaintiff's shoulders which you took at the time of your diagnosis?”

Doctor, did you use these X-rays to help you arrive at a diagnosis?

Doctor, do these X-rays accurately depict the condition of the bones of the plaintiff's shoulder at the time they were taken?

Doctor, were these X-rays made with a modern, up-to-date X-ray machine?

Doctor, was the machine in good working order at the time these X-rays were taken?

Doctor, were the usual and accepted X-ray techniques employed in taking these films?"

If the doctor is but coached to answer "yes" to each of these questions, his X-ray exhibits sail in on a plane of credibility that does indeed make truth seem objective. Laymen have come to believe that if the doctor can show damage by X-ray, the plaintiff has been terribly injured. Conversely, if there is no X-ray proof of injury, the plaintiff "can't really be hurt badly."

These popular beliefs do not agree in the least with medical fact. We all know, of course, that a positive X-ray is not conclusive proof of serious injury to nerves and other soft tissues, nor does a negative X-ray in any way rule out the horrendous entities of quadriplegia, total senility or debilitating cerebral arteriosclerosis.

#### Possible Errors in X-ray Techniques

Assuming that the X-ray machine is in perfect adjustment, is the technique so mechanical that it is infallible? Not in the least. As may occur with a photographic camera, if the films are not exposed correctly, they may be too dark, too light, lacking in detail or generally cloudy, so that a false negative picture results. The bone will appear darker if the X-ray is over-penetrated, or if the patient has osteoporosis. If the X-ray is under-penetrated, the bones lose detail because they are too light, so bony tumors are lost. These deficiencies can produce both false positive and false negative results.

It is extremely important to take several views in different planes to see the possible defect adequately. If these are not taken, a false negative film may result. The position of the patient is important. If he is not in a true lateral position, for example, the anatomy may be distorted so that the film shows a scoliosis that does not actually exist. Similar errors can result from improper positioning in the oblique, the front-to-back, and back-to-front views.

If the proper body area is not covered, a false negative can result. If, for example, a tip of the scapula is omitted, a hairline fracture or bone tumor can be missed.

Artifacts in the development process or from static electricity can appear exactly as a tumor or bony defects and result in false positives.

#### Errors in X-ray Interpretation

I could list half a dozen other potential sources of error in the use of X-rays. What of their interpretation?

While the X-ray offers the doctor a “look” beneath the surface, it is far from the perfect diagnostic tool. Since it can record nothing but differences in density of the various tissues and structures, much is left to the subjective interpretation of the doctor. The doctor is working only with varying and merging shades of gray. Some doctors develop keen and refined abilities to read and interpret the films. Others never do, regardless of years of experience.

The X-ray, therefore, must never be considered an automatic tool of mathematical precision. Any attempt to diagnose solely from the films without correlation with the medical history or the other facets of the physical examination, is hazardous and can lead to error. Serious life-threatening conditions can exist without any positive X-ray findings. Conditions that appear to be disabling on X-ray may be completely asymptomatic.

Negative X-rays never rule out disease or injury. They simply mean that nothing abnormal has been found on that particular day in that particular X-ray view.

#### **Firearms Identification**

Let’s take a look at another tool of forensic proof that comes easily into evidence. I refer to firearms identification which has made little progress in the past 40 years.

Literally, anyone with access to a comparison microscope can establish himself as a ballistics expert, which means that no minimum standards exist for the education, training, or supervision of the expert himself. If anything vaguely resembling professional ethics exists, there is no group to enforce them. No operating standards are set forth to require a stated number of matching, individual characteristics before two bullets can be declared to have come from the same gun barrel, and from none other in the world.

The firearms expert is not working with anything like a fingerprint pattern, but with straight, microscopic lines, of three dimensional depth, running in different planes. In what is a totally subjective approach, he makes an uncontrolled personal judgment of whether the striations of the two bullets are sufficiently clear to permit his positive statement as to a common source.

What happens in actual practice is terrifying.

Let me illustrate it with a recent case out of one of the largest police laboratories in the country. The firearms identification expert proclaimed a match between the fatal bullet and a test bullet from a gun that was rather vaguely traced to the defendant. When an expert called in by the public defender challenged the match, the laboratory expert retreated and said that he had a “possible match.”

"Just what do you mean by a possible match?" the public defender's man persisted. "Either you have a 'make' or you do not."

"Well, here's what we've got," the police *expert* replied. "We know that this nigger killed a couple of people about a year ago. but we couldn't get anything on him. Now we know he's guilty of this murder, and we've at least got a gun that we can trace to him."

I don't think there is any doubt but that the forensic sciences can be used by the unscrupulous, though perhaps well-intentioned, as a substitute for the coerced confession of guilt which has been all but eliminated by supreme court decision. I fear that in many undetected instances, this is exactly what is happening.

### Similarities between Polygraph and Other Forensic Tools

Regardless of what we are working with—be it wet chemistry, thin plate or gas chromatography, optics, spectrography, specophotography, X-ray, acoustics, olfactronics, neutron activation analyses, or the polygraph—we are dealing with an instrument of some kind, with techniques by which the instrument is operated, and a subjective opinion of what the instrument and technique produce. The subjectivity of the expert's opinion can vary with the complexity and sensitivity of his instrument and with the crudeness or sophistication of his techniques. Regardless of degree, it must be labeled as subjective.

### Tools of Proof are Really Tools of Persuasion

As we move toward the resolution of our ultimate question of why many of these other forensic tools of proof are admissible into evidence and the polygraph excluded, I think we must reestablish another controlling premise.

What we call *evidence* and *proof* (whether it be in the form of the horribly unreliable reports of eye witnesses, or the opinions of so-called *experts* in the forensic sciences, or maps, models, and photographs) can be nothing more than tools of advocacy and persuasion. We permit the advocate—the lawyer—to use them as he tries to convince judge or jury to make a subjective finding of fact or truth in his favor.

We permit the lawyer access to those tools of advocacy that will help us settle the dispute between the parties, civil or criminal, in what we hope is the fairest possible manner. While we proclaim our goal as the *search for truth* and describe the process of *fact finding* by the jury, these hollow phrases do not withstand close scrutiny for the simple reason that we have no human power to introduce complete objectivity into what is basically a subjective process.

We cannot alter human nature, and the necessary behavior that stems

from it. So, when we talk about scientific progress and scientific advances in any area of the forensic sciences, we really are describing better tools of advocacy and persuasion for the lawyer.

### The Polygraph Paradox

This brings us face to face with the great paradox of the polygraph: Whether we admit it openly, our problem derives from the fact that it is potentially too powerful a tool of advocacy and persuasion. Automatically and instinctively, we shun anything that is omnipotent enough to threaten our safety. The polygraph must be placed in this category. It is the only tool yet on the scene that *per se* can control guilt or innocence, and in many cases, render a plaintiff's or defendant's verdict. The more we proclaim its reliability and present statistics for accuracy, the greater the fear we instill.

### Polygraph Stands Alone

As a tool of persuasion and advocacy, the polygraph stands alone because of its ability to slash the jugular vein of each case which must ultimately turn on whether one or more persons are attempting deception. If the credibility of the defendant can be established or destroyed in a criminal case, or if the plausibility of either party in a civil case can be demolished, there is nothing more to settle, nothing left for judge or jury except the assessment of penalty or awarding the damages.

No other courtroom tool possesses this awesome power. In my opinion, neither the voiceprint nor the results of neutron activation analysis is ready for the courtroom. Still, these brand-new devices have been admitted into evidence by judges all across the land. They have been welcomed prematurely because they do not impend on the heart of our traditional fact-finding process.

When we apply our "compared to what?" judgment, we must conclude that the polygraph is potentially too good.

### Too Much Power in a Single Man

The polygraph is *too good* for the simple reason that it vests totalitarian, God-like power in a single man—the polygraph examiner. The long torturous history of our groping search for personalized justice that has produced our Common Law system rests upon the premise that no single man can be trusted with uncontrolled, dictatorial power over the physical, spiritual, economic, and political life of his fellow man. Our 1,000-year-old pilgrimage in quest of individual liberty has instilled one great trait in us all: We believe that every man in a position of power needs a checker, and then there must be some one else to check on the checker.

Personally, I cannot quarrel with this pragmatic philosophy. It is the basic, distinguishing feature between our system and the Civil (Roman) Law system used throughout the non-English-speaking world, where a *single* man sits as inquisitor, investigator, prosecutor, defender, interrogator, legal arbiter, and fact-finder all in one.

The leading polygraph authorities in the world know the potential pitfalls of the technique, and know the possibility of failure in the hands of an incompetent, biased operator. How many of the polygraph experts, when accused of murder, rape, arson, or robbery, would elect to rest their fate in the hands of a single polygraph examiner who is not a member of the American Polygraph Association, and who is on the payroll of the district attorney who drew the *information* against them, or of the police department or sheriff's office who investigated their case?

How many would rest the fate of their daughter's personal injury case, which is her only source of future medical care for her paraplegia caused by the defendant's negligence, on the results of a polygraph test given by a single examiner brought in by the defendant's insurance carrier?

Conversely, how many examiners really want to assume the staggering responsibility of individually deciding guilt or innocence in the courtroom, or whether the plaintiff will prevail or lose in his civil suit?

### ***FRYE v. U.S.* Does not Apply to Polygraph**

May I suggest that these practical and historical reasons offer the only possible explanation of why the 1923 rule of *Frye v. United States* applies to all other forms of forensic evidence except the polygraph. I seriously doubt that the polygraph ever will be allowed as evidence into the courtroom if we continue our present approach. I frankly see no point in further efforts to lay a sufficient legal foundation for the introduction into evidence of the charts and opinions of a *single* polygraph examiner.

These same historical reasons explain the error of Dean Wigmore's often quoted dictum that the world will immediately beat a pathway to the door of the man who discovers a scientific method to expose false-swearing witnesses.

### **The Team Approach**

The world will beat their pathway only when we devise a practical way to guarantee us a safety against the potential abuses of the single polygraph operator, when we recognize that the polygraph is resting on dead center until we offer some provisions for a checker on the checker.

The obvious solution, by necessity, is the team approach to the polygraph operation.

### **Analogy to Development of Arbitration**

Time does not permit me to offer a detailed plan, nor am I experienced enough to do it alone, but it seems to me that we can learn much from the historical development of arbitration. There is a striking parallel between the fear of submitting the entire lawsuit to a single arbitrator for his decision, and submitting our defendant, party-plaintiff, or key witness to a single polygraph examiner for his disposition of the case.

The legitimate hesitancy that has thwarted the development of the arbitration apparatus has been cured comparatively easily by the simple technique of each party picking his own arbitrator who, in turn, picks a third man to judge with them.

The field of arbitration is now flourishing beyond the wildest expectations of its most vigorous supporters of fifty years ago. The American Arbitration Association is one of the most effective organizations in the world. Tens of thousands of cases are annually concluded by the arbitration process out of court, economically, fairly, and with decisions that perhaps come as close to subjective truth as humans can reach.

### **Thrust of the Team Approach**

I would like to see the American Polygraph Association adopt the thrust of the *team* approach to the polygraph. It should make available its services in much the same manner as the Arbitration Association now operates in its field.

If your polygraph techniques are as far along as you claim; if you have established real standards of practice; if you have viable ethical controls for your members; if you can indeed exchange and read each other's charts with safety and accuracy; then I can envision a day ten years from now when fully half the civil cases that now reach the courtroom will be settled by a *team* of polygraphers. Half, perhaps more, of all criminal cases will end in either dismissal or guilty pleas because the polygraph evidence of a *team* of examiners will be admissible as a matter of right, by either party, and without the necessity of stipulation.

I can see the polygraph reaching its full measure of effectiveness on a "compared to what?" rationale. It has the potential to outshine and outrank any tool of persuasion or advocacy that we can foresee. This bright day will dawn, however, only if you adopt the perspective of the *team* approach.

If you continue on the same course you are now following which places awesome power in the hands of a single man, I suggest that your progress will be negligible for the simple reason that you will continue to butt heads with the fears developed over 1,000 years of history and the forces ingrained in human nature which you cannot change.

## Chapter II

# POLYGRAPH TEST RESULTS MEET STANDARDS FOR ADMISSIBILITY AS EVIDENCE

ANDRE A. MOENSSENS

AS A PROFESSOR of evidence, with a special interest in the forensic sciences and what is broadly called scientific evidence, I have been amazed over the years at the tenacity with which the courts refuse to admit testimony based on polygraph examinations. Amazed, I say, because having spent a little time over the past eight years exploring the legal status of polygraph inspired testimony, and the arguments for and against admissibility, I cannot understand—or maybe I can on an emotional plane—why opposition against the polygraph continues unabated. Exploring the rules of evidence with what I feel is a rather unbiased view, I can find no *legal* reason for a blanket denial of admissibility of polygraph test results.

When dealing with legal standards for admissibility of testimony derived from scientific tests and offered by expert witnesses, the three most important criteria for admissibility are: (1) that we have a scientific test which has a sufficient degree of reliability or replicability; (2) it has been properly applied according to accepted procedures; and (3) it has been administered by a competent technician or examiner.

When we relate these criteria to polygraph examinations, we find that everything hinges on the first of these conditions, namely, that we must first have a scientific test which has a sufficient degree of reliability. While there are other reasons which have been given to deny admissibility, the most important ground for denial has been *lack of proven reliability*.

It is because the reliability factor has been relied upon by the courts to such an extent, that I will center my remarks primarily on that issue. But before I get to that, I want to make it clear that I do not for one second relegate criteria numbers 2 and 3 to insignificance. Indeed, as it has already been stressed, the competency of the examiner and use of proper investigative and examination techniques are conditions *sine quo non* to reaching a

conclusion which is worth considering. Competency of the examiner is the more important because it has been stated this country abounds in incompetent polygraph examiners, none of whom would be admitted to the American Polygraph Association if their lack of scruple has been demonstrated in the past. The law cannot allow incompetent operators to qualify as expert witnesses and the strictest qualifying requirements possible should be set up.

Maybe it is partially because of what my good friend, Professor Inbau, has called the multitude of polygraph charlatans that the courts continue to be so reluctant to admit polygraph testimony.

It is ironic, in a way, that the accepted modern standard for the admissibility of evidence in the results of novel scientific tests is precisely a case involving the so-called *lie detector*. It is, of course, the famous 1923 *Frye vs. United States* decision—a decision with which I am sure many readers are thoroughly familiar. I must beg your indulgence if I feel it necessary to discuss and dissect the opinion rather thoroughly in my discussions and in so doing state many facts of which you are already fully aware.

In *Frye*, the court was asked to admit into evidence testimony on behalf of the defendant in a murder case that a systolic blood pressure test revealed the truthfulness of the defendant when he denied any knowledge of the crime with which he was charged. The court refused to admit the evidence and the defendant was convicted. Parenthetically, it is worth noting that Frye was innocent. After spending three years in jail, someone else was arrested for, and confessed to, the murder and Frye was exonerated.

The reason the federal reviewing court gives for its rejection of the testimony is stated in this matter—and it is probably the most widely quoted portion of any decision involving novel scientific test results—:

Just when a scientific principle or discovery crosses the line between the experimental and demonstrable stages is difficult to define. Somewhere in this twilight zone the evidential force of the principle must be recognized, and while courts will go a long way in admitting expert testimony deduced from a well-recognized scientific principle or discovery, the thing from which the deduction is made must be sufficiently established to have gained *general acceptance in the particular field in which it belongs*.

This is the birth of the so-called *general acceptance* test; it incidentally also sets the leading precedent on the basis of which polygraph derived evidence is still excluded today. *Stare decisis*, the principle that a concept once formulated is not to be changed by the court except upon a showing that the basis for the concept is no longer true, has never been more rigidly applied than in the adherence to the *Frye* rule of *general acceptance*. Time and again, modern courts faced with the issue have rejected testimony based upon a polygraph examination simply by citing lack of general acceptance for the test as found in *Frye*.